



# Measuring Trade in Value-Added – Chapter 9

Group of Experts on National Accounts: Global Production  
Geneva, April 2013

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# Increasing international fragmentation of production

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.... Has meant that gross trade statistics may create ‘misleading perceptions’ and imperfect policies

- Export driven growth strategies may target the wrong industries and export markets.
  - typically reveal a low contribution made by the service sector (less than 25%), and
  - cannot reveal whose final consumers drive supply
- Protectionism can be counter-productive
  - Imports can improve competitiveness
  - And imports increasingly embody value originally generated in the importing country.



## Trade in Value-Added

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- Provides a means to better inform such policies
- And others.....
  - Systemic risks:- impact of macro-economic shocks on supply-chains
  - Integration of emerging economies in GVCs
  - Bilateral Trade Balances



## How do we measure TiVA?

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- Using a global IO table



## What are we doing?

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- Using database on national IO tables to create a global IO table.
  - OECD: IO tables for 58 economies and 37 industries for 1995/2000/2005/2008,2009, (more than 95% of world GDP)
  - Bilateral trade data for the flows;
- Collaborating closely with:
  - other institutions/initiatives: USITC, IDE-JETRO, WIOD; MOFCOM and forging closer links with others.

**Launched OECD-WTO TiVA database on  
16 January (40 countries 18 industries)**



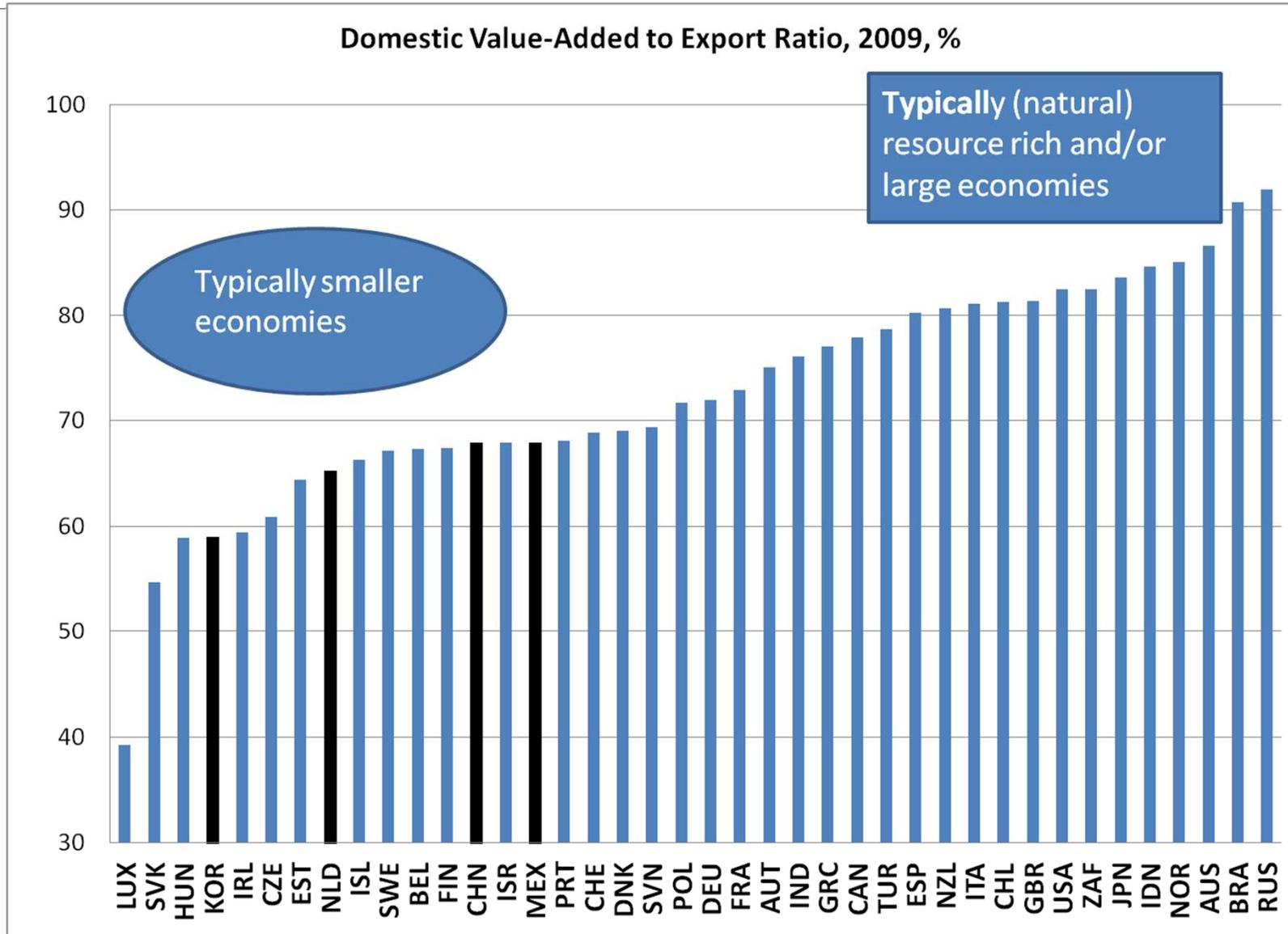
## A database on OECD.Stat

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- With a number of indicators.....
  - Decompositions of gross exports by industries into their domestic and foreign content, with the domestic content split into three (direct, indirect and re-imported) components and the foreign content broken down by source country;
  - The services content of gross exports by exporting industry (broken down by foreign/domestic origin);
  - Bilateral trade balances based on flows of value-added embodied in domestic final demand;
  - Intermediate imports embodied in exports, as a per cent of total intermediate imports.



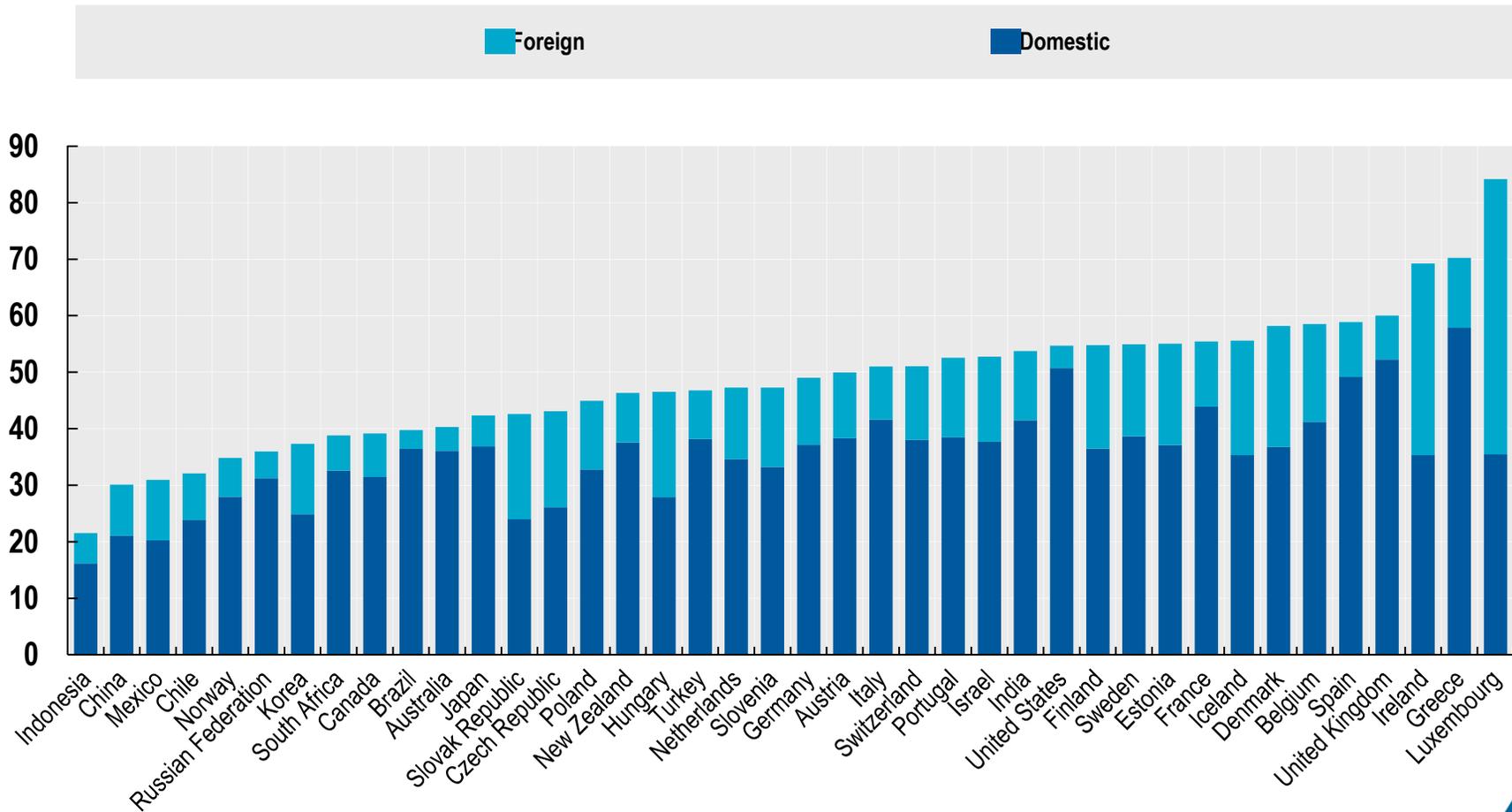
# What does the first release tell us?





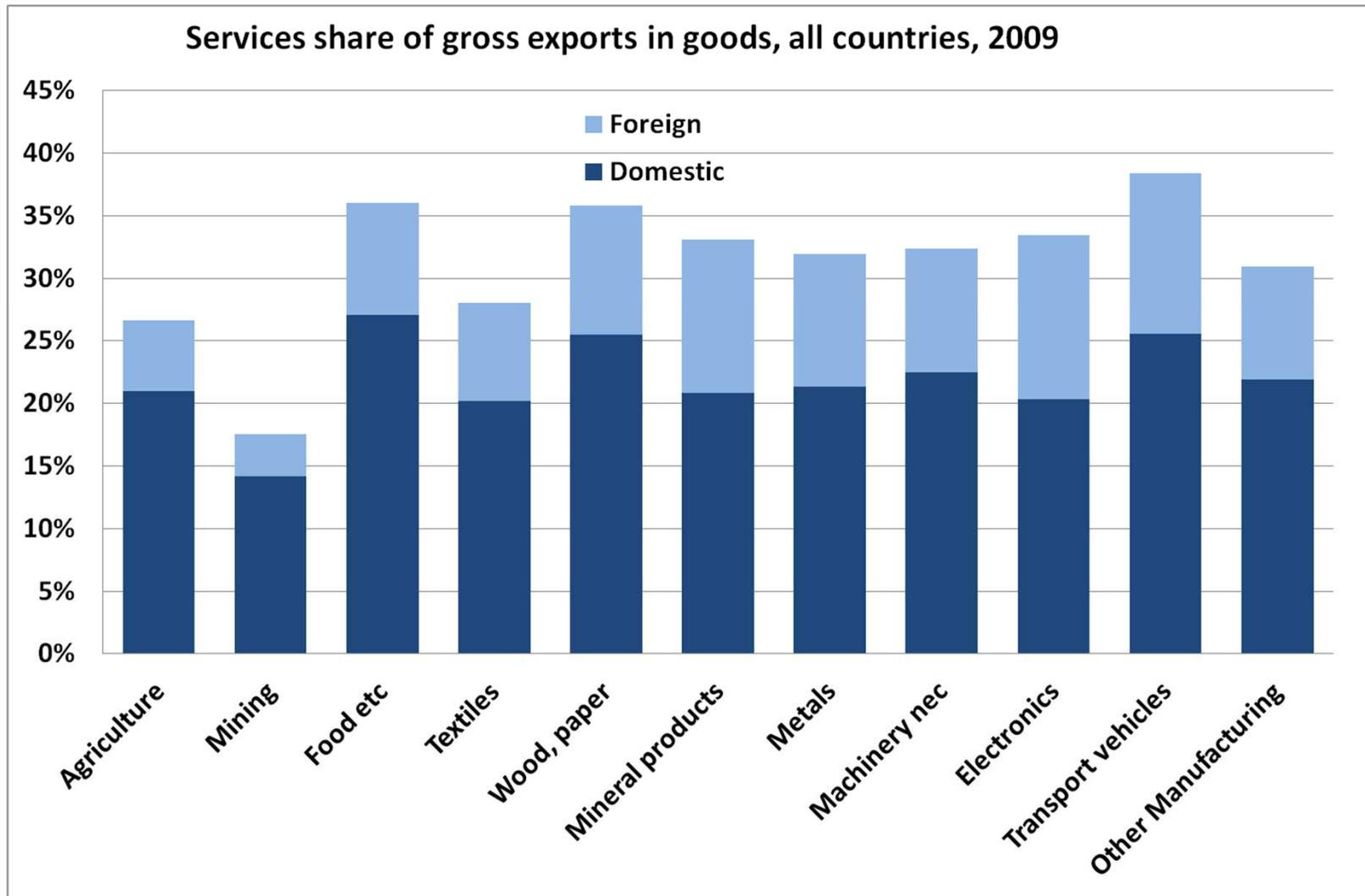
# Services matter

Services Value-Added: % of exports, 2009



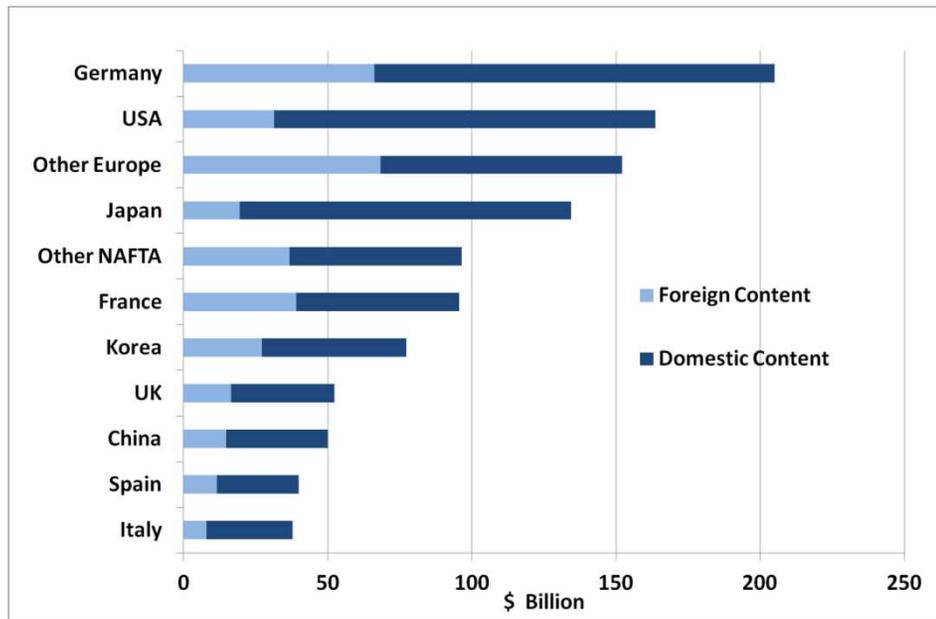


# And have a high content in goods

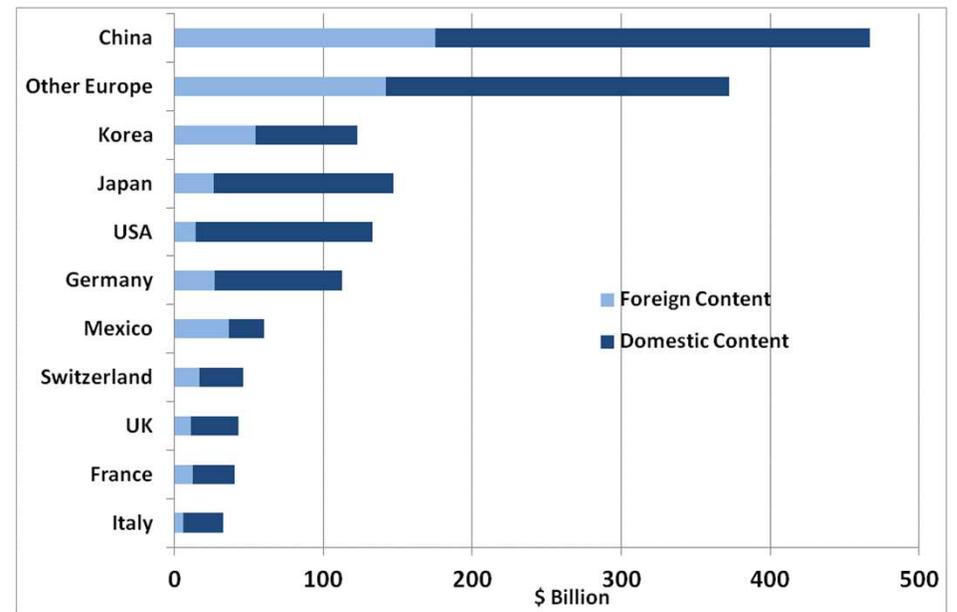


# Exports require imports

## Transport equipment

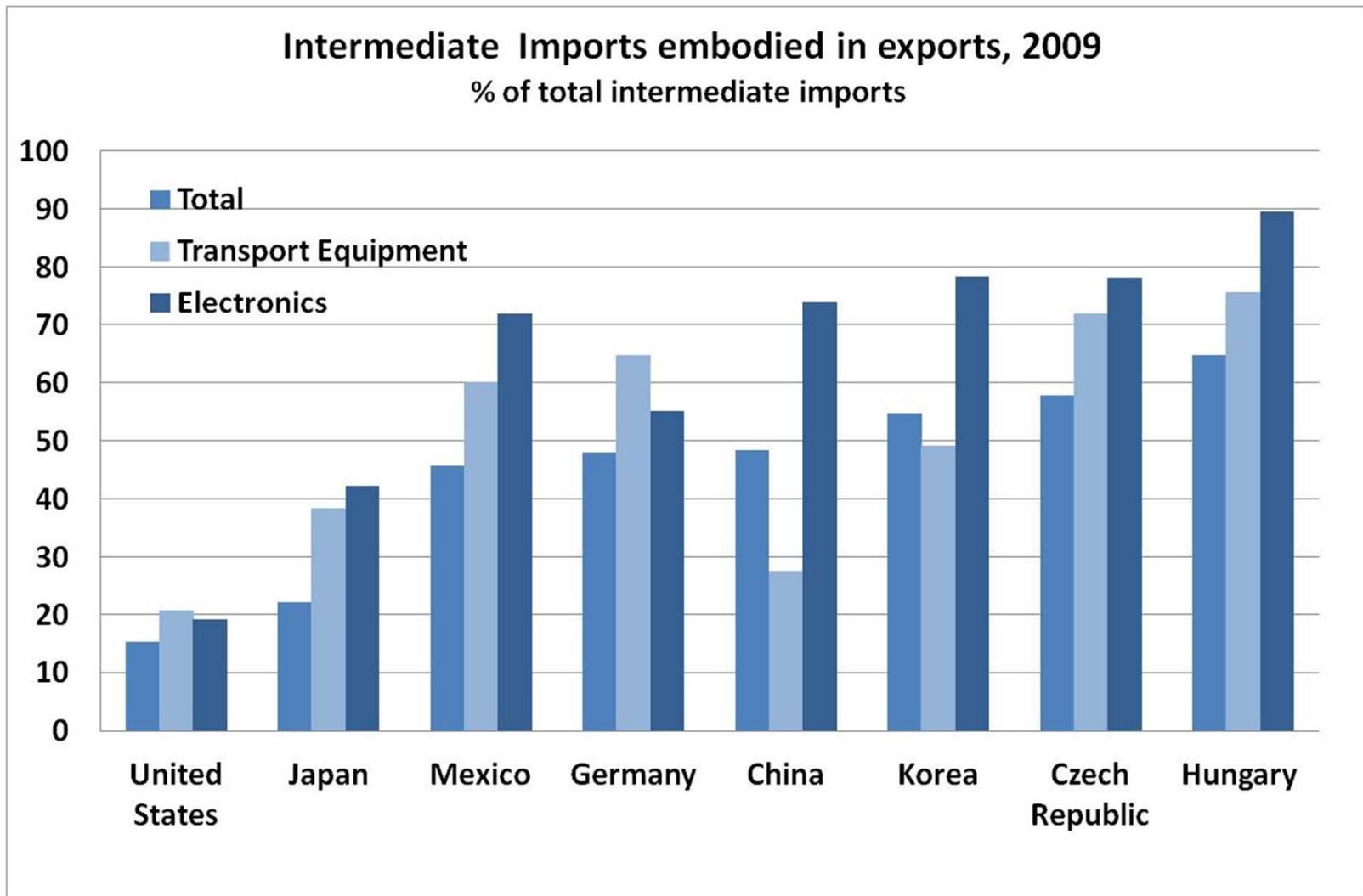


## Electronics



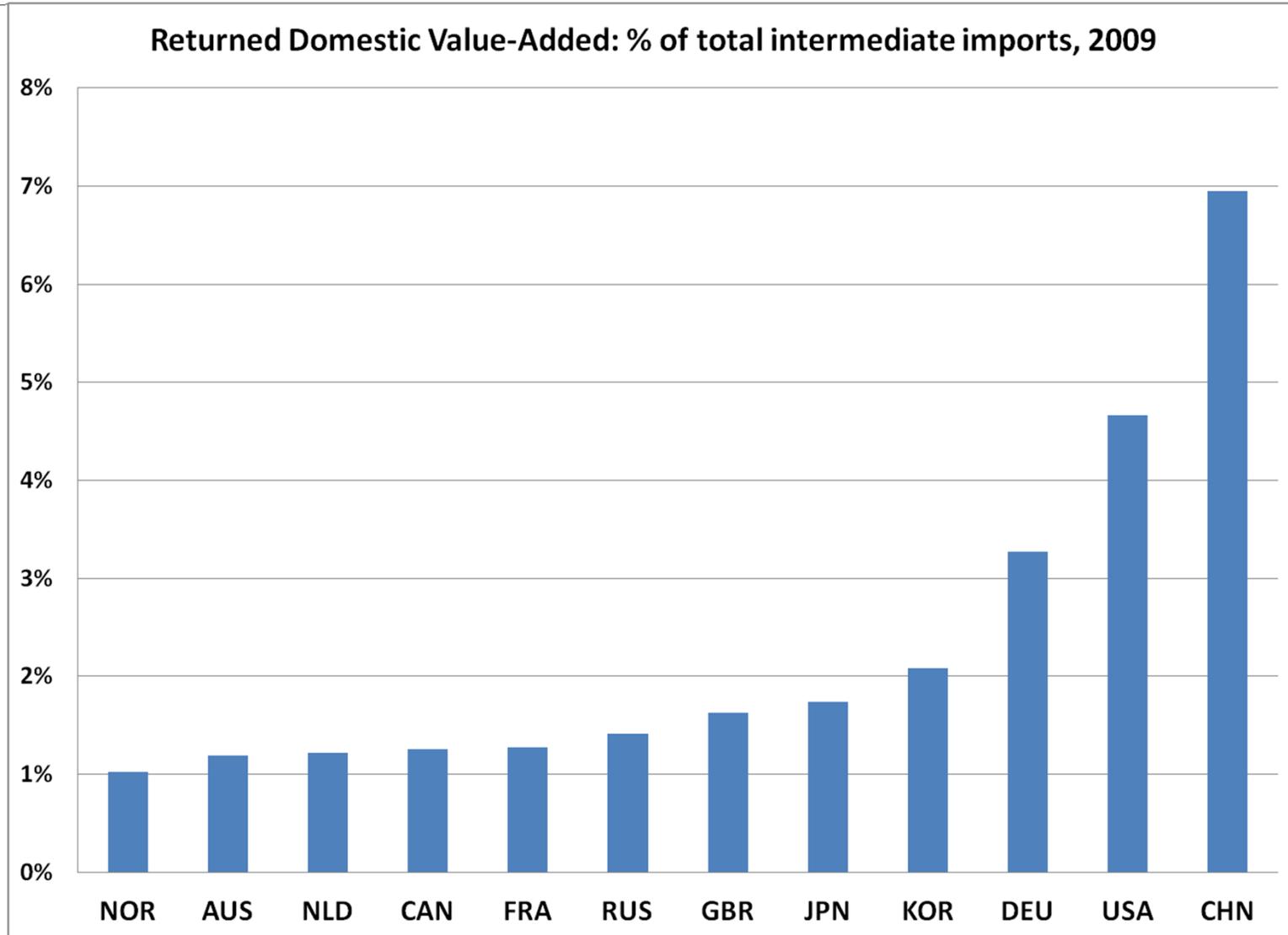


## And a significant share of total intermediate imports is used in exports



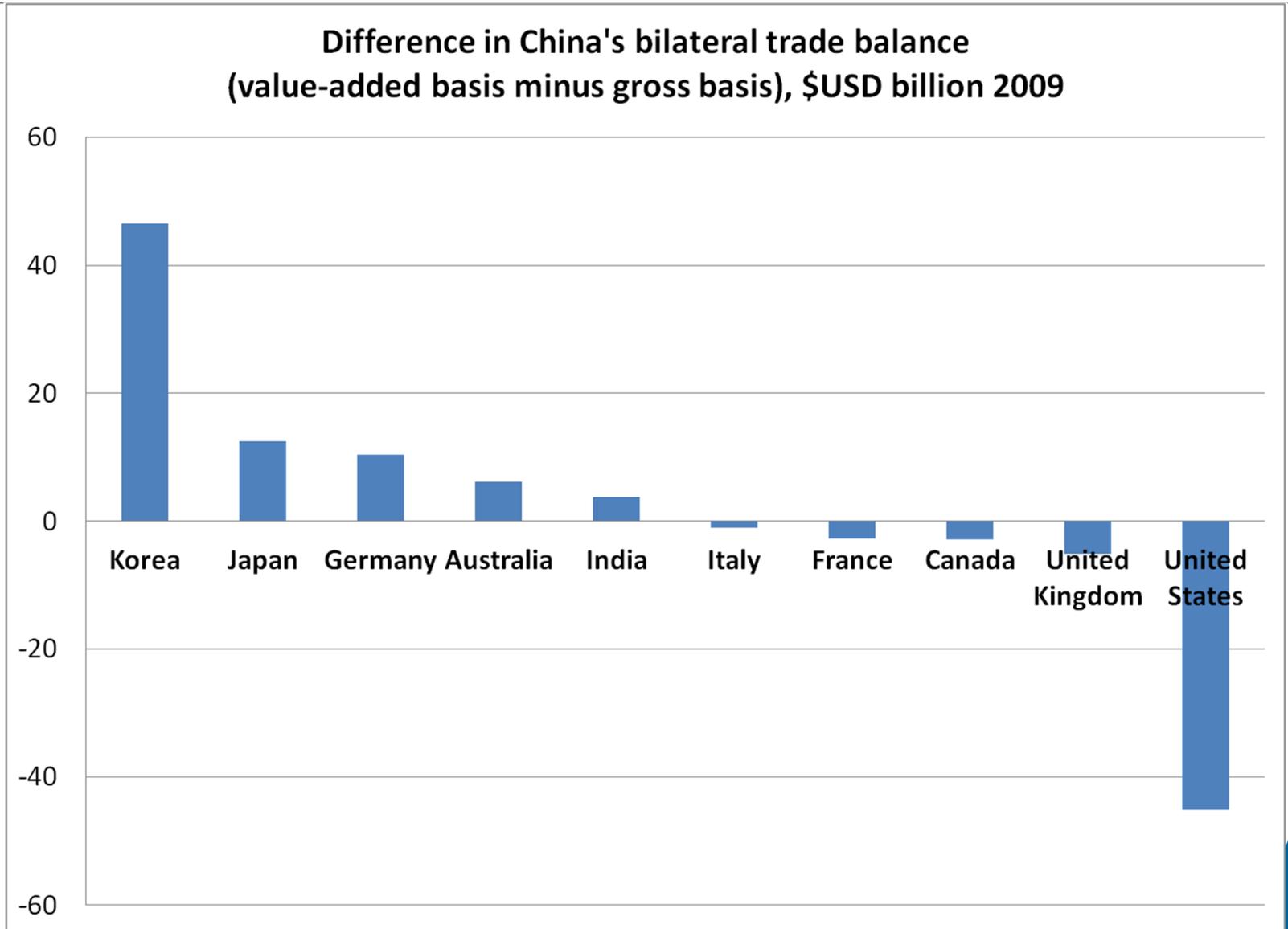


## And Value-Added often returns





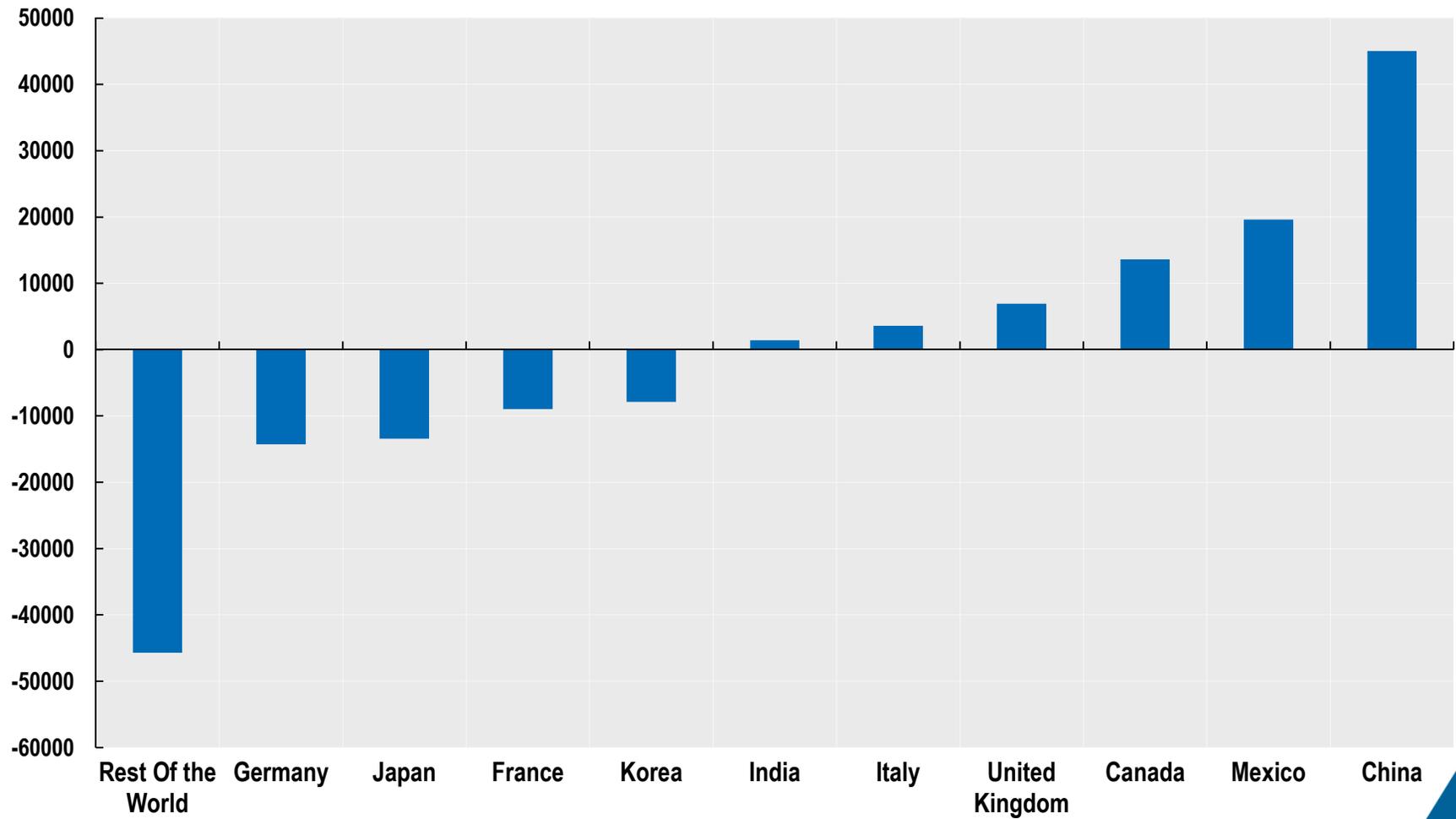
# Who trades with who?





# US – changes in balances

value-added minus gross, USD millions, 2009



# Research rewrites global trade data

OCDE et OMC affinent la vision du commerce mondial grâce à de nouvelles données

PAGE 4

FINANCIAL TIMES

FT.com

L'OMC et l'OCDE rebattent les cartes du commerce mondial

**Scoop**  
INDEPENDENT NEWS

Research reshapes debate on global trade policy

OECD und WTO messen Welthandel neu

## Trade's added value

*New statistics reveal glorious interdependence of countries*

**NASDAQ**

THE IRISH TIMES

theguardian

WORLD ECONOMICS

LesEchos

DER STANDARD

la Repubblica

THE WALL STREET JOURNAL

LE DEVOIR

STATISTICS IS NOT always the bedfellows of lies and damned lies. At its best, it brings epiphanies. An initiative by the OECD and the World Trade Organisation to map the value added embodied in international trade flows should be an eye-opener for policy makers.

## Revolutionary Trade Database Launched by OECD and WTO

**Bloomberg**

OECD/WTO 'Value-Added' Trade Measure Shows Exchange Rate Issues Overstated

The Washington Post

services in creating goods. Whilst there are, at present, limitations to the widespread calculation of trade in value-added data, this OECD-WTO initiative is to be applauded for providing a more revealing look into global trade and integration, and for paving the way for further development in this area.

**CHINA DAILY**

Handelsblatt

Ces produits qui bouleversent le commerce mondial

PORTAL GOSPODARCZY Expansion



REUTERS

THE ECONOMIC TIMES



El Financiero

# Research rewrites global trade data

OCDE et OMC affinent la vision du commerce mondial grâce à de nouvelles données

Whilst there are limitations to the widespread calculation of trade in value-added data, the OECD-WTO initiative is to be applauded for providing a more revealing look into global trade and integration **and for paving the way for further development in this area.**

Research

OECD

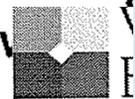
Trade

New statistics

NA

THE

the



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Bloomberg

services  
value  
trade

Handbook



REUTERS

THE ECONOMIC TIMES



El Financiero

# A work in progress

- Results are **estimates** designed to highlight 2 key issues
  - the need for policies to account for GVCs
  - the importance of capacity building and better statistics
- But require a number of assumptions and **improving data quality is essential**
  - Coherent estimates of trade in goods and services (WPTGS)
  - **A new approach to Supply-Use Tables (WPNA)**
    - More countries, more years, more timely.
    - With a focus on stages and trade rather than industries per se to better reflect firm heterogeneity (particularly MNEs)

# What can countries do?

- Long term – Develop a new approach to SU compilation that better reflects heterogeneity
  - Stages of production versus industries > disaggregations that reflect GVCs: import/export intensities, factoryless firms, processors, ownership
- Now – Improved trade data
  - Import flow matrices
  - Better bilateral trade statistics (integrated with SU tables) and globally consistent
  - Intelligent confidentiality rules (suppress 6 digit not 2 digit HS)
  - Re-export data
  - Second hand goods, scrap and waste.
  - **SERVICES** –EBOPS 2012.

# In the short-medium term

- Capitalise on existing data to create new indicators on exporting and importing firms
- Beyond TEC: Linking trade registers, business registers and SBS
  - Workshop on linking business and trade statistics: 25-26 October 2012
  - Exploring **feasibility** of creating new indicators based on export (and import) intensities, **ownership** and size.
  - And also provides stepping stone for **trade in income**

# Accounting issues

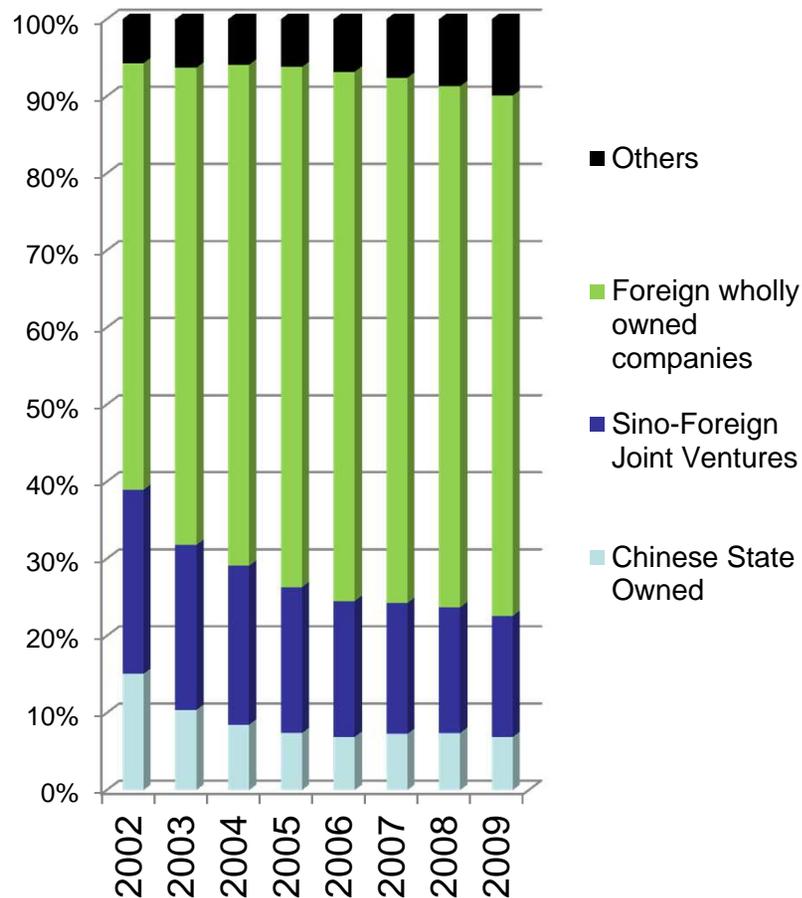
- Factoryless producers:
  - New sub-categories of manufacturing that reflect factoryless producers (on the basis of ownership of material inputs and SERVICES).

# Extensions

- Trade in jobs and skills
  - But requires
    - Coherent employment and value-added data
      - Also important for productivity estimates
    - And significant improvement in skills data (and occupations)
- Trade in Income: Ownership matters:
  - Because value added does not always stick (compensation for use of knowledge based assets – where increasingly registration is determined by tax environment)
  - And because flows for use of IPPs are often recorded as property income and not trade in services.
- Need better FATS data, particularly on value-added and employment.
  - MSITS 2010 Compilers Guide

# Does this matter?

## Hi-tech exports China



e.g.

Between 1995 and 2007 Japanese foreign affiliates increased their employment in China from just over 100,000 employees to over 1000,000 and by 300,000 (to over 400,000) in Thailand, with similar patterns in other ASEAN countries, such as the Philippines, Malaysia and Indonesia.

And Japan's primary income trade surplus increased by around \$100 billion over the period to 2009, more than offsetting the \$50 billion reduction in its gross trade surplus over the same period

# Embodied CO2 emissions

- Important to note that the work has many spillovers
  - Embodied CO2
  - Technology diffusion

# Future events

- **MCM May 2013:**
  - Comprehensive report on policy implications of GVCs: covering trade policy, investment policies and other domestic policies aimed at drawing benefits from engagement in GVCs.
  - TiVA event and new data release including
    - Data on jobs (for some countries).
    - 57 countries
    - 1995, 2000.
    - And new indicators
- **Conference on measurement, Autumn 2013**

# Further information

- [www.oecd.org/trade/valueadded](http://www.oecd.org/trade/valueadded)
- Video:  
[http://www.youtube.com/watch?feature=player\\_embedded&v=RZKX-0SK41U](http://www.youtube.com/watch?feature=player_embedded&v=RZKX-0SK41U)