



# INTERNATIONAL MEETING ON SERVICES VALUE-ADDED IN EXPORTS

Services and trade policies  
for diversification and upgrading  
Brasilia, Brazil, 22-23 October 2019

## INTERMEDIATE SERVICES, PRODUCTIVITY AND STRUCTURAL CHANGE: LESSONS FOR TRADE AND INDUSTRIAL POLICY

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MINISTÉRIO DA  
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# Intermediate services, productivity and structural change: lessons for trade and industrial policy

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# Agenda

The emergence of global services.

New patterns of structural change and specialization.

Services and GVC: some evidence of *servicification*.

Implications for trade and industrial policy.

Concluding remarks.

# The emergence of global services



Industry 4.0, IoT, and the liberalization of trade and investment in goods and services, have induced the **fragmentation of production** and consumption and strong shifts in global trade shares.



This process has triggered **structural changes** in the global economy.



These trends permit emerging economies to contribute significantly to the growth of the world's services sector for the first time (Gereffi and Fernandez-Stark, 2010a).

# The emergence of global services

The use of **new statistics on trade in value added** is showing that about half of internationally traded services are incorporated as **intermediates** in the export of goods. (UNCTAD, 2017)

*The share of services in trade in value added varies across countries and industries, it is generally high (and rising) and considerably larger than the share of services in gross trade. While directly exported value added has increased in recent years, close to two-thirds of the growth of services value added in exports is due to an increase in **services embodied in exports of other sectors** - particularly foreign services, revealing the growing importance of GVCs.” (UNCTAD, 2017)*



# New patterns of structural change

The **first tradition** associated to the debate on structural change, accumulation, innovation and productivity growth dates back to the **dual-economy approach** (initially formalized by Lewis 1954 and expanded upon by Ranis and Fei 1961).

The **second tradition** derives from the neoclassical growth model of Solow (1956) in which growth depends on the incentives to save, accumulate physical and human capital, and innovate by developing new products and processes (Grossman and Helpman 1991; Aghion and Howitt 1992).

# New patterns of structural change

Eichengreen and Gupta (2013) suggest that the increasing share of services occurs in two waves: **at lower and higher levels of income.**

In Latin America, the structural change debate has encompassed seminal contributions from:

- a) The **classical structuralist school** (Hirshman, 1958; Prebisch, 1967; Singer 1950; Pinto, 1970);
- b) The neostructuralists** (Fajnzylber, 1992; Ocampo, 2005; ECLAC 2012) and
- c) The **evolutionaries and neo-schumpeterians** (Nelson y Winter, 1982; Dosi, 1988).

# New patterns of structural change



UNCTAD (2017) identifies how services are contributing to productivity growth through structural change within the services sector.



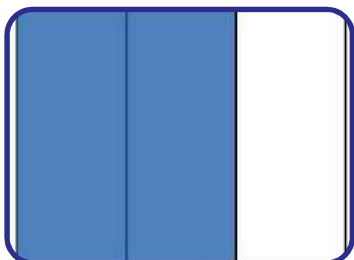
**The first channel** is associated with development opportunities, as there are **large productivity gaps** between sectors in countries at low levels of income and a services-led economic transformation could induce an increase in productivity.



The **second channel** contributes to overall productivity growth through an increase in productivity within the services sector and through the effects of services in other sectors.



# New patterns of structural change



The services sector is responsible for two thirds of total productivity growth in developing countries (UNCTAD, 2017).



Services can have positive impacts on structural change – through the **diversification of production**, the development of **new technological capabilities**, and through the exploration of new trajectories of **upgrading and value creation**.

# Services and GVC

The **offshore services** industry refers to trade in services conducted in one country and consumed in another. It entails firms' decisions to “perform functions or activities anywhere in the world” (McKinsey Global Institute, 2005, p. 454).

These decisions are based on the need to improve efficiency levels (labour costs and supply), enter new markets and gain access to strategic assets abroad (López, Ramos and Torre, 2008).

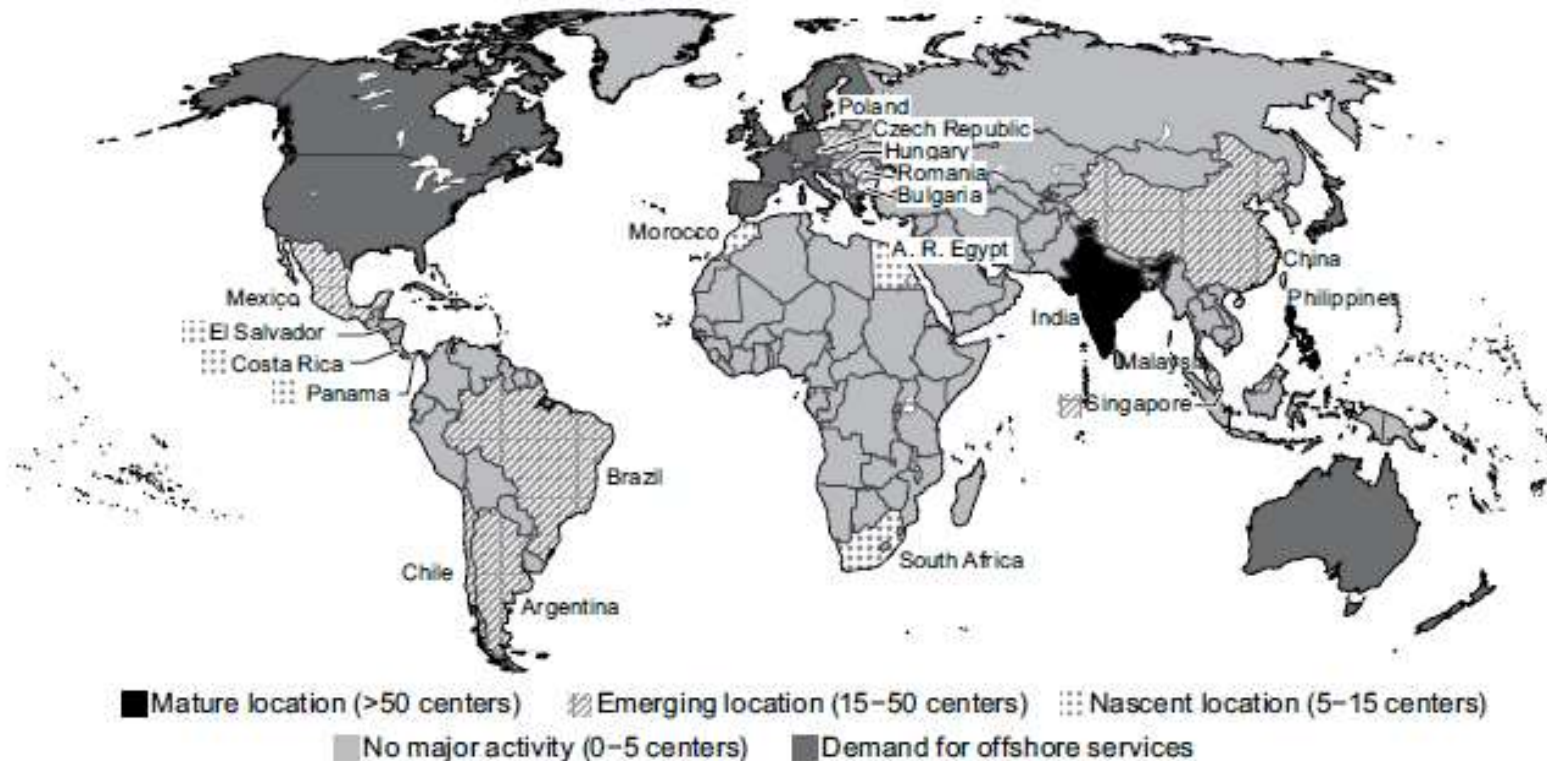
# Services and GVC

The complexity of internationally traded offshore services has increased significantly. What began with the outsourcing of basic information technology (IT) services to external firms now includes a wide array of activities known as **business process outsourcing (BPO)** and **knowledge process outsourcing (KPO)**.

The latter includes advanced activities in the value chain, such as research and development (R&D), which were long considered core functions exclusive to multinational firms and strictly the domain of the industrialized world.

# Services and GVC

Map 1  
The global supply for offshore services in 2008



Source: Center on Globalization, Governance & Competitiveness (CGGC), Duke University based on data from Everest.

Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

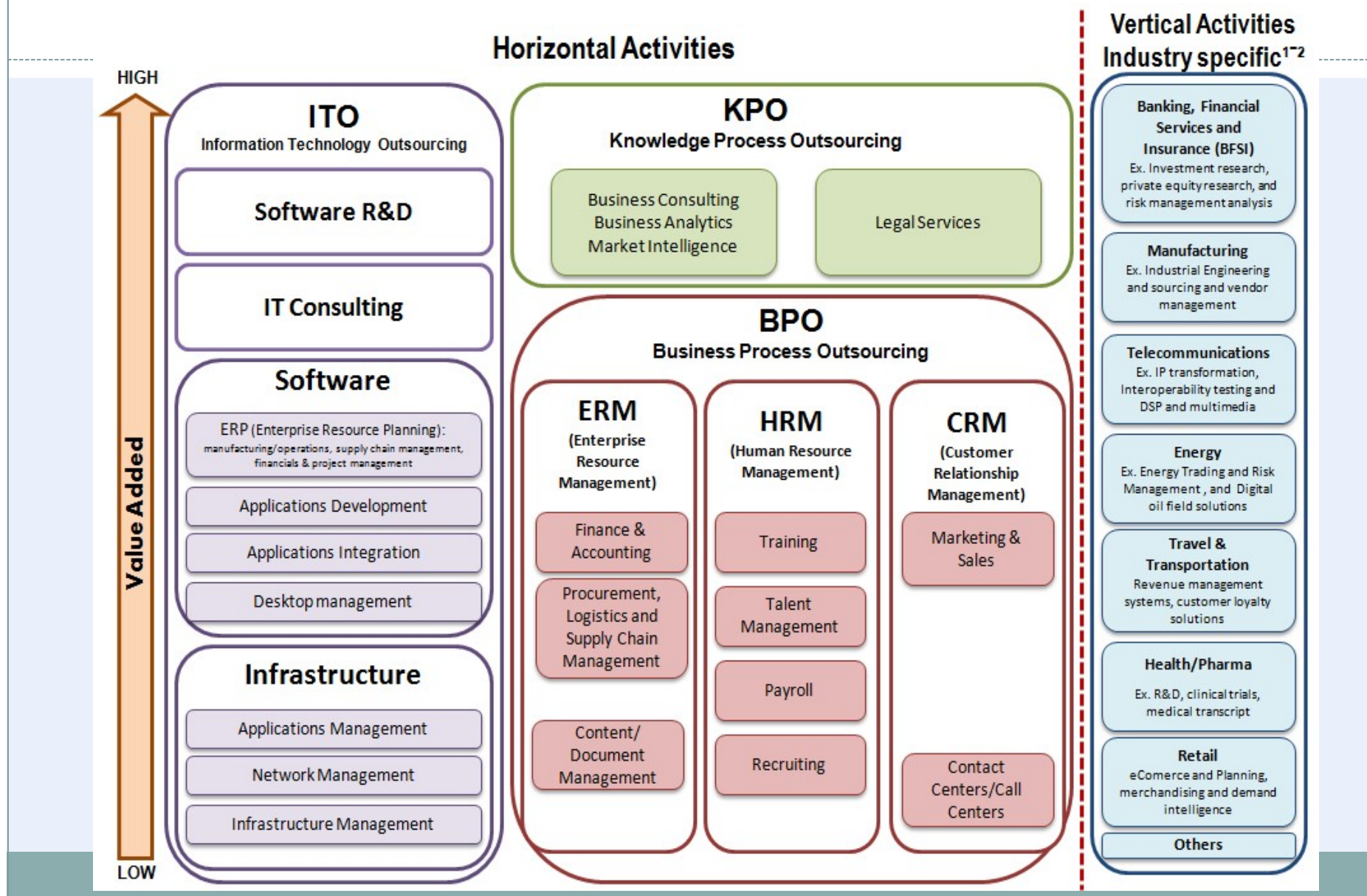
# Services and GVC

Several attempts have been made to characterize the different segments of the rapidly growing offshore services industry.

Gereffi and Fernandez-Stark (2010a) develop a comprehensive classification using the established global value chain (GVC) framework.



# Offshore Services Value Chain



# Mapping Selected Countries in the Offshore Services Value Chain



# Services and GVC

**Services inputs** (like engineering, design, banking, software and logistics) play an increasingly important role in global manufacturing as a direct contributor to the value-added incorporated in manufacturing products.

**Cross-border trade in services** has been traditionally defined as services provided internationally.

# Services and GVC

The different forms of supply envisaged in the WTO General Agreement on Trade in Services (GATS) and adopted widely as part of hundreds of bilateral free trade agreements (FTAs) are referred to as modes:

Mode 1- cross-border services trade (e.g. online transactions)

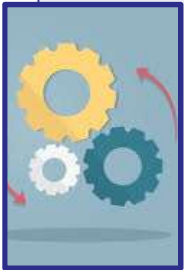
Mode 2 - customers purchase services while abroad (e.g. tourism)

Mode 3 - a services company sets up a commercial presence abroad

Mode 4 - a worker crosses the border temporarily to provide a service



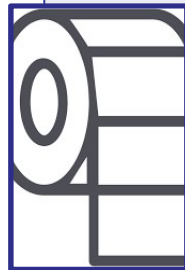
# Services and GVC



For instance, a considerable amount of **services are used to add value during the production process of a good** (e.g. R&D, engineering, design, energy) and the value of these inputs is ultimately treated as a good under the GATT and faces a tariff.



When services inputs are incorporated and traded internationally as part of an exported good, **such services exports are not covered by the GATS four traditional modes** mentioned above.



In line with the existing GATS terminology, this new mode of supply has been labelled **mode 5 services** (see Cernat and Kutlina-Dimitrova, 2014, Cernat and Mavroidis, 2014, Cernat and Sousa, 2015)



# *Servicification of manufacturing*

In recent years, policy makers and academics alike have recognised that there are **other forms of services supply** that are becoming increasingly important in international trade but are not covered by the four traditional modes of supply.

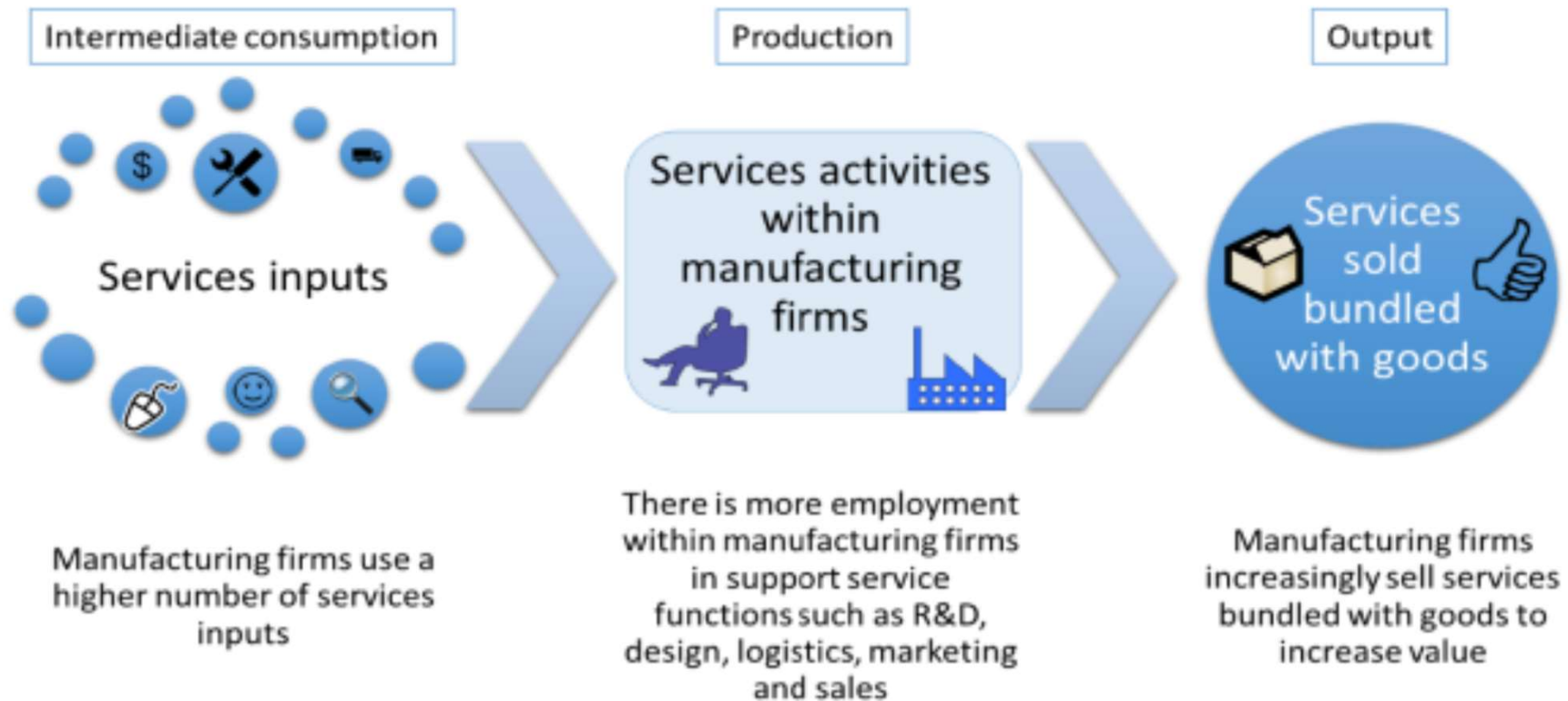
These are the services inputs that make up a part of manufactured goods and the growing importance of these services inputs has been referred to as the "***servicification***" of manufacturing.

# *Servicification* of manufacturing

The ***servicification*** of manufacturing means that the manufacturing sector is increasingly relying on services, either as intermediate inputs, as activities within firms or as output sold bundled with goods.

***Servicification*** is inherently related to GVC as it is through services that GVC actually operate.

# Three dimensions of *servicification*



Source: Miroudot y Cadestin (2017)

# Implications for trade policy

## **The nature of trade policy has also changed:**

- Investment, manufacturing and trade are global and regional, whereas 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 (US and China trade war)

## **Trade statistics must also change:**

- 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 (Escaith and Miroudot, 2012)

# Implications for industrial policy

## **There are three types of industrial policies**

- “**Horizontal**” policies that affect the entire national economy;
- “**Selective**” (or “**vertical**”) industrial policies targeted at particular industries or sectors;
- **GVC-oriented industrial policies** that leverage international supply chain linkages or dynamics to improve a country’s role in global or regional value chains (Gereffi and Sturgeon, 2013).



# Concluding remarks

Services are exported not only by services firms but also by manufacturing firms. These firms **export services that are bundled with physical goods** (e.g. installation, maintenance and repair services).

Through this process, **firms create more value** and try to accompany the existing product all along its life cycle.

**Services are not just inputs or products bundled with goods, they are also the output of value chains.**

While supply chains are often shorter for services, there is also a **fragmentation and internationalisation of production for services.**

# Concluding remarks

The ***servicification*** of manufacturing means that the manufacturing sector is increasingly relying on services, whether as inputs, as activities within firms or as output sold bundled with goods (Miroudot y Cadestin, 2017)

Services account for about **one third of value-added in manufacturing sales and exports**

TiVA statistics suggests that **services account for half of world trade in value-added terms**. Adding their in-house provision, the contribution of services increases to half of manufacturing value-added in sales or exports

# References

