Global Forum on Trade Statistics
Measuring Global Trade - Do we have the right numbers?
organized jointly by UNSD and Eurostat in collaboration with WTO and UNCTAD
2-4 February 2011, Geneva, Switzerland

DRAFT Report

The Global Forum on Trade Statistics brought together close to 200 participants, including policy makers, economists, trade analysts and, of course, many statisticians. The Forum identified policy needs, especially regarding the need for more detailed data on trade in services, described research issues in the area of global value chains and trade in value-added, and offered solutions in connecting trade and global business statistics.

The <u>outcome</u> of the Forum consists of the following:

1. Annotated Vision Statement,

2. Background document 'International Trade Information Systems in 2020',

3. Outline of the Compendium on International Trade and Global Business Statistics, and

4. This Report which contains brief illustrations of all presentations during the 6 sessions which took place from 2 to 4 February 2011 at the WTO in Geneva, Switzerland.

Furthermore, to complete the outcome documentation we mention as well the agenda and the full list of participants. All these documents can be found on the outcome page of the Global Forum on the UNSD website.

The outline of the proposed publication will be further discussed in the Task Forces on international trade in goods and services and will be worked out by a technical sub-group of the Task Forces. This publication will be the vehicle to give shape and substance to the way forward, and further results of this will be reported to the appropriate fora in due time.

The following pages will contain illustrations of the presentations held at the Global Forum. It should give a valid impression of what took place, but is not intended as a full report on all that was brought to the table.

Session 1: Measuring Global Trade – Do we have the right numbers?

In the opening session, political leaders from WTO and UN, as well as leaders in trade analysis, research and statistics gave their views on the most prominent and urgent trade issues and their corresponding data needs.

The main points put forward by the presenters of session 1 are:

- o link firm activity (production) with export activity (trade)
- o establish a Trade Satellite Account
- o improve international trade in services data
- o reduce differences in mirror statistics
- o improve the measurement of quantities, prices and volumes
- o improve institutional arrangements on cooperation in trade statistics

Some details on the presentations are given below.

In his opening statement, **Mr. Alejandro Jara**, Deputy-Director General, WTO, stated that the concept of comparative advantage in final goods, as developed by Ricardo, is no longer fully relevant to explain trade between countries. Today, international specialization relates to trade in tasks rather than in finished goods, with the result that trade in intermediate goods, such as components, parts or goods for further processing, has grown fast. We need to have information on the inter-connectivity of national economies, not only through high frequency trade data but also through linking firm activity (production) with export activity (trade). Perhaps the solution is not the collection of more data, but to operate a paradigm shift in their packaging and interpretation.

Perhaps it is time to extend to the rest of the export sectors this concept [of a Trade Satellite Account] and bring together all relevant information on trade-related activities, from trade flows in goods and services, foreign direct investment and financial settlements, to employment in its quantitative and qualitative dimensions. Such a comprehensive overview would help policy-makers and other stakeholders to appreciate the multidimensionality of international trade and would have the very important advantage of linking the trade policy debate directly to what matters in trade politics – the production of domestic value added and jobs.

In a video message, **Mr. Jomo Kwame Sundaram**, Assistant Secretary-General of UN/DESA, stated that trade patterns have moved from country specialization in types of goods (manufactures from the North; primary commodities from the South) to intra-firm/network specialization in tasks, with the South greatly expanding production of manufactures. The changing patterns of trade and production have important implications for trade and industrial policies in the broader context of development strategies.

Current statistical data are deficient for international trade in services from the point of view of both analysis of such trade and use by negotiators. Whereas much conceptual work was developed over the last decade, the data for trade in services show still too little detail.

In his keynote speech, **Dr. Supachai Panatpadki**, Secretary-General of UNCTAD, stated that statistics are very important as basis for econometric models and that economists cannot develop

and proof their theories if they lack the appropriate data. Cooperation in statistics among international agencies is key for the development of statistics.

Commodity prices are high again. This could be due to market and trade fluctuations, but it is more and more due also to speculation in the commodity market for reasons of financial investment. This distorts the actual prices of commodities. To properly analyze these kinds of new trends, there is a need for the right data on trade and commodity prices, and for data on inventories of commodities. Other challenges for trade statisticians are the differences in mirror statistics between trading partners, the lack of data on trade in services and a better measurement of multi-national enterprise statistics.

Panel Discussion on Measuring Global Trade – Do we have the right numbers?

In his opening remarks as the moderator, **Mr. Walter Radermacher** (Chief Statistician of Eurostat) stated that we should get better data for trade in services as we already have for trade in goods. The challenge is to find a smarter way of collecting services data.

A shift in paradigm is needed not only to observe the economic activity from the perspective of the national territory, but also from an international perspective. For such purpose there is a need for connecting international transactions with other economic statistics, like trade in relation to environment or to energy statistics. Furthermore, there is a need for interaction of statisticians with policy makers and researchers to keep trade data relevant.

Mr. Enrico Giovannini, President of ISTAT**,** the Italian Statistical Office, claimed that we do not need the right numbers (because they are impossible to get), but that we need to have the right vision? The background document 'International Trade Information Systems in 2020' is a good starting point. Some remarks on what needs to be done: (1) international agencies should be aligned on both trade in goods and trade in services statistics; (2) an integrated data warehouse linking trade with other economic statistics is the right way forward; sharing good practices in this regard is important; (3) national authorities should legalize institutional arrangements on cooperation in trade statistics; international agencies should send a strong message to governments to make this happen; (4) we need a quality profile for international trade statistics, which can help in reducing differences in mirror statistics; (5) we need to update classifications at a higher frequency; (6) we may need a satellite account for trade statistics; and (7) we need to improve the measurement of quantities, prices and volumes.

Mr. Aaron Sydor, Deputy Chief Economist, Canada, pointed out that, while analyzing trade issues, we encounter many data gaps; for instance, (a) the destination of Foreign Direct Investment does not match well with real economic activity, probably because of the use of tax havens; countries and areas like Barbados, Cayman Islands, Bermuda and Bahamas pop up as major FDI destinations; (b) for statistics on international trade in services there is an apparent lack of detail on modes of delivery, a lack of country detail, and a lack of matching between the BOP service components and industry categories; (c) other gaps that exist are regarding end-use classification systems (BEC); intra-firm trade, and value-added measures of trade; and finally regarding the linking of activities (research and development, legal services, or accounting services) to products or performing industry.

Prof. Gary Gereffi, Duke University, Durham, USA, explained that the global value chain (GVC) framework was developed over the past decade by a diverse interdisciplinary and

international group of researchers who tracked the global spread of industries and their implications for both corporations and countries. Global value chain analysis provides both conceptual and methodological tools for looking at the global economy; either with a focus on lead firms and inter-firm networks, using varied typologies of industrial "governance" (top down) or with a focus on countries and regions, which are analyzed in terms of various trajectories of economic and social "upgrading" or "downgrading" (bottom up).

Key research questions are: (i) Can existing data on global trade be used to track the different types of GVC governance in a more detailed fashion over time? (ii) How can the GVC framework be applied to trade in services as well as goods? (iii) How can we link multiple governance structures and economic upgrading in GVCs? (iv) and what are the policy issues and data challenges for each type of GVC governance (markets, networks, and hierarchies)?

Session 2: Implementing the improved methodological guidelines

Matthias Reister (UNSD) highlighted some new recommendations of IMTS 2010, namely the addition of imports valuation on FOB basis, the recording of a second partner country (country of consignment), and the additions of mode of transport and customs procedure codes. He also described the development of the revised Compilers Manual for IMTS 2010, and the process for the upgrading of UN Comtrade.

Bettina Wistrom (OECD) gave an overview of the revised Manual on SITS, showing the three pillars of the manual, namely the resident / non-resident trade in services, FATS and modes of supply. The Manual recommends obtaining more detailed data by service category and partnering country.

Valdone Kasperiuniene (Eurostat) described the link between EU Regulations and international recommendations, namely addition of new data elements, such as second partner country, mode of transport, trader ID, or customs procedures, adhering to the new requirements for data quality and dissemination of data and metadata, and the linking of trade and business statistics.

Country perspective on implementation of new recommendations

Leif Korbel (Norway) gave an overview of the situation in Norway, where Statistics Norway is responsible for IMTS, SITS, BOP, FDI, FATS, Travel, Tourism and National Accounts. This makes it easier for Statistics Norway to coordinate the links and overlaps among the various areas. Norway has implemented already most recommendations for IMTS (including unique trader ID) and SITS. Challenges are ahead for the measurement of repairs and maintenance of goods, of processing services and of merchanting.

Anita Bany gave an overview of the situation in Hungary. The NSO is responsible for statistics of trade in goods and services. It has to cooperate with the National Bank of Hungary, the Tax Authority, the Custom Authority and the Financial Supervisory Authority (regarding insurance services). Most problems are encountered regarding the measurement of trade in services, for which many different data sources are used.

The Department of Statistics of Malaysia (**Zainuddin Ahmad** and **Zanol Jamil**) will hold an Economic Census in 2011, and takes that opportunity to use filter questions to identify

enterprises which trade in services, especially manufacturing services without ownership of the goods, and those which are partly or fully controlled by foreign owners. As a first step of the implementation plan of the new recommendations DOS will hold awareness session with all stakeholders in foreign trade statistics.

Yijin Zhang described the development of the Chinese system for international trade in services statistics. The Chinese will integrate the statistics system, will enhance the skills of its staff through further training, and will strengthen is international cooperation through exchange and cooperation.

Session 3: Data Sources – Trade in Goods

Sandra Tudor of UK Customs encouraged Trade Statisticians to work more closely with Customs colleagues to promote the importance and utility of Trade Statistics, so that statistical requirements are better defined and met in the international trade process. She further described the plans at UK Customs to streamline the information flow which accompanies the international goods transactions.

Roland Boudreau (Statistics Canada) gave an overview of the data sources used by Canada. Imports data come from Customs sources plus data on electricity imports from national office of Energy; Exports data come from US Census Bureau, Customs, national office of Energy (electricity and gas) and the Canadian commissions for grain and flour.

Houssaine Ouljour of the Foreign Exchange office of Morocco explained the data processing side of the trade statistics system in Morocco underlining also the legal foundation of his office. Data is mostly based on Customs data with some direct reporting from particular firms.

Estela de Guzman of the Philippines described the legal foundation of the NSO for Compiling IMTS, showed that most of the data are based on Customs records, and that some of the non-Customs data sources are enterprise surveys, for instance surveys on imported raw materials, freight and insurance and a 2007 Special Survey of Imported Commodities.

Session 3: Data Sources – Trade in Services

Jose Antonio Isanta described the situation in Spain, where the data source for trade in services statistics is gradually changed from ITRS (international trade reporting system) to enterprise surveys. Whereas the Central Bank is still responsible for the data collection (mainly ITRS) on most BOP services components, the Statistical Office (INE) is responsible for Other Business Services which are collected via enterprise surveys. Legislation to formalize the working relation between the Central Bank and INE is in the making.

Pham Thi Quynh Loi presented the status of international trade in services (ITS) in Vietnam. Since 2008, the ITS and related surveys are included in the National Statistical Survey Program of Vietnam. An ITS Census is executed every 5 years, which allows to updates the sample frame. The ITS sample survey is executed on a quarterly basis starting in 2011. Sample surveys to determine the ratios for Insurance and Freight on imported goods are run every 5 year. The result is that the statistical office is now able to publish detailed data on export/import value by kind of service, by partner country, by kind of enterprise and by province or city.

Ka-Lin Chan of Hong Kong, China, presented the development of trade in goods and services statistics in Hong Kong. Since imports and exports of goods involved in processing without a 'change of ownership' is to be excluded from trade in goods, information is needed on the payment of processing fees to the processing economy, which would be recorded as imports of services. She showed some typical trade flows of outward processing trade of Hong Kong, and how it would need to be recorded. Since this kind of trade mostly involves trade with China, the survey on Trade Involving Outward Processing in the Mainland of China has been enhanced to capture information necessary to determine the extent of the processing under contract.
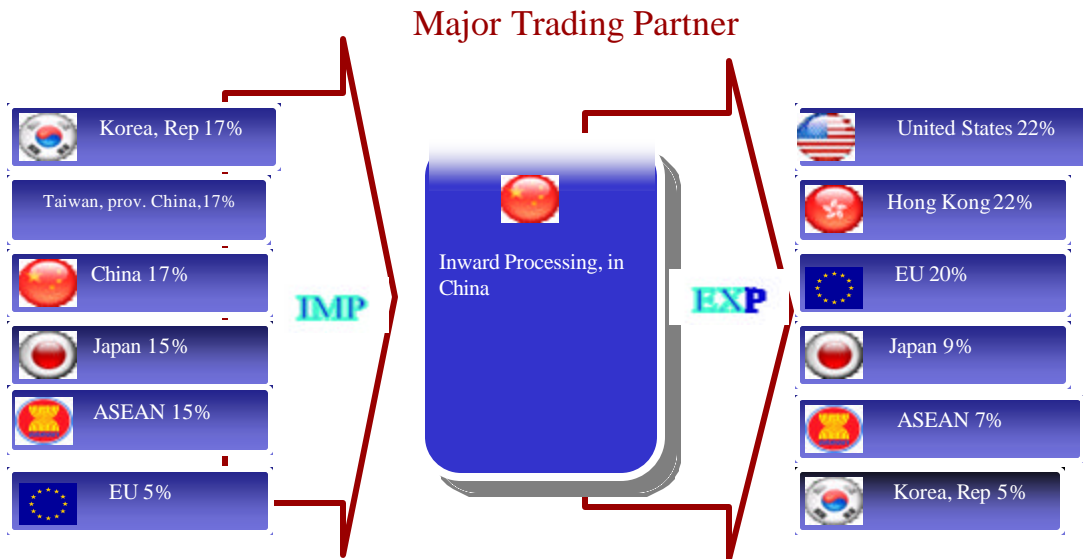

Session 4: Global Production and Outsourcing of Business Functions

Pascal Lamy opened this session with some introductory remarks. His first point was that traditional boundaries of countries are disappearing because of the interconnectivity of the global production processes. The concept of country of origin has become questionable in terms of value-added of trade, and the distinction between goods and services is blurred. The main challenge for statisticians is to measure the global production process including all services, which include also the impact of trade on employment. Generally, we should make everyone aware of the fragmentation of the production process and move the measurement of it forward.

Using the conceptual framework of "global value chains," **Tim Sturgeon** (MIT, Cambridge, MA, USA) presented several of the most glaring data gaps and outlined a few innovative efforts to fill them, including the development of industry-specific classifications for final and intermediate goods trade and the collection of enterprise-level international sourcing data at the level of business functions. The way forward will require new methods for using existing data, improvements to existing data collection programs, especially for trade in services, and the deployment of novel enterprise-level surveys focused on outsourcing and offshoring.

Peter Boegh Nielsen of Statistics Denmark researched what the impact is of international sourcing on the competitiveness of job losses. He distinguished core business function, such as production of final goods or services yielding income, and support business functions, carried out in order to facilitate production, such as distribution and logistics, marketing, sales and after sales services, ICT services, administrative and management functions, and research & development. The results showed that many core functions were outsourced to South East Asia, whereas support functions were outsourced to, for instance, the United States, which in turn outsourced some of the functions to Asia.

Jin Hongman of China Customs explained that more than half of China's exports comes from inward processing, under which procedure goods are intended for manufacturing, processing or repair and subsequent exportation. Further, 94% of China origin goods are imported through HK, since products distribution of multinational enterprises are centralized in Hong Kong and since goods coming from inward processing need to leave China first to benefit from tax exemptions.

Major Trading Partner

- Korea, Rep 17%
- Taiwan, prov. China, 17%
- China 17%
- Japan 15%
- ASEAN 15%
- EU 5%

IMP → Inward Processing, in China → EXP

- United States 22%
- Hong Kong 22%
- EU 20%
- Japan 9%
- ASEAN 7%
- Korea, Rep 5%

Audur Svarvarsdottir described that 10% of Iceland's exports of finished processed goods is from processed goods without change of ownership. This would be about 25% of the export of services if the processing fee (of manufacturing services on physical output owned by others) would have been included in trade in services. It is a challenge for Statistics Iceland to publish trade in goods and services in a clear and consistent way and understandable for the public because goods for processing without change of ownership are, according to the new manuals, included both in trade in goods and trade in services.

Art Ridgeway of Statistics Canada and **Tihomira Dimova** of UNECE presented the forthcoming Handbook on the Impact of Globalization on National Accounts. The Handbook is divided in three main sections, namely Multinational enterprises, Trade in goods and services, and global manufacturing, and Household-related issues. Specific country experiences are presented as annexes to the chapters, and an addendum deals with the impact of the financial crisis. With relation to Global Manufacturing the Handbook provides some criteria to distinguish between Merchanting and Goods for processing abroad.

Szymon Bielecki of Eurostat explained the Inward and Outward Foreign Affiliates Statistics using the picture below.
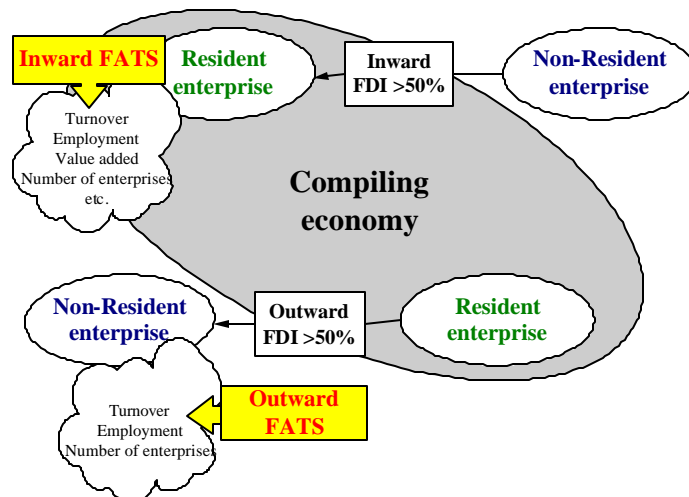
He also showed the variables requested from EU member states for (mostly inward) FATS, namely number of enterprises, turnover, number of persons employed, value added at factor cost, gross investment in tangible goods, personnel costs, production value, total purchases of goods and services, purchases of goods and services for resale, total intra-mural R&D expenditure, and total number of R&D personnel.

Rene Dell'mour of the Central Bank of Austria explained and illustrated how the excellent cooperation between the Central Bank and the national statistical office in Austria contributed to the success and progress made in the field of trade in services statistics. This cooperation was formalized in 2002 when "Trade in Services" was handed over to the statistical office, when quarterly meetings at the top level started to be organized, and when micro-level data were exchanged between both institutions. One area of cooperation is the FATS, which reported that affiliates abroad controlled by resident investors (outward FATS) employ 760,000 persons, which is more than inward FATS (500,000 employees) but their sales (turnover) amount to 178 billion EUR only, which is less than the comparable figure for inward FATS (197 billion EUR). Further, one third of affiliates abroad are part of foreign Multinationals, which explains why only 480,000 (of the 760,000) employees abroad are "Austrian" according to FATS definitions.

Angsupalee Wacharakiat of the Bank of Thailand indicated that most MNEs exporters in Thailand are active in the following industries: (i) Electronics, (ii) Automotive, (iii) Electrical appliances, and (iv) Chemicals & plastics. Regarding the issue of Goods for processing, the majority of observed practices in these top industries show that enterprises take ownership over imported content. There is only a small group where firms receive partially net processing fees, and the Bank is exploring the possibility of how to distinguish these. The main problem in doing this is the problem of linking the various datasets from the different stakeholders in international trade statistics, see picture below.
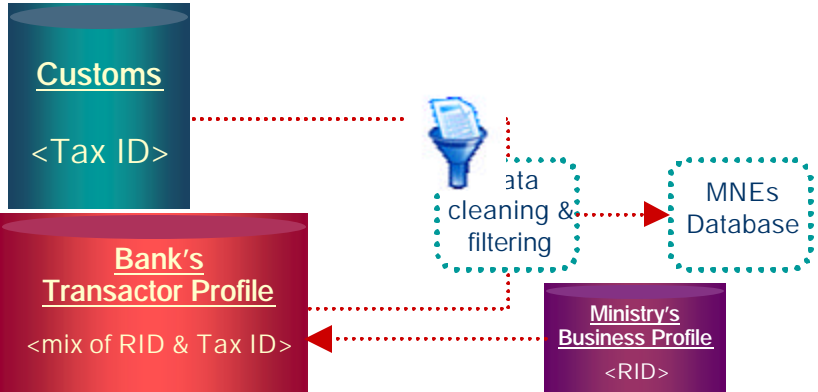
In the final presentation of session 4, **Michael Hanni** of UNCTAD gave a brief overview of the work of his organization in the field of multi-national enterprise statistics. UNCTAD serves as the focal point within the UN system on investment issues. This includes a core competency in the collection of FDI and MNE statistics and research on FDI related development and policy issues.

Session 5: An integrated approach of trade in goods and services and business statistics
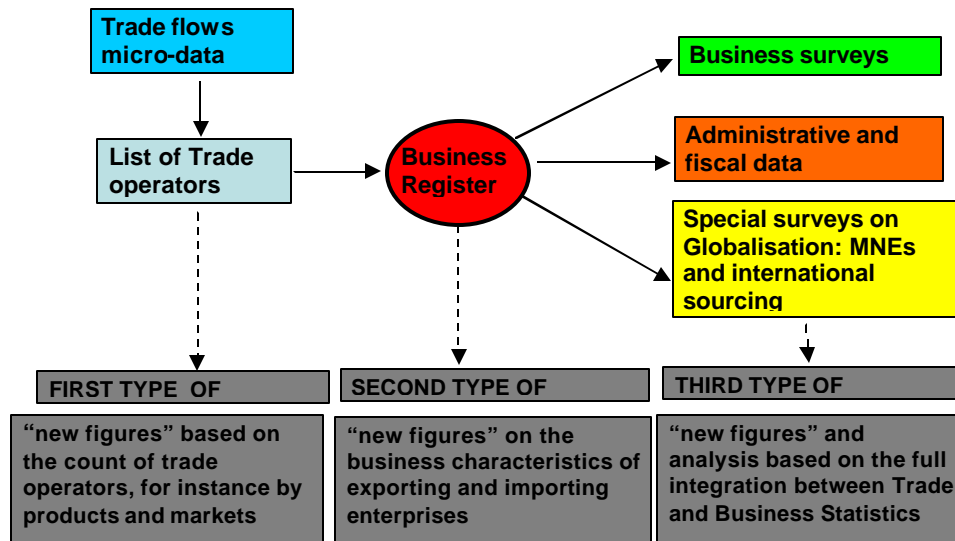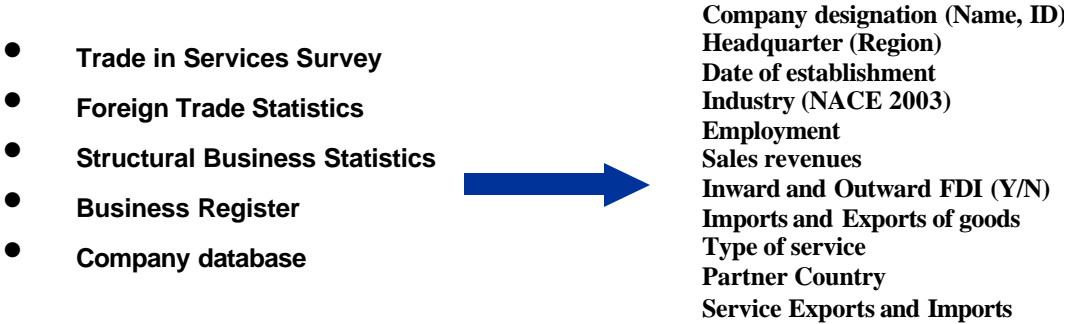

Stefano Menghinello argued for a substantial change in the compilation of trade statistics from a product based toward a business oriented perspective. This can be achieved by setting up of a new statistical frame based on the link between trade and business statistics at the enterprise / trade operator level. The business register would be the central connecting piece, see picture above.

Paolo Pavao presented the situation in Brazil. Data sources used for international trade are Customs data, Enterprise statistics, Business Register statistics, other sources (like surveys). The Ministry of Finance collects all trade information. The national code of economic activity (trade and industry) is established by the IBGE (NSO of Brazil) and the Ministry of Finance. The Ministry of Labour provides the annual list of social information which is used to define the size of the company (number of employees). The export and import records of Customs contain unique identifiers for the company or person who trades. The SISCOMEX system (see scheme below) assists the trader in providing the necessary information to register its transactions by pre-filling with existing information based on the ID.
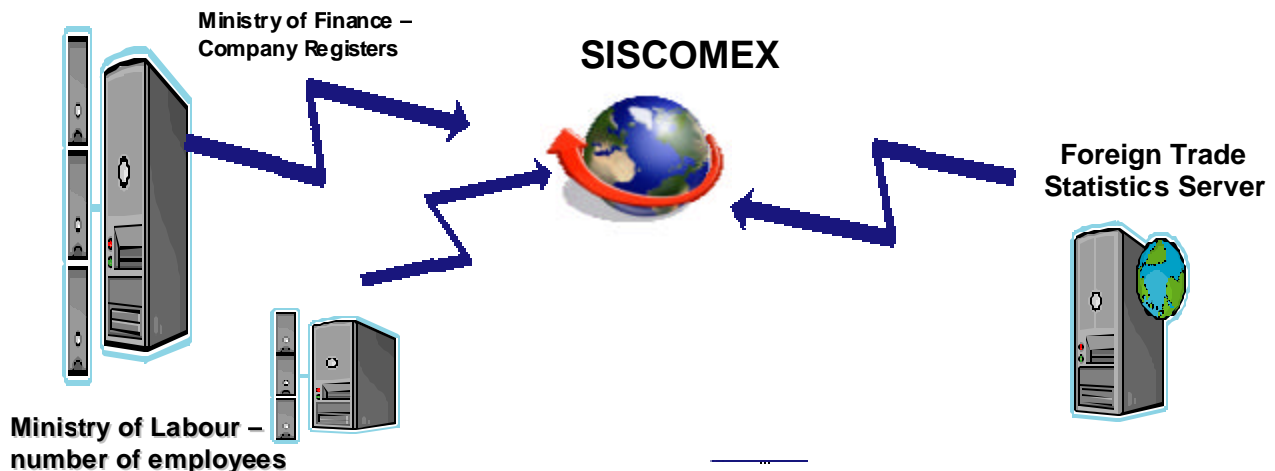
Patricia Walter of the Central Bank of Austria showed how her institute published since 2009 completely new data and analysis on cross-border trade in services, namely trade in services by industry, by enterprise concentration, by region, by company size, and by inward and outward FDI. It was also possible to correlate trade in goods with trade in services on those various variables. It is important to note that changes were made without increase in cost for respondents. The picture below shows the sources used and some of the variables which are linked through these sources.

- **Trade in Services Survey**
- **Foreign Trade Statistics**
- **Structural Business Statistics**
- **Business Register**
- **Company database**

Company designation (Name, ID)
Headquarter (Region)
Date of establishment
Industry (NACE 2003)
Employment
Sales revenues
Inward and Outward FDI (Y/N)
Imports and Exports of goods
Type of service
Partner Country
Service Exports and Imports

The graph below nicely illustrates the company size and the type of service which was exported.

Link between Exports and Enterprise Size (Staff) by Service Category 2008
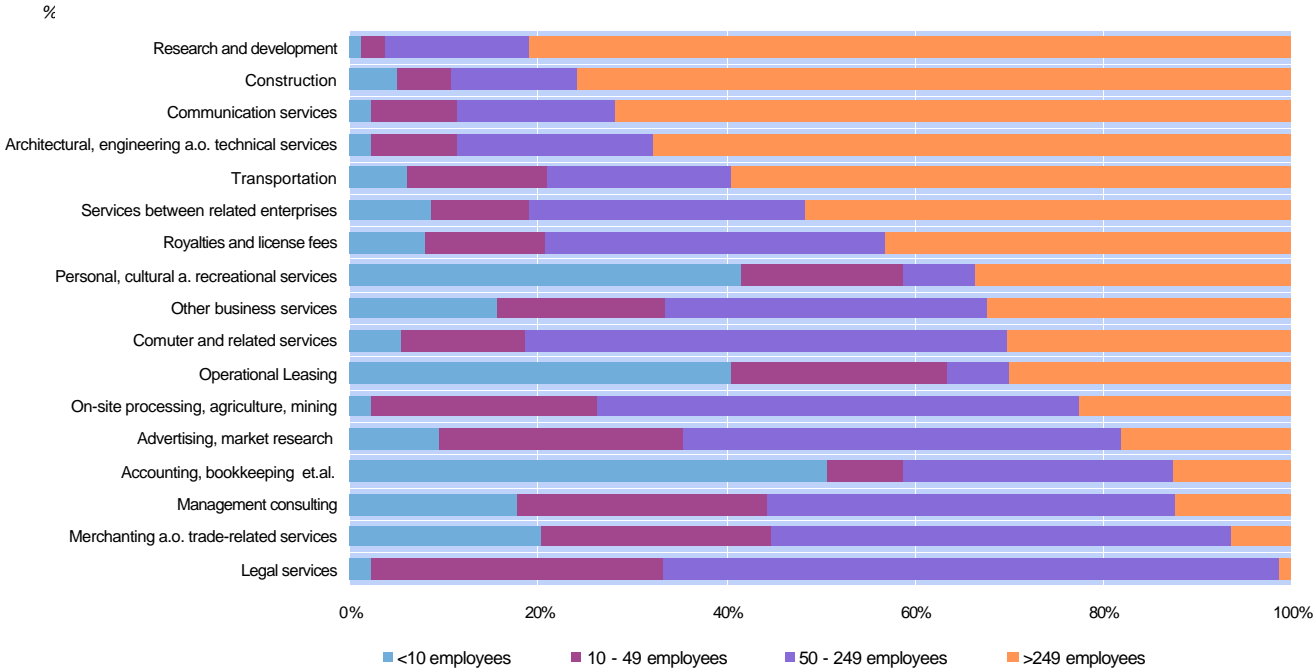
Source: OeNB, Statistics Austria.

Sonia Araujo of OECD presented the OECD perspective on trade micro-data. OECD promotes the work on Trade by Enterprise Characteristics (TEC) by disaggregating trade flows according to the characteristics of trading companies in a very efficient and cost effective way. She showed the OECD-Eurostat TEC database, which contains Trade by size class, by top enterprises, by partner zones and countries, by number of partner countries, and by commodities (Central Product Classification). The graph below shows that exports in almost all countries are mostly

concentrated in larger enterprises (Export values by Enterprise Size Class, as a share of total exports). For the future OECD would like to explore ways to improve access to micro-data for analytical purposes while conforming to confidentiality laws.
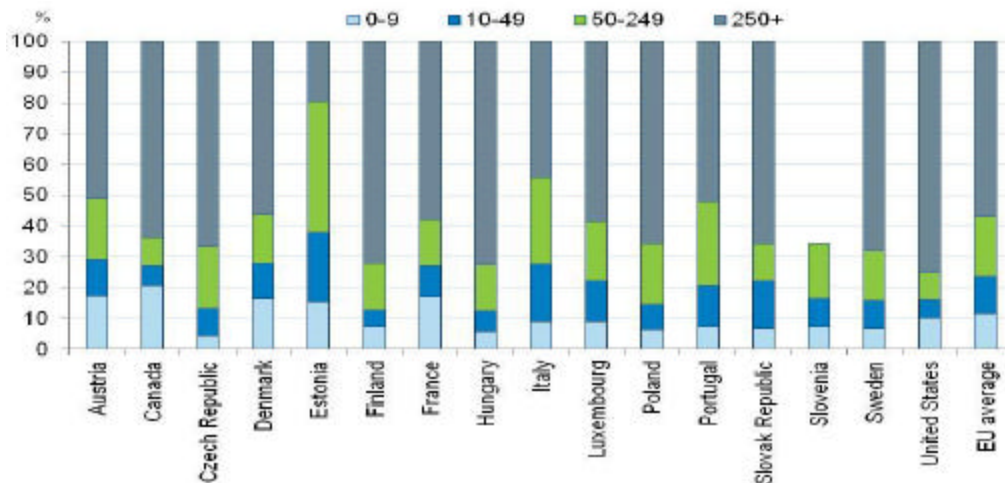
Maria Helena Figuera presented the point of view of Eurostat towards an integrated approach of trade in goods, services and business statistics. She argued that linking the various sources will in the end be more cost effective. Globalization is important and Trade is the most important component of Globalization. More needs to be done on trade in services. Finally, business statistics need to be streamlined via integration of legal acts, classifications, business registers (like the European Business Register) and via integration of data collection and processing.

Bert Kroese of Statistics Netherlands presented the new dissemination strategy for trade statistics to answer new questions. The world is changing rapidly. Production is split up over many countries; services are more and more tradable; the importance of emerging markets grows. Policy makers, therefore, have new questions about effects and determinants of trade and statisticians should live up to these demands. Statistics Netherlands has changed is production process to answer these new questions. It has integrated the economic, functional and social statistics, as shown in the picture below:
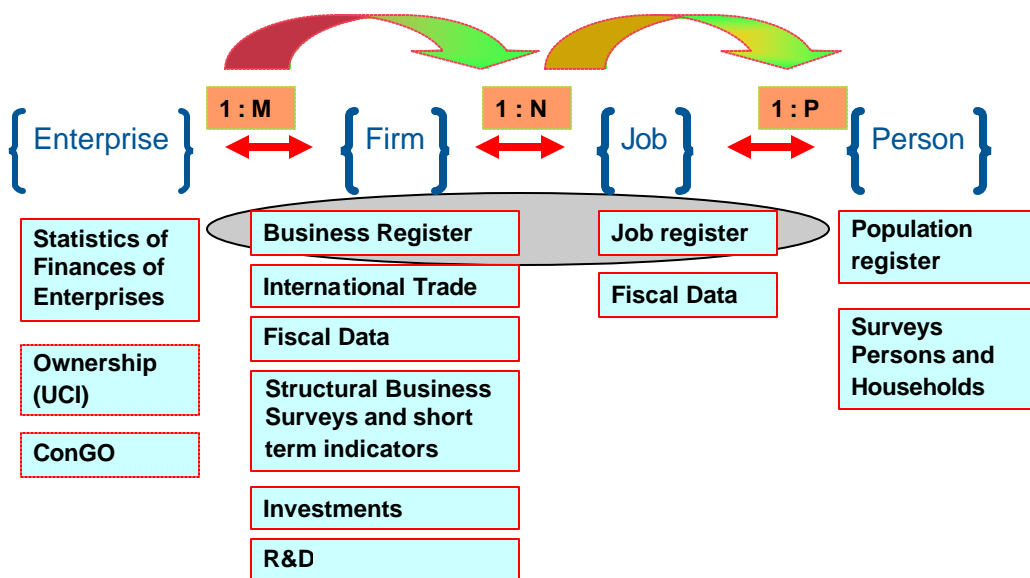
Bert Kroese concluded that globalisation and international trade have lead to new and additional questions about effects and determinants of trade. Linking various data sources helps in finding answers, and visualisations help to understand data. Finally, cooperation among the institutions involved (like NSO and Central Bank) is essential for success of such an undertaking.

Art Ridgeway of Statistics Canada presented the dissemination of trade in goods and services data in Canada, which is based on the framework of BOP and SNA. Even though these statistics are centralized in Statistics Canada, the internal processes still need to be integrated and coordinated between the International Trade Division and the Balance of Payments Division. Integrated trade data are well appreciated by users, but need agreements among senior management that are clear and operationally efficient.

Matthew Haigh of Statistics New Zealand informed that his office together with the Ministry of Foreign Affairs and Trade are in the process of developing a new questionnaire for International Trade in Services, which will include new questions like contract manufacturing fees for processing goods, sales of goods manufactured abroad, published software delivered electronically and question on mode of supply. The data will be disseminated through BOP, through stand alone publication on commercial services and through the Longitudinal Business Database, which is an integrated set of business data and aims at producing new information without burdening enterprises again. The structure of the LBD is shown below. Access is highly secure because of confidentiality issues.

Longitudinal Business Database		
Administrative data	**Longitudinal Business Frame** Contains longitudinally linked data for most enterprises operating in NZ. Includes information on:	**Survey data**
• Goods and services tax data • Financial accounts (IR10) • Company tax returns (IR4) • Linked Employer Employee Database • Overseas merchandise trade • Government assistance data	• employment • location • industry • ownership relationship Allows individual business to be tracked over time	• Annual Enterprise Survey • Business Operations Survey • Manufacturing and Energy Use Survey • Business Finance Survey • Research and Development Survey • International Trade in Services and Royalties

Session 6: Trade in Value-Added: I-O approach and the domestic content of exports

Andreas Maurer started off the afternoon session with a presentation on regional networks in Global Supply Chains, where there is a change from trade in goods to trade in tasks. The following graph illustrates how mostly developing (Asian) countries import mainly intermediate goods, which is then used in the processing of final goods. It is shown also however, that the industries of some developing countries seem to be an intermediate step in the production process, like Malaysia, Singapore and Indonesia, where intermediate goods are both imported and exported at a very high rate.

Share of intermediate goods in total non-fuel merchandise trade, 2009, in %
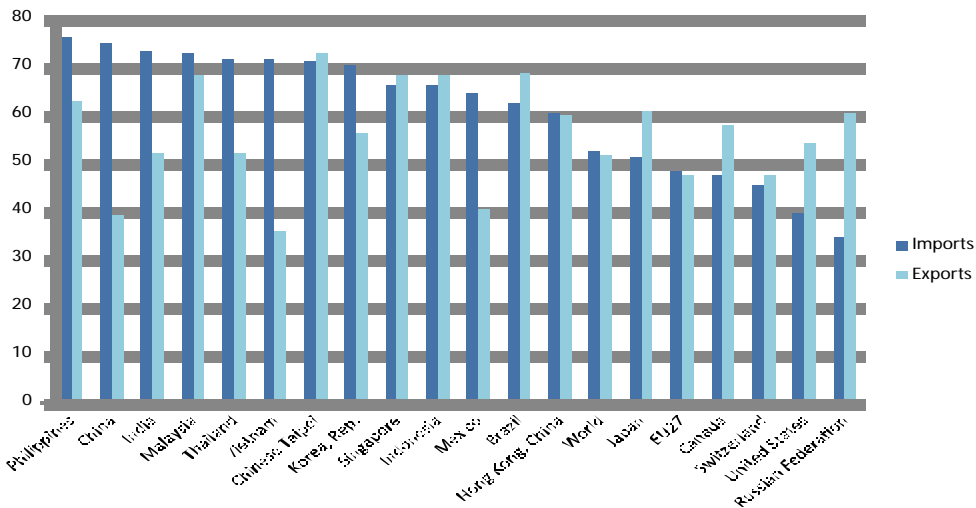
Sebastien Miroudot of OECD and **Bo Meng** of IDE-JETRO jointly made a presentation on measuring trade in value-added and other indicators of global value chains usin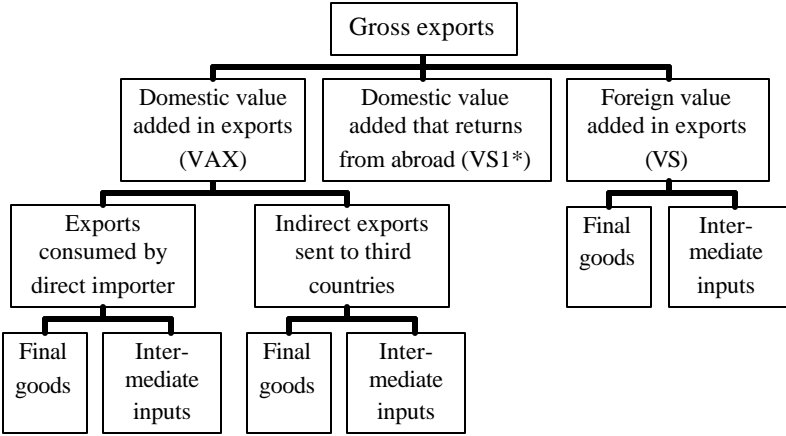g input-output tables. A new perspective on trade can change the way we deal with issues like trade imbalances by reallocating bilateral trade deficits and surplus across partner countries, trade and employment to know where jobs are created and lost in global value chains, and also trade and environment regarding the impact of trade on greenhouse gas emissions. They gave an illustration of breaking down the value-added in the production of the iPhone, see below, which would change the trade balance between US and China if calculated through the value-added.
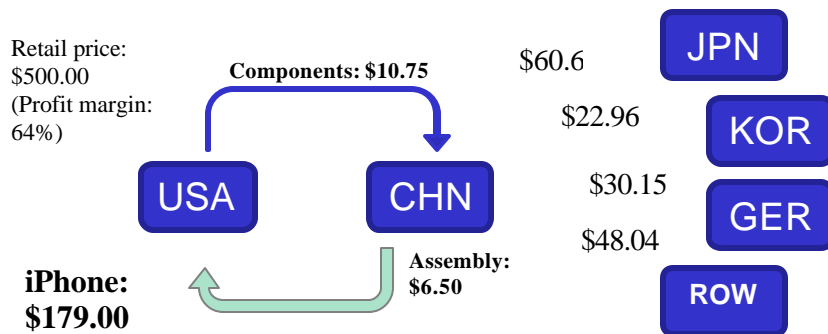
2009 US trade balance in iPhones (mln USD)	CHN	JPN	KOR	GER	ROW	World
Gross	-1,901.2	0	0	0	0	-1,901.2
Value added	-73.4	-684.8	-259.4	-340.7	-542.9	-1,901.2

William Powers of the USITC presented his research on decomposing exports into domestic and foreign value-added and into intermediate and final goods, see below. The empirical results show regional differences in supply chain participation; for instance, East Asia has the most foreign content in its own exports.

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                          ┌─────────────────┐
                          │  Gross exports  │
                          └────────┬────────┘
         ┌─────────────────────────┼─────────────────────────┐
┌─────────────────┐    ┌─────────────────┐    ┌─────────────────┐
│ Domestic value  │    │ Domestic value  │    │  Foreign value  │
│ added in exports│    │ added that      │    │ added in exports│
│     (VAX)       │    │ returns from    │    │      (VS)       │
│                 │    │ abroad (VS1*)   │    │                 │
└────────┬────────┘    └─────────────────┘    └────────┬────────┘
    ┌────┴──────┐                                 ┌─────┴─────┐
┌──────────┐ ┌──────────┐                  ┌────────┐ ┌──────────┐
│ Exports  │ │ Indirect │                  │ Final  │ │ Inter-   │
│ consumed │ │ exports  │                  │ goods  │ │ mediate  │
│ by direct│ │ sent to  │                  │        │ │ inputs   │
│ importer │ │ third    │                  └────────┘ └──────────┘
└────┬─────┘ │ countries│
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│Final ││Inter-││Final ││Inter-│
│goods ││mediate││goods ││mediate│
│      ││inputs││      ││inputs│
└──────┘└──────┘└──────┘└──────┘
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The last presentation came from **Roberts Stehrer** of the Vienna Institute for International Economic Studies. The research uses data on trade in goods and services, and some energy and environment data from satellite accounts, as well as socio-economic indicators. He presented some results of their studies showing the decomposition of net value added trade and its components, as well as its regional patterns. The results showed a decline in net value added of trade over the period 1995 to 2005 for both EU-15 and NAFTA.