

OECDs work on external trade indicators

Three examples:

- a)Forthcoming **E**conomic **G**lobalisation Indicators – EGI: Trade chapter
- b)The interactive “**T**rade Indicators **P**roject” – TIP
- c)Linking trade to economic characteristics – **T**rade by **E**nterprise **C**haracteristics - TEC

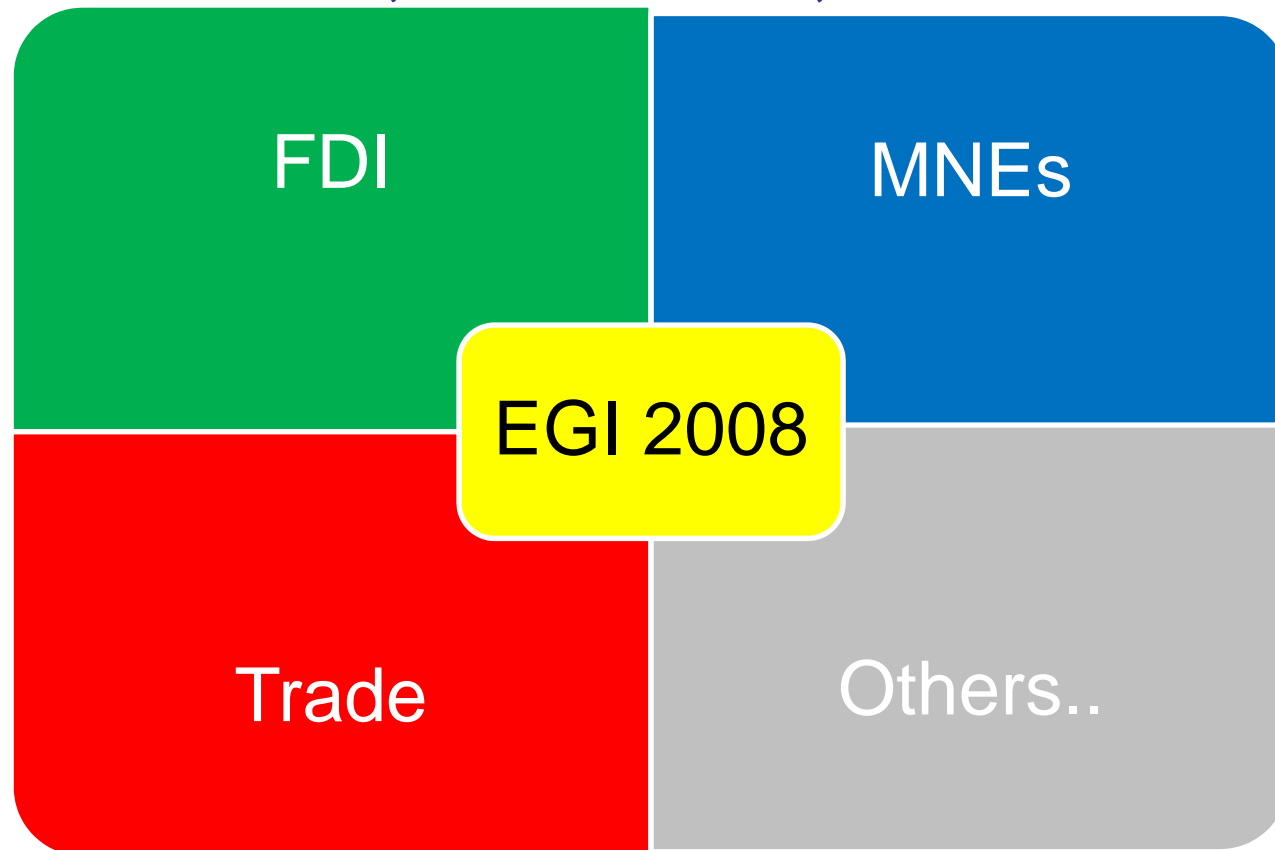
Andreas Lindner, Head TAGS

a) Structure of the forthcoming EGI:

- I. Principal Components of International Transactions (based upon BoP and FDI)
- II. Economic Activity of Multinationals
- III. Internationalisation of Technology
- *IV. Aspects of Trade Globalisation*
- ***International trade in goods and trade in services
(see detail below)***
- ***Intra-regional trade***
- ***International trade of multinationals***
- ***Trade linked to off-shoring and sub-contracting abroad***
- V. International Migration
- VI. Aspects of environmental globalisation

Trade is one chapter of EGI 2009

Besides the other chapters on FDI,
Multinationals, FATS etc.,



a) Economic Globalisation Indicators: a standard approach and presentation

- One page of analysis
- .. With standard lay-out containing sources used and links to Websites in a shaded box at the bottom
- An explanatory box for non-specialists, explaining
 - What the indicator measures
 - The formula
 - Factors to be taken into account when interpreting results
 - General strengths and limitations of the indicator shown
- A standardized graphical presentation
 - Covering OECD countries **plus** Accession countries and Enhanced Engagement countries (30+5+5= up to 40 countries) wherever possible
 - Easy to understand and interpret

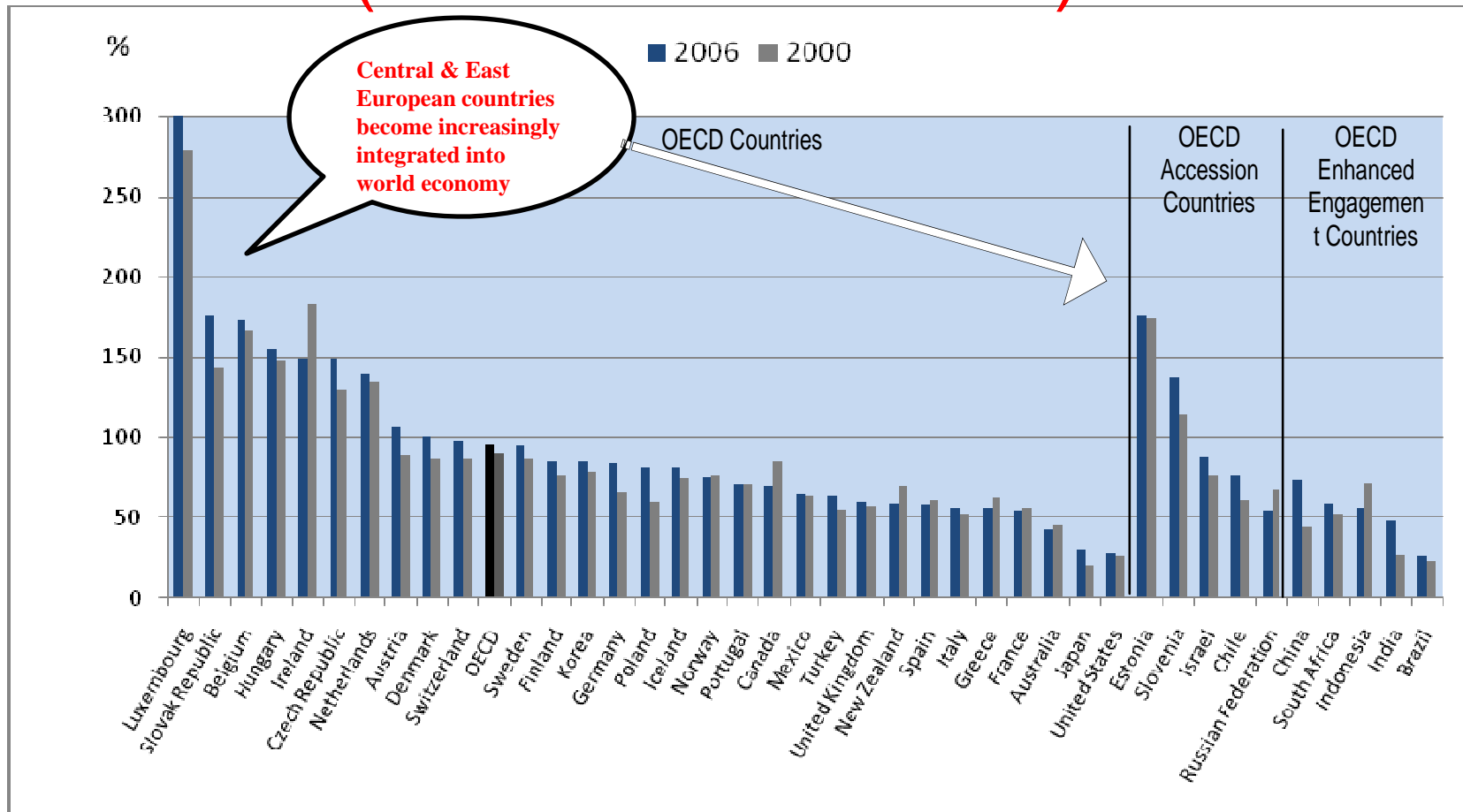
The list of trade indicators (red box)

- Trade as % of GDP
- Trade Balance as % of GDP
- World Export Market Shares
- World Exp. Market Sh. by Type of Goods
- Geographical Distribution of Export Shares in OECD, Accession c. and Enhanced Engagement countries
- Geographical Distribution of Export Shares in Services
- Import Penetration of G & S
- Merchandise Trade with China and Hong Kong, China
- Merchandise Trade with the Rest of World
- Intra-Industry Trade
- High-Tech Merchandise Trade
- Sensitivity of Trade flows to Price and Income Changes

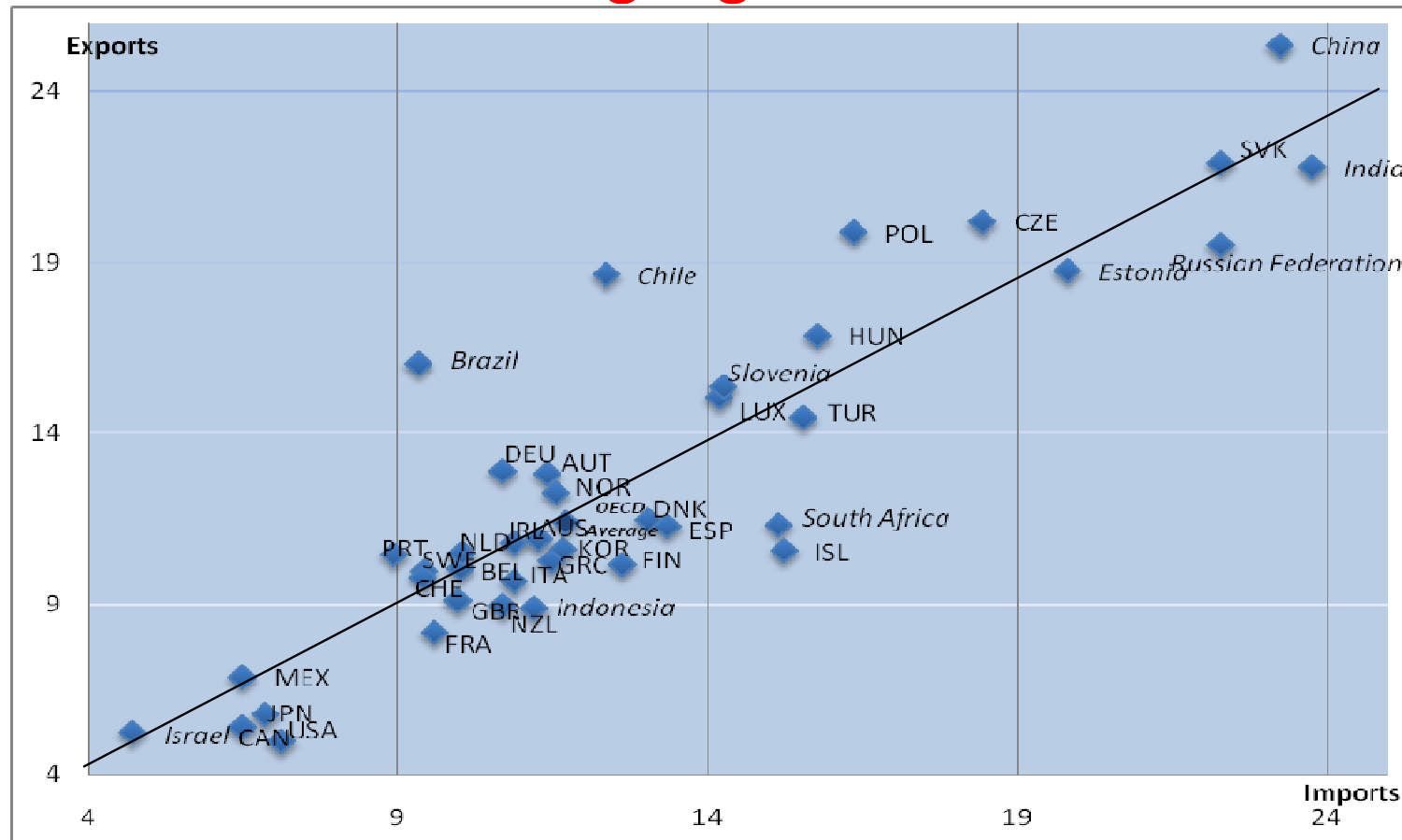
...They do tell a story...

- Globalisation affected countries very differently
- Winners and losers
- But "grouping patterns" emerge
- Heterogeneity of trends and impact on countries
- No “one fits all” strategy, rather tailored analysis and approaches
- Requiring cross-cutting approach for statistics and indicators development

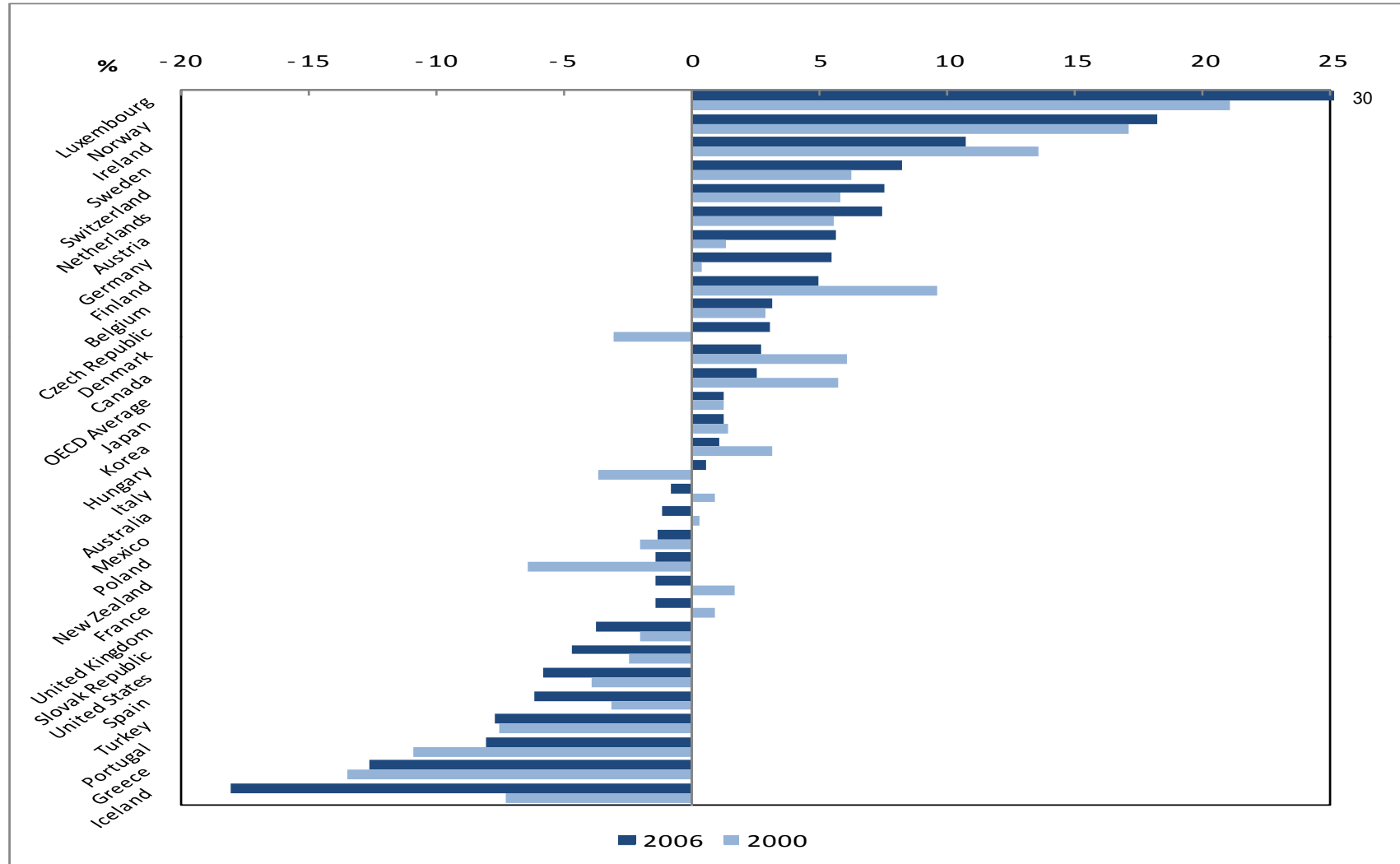
1. Trade (Goods and Services) as % of GDP



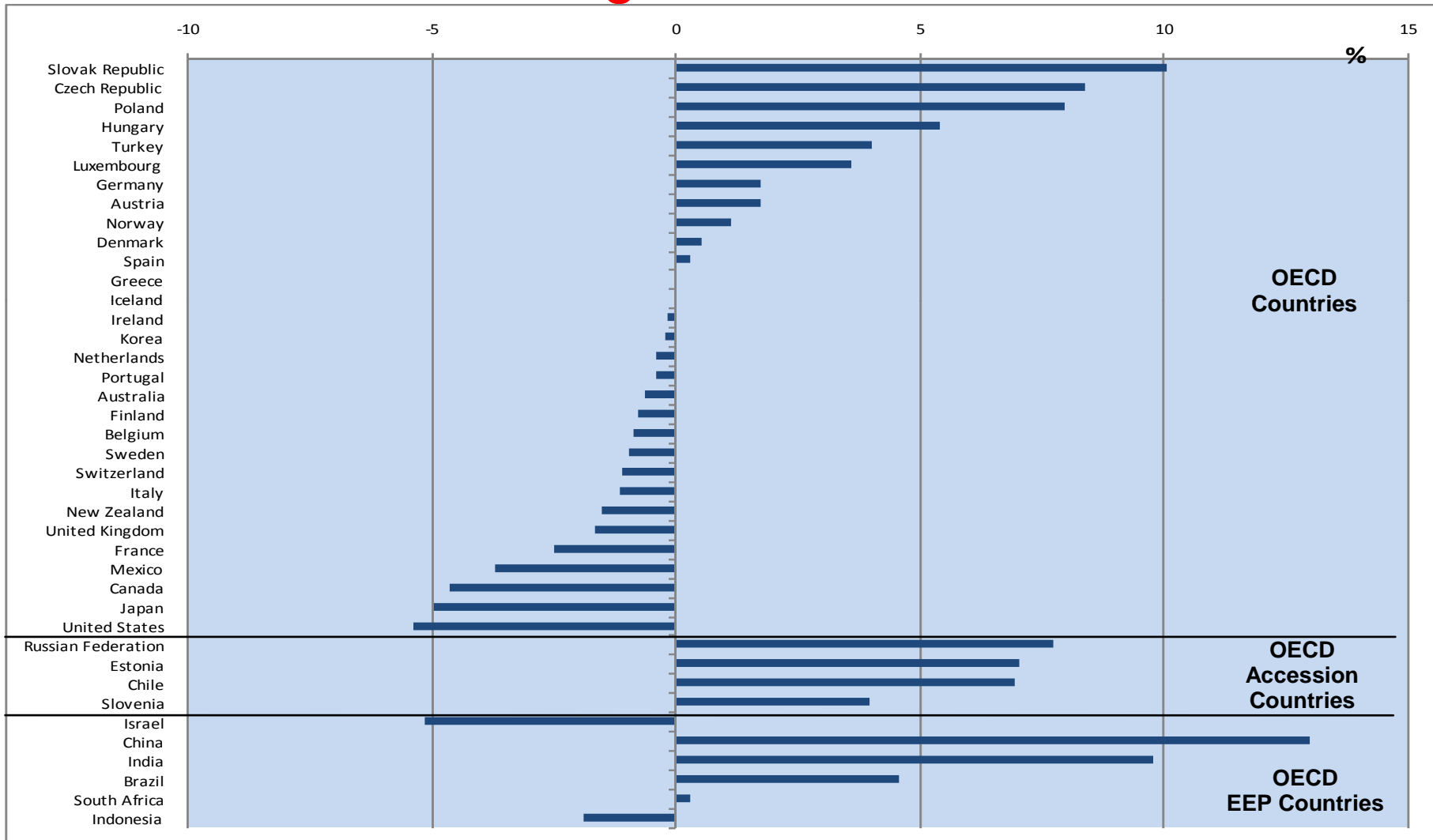
...and average growth 2000 - 2006



2. OECD Trade Balances as % of GDP



3. World Export Market Shares (G&S) – average annual growth 2000-2006



5. Geographical Distribution of Export Shares

Figure I.5.a.1 Export shares of Goods into EU25, 2006 versus 2000

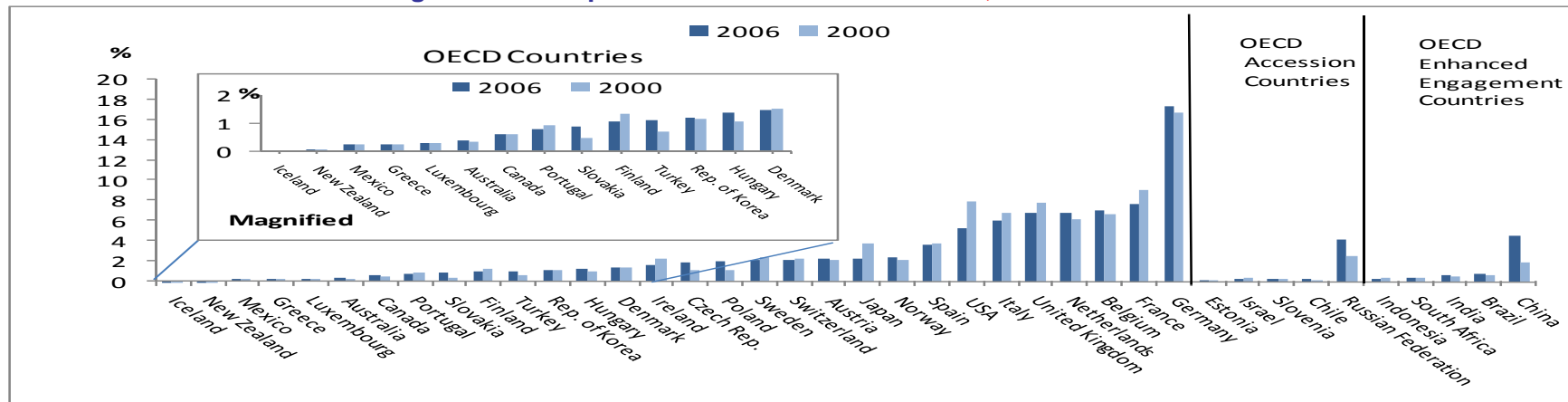
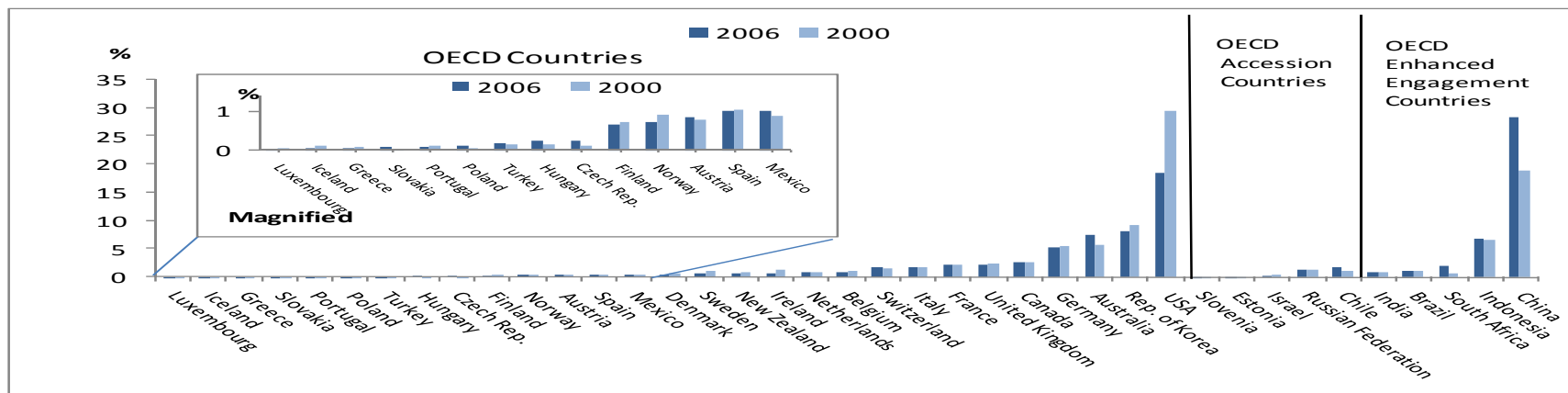
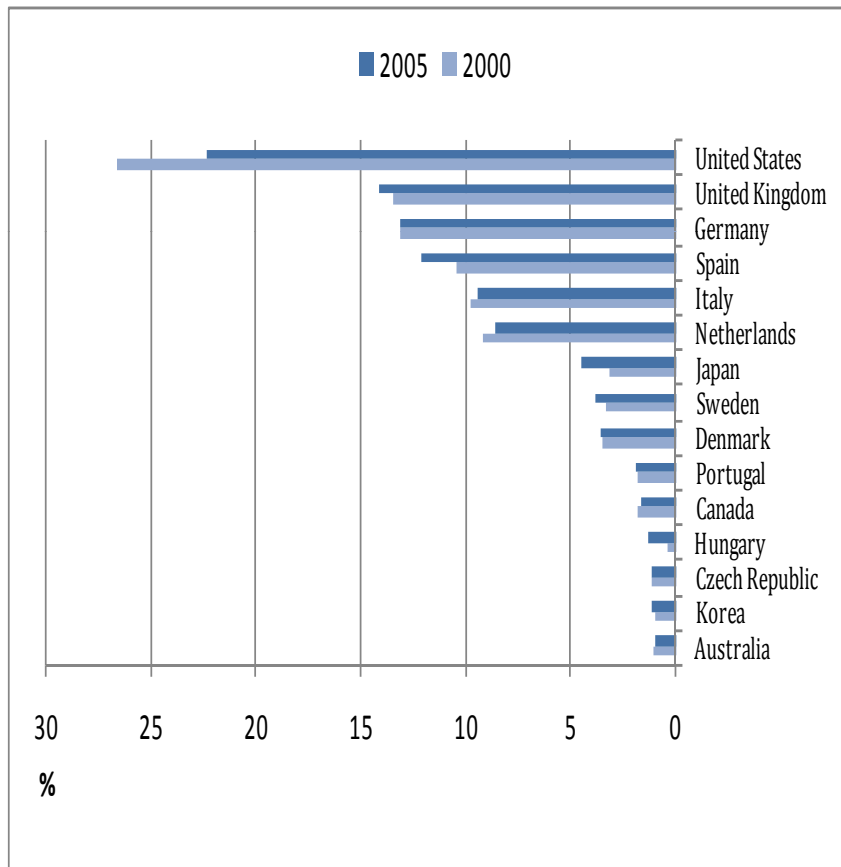


Figure I.5.a.3 Export shares of Goods into Japan, 2006 versus 2000

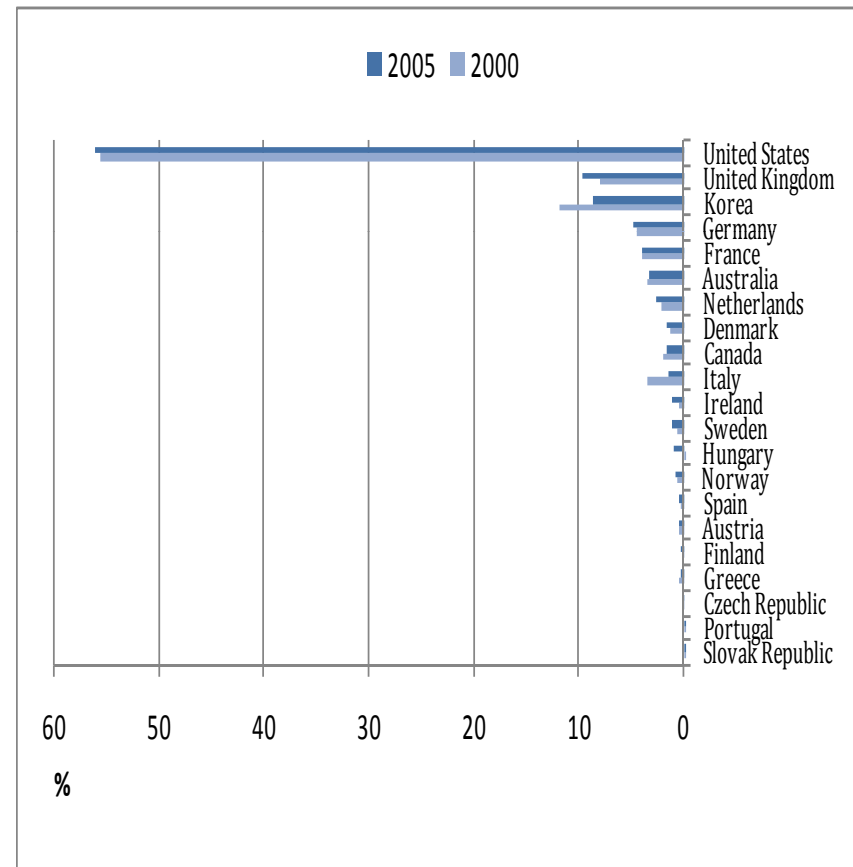


Geographical Distribution of Export Shares in Services 2005 versus 2000

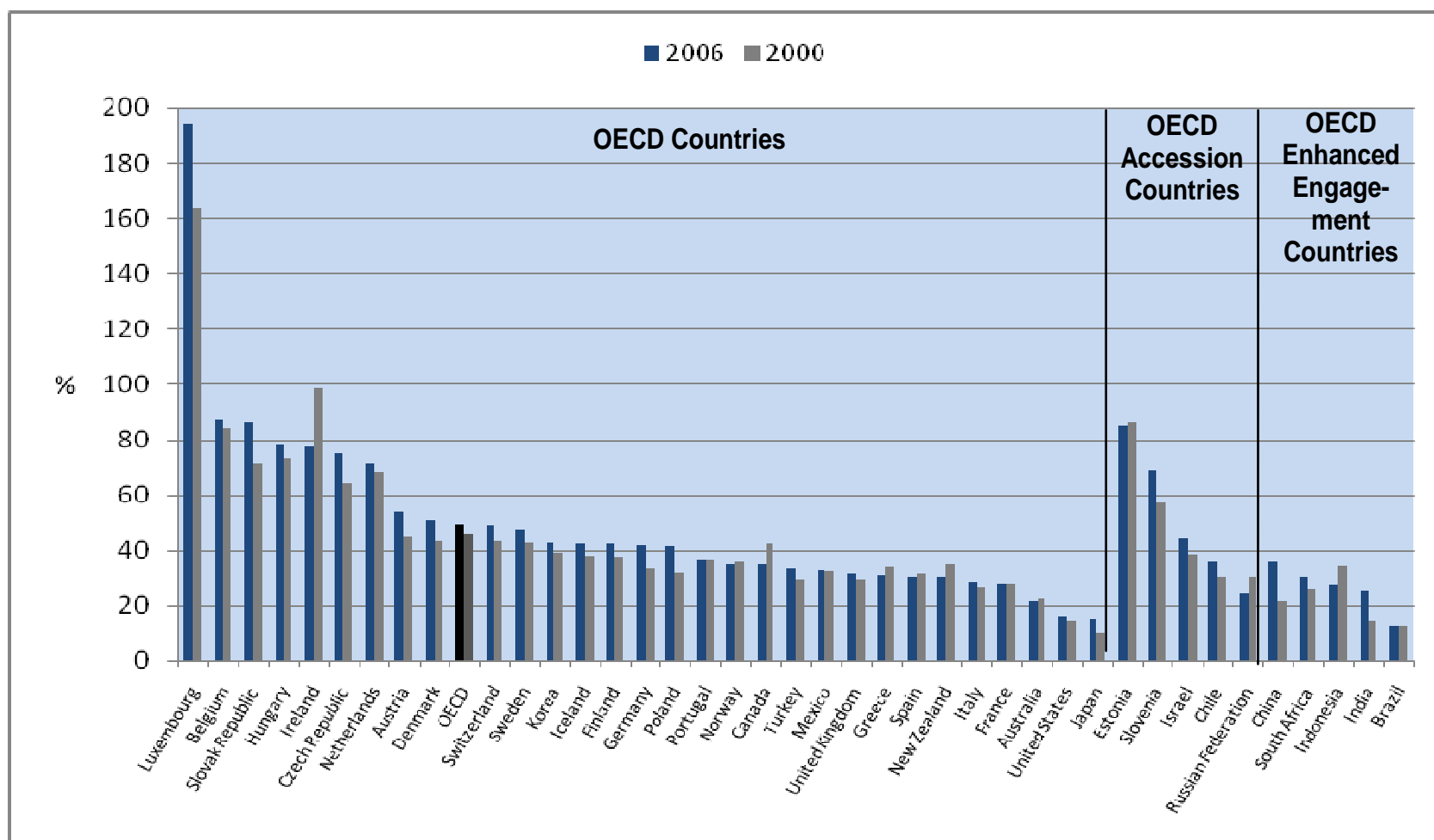
EU 25



Japan

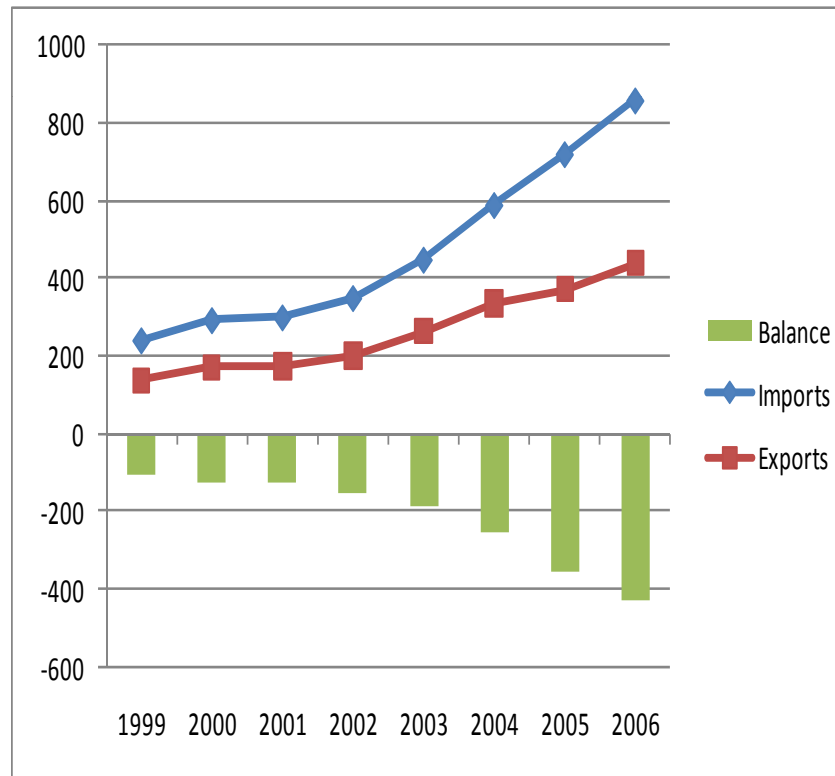


6.1 Import Penetration of Goods and Services 2006 versus 2000

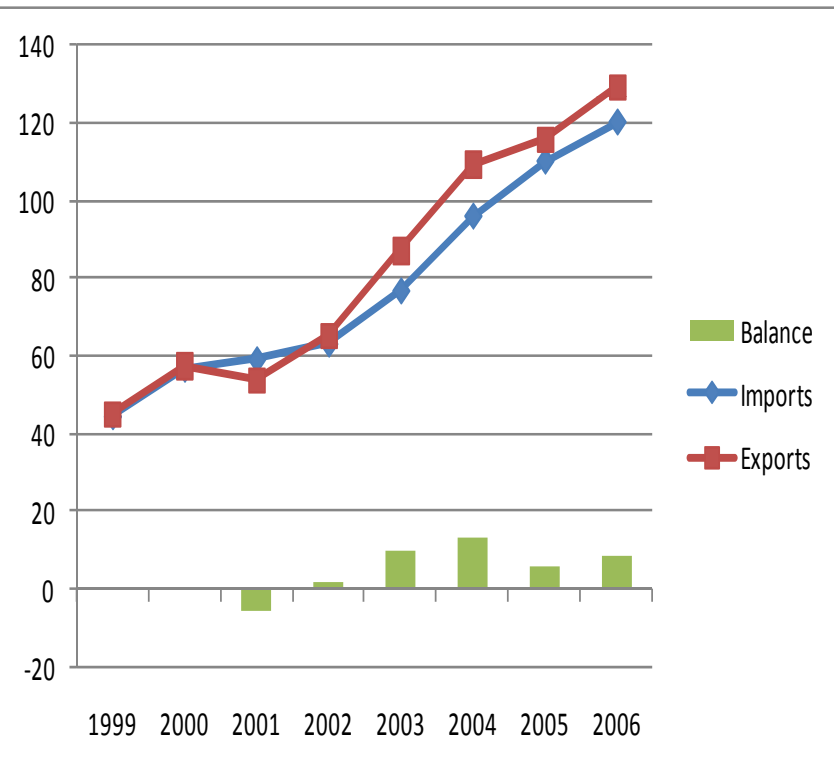


7. OECD Merchandise Trade with China

OECD trade with China and Hong Kong (China) – billion US\$

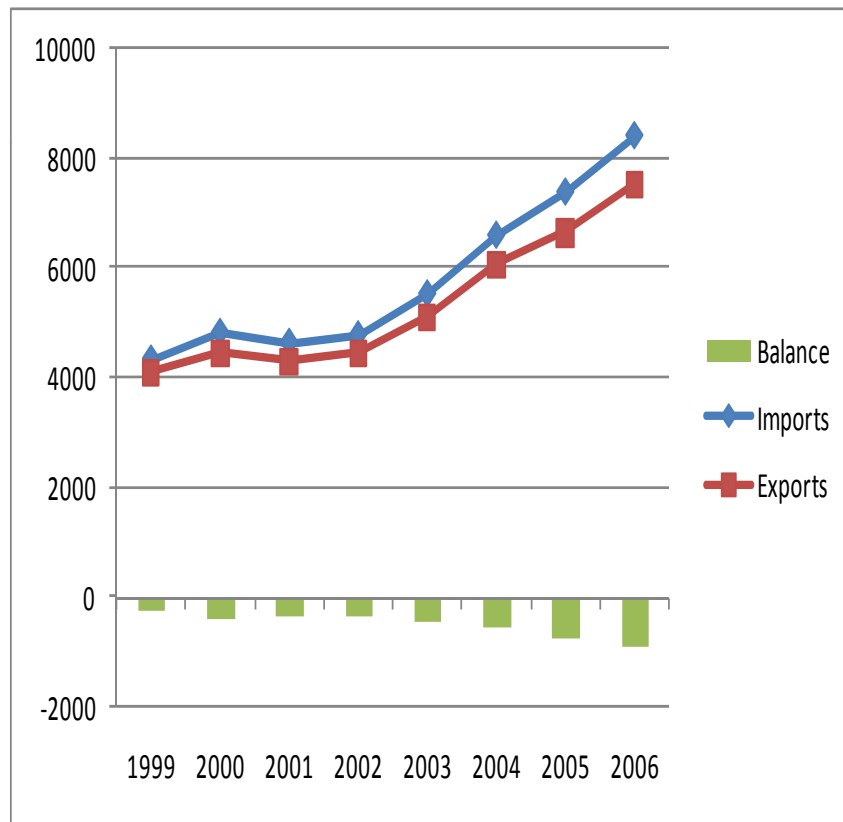


Japanese trade with china and Hong Kong (China) – billion US\$

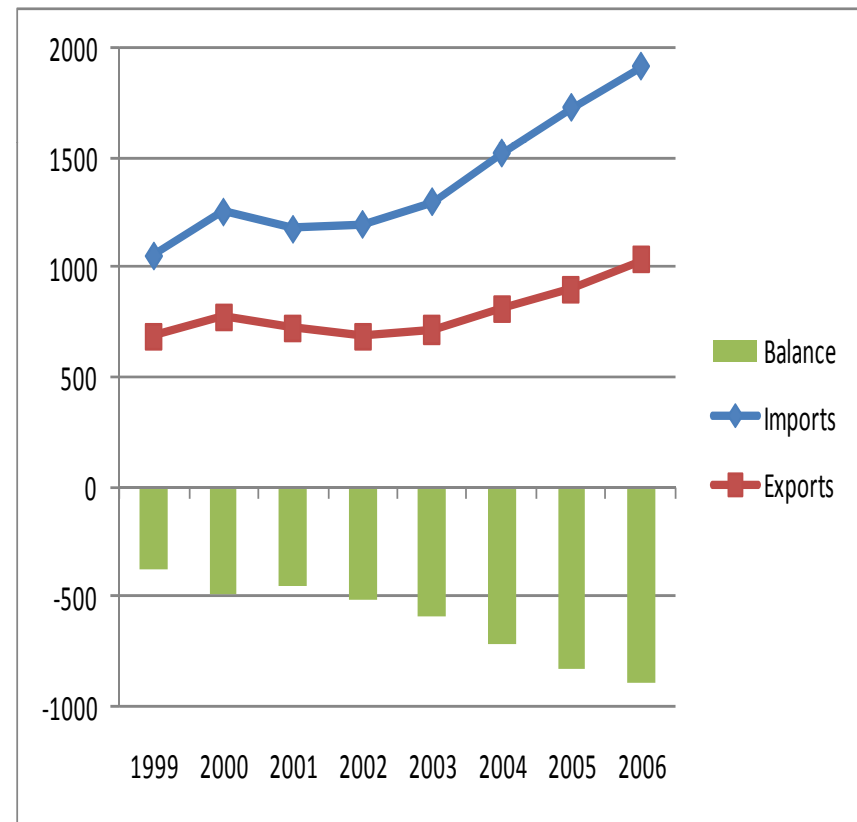


8. OECD Merchandise Trade with the Rest of the World

OECD trade with Row. –
Billion US \$

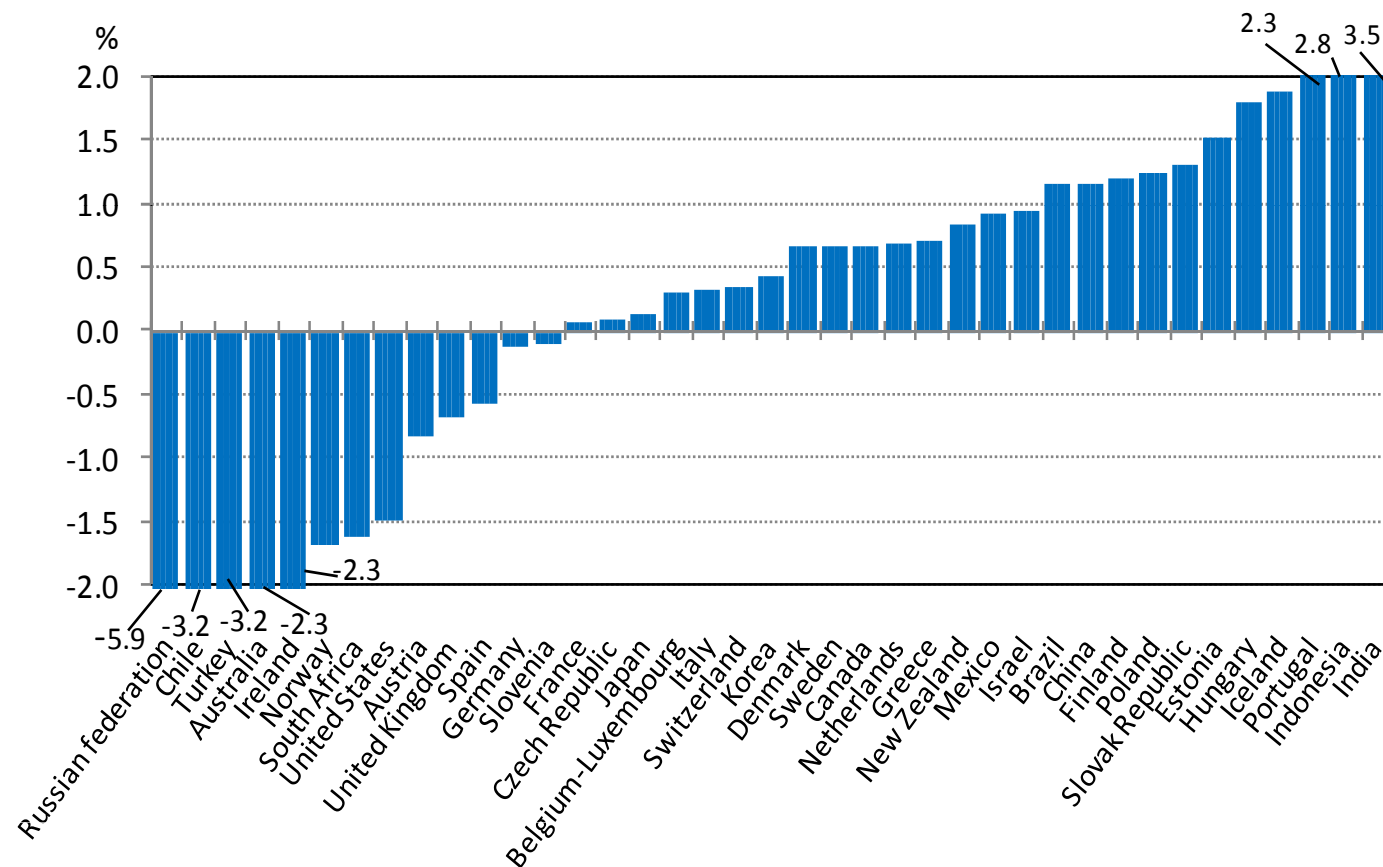


US trade with Row. –
Billion US \$



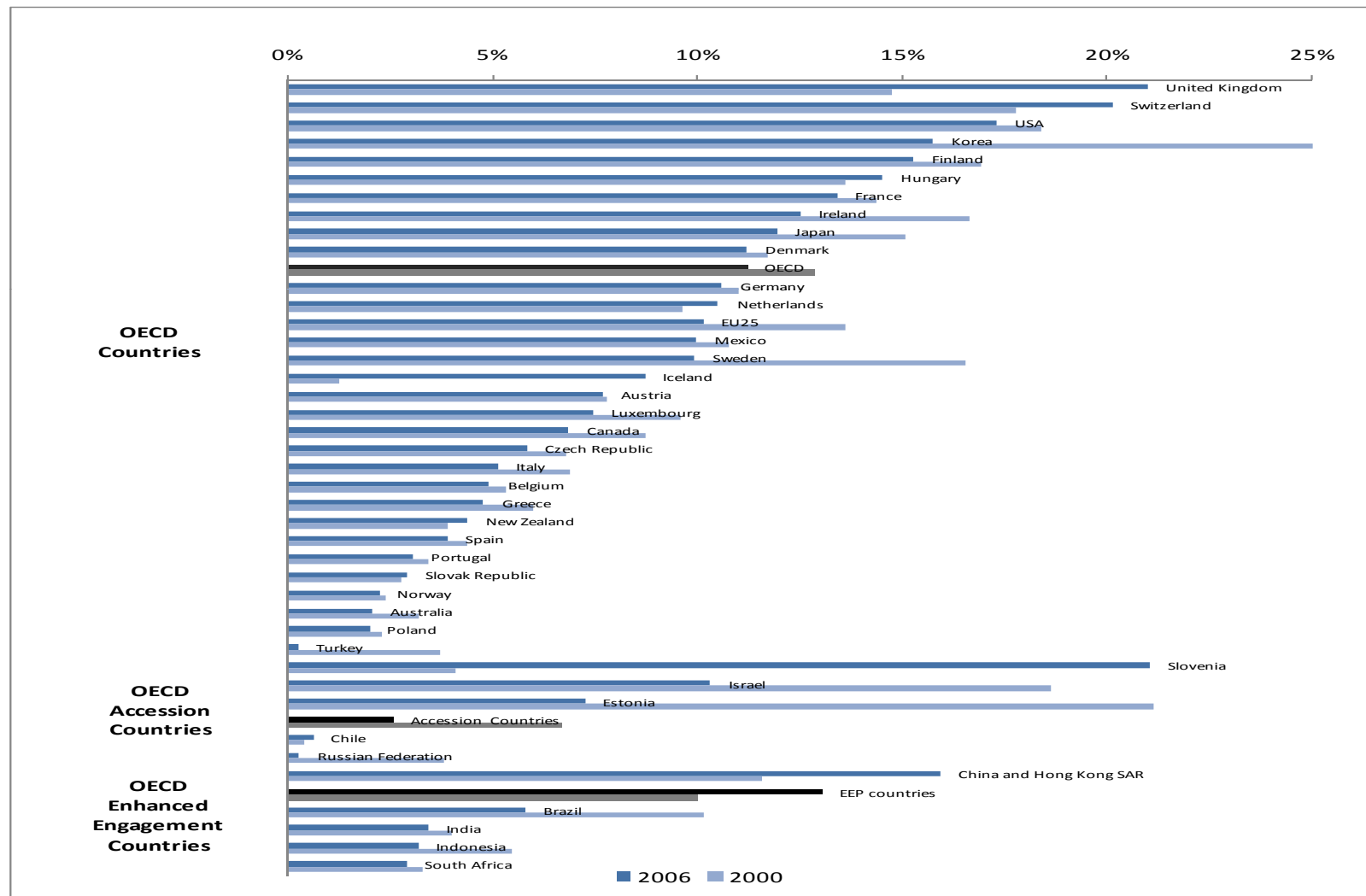
9.2 Index of Intra-Industry Trade in Manufactures

Average annual change 2001-2006



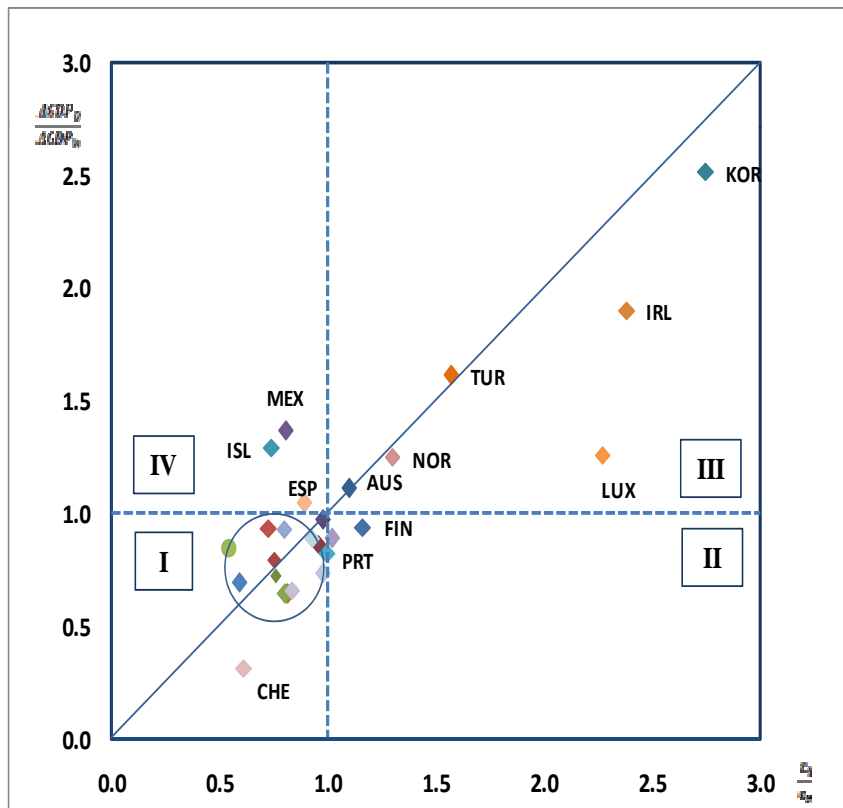
10 Role of High-Tech Merchandise Trade

% Shares in Total Trade 2000 and 2006

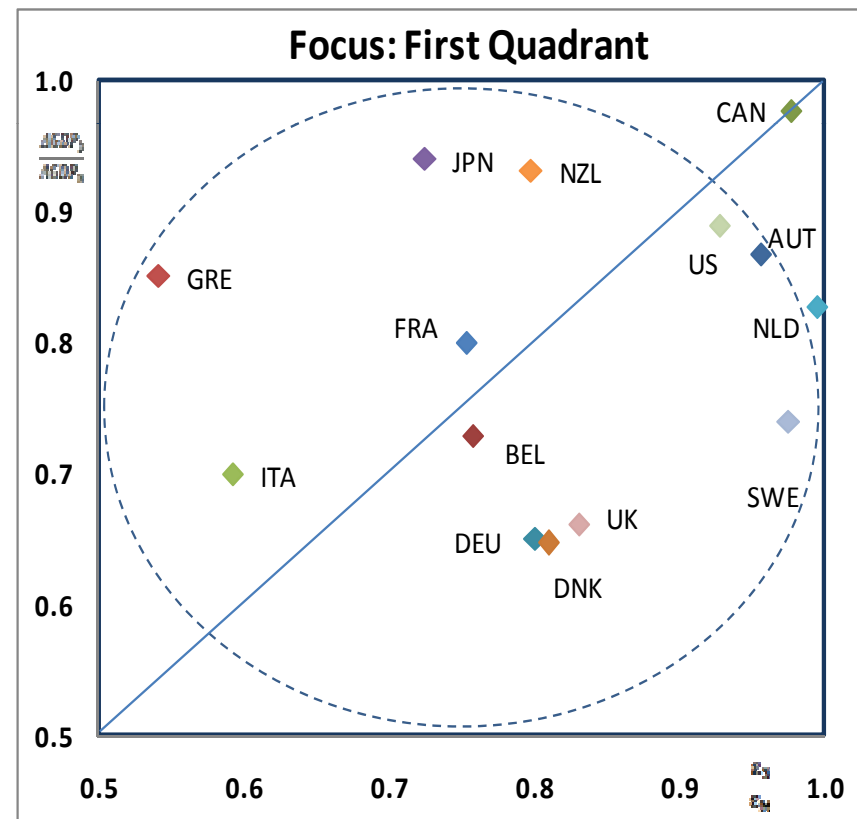


11. Sensitivity of Trade Flows to Price and Income Changes

The global picture



Focus on the 1st Quadrant

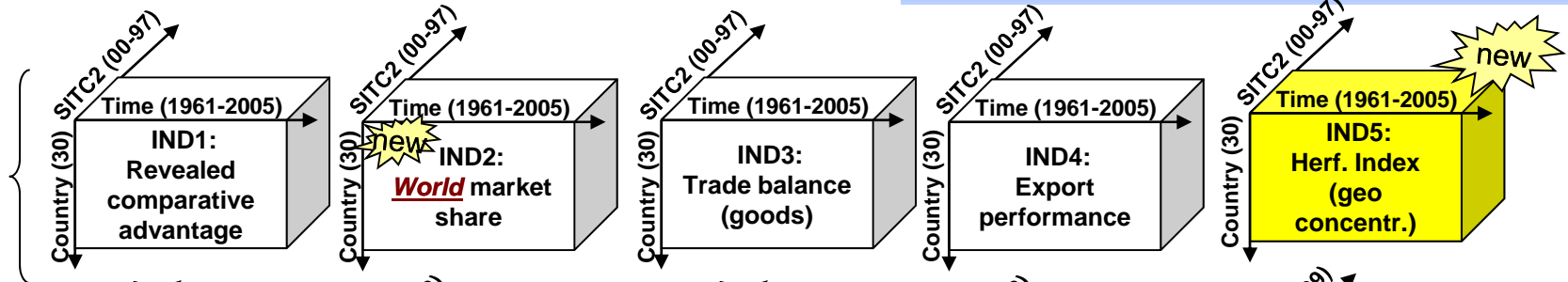


b) The Trade Indicators Project (TIP) are the main source for the above slides

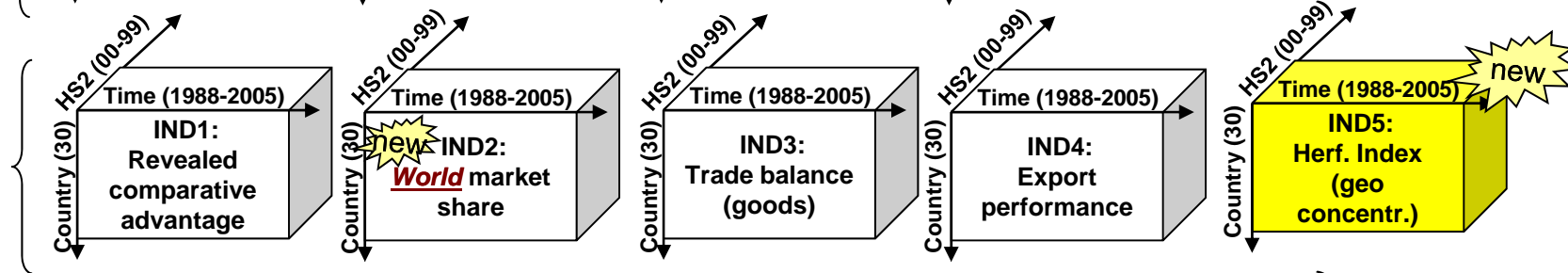
- OECD's multidimensional Trade Indicators database has gained more and more popularity amongst users searching for more analytical statistics, in particular within the context of ***globalisation analysis***
- **Methodological consistency for calculating indicators**, as well as the innovative **interactive Web-based query tool**, can be considered as strong points of TIP
- The TIP database consists of several sub-datasets which have been merged under the header of Trade Indicators. While the “***Macro Trade Indicators***” cover a broader and more general view showing economic basis indicators typically without a sectoral breakdown, the “***Micro Trade Indicators***” allow an analysis at detailed commodity and activity level in different classifications. The latest addition to the Micro Trade Indicators consists of a breakdown **by ICT Groups**



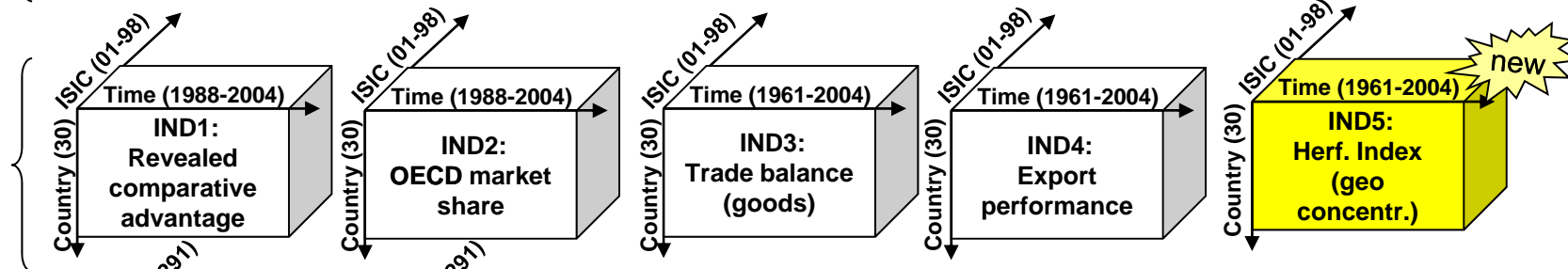
Micro Trade Indicators by **SITC**



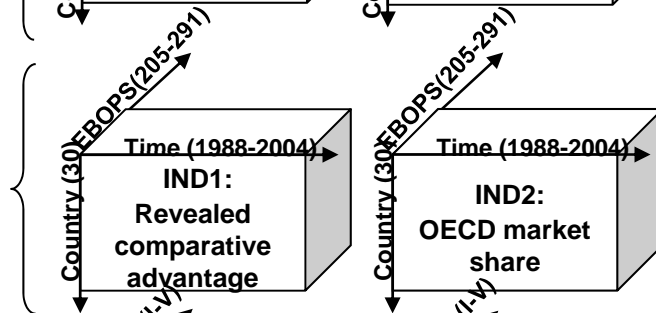
Micro Trade Indicators by **HS**



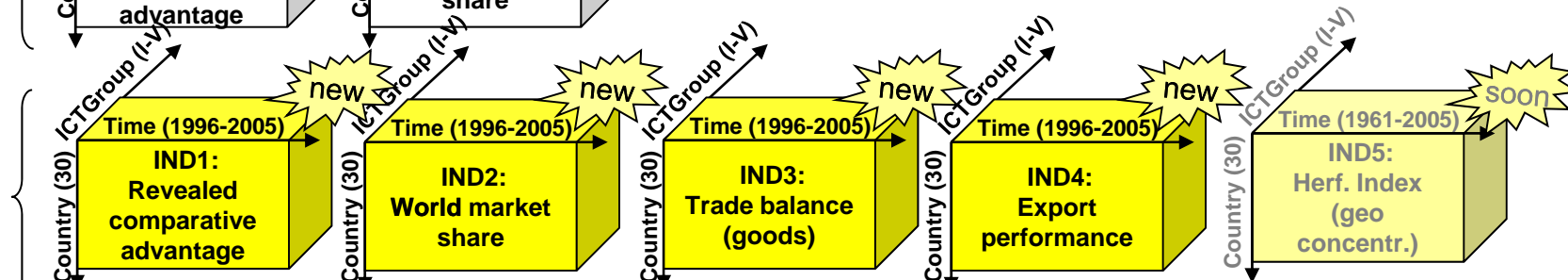
Micro Trade Indicators by **ISIC**



Micro Trade Indicators by **EBOPS**



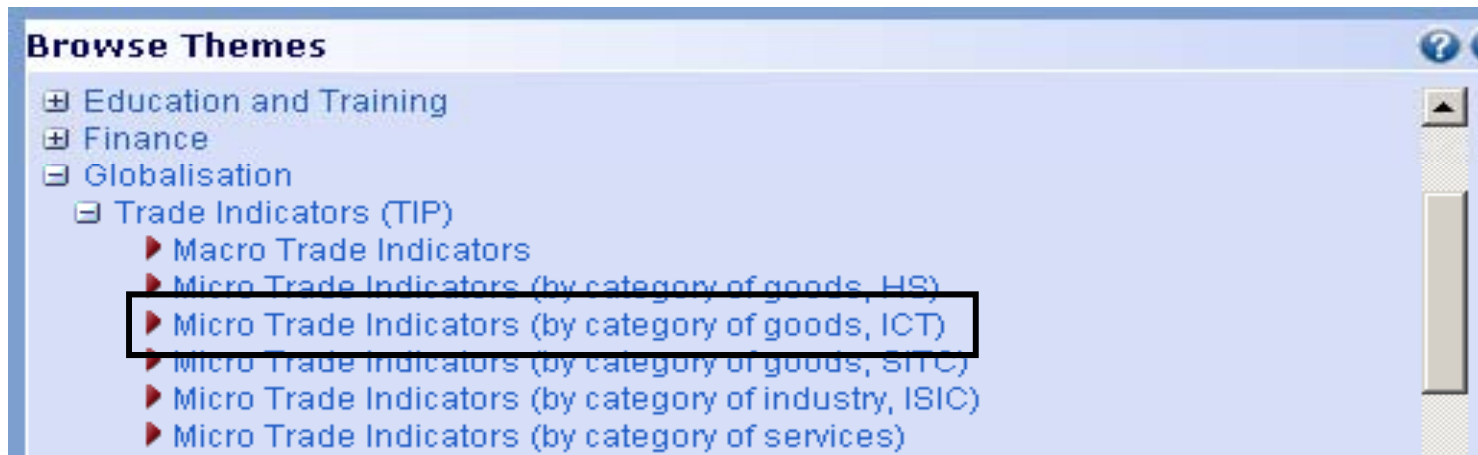
new Micro Trade Indicators by **ICT Group**



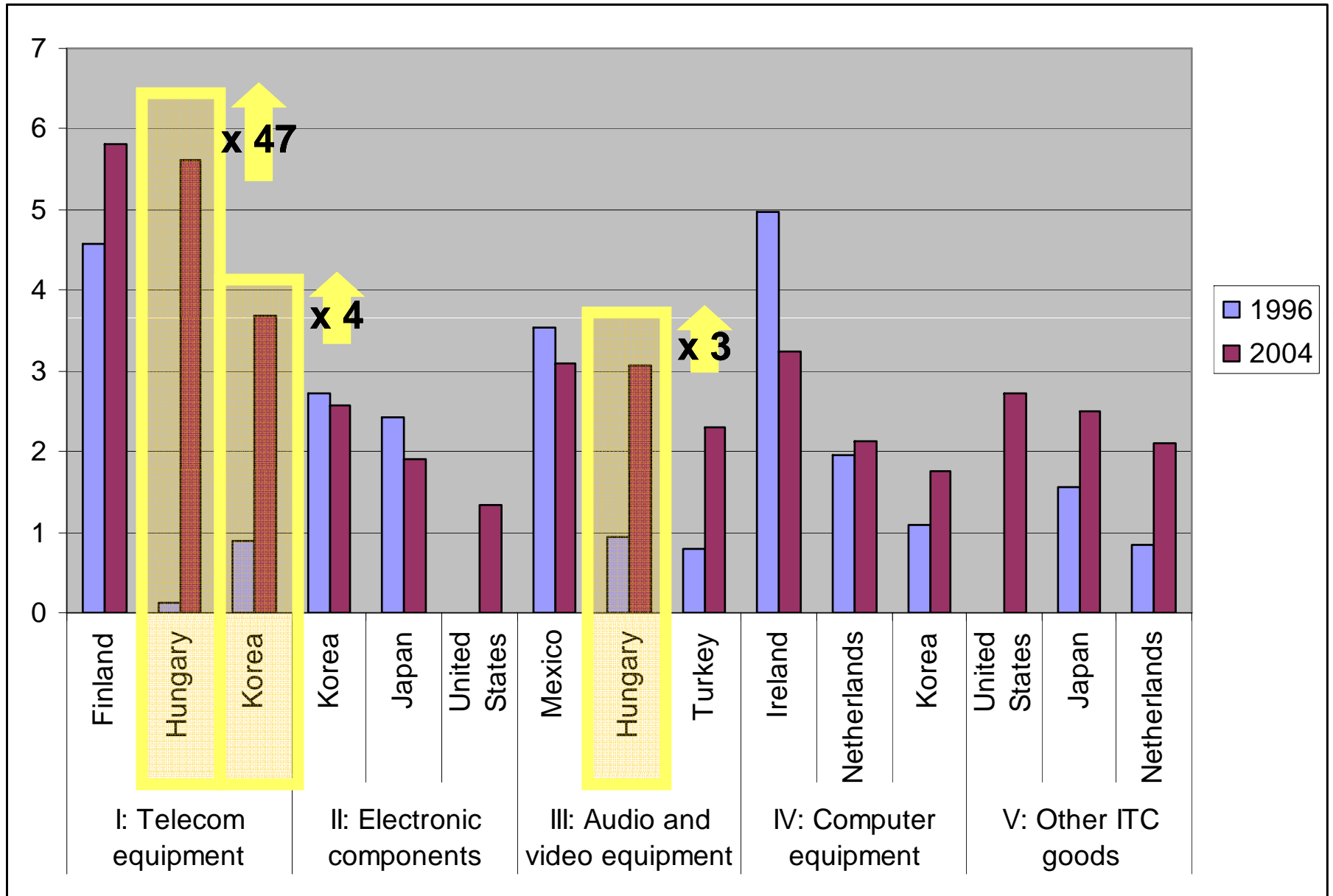
A particularly useful extension started in 2007-2008:

Micro Trade Indicators by ICT Groups

- Information and communication technologies (ICT) have been at the heart of economic changes for more than a decade. ICT-producing sectors play an important role, notably by contributing to rapid technological progress and productivity growth. ICT sector contributions are significant and generally growing throughout OECD and also outside. In recognition of the also growing trade of ICT goods amongst countries, the Secretariat has taken the necessary steps to consistently add them to the battery of trade indicators.
- The recent analytical extension by ICT groups of the ICTS database allowed setting-up the new *TIP dataset 'Micro Trade Indicators by ICT Group'*.



Degree of export specialisation (RCA) by ICT Groups

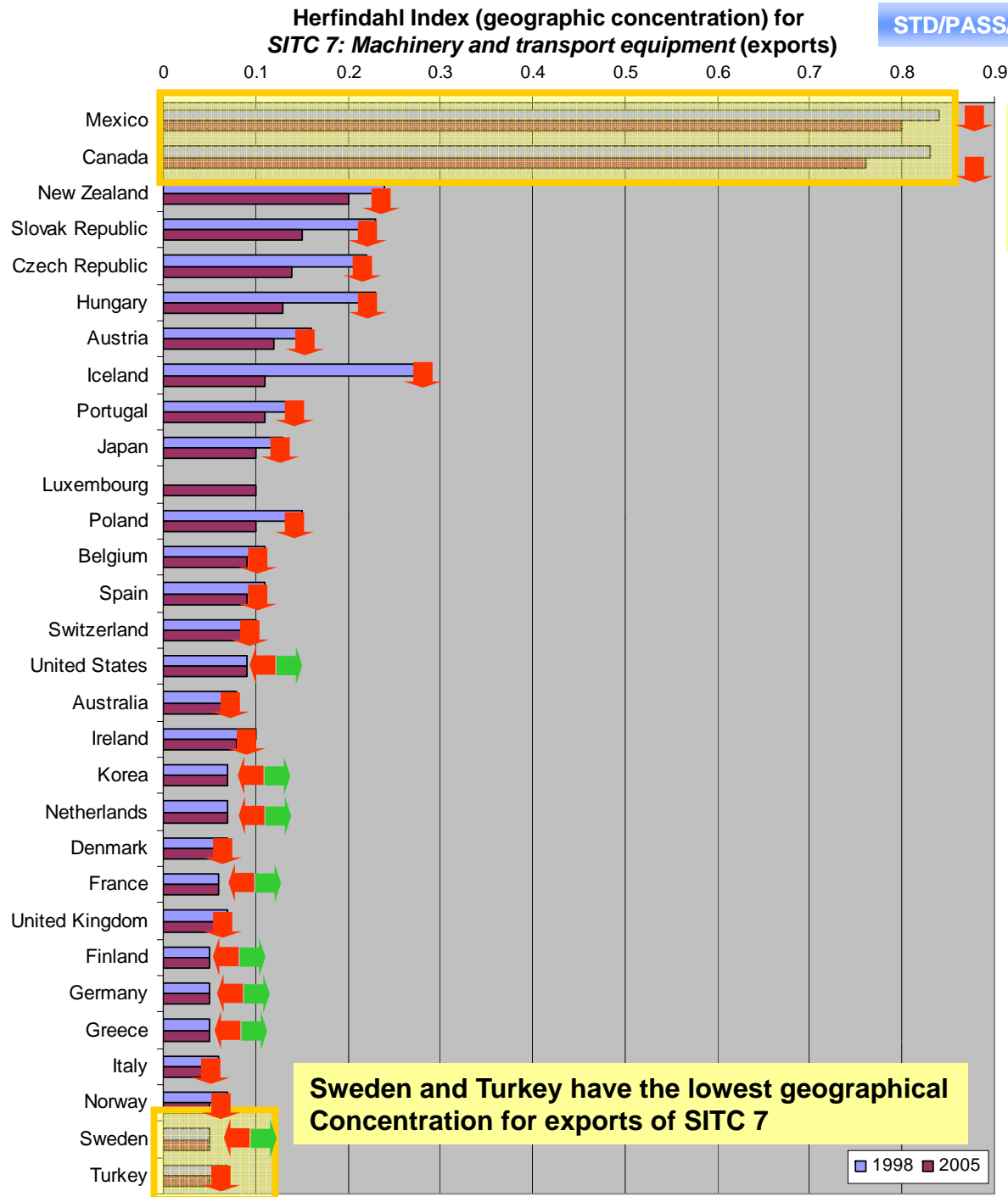


Dataset: Micro Trade Indicators (by category of goods, ICT) ⁱ

data extracted on 2007/09/05 16:28 from OECD.Stat



Country		Australia							
Time		1996	1997	1998	1999	2000	2001	2002	2003
Indicator	ICT								
1: Revealed comparative advantage (by ICT group) ⁱ	I: Telecom equipment	0.37	0.4	0.3	0.31	0.35	0.32	0.17	0.2
	II: Electronic components	0.05	0.07	0.07	0.08	0.07	0.07	0.06	0.0
	III: Audio and video equipment	0.05	0.06	0.06	0.06	0.06	0.06	0.05	0.0
	IV: Computer equipment	0.53	0.36	0.32	0.27	0.19	0.22	0.24	0.2
	V: Other ITC goods	0.28	0.28	0.39	0.34	0.37	0.44	0.4	1.0
2: World market share (by ICT group) ⁱ	I: Telecom equipment	0.51	0.51	0.33	0.33	0.36	0.34	0.18	0.2
	II: Electronic components	0.07	0.09	0.08	0.08	0.07	0.07	0.06	0.0
	III: Audio and video equipment	0.07	0.07	0.07	0.06	0.06	0.07	0.06	0.0
	IV: Computer equipment	0.73	0.46	0.36	0.28	0.2	0.24	0.25	0.2
	V: Other ITC goods	0.39	0.36	0.44	0.37	0.39	0.47	0.42	0.8
3: Trade balance of goods (in USD, by ICT group) ⁱ	I: Telecom equipment	-1 188 818 236	-1 018 369 787	-1 092 739 975	-2 083 149 793	-2 571 339 859	-1 764 033 012	-1 724 511 173	-2 004 138 26
	II: Electronic components	-1 093 770 089	-913 493 989	-791 344 907	-844 475 488	-896 576 899	-611 960 595	-611 465 690	-767 707 42
	III: Audio and video equipment	-1 127 870 047	-1 094 623 088	-1 049 485 646	-1 201 167 187	-1 440 369 696	-1 273 181 880	-1 630 418 844	-2 162 264 21
	IV: Computer equipment	-2 911 029 585	-3 257 607 582	-3 153 462 090	-3 389 534 678	-3 741 156 855	-2 879 659 223	-3 069 081 323	-3 594 266 52
	V: Other ITC goods	-764 474 666	-806 268 579	-776 138 775	-808 067 301	-688 155 059	-677 560 794	-702 748 653	-830 562 86
4: Export performance	I: Telecom equipment	..	0.95	0.63	0.97	1.08	0.95	0.54	1.2



Mexico's and Canada's exports are most-concentrated in terms of partner countries for this SITC chapter

Sweden and Turkey have the lowest geographical Concentration for exports of SITC 7

Radar chart: access via www.oecd.org/std/its/tradeindicators

Power

ber

▼

▼

Macro Trade Indicators

Trade indicators on aggregated level (total trade, trade of goods, trade of services), in current and constant prices, for the 30 OECD member countries.

Country profiles - (xls):

Australia	Austria	Belgium
Canada	Czech Republic	Denmark
Finland	France	Germany
Greece	Hungary	Iceland
Ireland	Italy	Japan
Korea	Luxembourg	Mexico
Netherlands	New Zealand	Norway
Poland	Portugal	Slovak Republic
Spain	Sweden	Switzerland
Turkey	United Kingdom	United States

Pivot Chart (zip)

Radar Chart (xls)

c) Linking trade with structural business statistics

A promising new field of statistical research and “re-design”

Background

- One of the main future development areas for external trade statistics is to link them more closely to other statistics, in particular structural business statistics
- The linkage of trade statistics with business statistics allows to measure, on the one hand, the contribution of real economic sectors to trading, and on the other hand, to complement business data with detailed information on trade.
- Trade by size of enterprise broken down by sector of activity, by export markets, and by location (e.g. region) not only allows analyzing trade effects on employment and value added, but also to “map” performances.
- Such an analysis requires data *from two different statistical sources*: business/industrial statistics and foreign trade statistics.

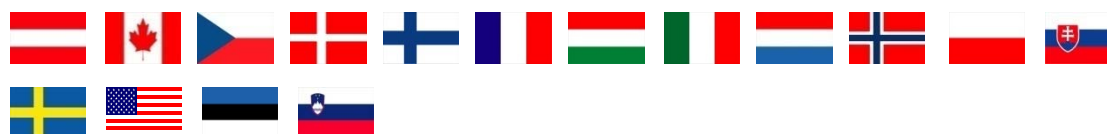
OECD database structure TEC

Data available for:

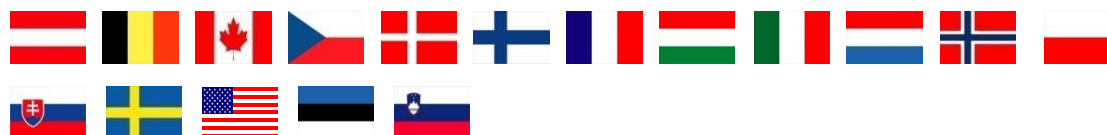
1: TEC by size classes



2: TEC by top enterprises



3: TEC by partner zones
and countries



4: TEC by number of
partner countries



5: TEC by commodities
(CPC)



Data access

- A theme called “Trade by Enterprise Characteristics” has been added to the OECD data warehouse, OECD.STAT, within the Globalisation cube:

Browse Themes	?	—
+ General Statistics		
+ Agriculture and Fisheries		
+ Demography and Population		
+ Development		
+ Economic Projections		
+ Education and Training		
+ Energy		
+ Finance		
- Globalisation		
+ Activity of Multinationals		
+ Foreign Direct Investment Statistics		
+ Trade Indicators (TIP)		
- Trade by Enterprise Characteristics		
+ I: TEC by Size classes		i
+ II: TEC by Top enterprises		i
+ III: TEC by Partner zones and countries		i
+ IV: TEC by number of partner countries		i
+ V: TEC by commodity groups (CPC)		i
+ Health		

• The theme consists of the five data subsets, called I to V (‘TEC by size classes’ up to ‘TEC by commodity groups (CPC)’).

• While datasets I, III and IV come with two indicators each, one of them referring to ‘number of enterprises’ and the other one to ‘Trade value’, datasets II and V deliver value figures (\$US).

Data access

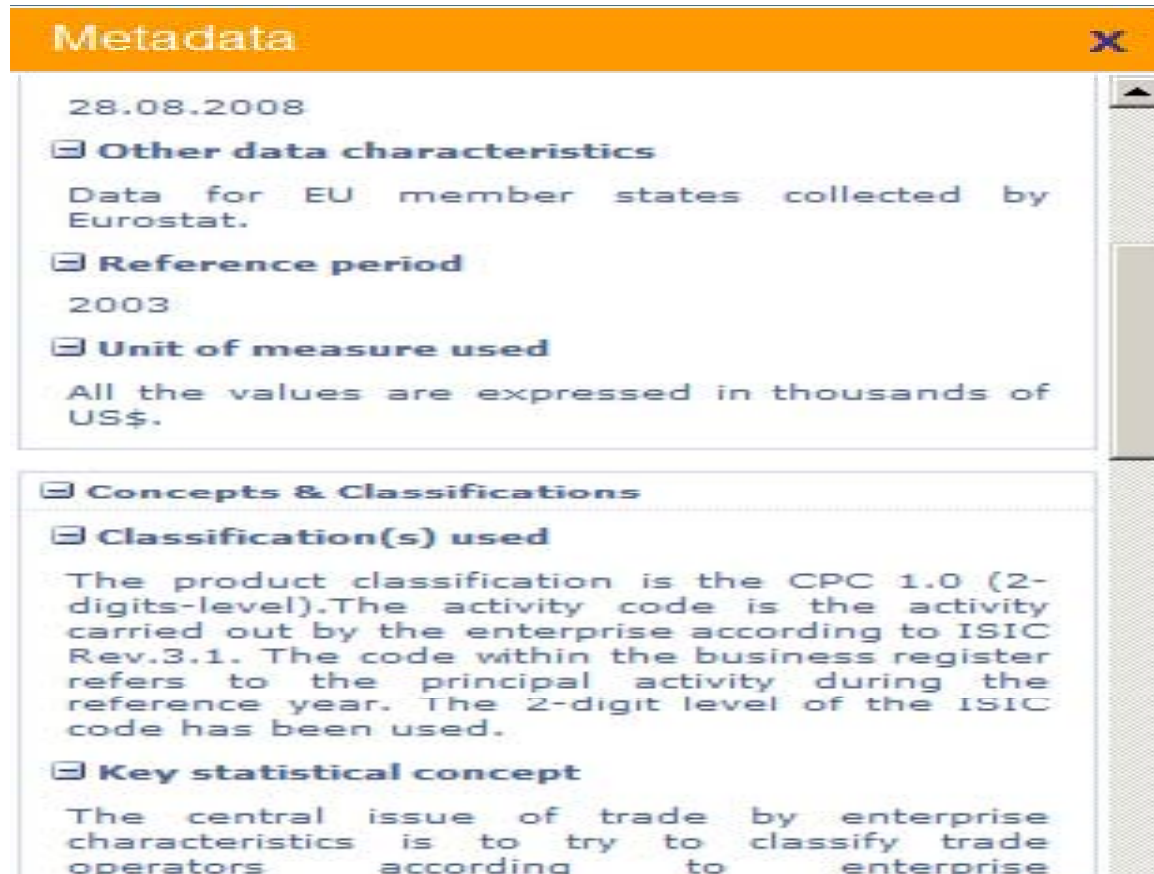
Concentration of trade (showcase example from dataset II)

Indicator 1: Concentration of Trade (\$US)				
Flow Exports				
Reporter Country Austria				
Year 2003				
Sector ISIC		TOTAL: Total	OTH: Other	G: Wholesale and retail trade, motorcycles and passenger cars
Top enterprises				
TOTAL: Total		37 068.32	7 106.87	
TOTAL: Total	1: Top5	4 636.12	3 254.38	
	2: Top10	6 783.39	4 084.48	
	3: Top20	9 680.38	5 081.91	
	4: Top50	13 814.62	6 014.57	
	5: Top100	17 783.04	6 469.36	
	6: Top500	27 844.58	6 970.83	
	7: Top1000	31 622.03	7 053.65	

This new OECD.STAT theme within the Globalisation cube of course offers the usual functionalities that OECD.STAT provides for all datasets (drag & drop-functionality, individual queries, individual user-defined views, standard charts, download formats etc.).

Metadata access: Top-level metadata

- The methodologies used can be accessed via the metadata functionalities of OECD.STAT (red “i”), both metadata for the top-level (general methodology for the whole theme) and detailed level as well (e.g. detailed information about matching ratios by country).



The screenshot shows a window titled "Metadata" with a close button (X) in the top right corner. The window contains the following information:

28.08.2008

☒ **Other data characteristics**

Data for EU member states collected by Eurostat.

☒ **Reference period**

2003

☒ **Unit of measure used**

All the values are expressed in thousands of US\$.

☒ **Concepts & Classifications**

☒ **Classification(s) used**

The product classification is the CPC 1.0 (2-digits-level). The activity code is the activity carried out by the enterprise according to ISIC Rev.3.1. The code within the business register refers to the principal activity during the reference year. The 2-digit level of the ISIC code has been used.

☒ **Key statistical concept**

The central issue of trade by enterprise characteristics is to try to classify trade operators according to enterprise

Metadata access: Detailed-level metadata (here: Country metadata for Denmark)

her selections: Indicator [1/1] Flow [2/2] Top enterprises [8/8] Sector ISIC [4/4] Year [1]

Expand Branch Collapse Branch Select Branch

Reporter Country

- ☒ i Austria
- ☒ i Canada
- ☒ i Czech Republic
- ☒ i **Denmark**
- ☒ i Finland
- ☒ i France
- ☒ i Hungary
- ☒ i Italy
- ☒ i Luxembourg
- ☒ i Norway
- ☒ i Poland
- ☒ i Slovak Republic
- ☒ i Sweden
- ☒ i United States
- ☐ Non-member Economies
 - ☒ i Estonia
 - ☒ i Slovenia

Metadata

.DNK....

Source

Data source(s) used

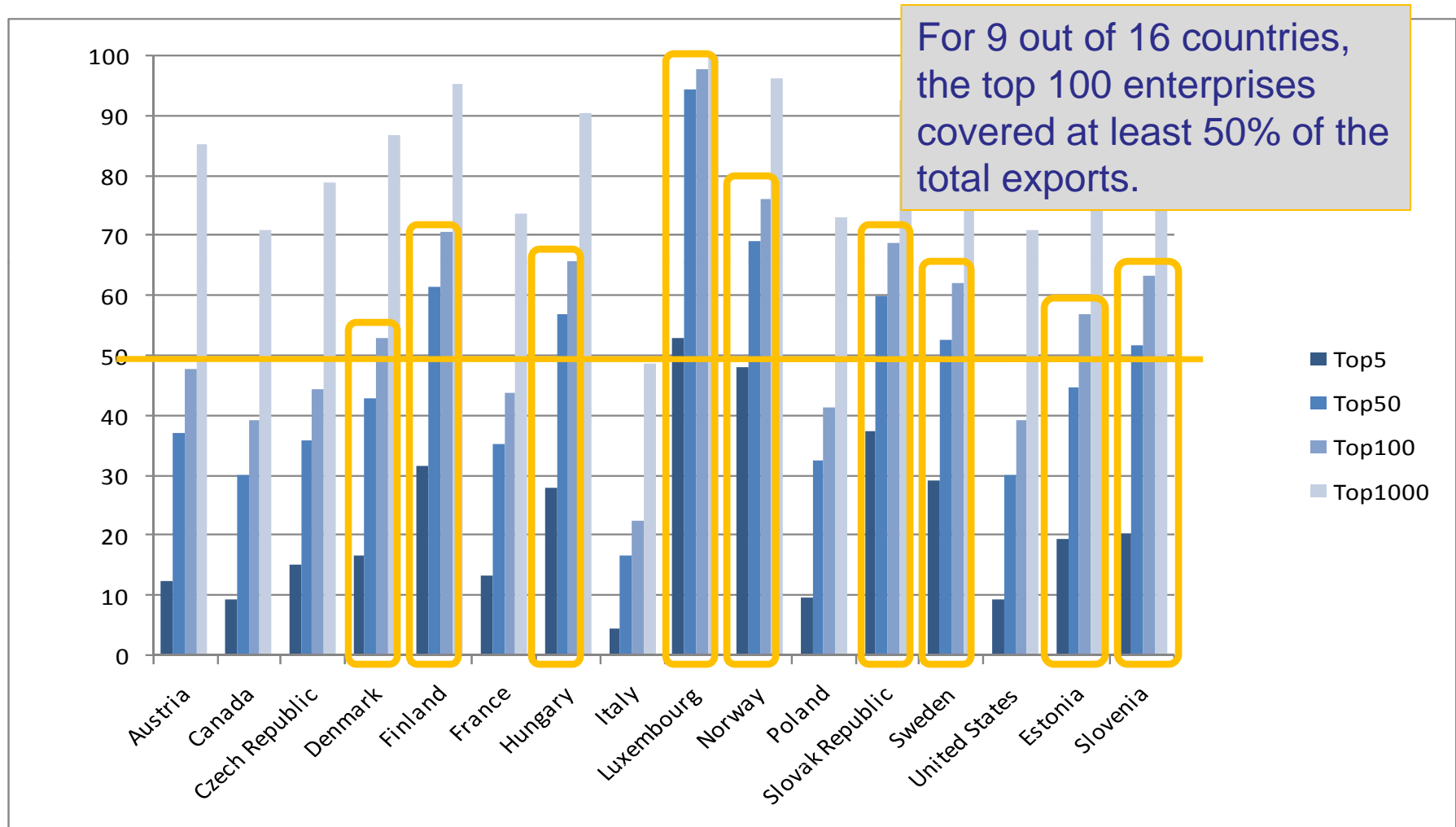
Eurostat

Population & Scope

Population coverage

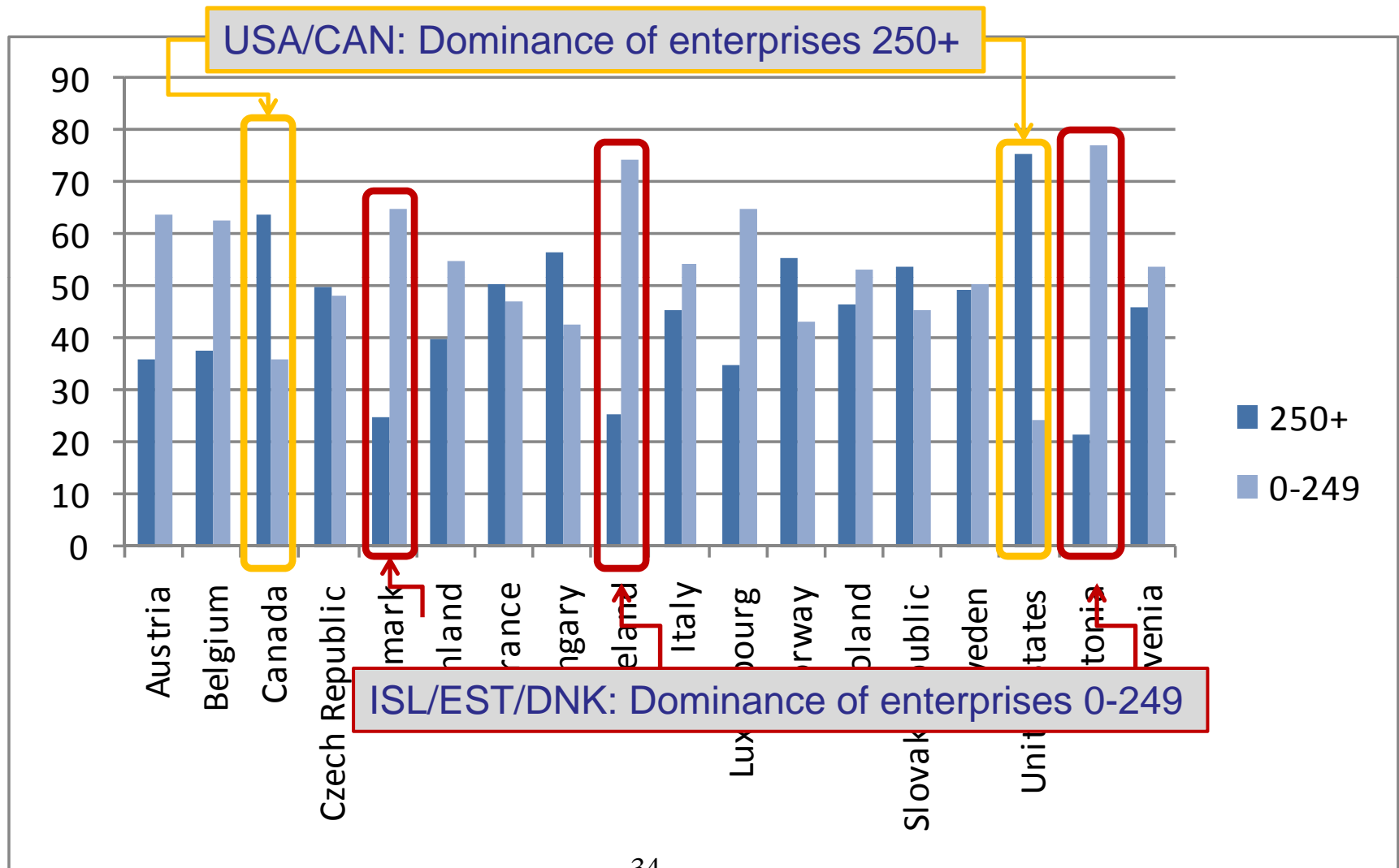
Matching rates between trade and business registers: arrivals 96.0% (value), 100.0% (number of traders); dispatches 96.7% (value), 100.0% (number of traders); imports: 97.7% (value), 100.0% (number of traders); exports: 95.4% (value), 100.0% (number of traders).

Concentration of Trade: Share (%) of export value by top enterprises (2003)



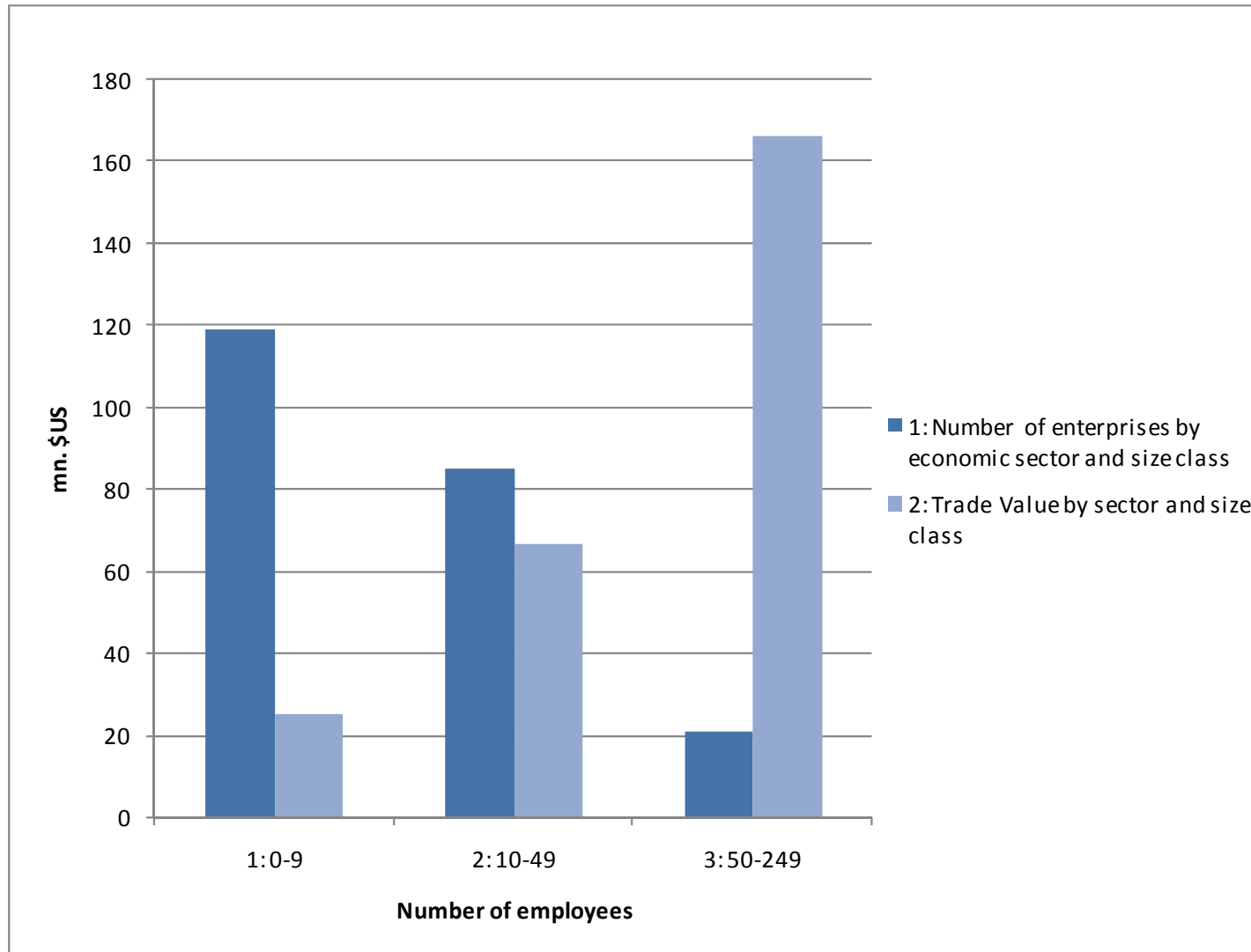
Concentration of Trade:

Share (%) of total export value by number of employees, 2003



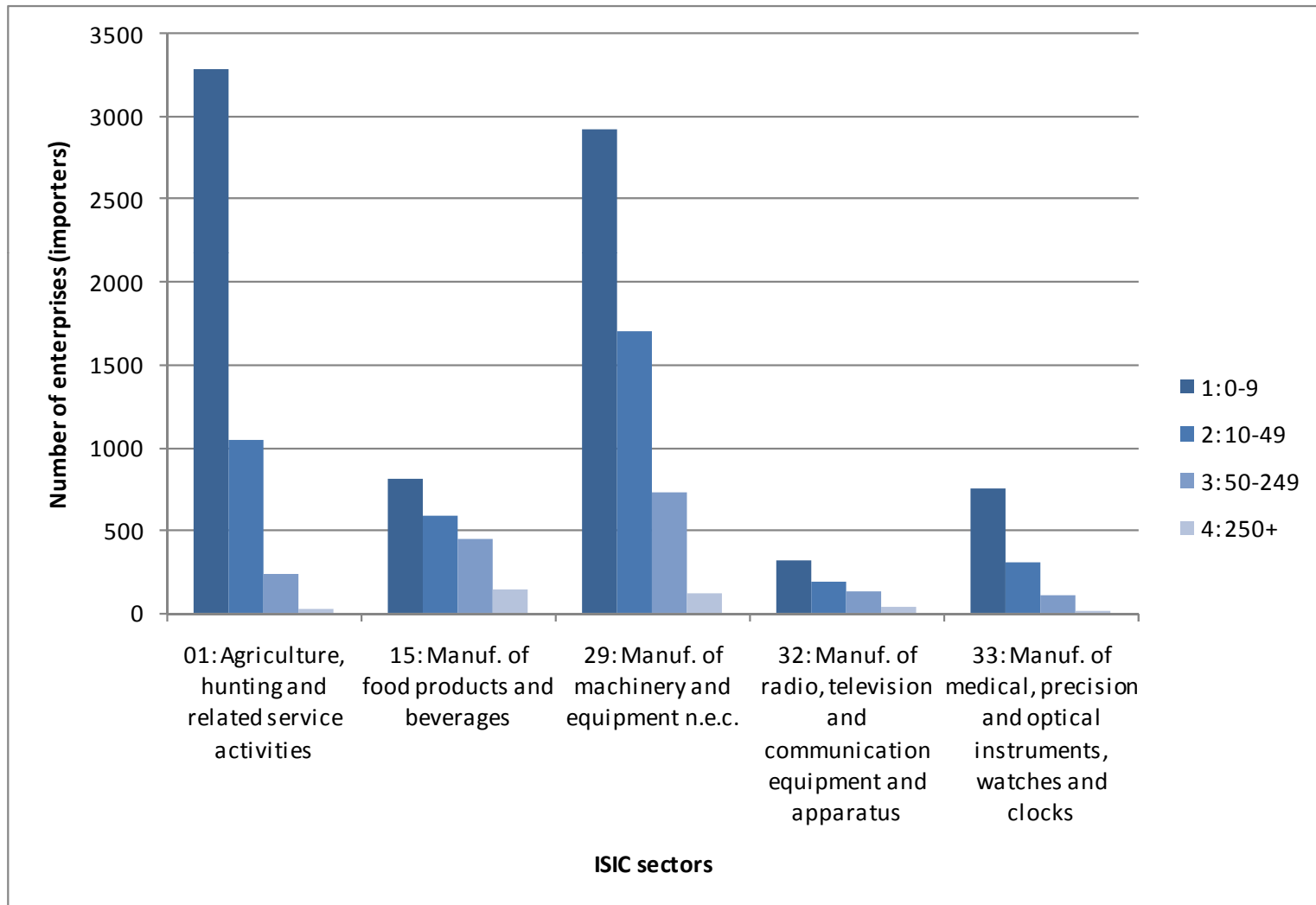
TEC by size classes: Norway

exports, ISIC 25, number of enterprises vs. export value
(Manuf. of rubber and plastics products)



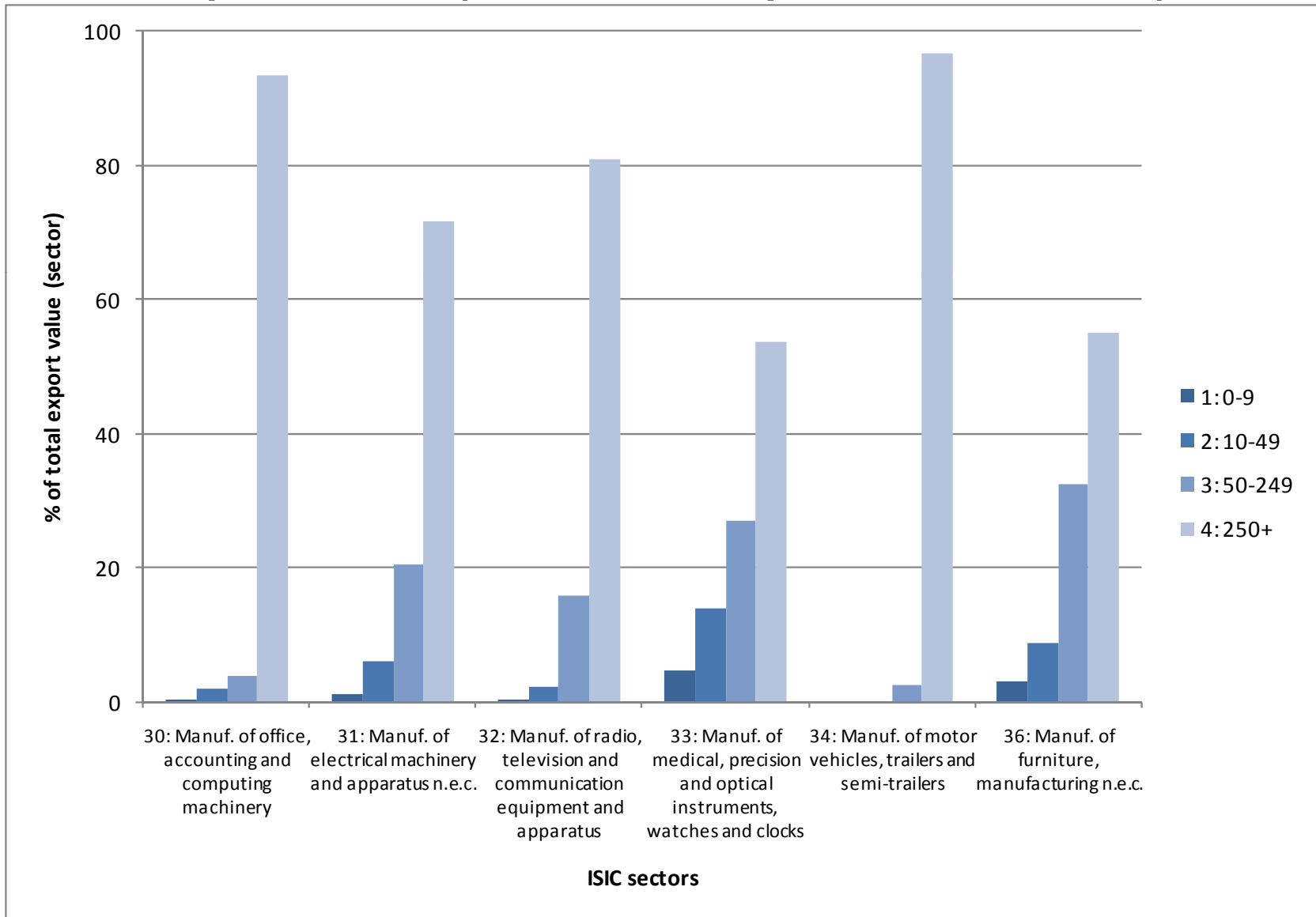
TEC by size classes: Canada

Imports, number of enterprises (importers)



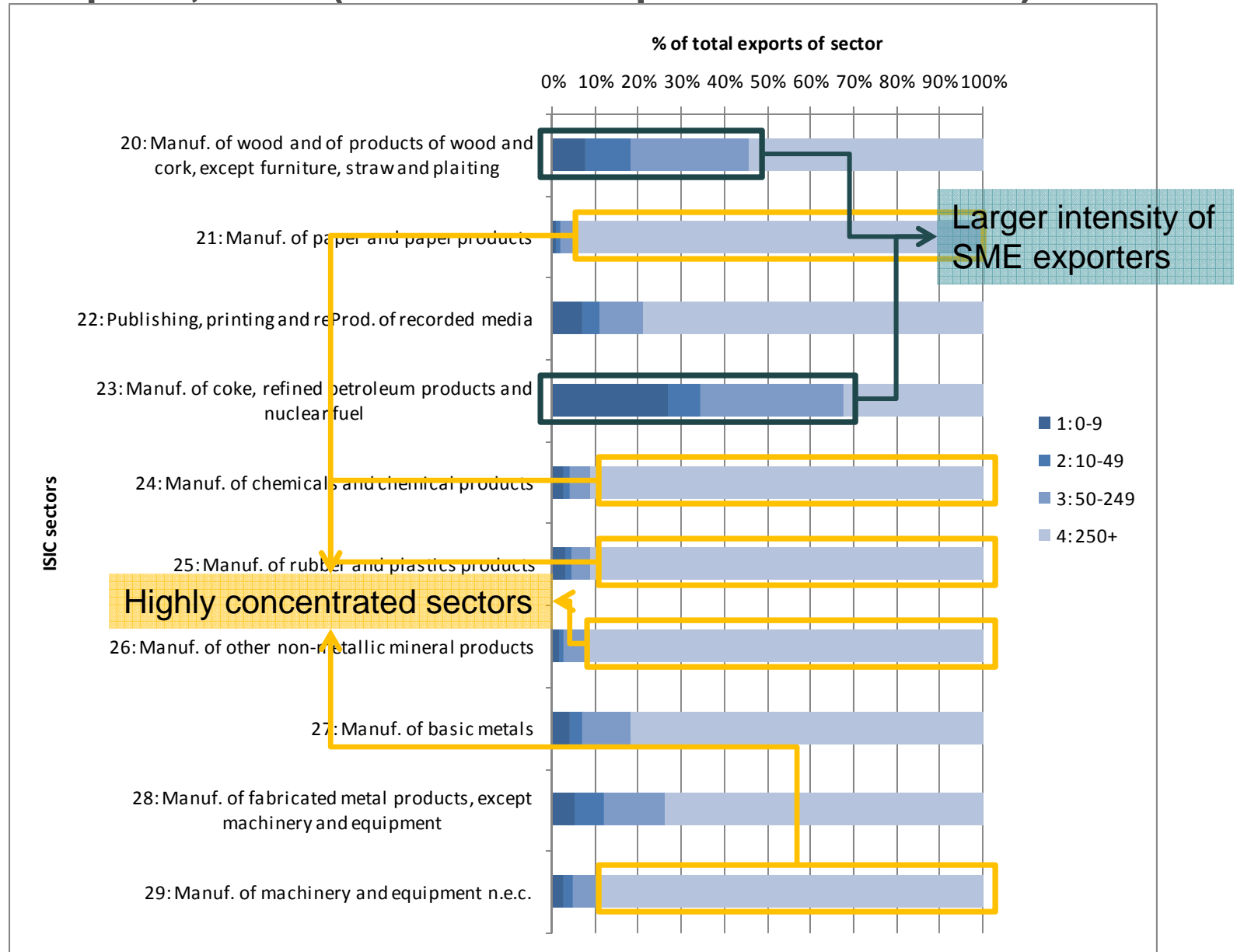
TEC by size classes: Canada

Exports, value (in % of total export value of sector)

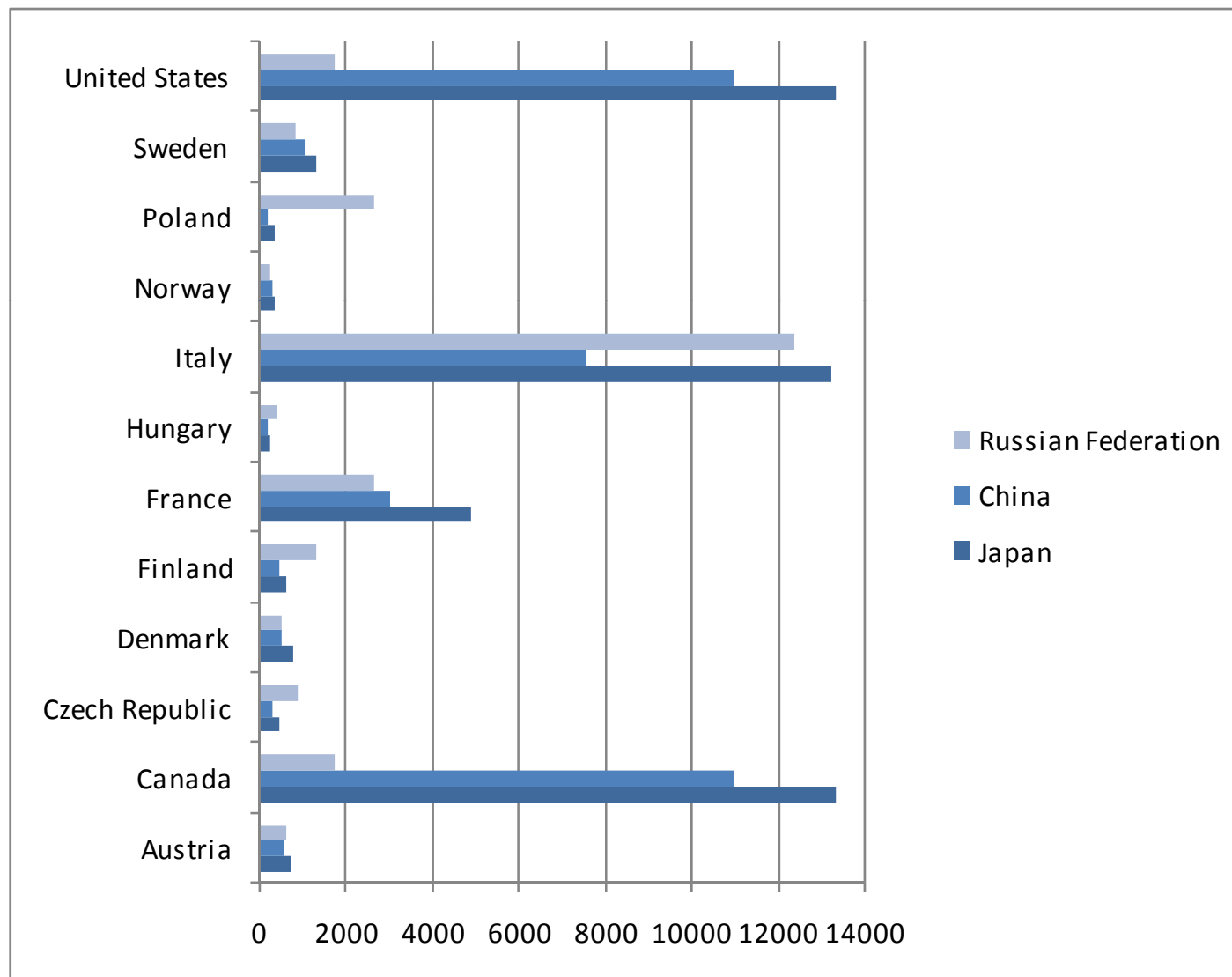


TEC by size classes: USA

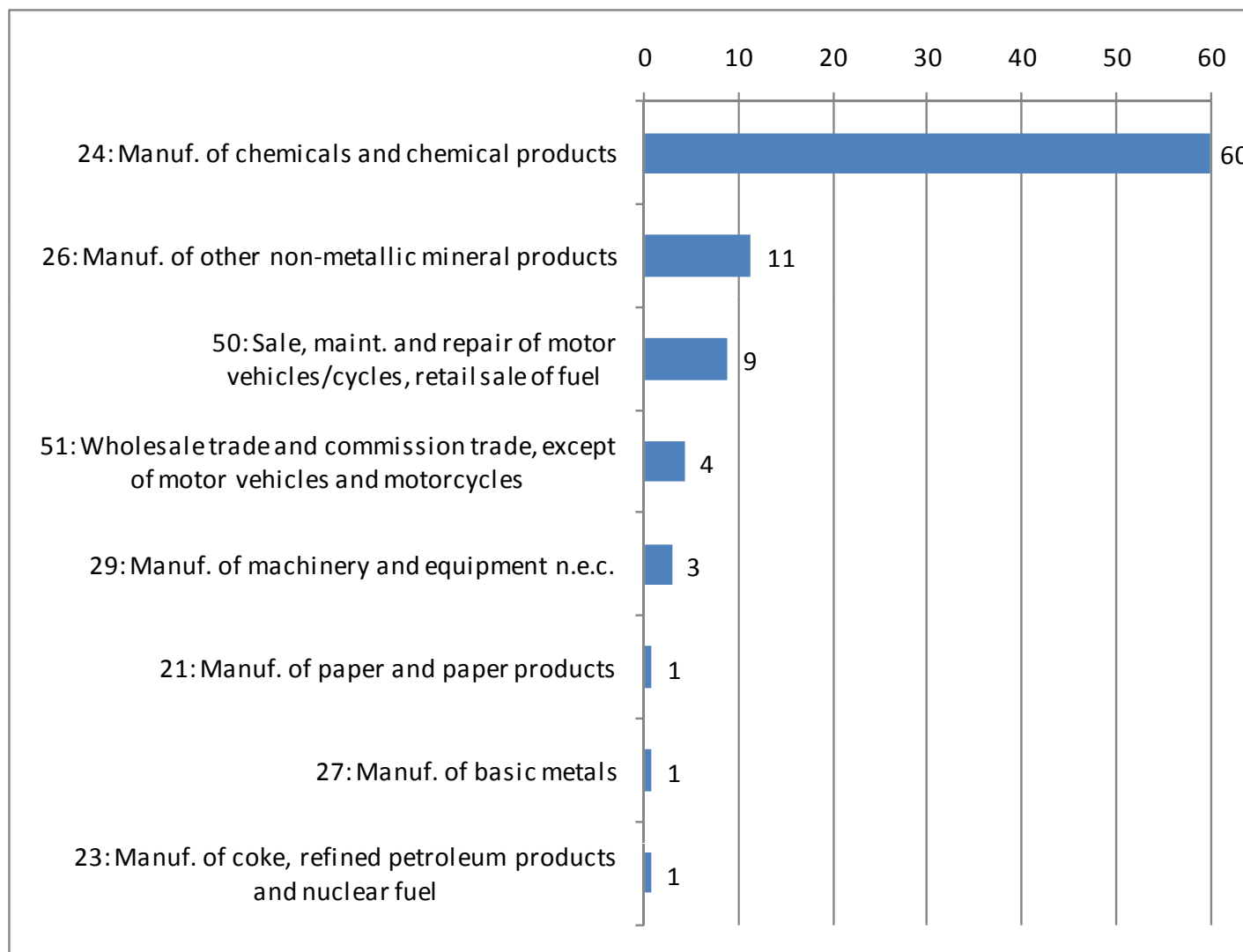
Exports, value (in % of total export value of sector)



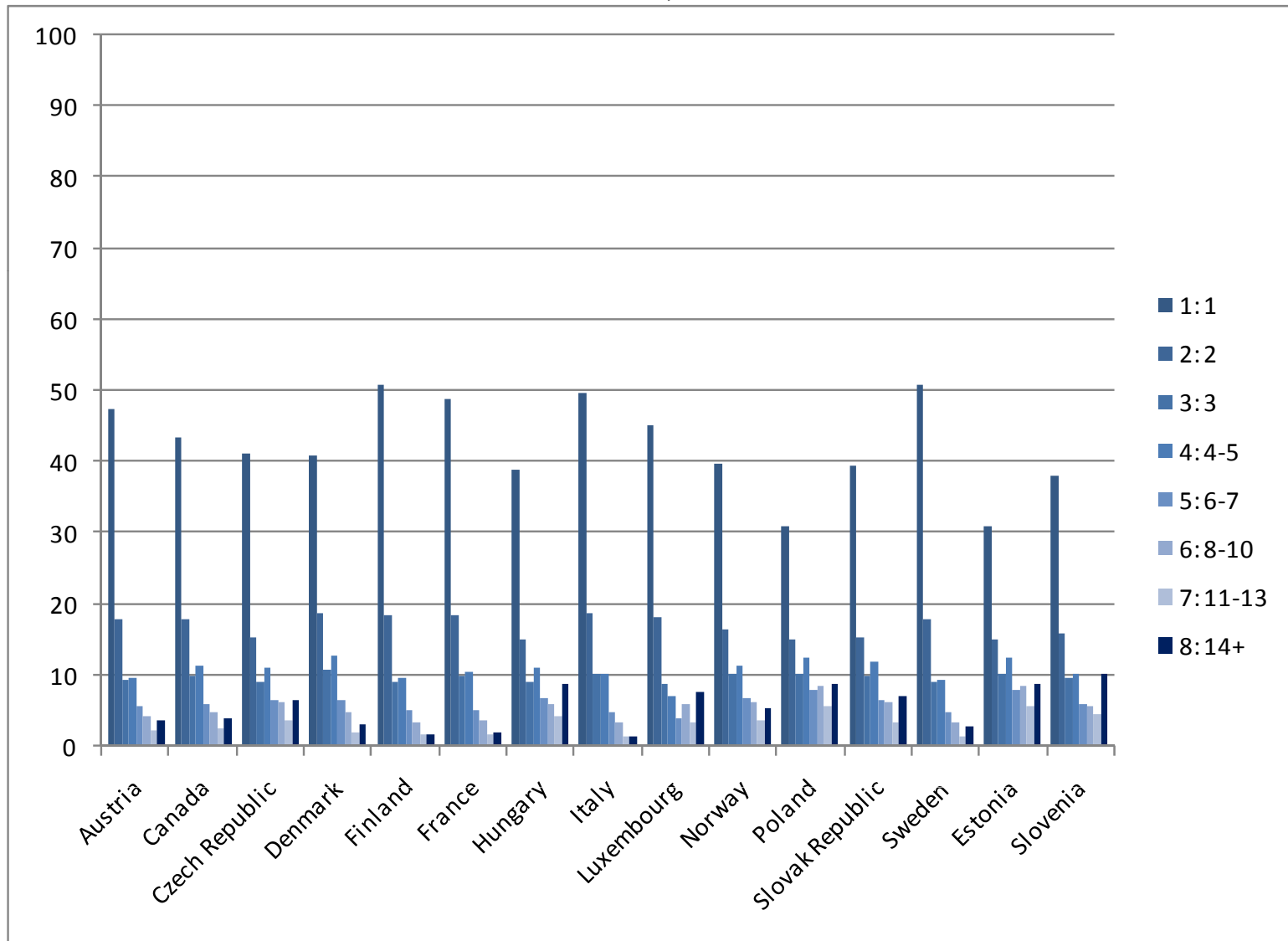
Number of enterprises that exported to Russia, China and Japan ISIC sectors C-E, 2003



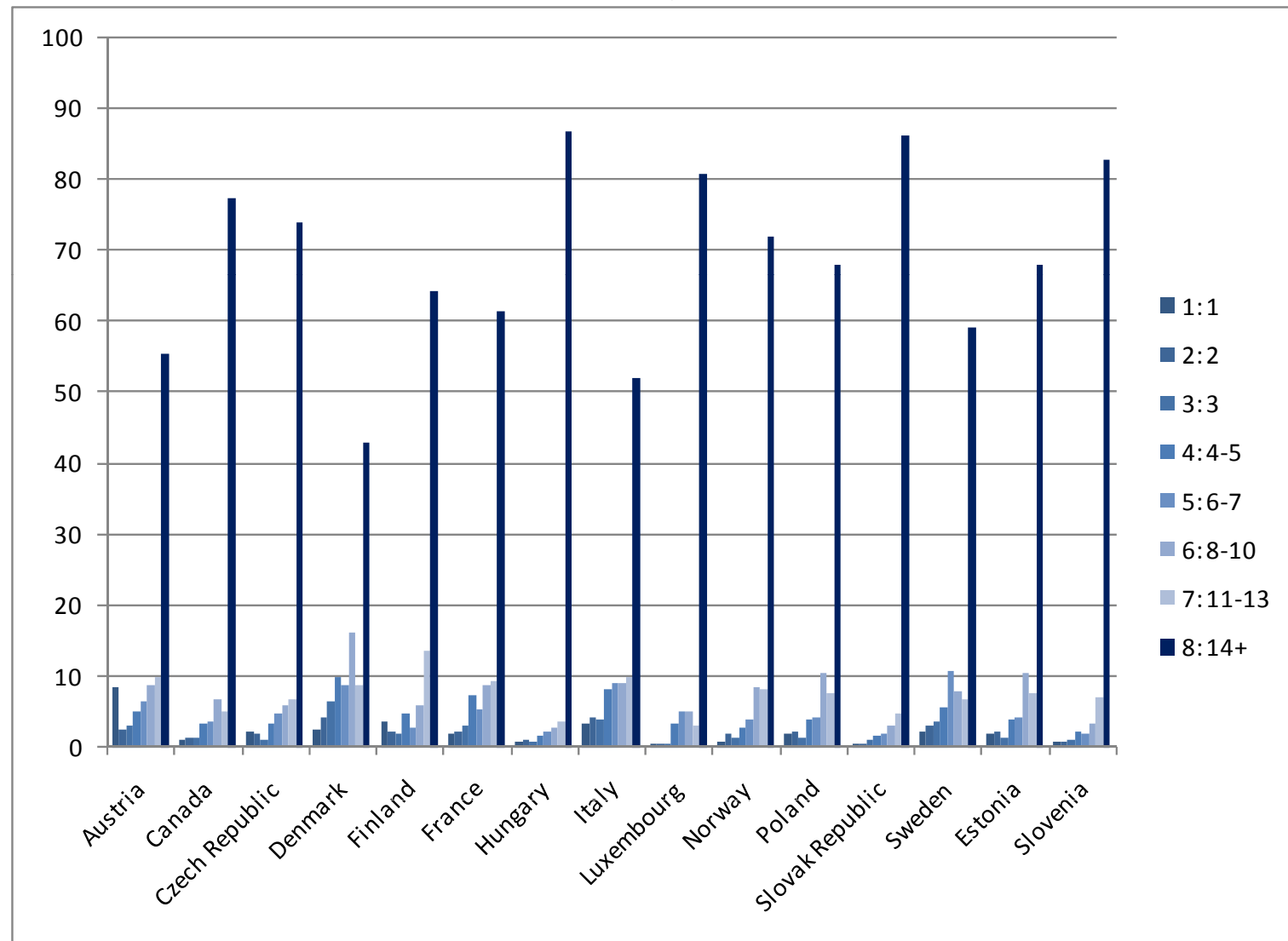
Top exporters (ISIC) of basic chemicals (CPC 34), USA, 2003, in % of total exports of CPC 34



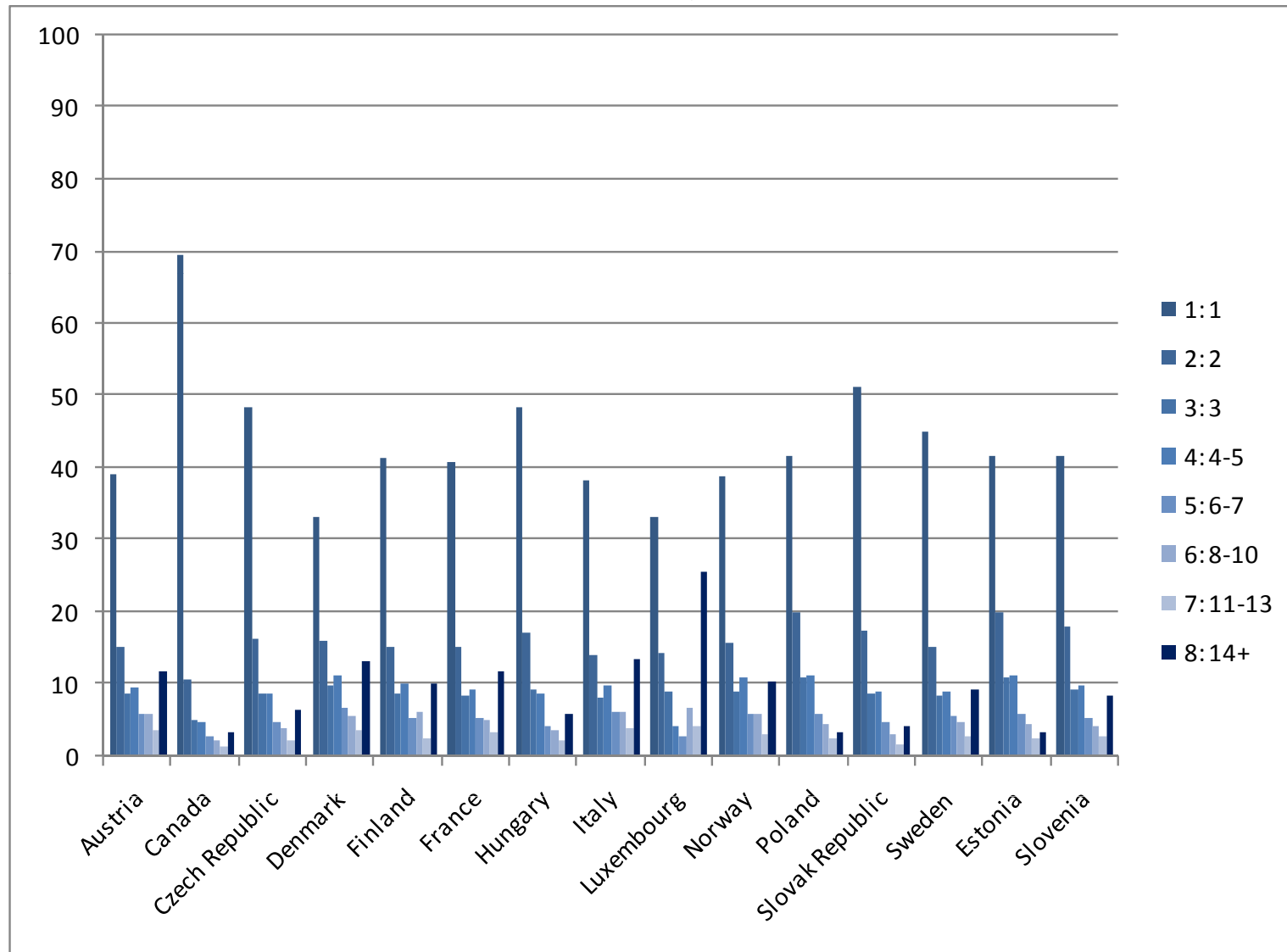
Number of enterprises according to number of partner countries (Imports)
 ISIC C-E (Mining and quarrying, total manufacturing, electricity, gas and water supply),
 % of total, 2003



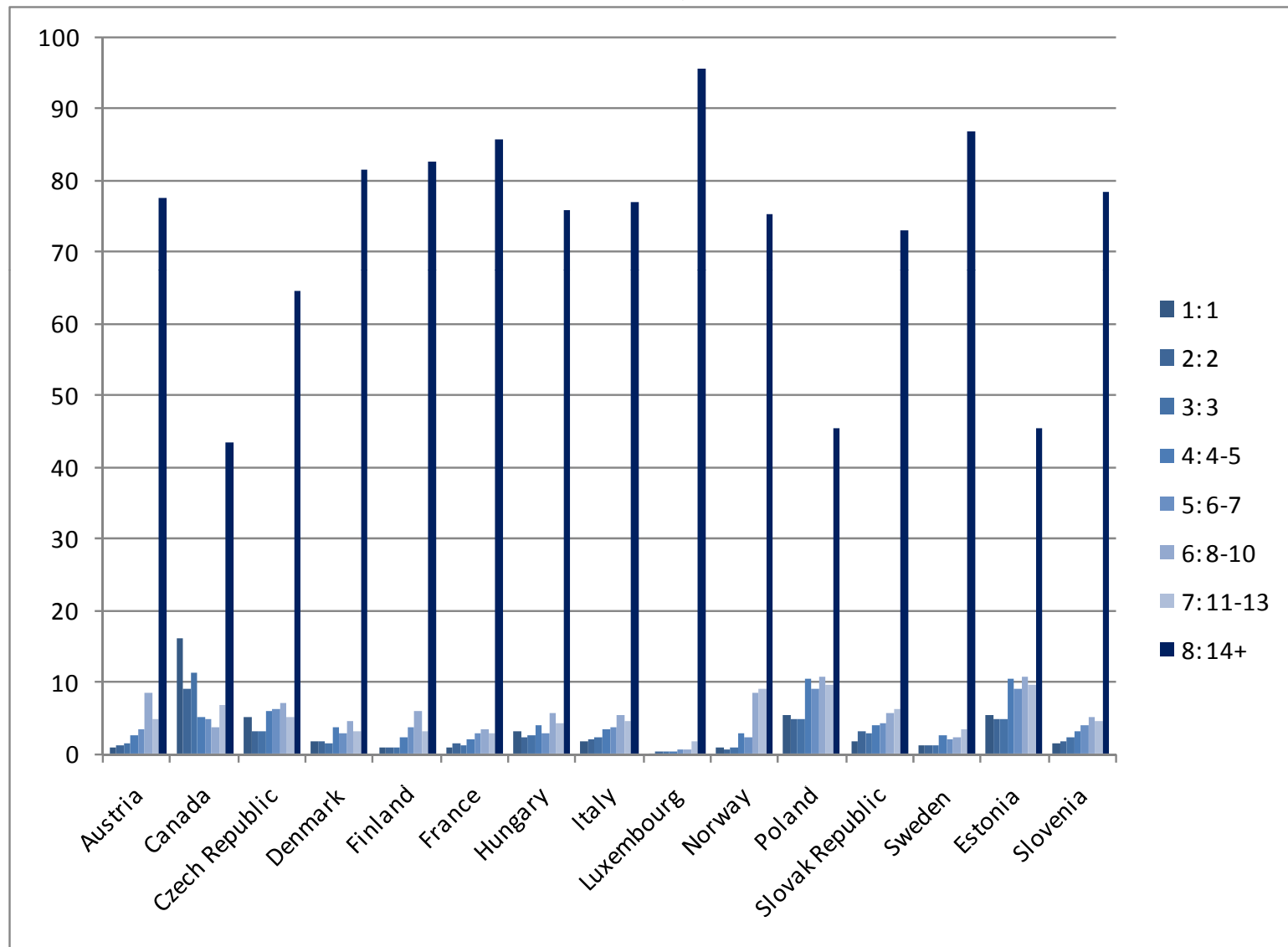
Trade value according to number of partner countries (Imports)
 ISIC C-E (Mining and quarrying, total manufacturing, electricity, gas and water supply),
 % of total, 2003



Number of enterprises according to number of partner countries (Exports)
 ISIC C-E (Mining and quarrying, total manufacturing, electricity, gas and water supply),
 % of total, 2003



Trade value according to number of partner countries (Exports) ISIC C-E (Mining and quarrying, total manufacturing, electricity, gas and water supply), % of total, 2003



Limitations and obstacles encountered

- The more detailed the tables became, the more the **degree of confidentiality** increased. This concerns in particular cross-tabulations by ISIC 2-digit-levels and by CPC (2-digit-levels). That's one of the reasons why Eurostat decided to revise the activity breakdown with the Standardisation Exercise 2007 (2-digit levels of the NACE will be requested only for sections D and G). This will clearly be of impact for the next OECD data compilation of Trade by Enterprise Characteristics because, up to now, OECD used the Eurostats results for all EU OECD member countries.
- The matching rates (of traders/enterprises in the trade and business registers) varied between countries – if available at all. Thus, the **degree of representativity** is not the same for all countries. Some countries were not in position to indicate the number of total traders of the country..

Limitations and obstacles encountered (2)

- Eurostat collects data according to the CPA product classification, while the OECD approach uses the **CPC classification for commodities**. As Eurostat's tables are only available at 2-digit-level of the CPA, it was not possible to convert the respective tables to CPC, thus OECD doesn't provide CPC-based results of the TEC datasets for the EU OECD member countries. To get these data, a direct involvement of the respective NSO would be necessary (thus a sort of “double-burden” for the countries concerned).
- The North-American **NAICS** classification is not 100% compatible with ISIC classification (in terms of correspondence tables). Thus, some allocations had to be decided individually by the NSOs.

Limitations and obstacles encountered (3)

- **Changes in the TEC methodology** between reference years are of influence to the capability to set up coherent time series for all indicators, e.g. different size classes used for 2003 and 2005 (breakdown for size-classes: 7 size-classes instead of 8). Also, e.g. the US Census Bureau was not in position to deliver data according to the size classes “0-9 employees” and “unknown”, thus had to combine these.
- The current TEC datasets take into account **only merchandise trade activities**. The extension of the datasets to trade in **services** would be highly desirable but fails for the time being due to missing trade-in-services data on the enterprise level.

The road ahead

- OECD will send out the current database sheets to the respective member countries for final verification/approval before publishing the TEC database.
- OECD will continue the close co-operation with Eurostat. Eurostat's Standardisation Exercise 2008 (Reference year 2005) will be the starting point for the next data collection on OECD-level (non-EU-OECD member countries). The concrete details will be elaborated by the next B.E.S.T. steering group meeting in early 2009.

The road ahead (2)

- Non-EU-OECD member countries that are not yet participating in the data collection are very much invited to join the data collection, especially OECD Asia and Oceania. OECD Accession Countries (please note that Israel already volunteered to participate) and countries of the Enhanced Engagement Program of the OECD are welcome to join as well.
- OECD has, thus, made quite significant progress in this policy-relevant area, enabling a new and innovative world-wide view on trade by enterprise characteristics. It is OECD's intention to further fine-tune the database with respect to possible additional indicators and to enlarge the availability of countries.
- Unlike Eurostat, OECD cannot encourage countries to join in through financial incentives. It is, nevertheless, hoped that several countries will join in on a voluntary basis. OECD expresses its gratitude to participating Non-EU countries and to Eurostat for the excellent co-operation.

Thank you for your attention!
Questions?

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