

Integrating trade and business statistics

European Commission
DG Eurostat
Unit G4 – International transactions
Karo NUORTILA



Outline

- Background
- Why
- How
- Trade by Enterprise Characteristics
- Eurostat activities



Background: the past, the present and the future of trade statistics

- The past:
 - Most user needs – trade policy, economic/market analysis - were met by providing international trade statistics in a traditional way: describing trade flows between countries with a breakdown by products.
 - Also production of statistics, including Customs clearance system, was organised to meet these needs. Much less attention was paid to the business (trader) perspectives.
- The present: profound changes are happening at different levels
 - Data collection level:
 - the focus of Customs clearance is moving from the surveillance of transactions to surveillance of traders
 - In EU, no Customs clearance in the trade between EU Member States
 - Compiler (NSI) level: needs to integrate, streamline and simplify production processes in order to decrease burden of data providers and respond to reduced resources
 - User level: need of new information to understand the globalisation process
- The future: New approaches are needed in statistics
 - From stovepipe approaches to integration of trade and business statistics

Trade statistics vs. business statistics (1)

- Statistics on trading of goods describe trade flows between countries with a breakdown of products
 - Monthly statistics
 - Detailed breakdowns of products with a correspondence to other product classifications
 - Detailed breakdown of partner countries
 - Data expressed in value and quantity of products traded
 - Administrative data sources or basis => “input oriented statistics”
 - Complete data collection
 - No information on traders: “who is trading?”

Trade statistics vs. business statistics (2)

- Business Statistics describe the structure and evolution of activities of businesses
 - Annual (SBS) or monthly (STS) statistics
 - Many variables
 - Demographic (number of enterprises / local units)
 - Production (turnover, production value)
 - Consumption (purchases)
 - Employment (number of employees)
 - Productivity (value added)
 - Basic breakdown according to the economic activity (NACE)
 - Various data sources (surveys and administrative/register data) => "output-oriented statistics"
 - No distinction between domestic and foreign activities like sales and purchases => limited, if any, information on the cross-border movements

The role of trade statistics

- International merchandise trade statistics belong to the "family" of business statistics: in real life, businesses are trading, not countries:
 - To large extent, trade statistics reflect commercial decisions taken by businesses on their purchases (imports) or sales (exports)
 - Data are collected from businesses through Customs declarations or by using other means like Intrastat
- Trade and business statistics are, however, based on different concepts and classification, thus using them separately may provide incoherent basis for analysing the effects of international trade on production, employment and enterprises' performances.

Why to integrate trade and business statistics (1)?

- To respond to new user needs to know the impact of trade on employment, production and value-added:
 - Trade by enterprise characteristics (TEC)
 - Global value chains (GVC)
 - Trade in value-added
- To understand more some specific trade flows in order to respond to needs of other statistics (BoP, NA)
 - Processing trade
 - Re-exports/Re-imports
 - Intra-group trade
- To improve data quality
 - More information on the traders allows better data validation
 - Coherence between statistical domains

Why to integrate trade and business statistics (2)?

- Additional data collections are needed to cover areas where data are not available
 - Specific transactions like intra-group trade
 - Specific goods like ships, aircraft, electricity
- To respond to removal or simplification of Customs procedures: Intrastat
 - Although Intrastat is closely related to administrative data sources (VAT), it is by nature a business survey
 - It relies on the identification of traders and monitoring of their reporting

How to integrate trade statistics with business statistics?

- Macro or micro approach?
- Macro approach: use product correspondence tables or input-output tables to associate products to manufacturing origin or to final use
- Micro approach: link trade registers/data with business register
- Micro approach is based on the systematic recording of identification codes in the trade transactions and in the business register
- The two sources can be linked by identifying pairs of records which belong to the same entity with the help of identification codes

Benefits of a micro data linking

- Based on the real information rather than theoretical assumptions
- The link between traders and businesses is required by Business Register Regulation
- Can re-use the data which already collected
- Consistent and coherent definition of statistical units
- Detailed level of trade data can be maintained
- The most important economic characteristics are available (economic activity, number of employees, turnover)
- Can be extended to cover all statistics related to businesses

Identification of traders in trade statistics

- European trade statistics consist of two systems: intra-EU trade (Intrastat) and extra-EU trade (Extrastat)
- Data on intra-EU trade is collected via a statistical survey (Intrastat) directly from traders
 - Close link to VAT system
 - Member States need to keep a register on intra-EU traders
- Data on extra-EU trade is collected through Customs declarations
 - Registering of traders is not harmonised across Member States
- Identification codes are administrative codes which refer to reporting units
- Reporting units are not necessarily the same as the statistical units in business statistics
- Business register is needed to convert reporting units into statistical units



Trade by enterprise characteristics: project history in brief

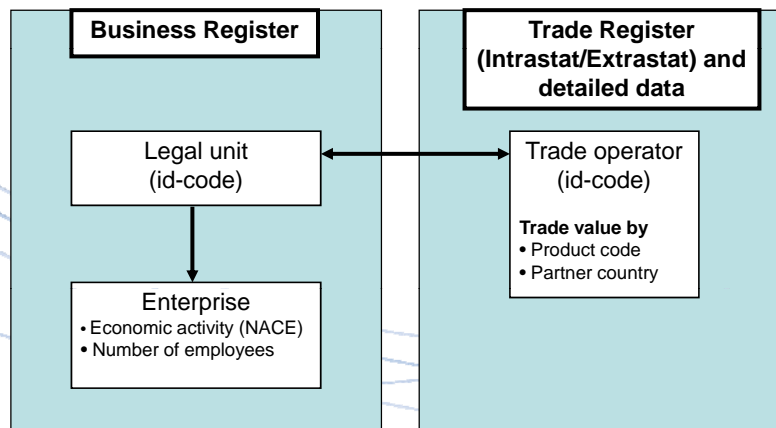
- In order to address the needs to link trade statistics with business statistics, the project "Trade by enterprise characteristics" was started
- First discussions started already in late 1990s; more concrete objectives and methodological development during last five to six years
- Methodology and indicators developed by Eurostat in co-operation with the Member States
- Several centralised data collection rounds undertaken since 2002
 - Reference years: 1999, 2002, 2003, 2005, 2006 and 2007
- The revised Intrastat and Extrastat Regulations include a module on TEC
 - Mandatory compilation from reference years 2009 (Intrastat) and 2010 (Extrastat onwards)
 - 2009 data need to be transmitted to Eurostat by 30 June 2011
 - 2008 data collected on voluntary basis
 - NACE Rev 2 and CPA 2008 applicable from 2008



Methodology in a nutshell

- Linkage of micro data at national level: Trader identification numbers (VAT number, Customs identification number) are linked with business register identification numbers
- Statistical unit: Enterprise
- Annual trade data is reconciled according to enterprise characteristics
- Aggregated results (no micro data) delivered to Eurostat
- Eurostat processes and publishes harmonised data

Link between trade operators and statistical units



Trade statistics by enterprise characteristics: indicators

- Trade by activity and enterprise size class
- Concentration of trade by activity
- Trade by partner country and activity
- Trade by number of partner countries and activity
- Trade by commodity and activity

Dissemination

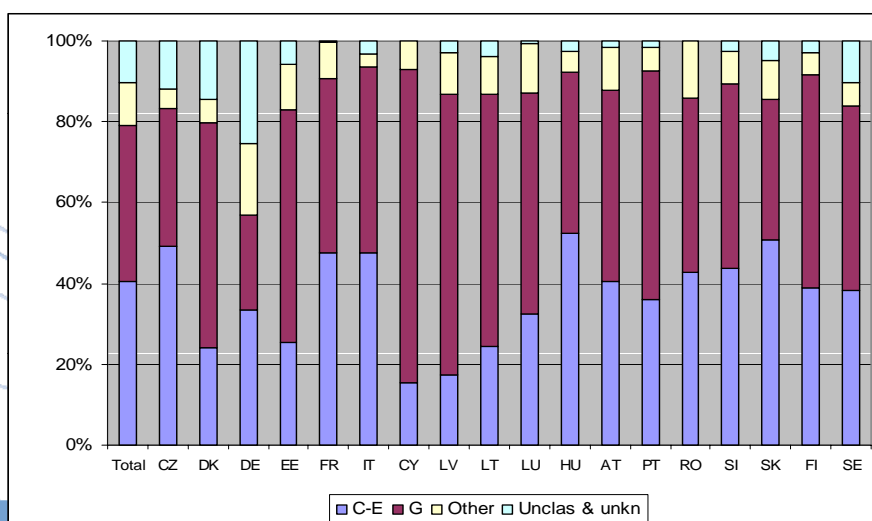
- Statistics Explained article:
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/International_trade_by_enterprise_characteristics
- Data (reference years 2005 to 2007) in Easy Comext:
<http://epp.eurostat.ec.europa.eu/newxtweb/>
- 2008 and 2009 data will be disseminated in October 2011

2007 figures: intra-EU trade value and number of enterprises by activity sectors

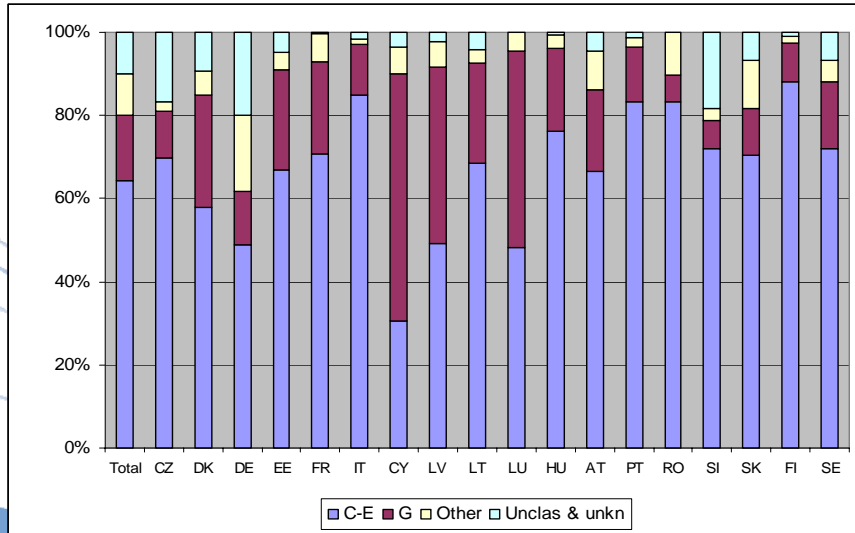
| NACE | Number of enterprises (units) | | | | | | | | | | Trade value (million euro) | | | | | | | | | |
|--------------|-------------------------------|---------|---------|----------------|-----------|------------|---------|---------|----------------|---------|----------------------------|---------|---------|----------------|-----------|------------|---------|---------|----------------|-----------|
| | Arrivals | | | | | Dispatches | | | | | Arrivals | | | | | Dispatches | | | | |
| | C-E | G | Other | Unclass & unkn | Total | C-E | G | Other | Unclass & unkn | Total | C-E | G | Other | Unclass & unkn | Total | C-E | G | Other | Unclass & unkn | Total |
| Total | 282 461 | 657 734 | 453 817 | 95 297 | 1 489 309 | 241 262 | 278 803 | 144 703 | 58 904 | 723 472 | 646 257 | 619 657 | 167 518 | 165 232 | 1 588 663 | 1 048 370 | 257 195 | 163 665 | 162 265 | 1 631 495 |
| CZ | 14 008 | 19 351 | 10 603 | 31 475 | 75 435 | 14 037 | 20 051 | 10 602 | 31 852 | 76 542 | 33 805 | 23 480 | 3 349 | 8 118 | 68 732 | 53 076 | 8 742 | 1 617 | 12 772 | 76 208 |
| DK | 7 539 | 24 056 | 14 020 | 2 841 | 48 456 | 5 261 | 8 723 | 5 065 | 513 | 19 562 | 12 645 | 28 997 | 2 926 | 7 561 | 52 129 | 30 627 | 14 243 | 3 053 | 4 888 | 52 810 |
| DE | 73 038 | 201 067 | 155 234 | 46 437 | 475 766 | 58 972 | 95 695 | 60 326 | 21 986 | 236 979 | 166 310 | 117 140 | 88 285 | 125 544 | 497 279 | 303 938 | 80 984 | 114 823 | 124 111 | 623 866 |
| EE | 2 252 | 5 177 | 3 238 | 216 | 10 883 | 2 271 | 2 992 | 1 398 | 122 | 6 771 | 2 295 | 5 157 | 1 014 | 528 | 8 994 | 3 780 | 1 349 | 246 | 267 | 5 642 |
| FR | 17 514 | 28 988 | 5 645 | 758 | 52 905 | 13 645 | 10 528 | 3 113 | 202 | 27 488 | 153 664 | 138 773 | 29 029 | 1 078 | 322 544 | 186 681 | 59 361 | 17 677 | 7 000 | 264 439 |
| IT | 67 142 | 131 955 | 52 984 | 2 332 | 254 413 | 79 721 | 53 085 | 11 545 | 1 325 | 145 656 | 102 814 | 98 807 | 7 006 | 6 825 | 215 453 | 188 069 | 27 178 | 2 671 | 3 655 | 222 173 |
| CY | 1 234 | 5 788 | 1 687 | 5 | 8 715 | 318 | 771 | 530 | 4 | 1 621 | 667 | 3 340 | 308 | 3 | 4 318 | 223 | 433 | 46 | 26 | 727 |
| LV | 3 106 | 8 938 | 8 061 | 41 | 20 146 | 1 978 | 3 549 | 1 568 | 12 | 7 107 | 2 145 | 8 560 | 1 271 | 342 | 12 317 | 3 071 | 2 659 | 379 | 143 | 6 253 |
| LT | 2 737 | 8 027 | 4 058 | 430 | 15 252 | 2 502 | 4 345 | 1 315 | 123 | 8 268 | 2 972 | 7 603 | 1 124 | 474 | 12 173 | 5 546 | 1 959 | 250 | 346 | 8 100 |
| LU | 1 118 | 6 315 | 13 680 | 15 | 21 128 | 601 | 3 054 | 2 285 | 3 | 5 923 | 4 929 | 8 288 | 1 839 | 91 | 15 148 | 7 019 | 6 882 | 662 | 1 | 14 574 |
| HU | 10 837 | 21 583 | 14 618 | 4 | 47 042 | 8 962 | 11 375 | 7 746 | 0 | 28 083 | 25 460 | 19 173 | 2 580 | 1 220 | 48 433 | 41 891 | 10 924 | 1 773 | 367 | 54 955 |
| AT | 19 484 | 50 146 | 69 398 | 6 812 | 145 840 | 9 448 | 19 282 | 11 405 | 1 088 | 41 233 | 38 232 | 44 716 | 9 929 | 1 476 | 94 354 | 57 804 | 16 740 | 8 315 | 3 786 | 86 645 |
| PT | 17 433 | 53 072 | 27 628 | 897 | 99 028 | 12 524 | 11 982 | 7 336 | 316 | 32 158 | 15 499 | 24 351 | 2 529 | 637 | 43 016 | 24 007 | 3 807 | 636 | 369 | 28 820 |
| RO | 11 562 | 20 948 | 19 922 | 30 | 52 462 | 7 477 | 4 701 | 4 894 | 10 | 17 082 | 15 689 | 15 781 | 5 176 | 5 | 38 650 | 17 716 | 1 380 | 2 186 | 8 | 21 289 |
| SI | 6 713 | 9 241 | 12 098 | 730 | 28 782 | 3 499 | 2 781 | 1 786 | 287 | 8 333 | 7 416 | 7 753 | 1 386 | 425 | 16 980 | 10 984 | 1 011 | 441 | 2 808 | 15 224 |
| SK | 7 952 | 16 715 | 10 978 | 244 | 35 887 | 5 640 | 8 847 | 5 152 | 223 | 19 862 | 16 707 | 11 520 | 3 115 | 1 634 | 32 976 | 26 036 | 4 149 | 4 360 | 2 485 | 37 031 |
| FI | 7 197 | 15 315 | 11 359 | 170 | 34 041 | 4 708 | 4 705 | 2 021 | 48 | 11 480 | 14 891 | 20 158 | 1 976 | 1 163 | 38 187 | 32 938 | 3 392 | 595 | 406 | 37 332 |
| SE | 11 597 | 31 083 | 18 610 | 1 680 | 63 130 | 9 702 | 12 177 | 6 648 | 790 | 29 317 | 30 117 | 36 079 | 4 675 | 8 111 | 78 982 | 54 383 | 11 972 | 3 935 | 5 127 | 75 417 |



Intra-EU arrivals (imports) by main activity sectors (industry, trade, others), share of total value

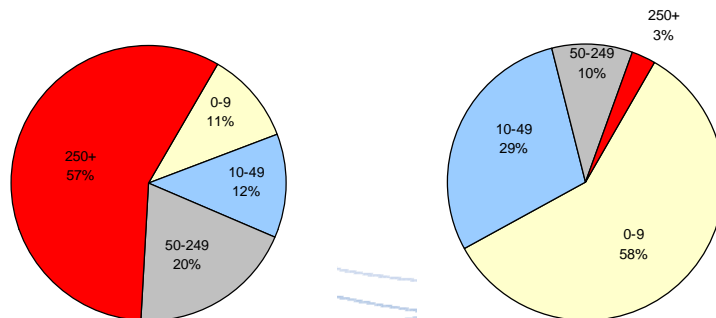


**Intra-EU dispatches (exports) by main activity sectors
(industry, trade, others), share of total value**



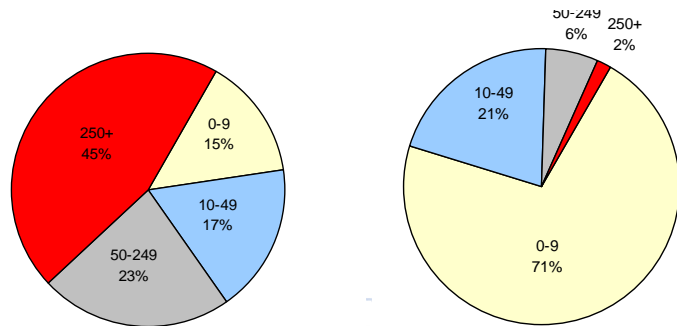
eurostat

**Countries' total dispatches by enterprise size, 2007 -
% in euro and number of enterprises**



eurostat

Countries' total arrivals by enterprise size, 2007 - % in euro and number of enterprises



eurostat 

Eurostat activities

- Several projects running in the frame of MEETS programme
 - Trade by enterprise characteristics (TEC)
 - ESSNET on Global Value Chains
 - ESSNET on Data Warehousing
 - ESSNET on Consistency
- Future
 - Common legal framework for collection, compilation and dissemination of EU statistics on business sector

eurostat 

Thank you for your attention !

Karo NUORTILA

Eurostat G4

Karo.Nuortila@ec.europa.eu

+352-4301-34802

