Made in the World

Global Governance, Business Models, *Servicification* and Digital Intermediation Platforms

Hubert Escaith

Outline of the Presentation

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2. Microeconomic Implications
   - A New Business Model, with New Actors and New Tools
3. National and Global Implications
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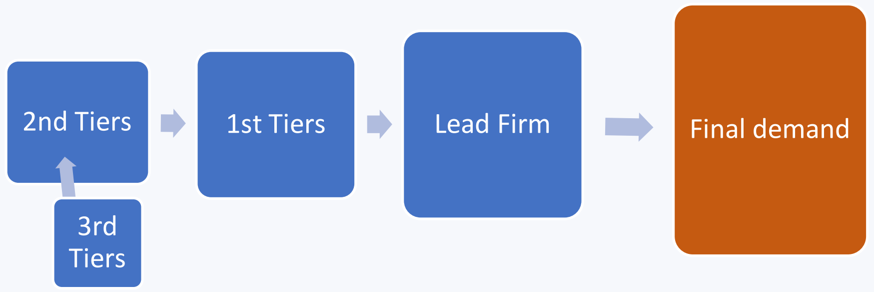
Global Value Chain: Definitions

The production of manufactured goods is segmented in several production stages,

- undertaken in different countries,
- under the coordination of a "Lead Firm".



Lead Firms:

- specialize on their core functions and
- outsource other tasks to First Tiers suppliers.

First Tiers suppliers can also outsource some tasks to *Second Tiers* suppliers, which will have their own (*Third Tiers*) suppliers.

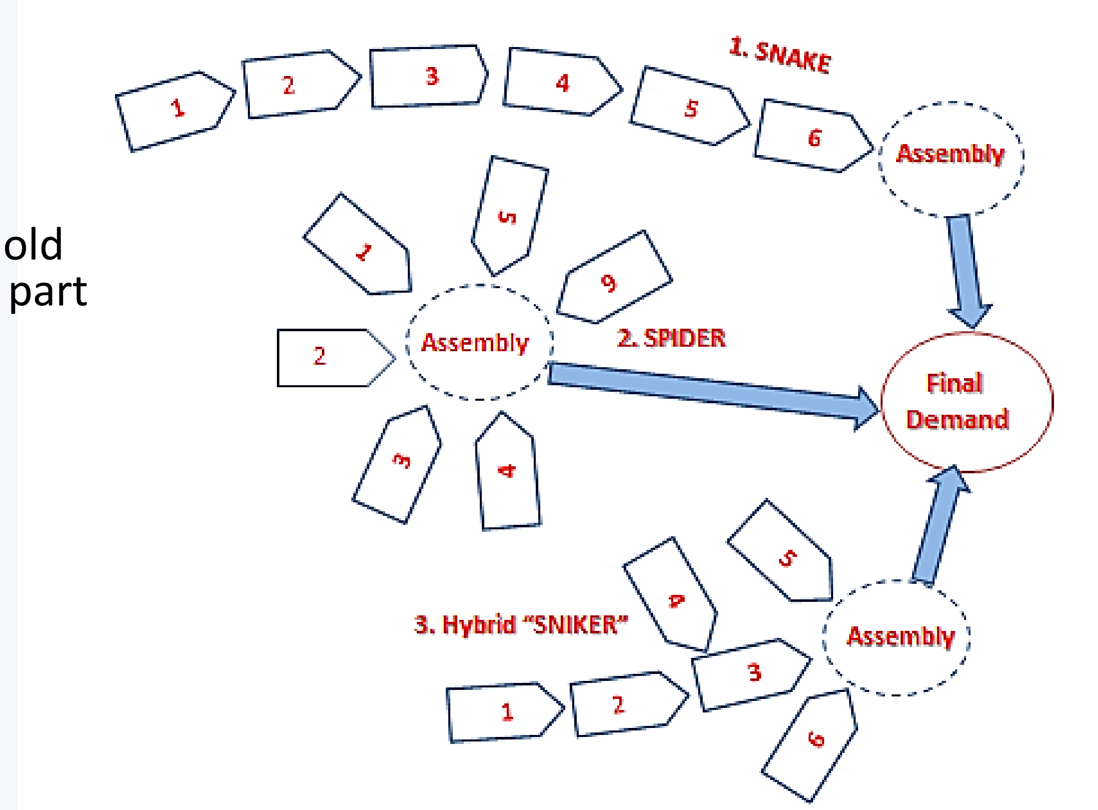
The conjunction of the Lead Firm and its first, second and third tiers suppliers creates a **Global Value Chain,**

also called **International Supply Chain**. But the two concepts are different…

Global Value Chain or International Supply Chain?

The Supply Chain

- Is a management concept
  - outsourcing decision: ***a make-or-buy decision***
- Includes all the suppliers of the ***Lead Firm***
- When **trade costs** are reduced below a certain threshold and the Lead-Firm finds profitable to internationalize part of the supply chain
- Some Lead Firms outsource everything, except R&D, Branding and Marketing (***Factory-less firms***).



The Value Chain

- Is an economic concept
- Includes all stages of production (even commodities purchased on the spot market) down to the final consumer.

Supply and Value Chains

- Include both Domestic and Foreign goods and services.
- Are usually a mixture of "***snakes***" and "***spiders***"

Example of EMBRAER

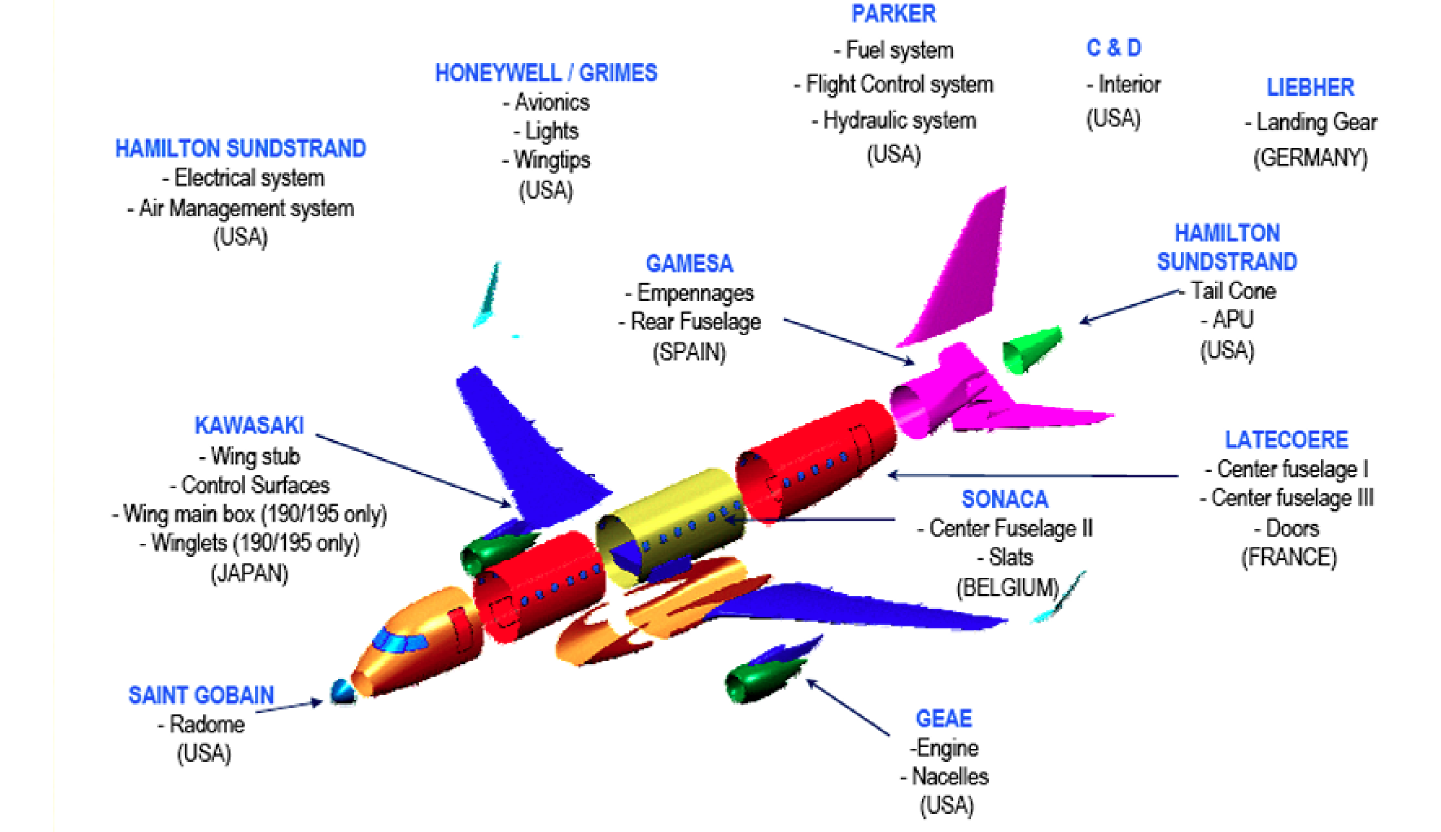
- Slide shows only the few "strategic partners"
- ***Aerospace industry***:

200 First Tiers suppliers and 12,000 in the whole supply chain.

- ***Automobile industry***:

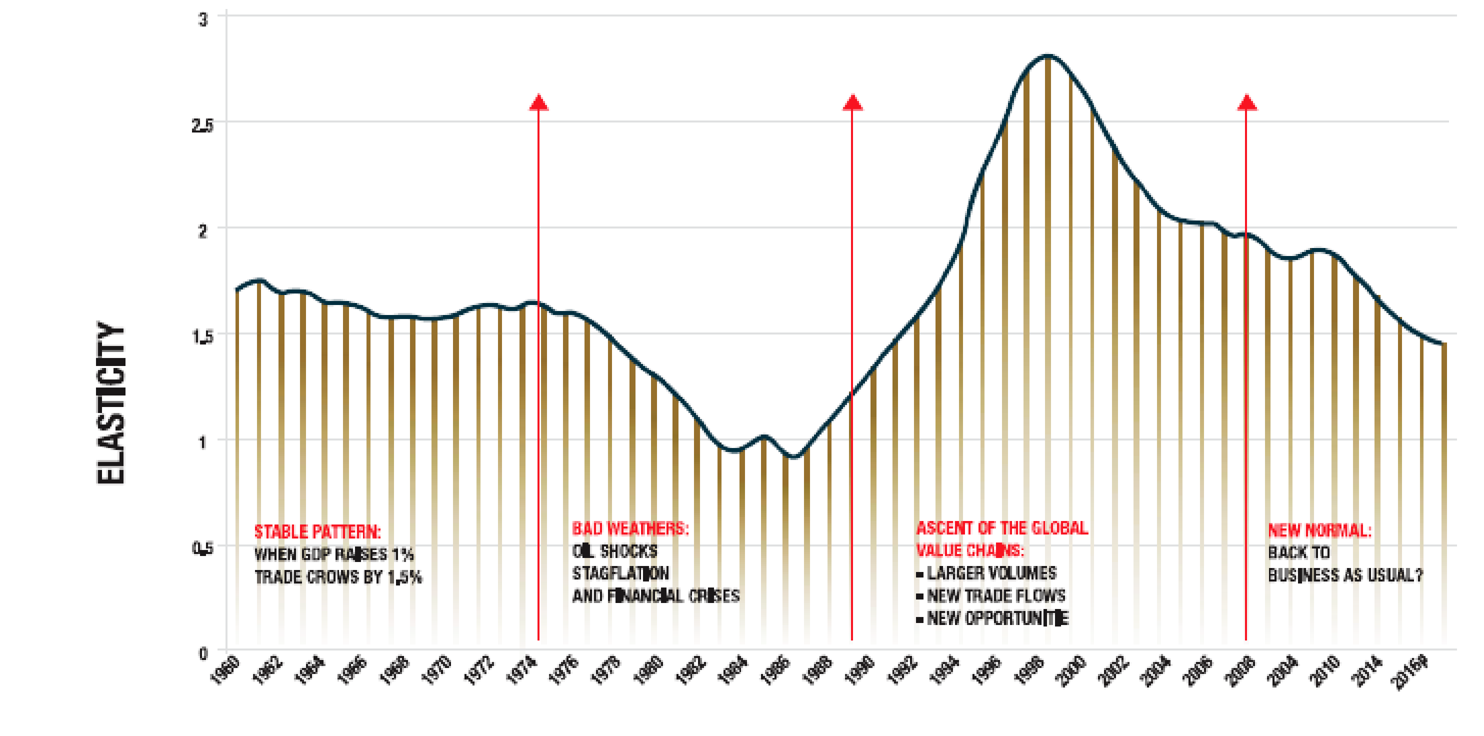
250 First Tier and 18,000 suppliers in total, including indirect suppliers.

➢ Very complex arrangements requiring advanced engineering and management skills and sophisticated coordination and monitoring tools



Fuente: P. Figueiredo, G. Silveira y R. Sbragia, "Risk sharing partnerships with suppliers: The case of EMBRAER", Journal of Technology, Management and Innovation, 2008, Volume 3, Issue 1.

Why did WTO become interested in GVCs?

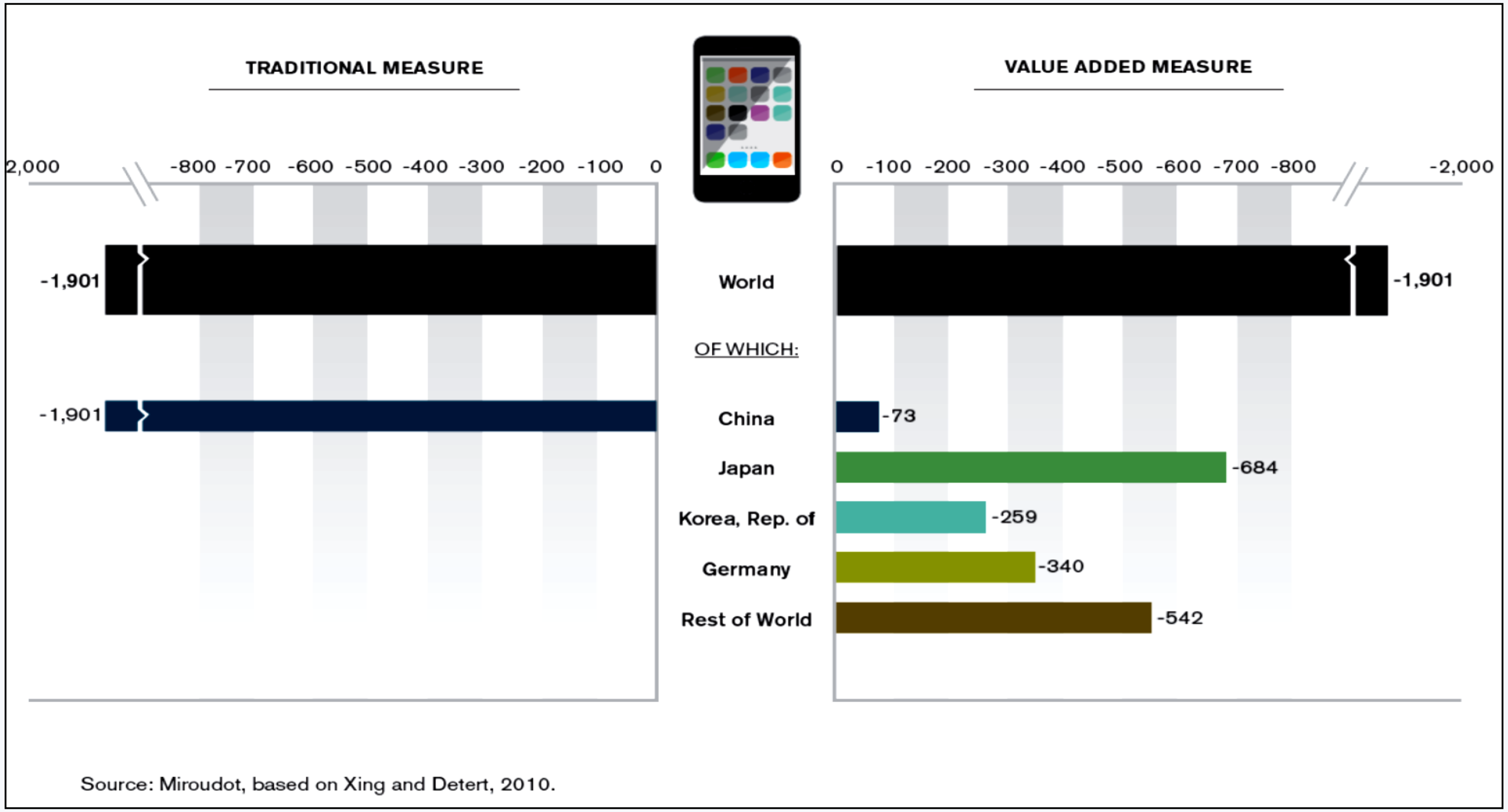


Note: the graph indicates the last year of the -10year rolling period
Source: author, based on WTO data

Traditional trade statistics, including the concept of country of origin, are biased.

- **Trade increased much more rapidly than World GDP between 1990 and 2005**
  - Uruguay Round
  - Lower trade costs
  - New countries ex-USSR
  - And ***double counting*** due to offshoring and international outsourcing of production
- **But what is measured as exports by traditional statistics**
  - Does not represent the value created by the exporting country
  - Includes the value on intermediates imported from other origins (double counting)
  - Bilateral trade deficits are biased
  - Traditional distinctions are becoming gradually obsolete:
    - tradable vs. non-tradable; goods vs. services
- **Solution**: measure ***Trade in Value-Added***!

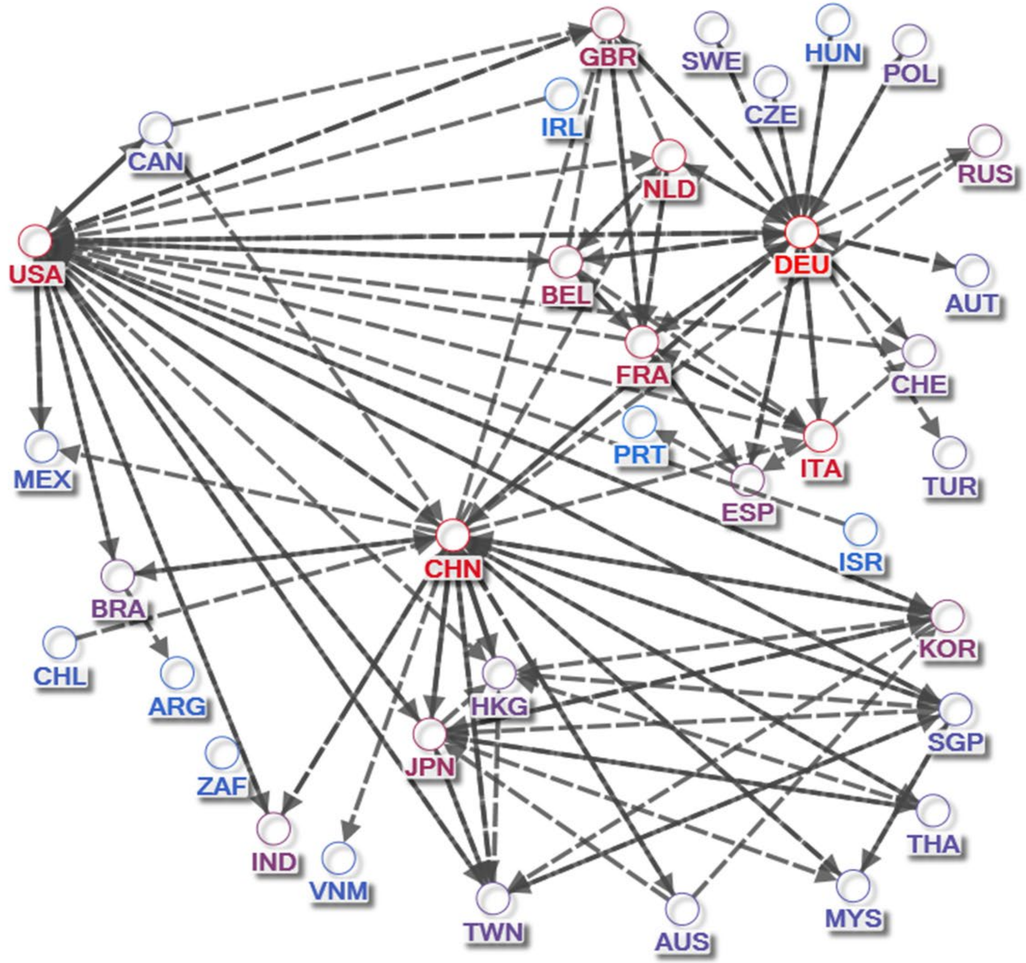
A well known example:
US trade balance in iPhone (2009, Million USD)



Trade in Value Added (TiVA) redistributes the imports according to the origin of the imbedded contributions

Global Value Chains are mainly regional

- **Three Global Hubs**
  - Asia
    - Centred on **China**
  - Europe
    - Centred on **Germany**
  - North America
    - Centred on the **USA**
- **Latin America?**
  - ***Mexico and Central America*** are part of the North American GVCs
  - Brazil is a regional ***MERCOSUR*** hub, but not very significant at World level



MERCOSUR Integration into GVC 1995-2018
The example of transport equipment

Measuring integration in GVC:

Foreign content of national exports

Argentina, Colombia and Brazil have been rapidly increasing their vertical integration (Argentina and Brazil from a low starting point).

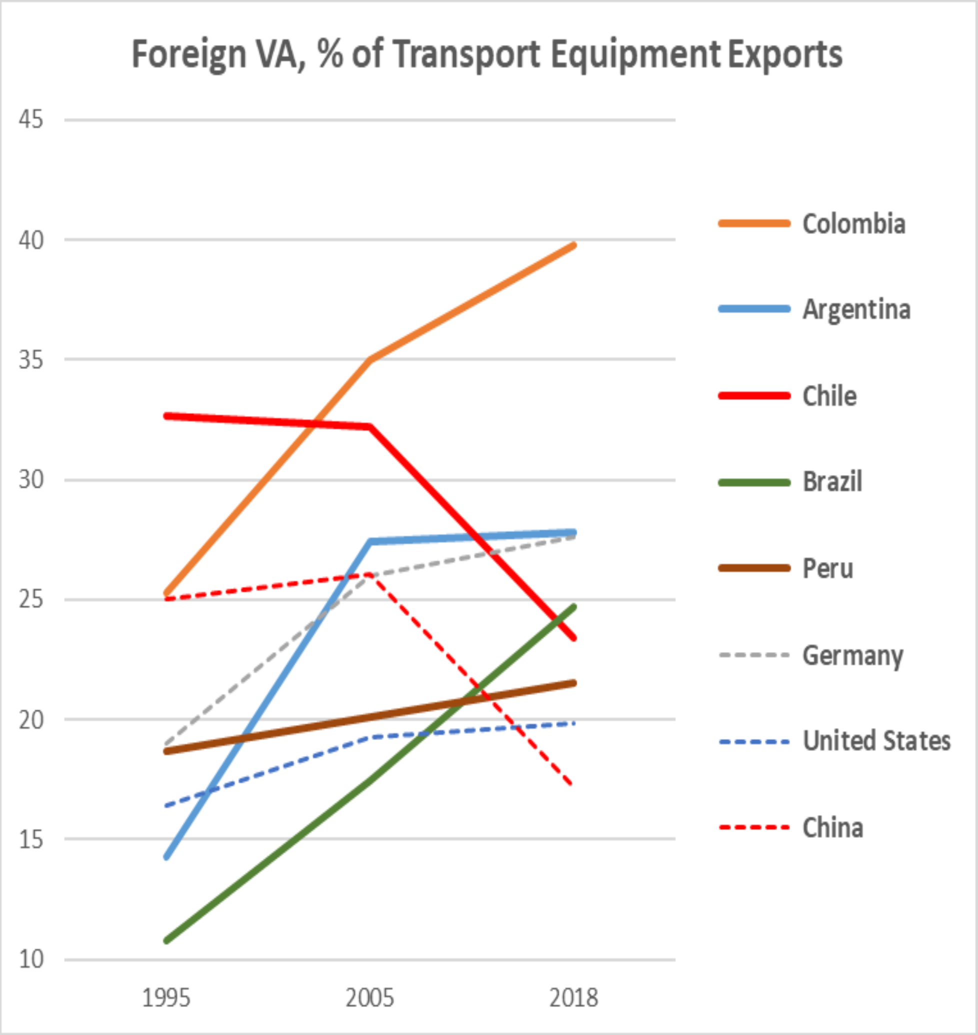
Peru also, but less rapidly

Chile shows a decreasing trend (but from a high starting point)

Global Hubs:

Germany and USA increase

China decreases (effect of MIC2025?)



Based on OECD Trade in Value Added Database, released in 2021
TiVA Database covers only some Latin American countries:
Mexico, Costa Rica and four South American economies

A New Business Model, with New Actors and New Instruments

- From the (Henri) Ford **integrated model of 1920** to the **Toyota Production Model (1975)**
  - **Modular** approach: decentralised in autonomous modules (process islands)
  - **Just in Time**: Make-to-Order
    - Zero default: Total Quality
    - Zero stock
    - Flexible options according to orders
  - Plus other characteristics (corporate culture, etc.)
- The "process islands" can be
  - ***offshored*** to foreign affiliates or
  - ***outsourced*** through arm's length subcontracting to First Tier suppliers
- The "*Servicification*" of Manufacture
  - Increasing role of services in manufacturing
    - Research and Development, marketing
    - Business services, ICT
    - Logistics and Supply Chain Management Platforms

Supply Chain Management Platforms

- **Demand for GVC coordination** creates
  - ***new actors***: GVC integrators, especially for demand-driven GVCs (e.g., coordinating the production required by supermarket chains)
  - ***new instruments*** for coordinating the various tasks and the various suppliers
- Six different management tasks in a value-chain process:

  Sell, Plan; Source; Make; Deliver and Return
  - **Sell**: collect orders and payments options, process invoices. Platforms integrate new IA tools for analyzing and forecast customers demand, target advertising by email, etc...
  - **Plan**: match production with demand
  - **Source**: identifying vendors who will procure the goods and services required
  - **Make**: Testing the inputs, manufacturing, testing the final product and packing.
  - **Deliver**: Seamless delivery is usually multimodal (sea, air, rail, road)
  - **Return**: critical for customers' satisfaction and brand recognition.
    - ***Note***: it may be an issue in international trade, if national regulations consider the returned products as "used, second hand objects". If not covered by *de minimis*, who pays the tariff duties and other indirect taxes?

Web 2.0 Open Electronic Platforms

- **Open Web-based platforms**:
  - Not specific to a Lead Firm
  - Serve as electronic market place for many firms.
  - Only provide trading platform, or are also doing warehousing and logistics.
  - Provide visibility for small entrepreneurs.
  - Offer more options to consumers.
- **Control the flow of information** from purchase to delivery and payment, including return of unsatisfactory products.
- Some have specific features for **micro and small entrepreneurs**
- Make intensive use of **Big Data and Artificial Intelligence**
  - To analyze consumer preferences and satisfaction with products and providers.
  - To target ***advertisement*** to specific consumers or signal ***market trends*** to sellers.
- These platforms can quickly **assess financial risk** thanks to the data they collect
  - Some are critical partners for Micro & Small Business finance solutions
    - such as cash advance for the purchase of their inputs.
- **Data become an important asset**, which must be protected and remain confidential

MIWI and Challenges for the Old-Style World Trade Governance
1: The National Perspective

- **Rules of Origin and Comparative Advantages**
  - A final good is the product of many embedded tasks performed by many firms working in different countries
  - Comparative advantages are now in performing "functions" rather than producing goods
- High Value Added **Exports are Made of Imports**
  - Protectionist policies backfire
- **The "Firm" rather than the "Country"** is the main actor in international trade
  - As recognized by the New "New" Trade Theory since 2003
  - ***Trade and Development policies***
    - No more the sole responsibility of line ministries
    - **Smart:** Include all stakeholders from the "Cluster" perspective: firms and their suppliers, local administrations, universities and other relevant civil society organizations.
- GVCs modify the interpretation of **trade costs**, now including 4Ts:
  - tariffs, transportation, time and threat

MIWI and Challenges for the Old-Style World Trade Governance
2: The Multilateral Perspective

- Are **GVCs** a **Self Organizing International Economy**?
  - International supply chains can be very complex organizations
    - involving thousands of providers which must deliver their products “just in time” and with “zero default”
  - Feasible thanks to the adoption of common industrial standards and managerial procedures
    - Through all the segments of the supply chain
    - Through all the countries
- The Rise of **Private Norms** as Modalities of Trade Governance
  - Adoption of common ***industrial standards*** *(≠ TBT or SPS)* and managerial procedures
  - Adherence to “***Corporate Social Responsibility***”
    - CSR includes topics (labour standards, human rights and environment) that have been side-lined at WTO
- **Global Consumers** and NGOs pressure affects also financing:
  - ***Environmental, social and governance*** (ESG) criteria funds evaluate companies in which they might want to invest

Conclusions: The Future of Global Value Chain

- **Just in Time vs Just-in-case**: Supply Chain risks and trade decoupling
  - International supply chains can be severed
    - By natural causes (COVID-19; tsunami in Japan)
    - By accident (Suez Canal blocked for six days, costing nearly $400 million an hour in global trade losses)
    - By geo-political tensions (China-US bilateral trade war of 2018)
  - Managers look at having more resilient supply chains
  - Governments look at not being to dependent of a single supplying country
- **Geo-political tensions** are rising
  - In 2015, China declared that the objective of its “Made in China 2025” was to gain domestic autonomy
  - In 2018, USA answered by limiting trade with, and transfer of technology to China
  - In 2020 and 2021, EU and Australia took precautionary measures to limit global exposure
- Are Lead Firms **reshoring or nearshoring** their production?
  - They say they will
  - But no clear signs so far