

# Revisiting trade in a globalised world: trade in value-added

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# As trade is changing, trade theory and trade policy are also changing (1)

- Traditional trade theory was elaborated in the 19<sup>th</sup> century
  - Most products were designed, produced and sold within national borders
  - Some products were traded internationally and faced protectionist policies
  - Trade and industrial policies were *sector* oriented.
- The nature of 21<sup>st</sup> century trade has changed
  - Countries mainly trade varieties of similar products (intra-industry trade)
  - Production is fragmented across countries; countries specialize in specific activities (business functions) in the value chain
  - Flows of intermediate inputs are now higher than flows of final goods and services

## As trade is changing, trade theory and trade policy are also changing (2)

- The nature of trade policy has also changed:
  - Investment, manufacturing and trade are global, policy remains local
  - Access to competitive imports is key for export competitiveness
  - Protecting the domestic market is counter-productive; may result in loss of competitiveness
- Trade statistics must also adapt:
  - Product differentiation and firm heterogeneity: “Who trades what” is more important now than only “what is traded”
  - Global value chains: appropriate data to
    - (i) track the flows of intermediate goods and services, and
    - (ii) allocate value-added where it accrues

# Why measuring trade in value-added?

- Three sets of objectives:
  - Reduce multiple counting of intermediate goods and services
  - Identify who (country/sectors) contributes to the value chain in terms of income and employment?
  - Foster a closer integration between trade, business, balance of payments statistics and national accounts.

# Why is it important?

- Understanding the “investment, growth, trade and employment” nexus in the context of global value chains
- Resizing bilateral imbalances
- Identifying comparative advantage and competitiveness
- Guiding trade negotiations, avoiding unfounded trade disputes, controlling protectionism

# The OECD-WTO collaboration

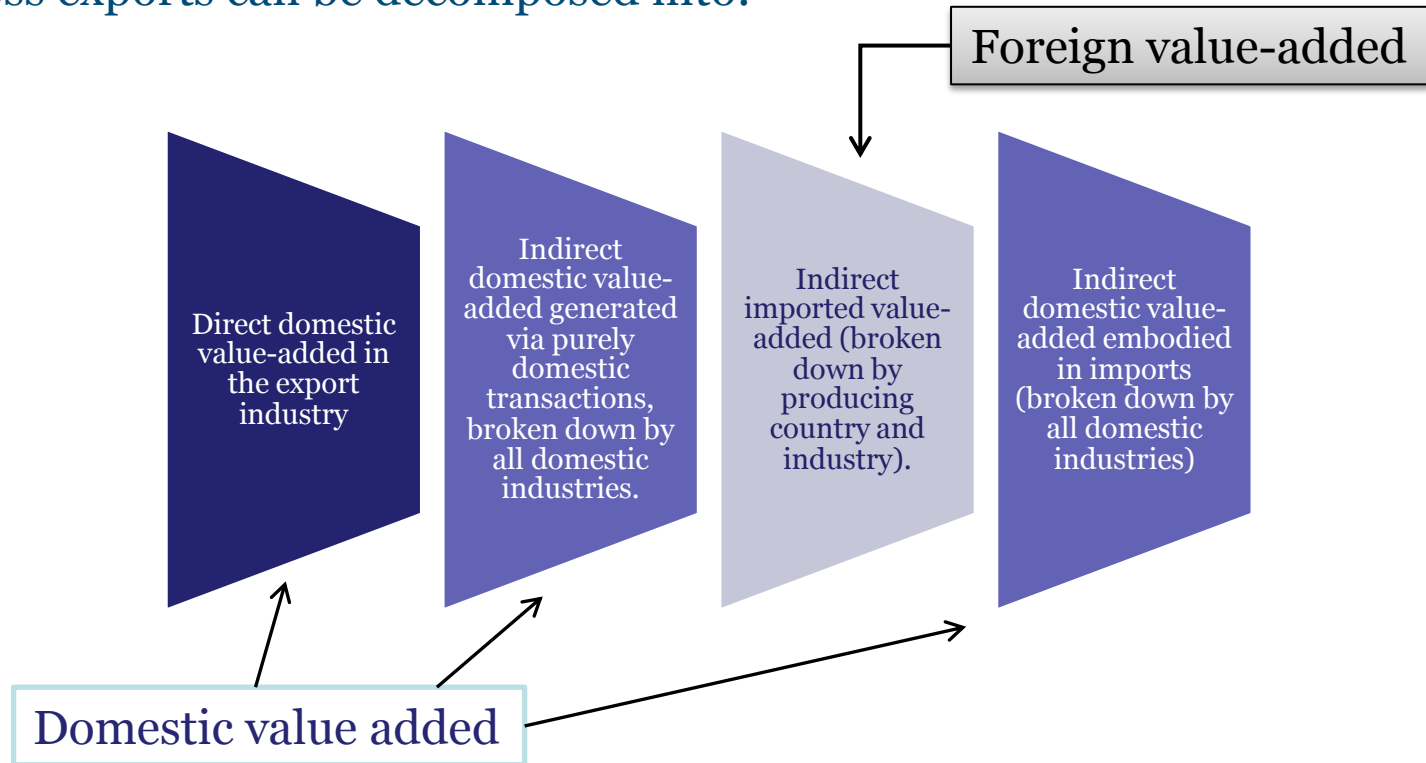
- OECD and WTO have signed an agreement for developing trade statistics in value-added terms.

The objectives are:

- **Produce and disseminate trade statistics in value added**
  - Define a methodology for measuring trade in value-added based on best practices learned from all past and present experiences
  - Produce a publicly available database of trade flows estimated in value-added terms using the inter-country input-output tables of OECD, including some non-OECD members, and determine a methodology for the regular updating of this data set
- **Support and sustain research in the related fields**
  - Build-up and sustain a network of relevant multilateral and national institutions active in relevant fields, including academic and research institutes.
  - Investigate in co-operation with those other relevant stakeholders the remaining statistical issues, in particular in relation to trade in services as well as other relevant balance of payment concepts
- **Promote evidence-based trade policy making**
  - Promote a dialogue between experts and policy makers on the implications of global value chains and the potential of measuring trade in value added for international and national policies

# The approach

- To disentangle domestic and foreign value-added in global value chains, we rely on an Inter-Country Input-Output (ICIO) table.
  - The value of a final product can be decomposed according to the country where the value is added.
  - Trade flows in value-added terms can be estimated (from the point of view of a given exporter)
- Gross exports can be decomposed into:



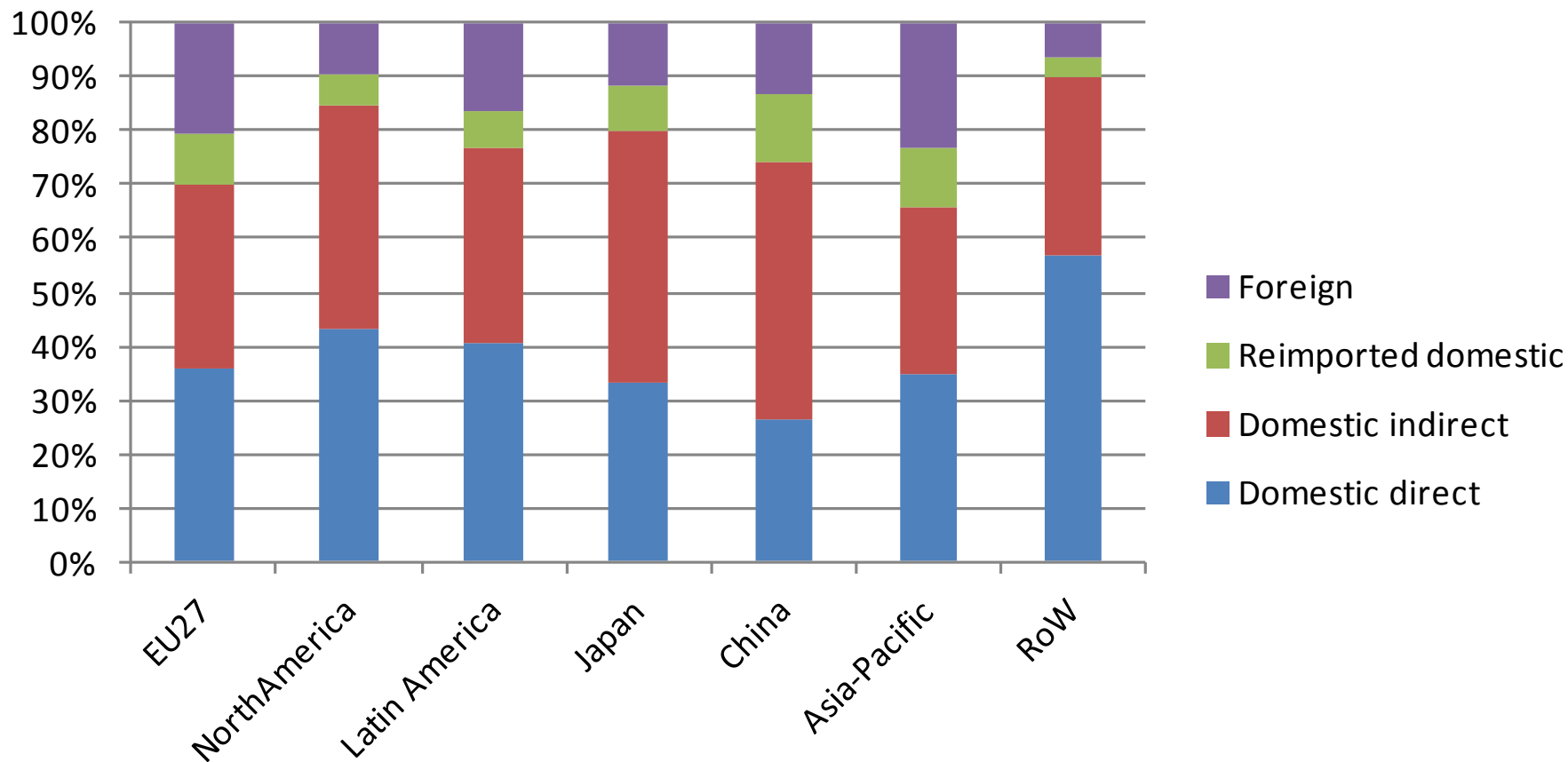
# The OECD Inter-Country Input-Output tables

		Interindustry transactions						Total intermediate	Components of final demand		
		Country 1 Industry 1	Country 1 Industry 2	Country 1 ...	Country 2 Industry 1	Country 2 Industry 2	Country 2 ...		...	Country1	Country 2
Country 1	Industry 1	Use of domestic inputs			Use of foreign inputs			...			
Country 1	Industry 2	Use of domestic inputs			Use of foreign inputs			...			
Country 1	...	Use of domestic inputs			Use of foreign inputs			...			
Country 2	Industry 1	Use of foreign inputs			Use of domestic inputs			...			
Country 2	Industry 2	Use of foreign inputs			Use of domestic inputs			...			
Country 2	...	Use of foreign inputs			Use of domestic inputs			...			
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Value-added											
Gross output											

- Three global input-output matrices estimated for the years 1995, 2000 and 2005
- Based on national input-output tables harmonised by the OECD
- Cover 56 countries and 37 industries
- Linked internationally using the Bilateral Trade by Industry and End Use (BTDIxE) database and estimates of bilateral services trade flows.

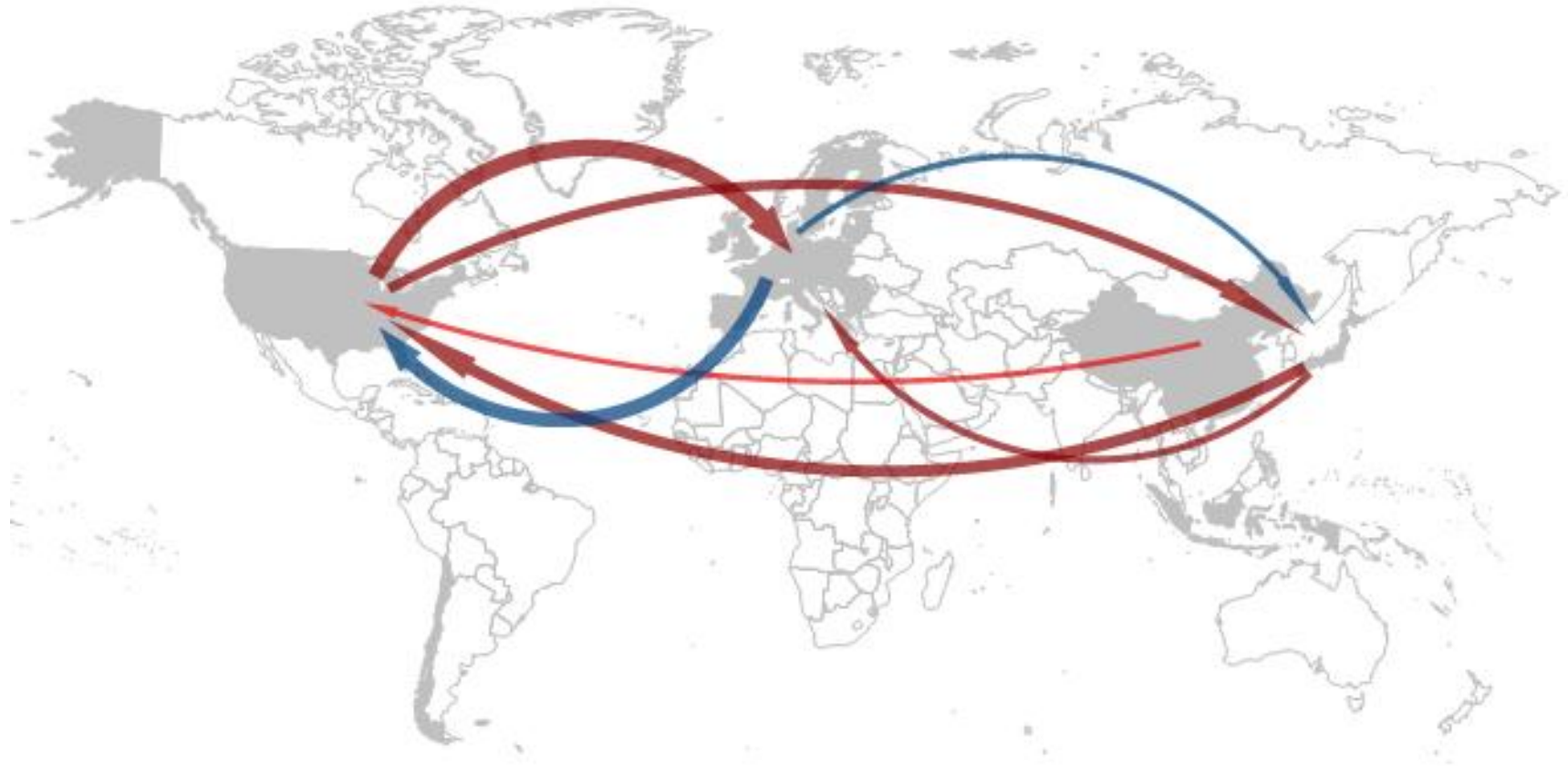


# Preliminary results: value-added in gross exports



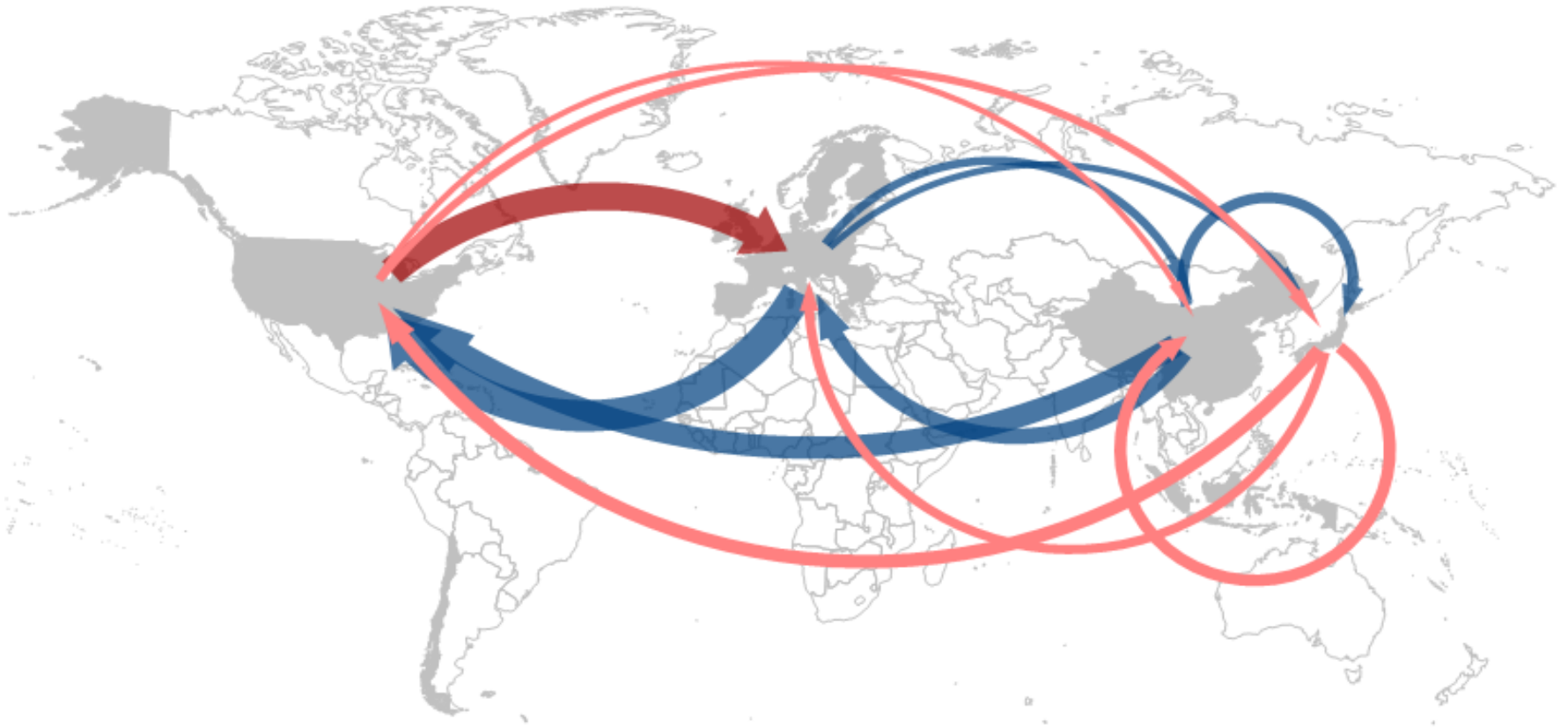
Source: OECD ICIO tables

# Preliminary results: gross exports and share of domestic VA (1995)



- ➔ Domestic value added shares 90% or more
- ➔ Domestic value added shares between 80-90%
- ➔ Domestic value added shares 80% or less

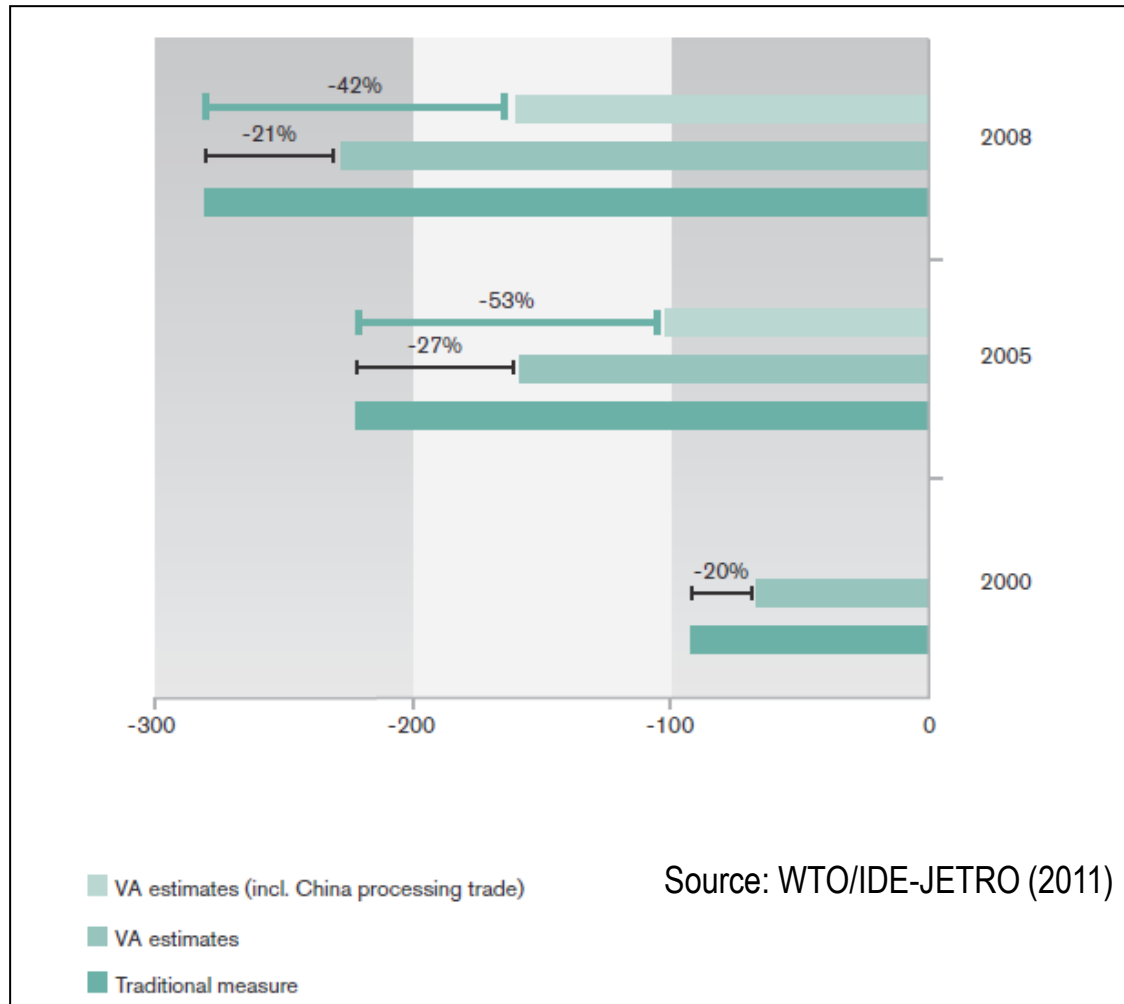
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# Preliminary results: trade balances in VA and gross terms

## US-China trade balance. Traditional statistics vs. Value added terms (in billions of US\$)



**Bilateral trade imbalances between China and US are reduced by 40 to 50 per cent using input-output results plus Export Processing Zones trade data**

# Issues and further work

- Aggregation and homogeneity bias
- Identification of trade in intermediate goods
- Identification of trade in services
- Conciliating trade statistics with national accounts across different countries
- Static versus dynamic approaches

# Concluding remarks:

## questions for trade policy and trade agreements

- Trade relationships along global value chains are embedded into longer-term industrial, business and investment approaches
  - Towards an “investment-trade in goods & services-supporting services” nexus?
- Is our frame of thinking about trade policy still adequate in the contemporary global economy?
  - Design of regimes for goods and services
  - Design of rules of origin
  - Treatment of Non Tariff Measures
  - Harmonization versus mutual recognition
  - Trade and investment
  - Competition policy
  - Contingency trade policy
  - Institutionalized mechanisms for managing uncertainty/unpredictability in trade policy