Working Party on International Trade in Goods and Trade in Services Statistics

INTERNATIONAL TRADE BY ENTERPRISE CHARACTERISTICS

To be held on 22-24 October 2012
OECD Headquarters

These documents for item 9.2 of the agenda present main findings of the 2010 TEC data and discuss on some methodological issues surrounding international trade in goods statistics (ITGS) and review them through the TEC data. They also present some plans on further TEC developments.

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International trade by enterprise characteristics
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Data from September 2012. Most recent data: Further Eurostat information, Main tables and Database.

This article takes a look at recent European Union (EU) international trade statistics from a very specific angle: the characteristics of the enterprises actively engaged in importing and exporting.

International trade statistics play a vital role in the assessment of every economy. Combining them with additional information from other sources, particularly business statistics, significantly enriches them, providing a closer view of traders and their characteristics such as size, sector of economic activity or level of concentration. This allows for a deeper analysis of the impact of trade on employment, production and value added, essential in a globalised world where economies are increasingly interconnected.

Figure 1: Share of SMEs in arrivals and dispatches (excluding enterprises in ‘unknown' size-class), 2010 (% in EUR)
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class

Main statistical findings
Table 1: Total EU-27 arrivals and dispatches by economic activity and enterprise size, 2010
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class

<table>
<thead>
<tr>
<th>Number of enterprises (units)</th>
<th>Arrivals</th>
<th>Dispatches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B·E</td>
<td>G</td>
</tr>
<tr>
<td><strong>MACE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-9</td>
<td>986,467</td>
<td>729,286</td>
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<td>10-49</td>
<td>118,824</td>
<td>139,839</td>
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<tr>
<td>50-249</td>
<td>92,908</td>
<td>24,149</td>
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<tr>
<td>250+</td>
<td>14,531</td>
<td>5,456</td>
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<td><strong>Total excl. Unknowns</strong></td>
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<tr>
<td><strong>Unknowns</strong></td>
<td>13,336</td>
<td>68,602</td>
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<tr>
<td><strong>Total</strong></td>
<td>1,223,164</td>
<td>1,004,482</td>
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</table>

<table>
<thead>
<tr>
<th>Trade value (million EUR)</th>
<th>Arrivals</th>
<th>Dispatches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B·E</td>
<td>G</td>
</tr>
<tr>
<td><strong>MACE</strong></td>
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<td>93,023</td>
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<td>50-249</td>
<td>194,255</td>
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<td>250+</td>
<td>532,844</td>
<td>252,152</td>
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<tr>
<td><strong>Unknowns</strong></td>
<td>10,625</td>
<td>31,740</td>
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<tr>
<td><strong>Total</strong></td>
<td>1,040,486</td>
<td>942,296</td>
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</tbody>
</table>

Figure 2: Countries’ total arrivals by enterprise size, 2010 (% in EUR)
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class
Figure 3: Countries' total arrivals by enterprise size, 2010
(% in number of enterprises)
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class

Table 2: Arrivals by enterprise size, 2010
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class

Figure 4: Countries' total dispatches by enterprise size, 2010
(% in EUR)
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class
Figure 5: Countries’ total dispatches by enterprise size, 2010
(% in number of enterprises)
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class

Table 3: Dispatches by enterprise size, 2010
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class

Figure 6: Total trade balance by enterprise size, 2010 (thousand EUR)
Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class
### Table 4: EU-27 arrivals and dispatches by economic activity, 2010
**Source:** Eurostat Easy Comext - Table Trade by activity and enterprise size-class

### Figure 7: EU-27 arrivals and dispatches by economic activity, 2010 (% in number of enterprises and EUR)
**Source:** Eurostat Easy Comext - Table Trade by activity and enterprise size-class

### Table 5: Total Extra-EU imports and exports by economic activity and enterprise size, 2010
**Source:** Eurostat Easy Comext - Table Trade by activity and enterprise size-class
The main findings presented in this section focus on both intra- and extra-EU trade by economic activity and employment size class.

**Small and medium-sized enterprises in intra-EU trade**

SMEs are a significant driver of intra-EU trade

Intra-EU trade by size classes is one of the most important statistical indicators on trade by enterprise characteristics. In 2010, small and medium sized enterprises (SMEs) accounted for a considerable share of total intra-EU trade. Indeed, SMEs (0-249 employees) stood for 55 % of trade value for arrivals (imports from another EU Member State) and 47 % of trade value in dispatches (exports to another EU Member State). For all Member States, except Cyprus, the contribution of SMEs to arrivals was larger than to dispatches ([1](#)).

Small enterprises (0-49 employees) were responsible for almost 32 % of the value of arrivals, while the share of medium-sized enterprises (50-249 employees) was established at around 24 %. In the Trade sector, SMEs were responsible for 72 % of the value of arrivals, whereas large enterprises stood for 65 % of the arrivals value in the Industry sector (see Table 1).

Focusing on total trade value for dispatches, the role of large enterprises is more significant. Small enterprises accounted for only 26 % of the trade value, medium sized enterprises for 22 % and large enterprises for the remaining 53 %. While in the Trade sector, SMEs accounted for lion’s share in the value of dispatches with 79 %, the opposite applies in the Industry sector, with large enterprises standing for 68 % of the total value dispatched.

**Large enterprises in intra-EU trade**

Small amount in absolute number but important share in value

Large enterprises made up only 2 % of the enterprises having received arrivals from other EU Member States while their share in trade value amounted to around 44 %. On the opposite, although small enterprises made up 93 % of the enterprises receiving arrivals, their share in trade value was only 32 %. Medium sized enterprises represented a moderate share in the number of enterprises (close to 5 %) but they contributed more significantly to the value of arrivals (24 %) (see Figure 2 and Figure 3).

Focusing on dispatches, the contribution of large enterprises to total value was even higher than for arrivals (Figure 4 and Figure 5). While large enterprises represented only 2 % of the enterprises recording dispatches in 2010, they stood for nearly 53 % of the trade value registered for dispatches. Small enterprises accounted to a lesser extent to dispatches than to arrivals, making up 89 % of enterprises but accounting for only 26 % of the dispatches value. Medium sized enterprises accounted for the remaining 9 % of the enterprises and more than 21 % of the trade value.

**Intra-EU trade at country level**

Significant disparities at country level in trade by enterprise size-classes

Drilling down at country level also shows a great disparity in the pattern applying when considering countries’ total (see Table 2). There is a strong concentration of arrivals in trade values on large enterprises in Hungary, France, Germany, Czech Republic and the United Kingdom, the only countries where these large enterprises stood for more than half of the total arrivals. In contrast, SMEs accounted for more than three quarters of the value of arrivals in Latvia, Estonia, Lithuania, Cyprus and Poland (unknown size-class excluded).

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*Figure 8: Extra-EU trade: share of SMEs in imports and exports (excluding enterprises in ‘unknown’ size-class), 2010 (% in EUR)*

Source: Eurostat Easy Comext - Table Trade by activity and enterprise size-class
In Finland, large enterprises were responsible for the lion’s share of dispatches value (70 % of the total value in 2010). On the other hand, SMEs dominated the value of dispatches in Cyprus and Latvia, both registering shares in total trade of more than 80 % (see Table 3).

**Intra-EU trade by economic activity sector**

**Trade sector is predominant for arrivals in number of enterprises**

Focusing on enterprises activities at countries' total level, Industry and Trade sectors account for the majority of intra-EU trade compared to other sectors, both in terms of trade value and number of enterprises (see Figure 7). In 2010, the Industry sector contributed significantly more than the Trade sector to total intra-EU trade value: for arrivals, intra-EU trade was rather equally distributed between the Trade sector (46 %) and the Industry sector (41 %), while dispatches were principally driven by the Industry sector, which accounted for almost two-thirds (64 %) of the total trade.

The number of enterprises involved in arrivals was unequally shared across the various sectors: while Trade represented a share of 45 %, Industry accounted for only 18 %. On the other hand, the number of enterprises involved in dispatches was more equally distributed between Industry (30 %), Trade (40 %) and the other sectors (30 %).

The number of enterprises involved in intra-EU trade also differs significantly among Member States (see Table 4). Considering arrivals, the number of enterprises in the Trade sector exceeded those in the Industry sector for all Member States. For dispatches, the picture looks different with five countries (namely Italy, Poland, Portugal, Romania and Slovenia) registering more enterprises in the Industry sector than in the Trade sector.

Independently of the number of enterprises, the contribution of Industry and Trade sectors to intra-EU trade values also vary considerably among Member States. For arrivals, trade values are driven by Industry in six countries only: Czech Republic, Germany, Hungary, Poland Romania and Slovakia. For dispatches, the Industry sector is predominant for trade values in all of the Member States, with three exceptions (namely Cyprus, Latvia and the Netherlands).

**Extra-EU trade**

**Extra-EU trade accounted for around half of the total intra-EU trade**

In absolute terms, extra-EU trade accounted for nearly half of the total intra-EU trade, for both number of enterprises and trade value (for both imports and exports).

Concerning the extra-EU trade, SMEs (0-249 employees) were responsible for nearly 47% of the value of imports, while the large enterprises (250+ employees) were responsible for the remaining 53%. In the Trade sector, SMEs were responsible for 69 % of the value of imports, whereas large enterprises stood for almost 76 % of the value of imports in the Industry sector (see Table 5).

When looking on total trade value for exports, the role of large enterprises is even more significant. Small enterprises accounted for almost 21% of the trade value, medium sized enterprises for 18% and large enterprises for more than 61%. While in the Trade sector, SMEs accounted for lion’s share in the value of exports with 77%, the opposite applies in the Industry sector, with large enterprises standing for more than 74 % of the total value exported.

**Extra-EU trade at country level**

**Large enterprise taking over more than half of the extra-EU trade**

Extra-EU trade by size classes is an important statistical indicator on trade by enterprise characteristics. In 2010, large enterprises accounted for a considerable share of total extra-EU trade. Indeed, large enterprises accounted for 53% of trade value for imports and 61% of trade value in exports, while SMEs stood for the remaining 47 % of trade value for imports and only 39 % of trade value in exports (see Figure 8).

While for intra-EU trade, almost all countries had a higher contribution of SMEs to imports than to exports, the situation appears more balanced for extra-EU trade, with eleven countries registering a higher contribution of SMEs to exports.

The highest share of imports for SMEs was recorded by Cyprus (84%), followed by Estonia (81%) and Bulgaria (67%), while the highest share of exports was recorded by Estonia (86%), followed by Latvia and Cyprus (70%).

When referring to large enterprises, the highest shares of imports were recorded by Slovakia (83%), Hungary (75%) and Lithuania (74%), while the highest shares of exports were recorded by Slovakia (79%), Luxembourg (78%) and Finland (75%).

On the other side, the lowest share of imports and exports for SMEs was recorded by Slovakia (17%) and Poland (21% respectively). For large enterprises, the lowest share of imports was recorded by Cyprus (16%) while the lowest share of exports was recorded by Estonia (14%).

eurostat
Total trade balance

SMEs recorded trade deficit in almost all Member States

Total trade balance by enterprise size also shows a clear disparity between SMEs and large enterprises, with SMEs experiencing a trade deficit in almost all countries in 2010, except for two countries: Italy and the Netherlands. On the other hand, larger enterprises recorded trade surpluses in most EU Member States, the most significant surplus being registered by far in Germany (see Figure 6).

The United Kingdom, France and Poland recorded the most significant deficits for SMEs, while for large enterprises the most significant deficit was recorded by the United Kingdom, Spain and the Netherlands. Italy was the sole country recording surpluses for both SMEs and large enterprises.

Data sources and availability

Reporting of international trade statistics by enterprise characteristics consists in a data collection independent from the monthly trade statistics. This data collection has been included in the revised Intrastat (respectively Extrastat) Regulations published in 2009 that came into force for the reference year 2009 (respectively 2010) onwards.


Until the reference year 2008, Member States were asked to compile specific indicators linking international trade data and business register information on a voluntary basis.

Data are disseminated once having ensured an accurate data quality and confidentiality issues are removed.

The compilation of trade flows by enterprise characteristics is based on linking micro data on intra- and extra-EU trade with structural information from business registers. The trade value of each trader, by product code and partner country, is combined with the main enterprise characteristics (economic activity and number of employees) retrieved from the business registers. Only aggregated results (e.g. no micro data) are provided to Eurostat.

It should be noted that, in matching business registers with trade registers, some countries show high numbers of unmatched enterprises for arrivals and dispatches. However, this does not influence the trade values to any greater extent (by 8 % on average for arrivals and 9 % on average for dispatches). It is assumed that most of unmatched enterprises are SMEs. Moreover, when compiling international trade statistics by enterprise characteristics, the information on the size of the enterprises cannot always be allocated: in such case, the enterprises are classified in the “Unknown” size-class category. For intra-EU trade, this category represented 12 % of the trade value and 13 % of the number of enterprises for arrivals, as well as 15 % of the trade value and 14% of the number of enterprises for dispatches. For extra-EU trade, it represented 17% of the trade value and 23% of the number of enterprises for imports, as well as 13% of the trade value and 18% of the number of enterprises for exports (2010 data). In order not to bias the results presented, all the size-class shares mentioned in this article exclude enterprises for which the size-class is unknown.

Definitions

Number of enterprises

The number of enterprises consists in a count of the number of enterprises involved in trade during at least a part of the reference period. For intra-EU trade, VAT data are used to estimate the number of traders and trade value of the smallest traders which are exempted from Intrastat reporting. These traders account for a very limited share of the trade value - at most 3 % of the total value by flow - but in terms of number of enterprises they consist in the majority.

Number of employees

The number of employees is defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind.

SMEs

Small and medium sized enterprises are defined only according to their number of employees (enterprises with less than 250 employees); the exact definition of SMEs uses also turnover and balance sheet as criteria.

Trade balance

Trade balance presented in Figure 6 has been calculated as the difference between dispatches and arrivals reported by each country for total trade (intra- and extra-EU trade).
Classifications

Enterprises are classified according to the Statistical Classification of Economic Activities in the European Community, Rev. 2 (NACE Rev. 2). For detailed information, please refer to ‘Ramon’, Eurostat's Classification Server: [http://ec.europa.eu/eurostat/ramon](http://ec.europa.eu/eurostat/ramon)

Business registers


Statistical unit

The statistical unit to be used is the enterprise which is defined in the Council Regulation (EEC N° 696/93) as the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. Trade data that are generally collected and registered by declaring unit (identified by VAT code in intra-EU trade and by customs identification code in extra-EU trade) must be connected to characteristics available in the Business Register for the whole enterprise concerned.

Reporting countries

Until the reference year 2008, the data were collected annually on voluntary basis. The following countries have provided 2010 data: Bulgaria (BG), Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Greece (EL), Spain (ES), France (FR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), the Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and the United Kingdom (UK).

Country-specific notes

- "Countries’ total" refers to the aggregate of all countries that have provided data in 2010.
- Greece: Number of enterprises does not include traders which are exempted from Intrastat reporting.
- Lithuania: for arrivals data, the 2009 data are confidential for two size-classes (namely "50-249 employees" and "250 or more employees" both for the trade value and the number of enterprises).

Data availability

The figures presented in this article have all been taken from Eurostat's Easy COMEXT dissemination database ([http://epp.eurostat.ec.europa.eu/newxtweb](http://epp.eurostat.ec.europa.eu/newxtweb)) and reflect the state of data availability as of 14th September 2012.

Within the traditional international trade database (Easy Comext), tables present data on international trade by enterprise characteristics from the reference year 2005 onwards. Data are available according to NACE Rev 1.1 for data until the reference year 2007 and according to NACE Rev 2 for data for the reference year 2008 onwards.

Context

International trade statistics play a vital role in the assessment of every economy. Combined with additional information on characteristics of enterprises involved in international trade, such as the size and the sector of economic activity, trade data are significantly enhanced. Generally speaking, trade statistics show goods movements between countries by good categories. However, they do not provide explicit information on the businesses which are behind these trade flows. In a globalised world where economies are increasingly interconnected, it is more and more important to know traders and their characteristics. Answering this question requires linking trade statistics with other sources, and particularly with business statistics, which describe the structure and evaluation of the activities of businesses.

‘International trade by enterprise characteristics’ is a new statistical domain, which unlike traditional trade statistics, aims at describing the structure of trade by characteristics of the trading enterprises, for instance by their economic activities, their size or concentration of trade. It is based on linking trade micro-data with business register information, allowing a deeper analysis of the impact of trade on employment, production and value added.

Statistics on trade by enterprise characteristics are compiled by linking intra- and extra-EU trade micro-data with business register data, and are available for trade value and number of enterprises for five indicators.

- **Trade by economic activity and enterprise size class:** trade by activity sector and employment size class shows the contributions of economic activities and size classes (measured in terms of number of employees) to total trade. This allows analysing the impact of external trade on employment and estimating the importance of small and medium-sized enterprises.
- **Concentration of trade by economic activity:** external trade being typically concentrated on a few enterprises, this indicator shows the share of the total trade accounted for by the top 5, 10, 20, etc. enterprises.
- **Trade by partner country and economic activity:** trade by partner countries shows how many enterprises were trading with certain partner countries or country zones, and the value they accounted for. This enables to identify most typical exports or imports markets.
- **Trade by number of partner countries and economic activity:** trade by number of partner countries shows how geographically
diversified the exports markets are. For imports, it shows the number of countries from which goods are imported.

- **Trade by commodity and economic activity**: trade by commodity and activity sector allocates the trade of each commodity to the activity of the trading enterprise. This shows which sectors were involved in trading of each product group.

From the reference year 2008 onwards, the activity sector is broken down by NACE Rev. 2 division (2-digit level) for sections C (Manufacturing) and G (Trade) and by section level for other activities. The size-classes in terms of number of employees are: 0-9, 10-49, 50-249, 250 or more and Unknown. These indicators are available separately for intra- and extra-EU trade.

Confidentiality is applied in the statistics disseminated to ensure that it is not possible to identify an enterprise or a trader.

### Further Eurostat information

#### Database

- **International trade**: see:
  - International trade detailed data (detail)
  - Traditional international trade database access (ComExt) (comext)

#### Dedicated section

- **International trade**

#### Methodology / Metadata

- **International trade data** (ESMS metadata file - ext_esms)

#### Other information

- **Regulation 471/2009** of 6 May 2009 on Community statistics relating to international trade with non-member countries and repealing **Regulation 1172/95**

#### Source data for tables and figures (MS Excel)

- **International trade by enterprise characteristics: 2008 data**
- **International trade by enterprise characteristics: 2009 data**
- **International trade by enterprise characteristics: 2010 data**

#### External links

- **European Commission - Globalisation**
- **European Commission - Trade**
See also

- Energy production and imports
- Extra-EU trade in goods
- Extra-EU trade in manufactured goods
- Extra-EU trade in primary goods
- Extra-euro area trade in goods
- International trade in goods
- International trade in motor cars
- International trade in services
- Trade integration of goods and services

Notes

1. Share calculated excluding enterprises in 'unknown' size-class.