Trade, Technology and Mode 5 Services: What is at Stake for Developing Countries?

by

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Background and rationale

• Technology and growing importance of services

• Services trade: GATS and mode 5

• The economic impact of a multilateral initiative on mode 5: CGE estimates

• Thinking ahead
What is Mode 5?

Basic definition:
Mode 5 = services exported as part of a good

Mode 5 = "Services in a box"
Industry 4.0, IoT, precision agriculture: Some mode 5 services examples

"The internet of farms" and "connected bananas"

- **Kenyan farms** are equipped with water tank sensors, soil moisture sensors and infrared light sensors (to monitor health of plants). The result is higher yields, lower farming costs, lower water consumption.
- **Colombian farmers** get IoT technologies for:
  - harvesting projection
  - optimized water usage
  - plagues and disease prevention
  - Traceability and SPS compliance

From mining to "data mining"

Traditional mining equipment may require:
- 900 hours of downtime and $650,000 in repairs
- With sensors and IoT technology this becomes less than 24 hours and only $12,000.
And a few more examples...

"Wake-up like an Egyptian"

A Cairo-based technology firm developed an IoT solution that can be integrated in day-to-day gadgets like fridges, TVs, coffee machines and remote controlled from your phone.

"Boltt Indian idea"

Boltt is an Indian start-up builds connected shoes, connected bands with AI software for sleep, fitness, nutrition and activity tracking.
The growing importance of mode 5

Change in share of services content in goods production (percentage points change between 2004 and 2011)
Mode 5 services: what tariffs do they face?

Figure 5 - Average of tariffs applied on sectors (GTAP database)
A Mode 5 initiative: liberalization scenarios

Scenario 1: we define the size of the tariff cuts on goods based on the service’s input share in goods production, in line with GTAP database

Scenario 2: tries to capture the growing role of technology & productivity gains expected from servicification

Scenario 1
2022-2025:
Cuts on tariffs (linked to service's content shares by country) and trade facilitation for services

Scenario 1 + capital productivity

Scenario 2
Mode 5 initiative: GDP impact

- World GDP would increase between $240-$300 bn per year
- Several developing countries expected to gain considerably
Mode 5 initiative: sectoral trade results

- World exports would increase by over $500 bn per year
Selected developing countries and regions:
Top 5 sectors with largest increase in export

ASEAN

Brasil

India

Mexico

China

LDC
Mode 5 and GATS services: Complements not substitutes!

Mode 5 – a triple win:
i) domestic firms; ii) services exporters; iii) manufacturers

Figure 11 - Change in share (percentage points difference vs baseline) in services content in world output production, domestic and imported
Thinking ahead

• Mode 5 services will account for a growing share of global trade flows

• Trade rules may need to evolve to keep the pace with GVCs, technology and innovation

• Technology is key for the future of some economic sectors and mode 5 services may be the key for technological leapfrogging in developing countries

• The GATT-GATS interface affecting technology and new services will become more important

• The "future is already here" and may require adapting existing trade rules, e.g. customs valuation, RoO, big data.

• Mode 5 would be a meaningful candidate for both bilateral and multilateral initiatives