SERVICES, TRADE AND DEVELOPMENT: SOME FINDINGS FROM RECENT RESEARCH

SESSION 1

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Services, Trade and Development:

Some Findings from Recent Research

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Four observations

In addition to the valuable lessons from UNCTAD Services Policy Reviews and Synthesis highlighting the importance of policy, regulatory and institutional reform:

1. **A non-compartmentalized view of reform and trade:** because reform in some sectors (services) may desirably shift comparative advantage towards others (manufacturing)

2. **Institutions and policies affecting skills and innovation:** may matter most in international services markets

3. **Demographic changes:** are shifting relative endowments and demand, and creating pressures abroad for services reform and new opportunities

4. **Pro-active international engagement:** should take newer, more ambitious forms, with greater emphasis on infrastructural coordination and regulatory cooperation
1. Understanding comparative advantage in services

Comparative advantage is determined by the interplay between:

• Endowments, especially of skills
• Infrastructure, especially telecommunications
• Institutions, especially regulatory
• Policies, especially trade and investment

Relative to those of the rest of the world. And will evolve with changes in the domestic and international economy.
Institutions matter: Evidence across Indian states

![Graph showing T&D Loss and Services per capita: averages over 1980-00]

Source: Amin and Mattoo (2006).
Direct and indirect trade in services: the evolving pattern of comparative advantage

Policy Matters: Persistence of Protection in the Most Dynamic Countries

New Database covers 103 countries (of which 79 are developing)

Source: Borchert, Gootiiz and Mattoo (2013)
Transport and Professional Services are the Most Protected across All Regions

STRI by sector and region:

Note: 103 countries included.

Borchert/Gootiiz/Mattoo (2013) -- Services Trade Restrictions Database
Licenses are almost always required and almost never automatic

Transparency, accountability and predictability

Criteria are usually public, reasons for denial are often provided, but fulfilment of publicly stated criteria does not automatically lead to a license being issued

Source: World Bank Services Trade Restrictions Database
Services reform as industrial policy

India’s services reform has boosted not only productivity and exports in services, but also the performance of downstream manufacturing industries.

Study based on panel data for 4,000 Indian firms for the 1990-2005 period finds that banking, telecommunications and transport reforms all have significant positive effects on the productivity of manufacturing firms.

Similar studies on the Czech Republic, Chile and African countries present robust empirical evidence.

Source: Arnold, Javorcik, Lipscomb and Mattoo (2010).
Services reform as trade facilitation

More restrictive transport policies are associated with more expensive and poorer quality logistics services

Availability of competitively priced logistics services

Quality of logistics services

Source: Borchert, Gootiiz, Grover and Mattoo (2010)
2. Growing trade and innovation in services in developing countries

A new study of Chile reveals that relatively few services firms export but size matters less for services exports...

Export propensity and firm size: % of firms in relevant size category that export 2005-06

… than having access to skills and ideas

Source: Iacovone, Mattoo and Zahler (2013)
Chilean services firms spend nearly as much on innovation as manufacturing firms

Expenditure on innovation by sector, (Average 2005-2006, using weights)

Source: Iacovone, Mattoo and Zahler (2013)
**Enaex** has become a global pioneer in providing rock blasting services to mining companies

- Milodon is the world's largest truck for mixing and loading of explosives.
- Inteliblast software processes input data and determines the type of rock fragmentation strategy.
- GPS device mounted on the arm allows location of the perforation and development of customized designs of the blasting processes based on field data.

Source: Iacovone, Mattoo and Zahler (2013)
The port terminal in the region of Arica and Parinacota has innovated along multiple dimensions to increase productivity

- Improvement of the port’s layout,
- More efficient slot allocation for management of trucks at the port,
- Automation of electronic records of the port loads entered, and
- New system to efficiently trace loads.

Source: Iacovone, Mattoo and Zahler (2013)
Cencosud has innovated in retail, creating a new client interface to enhance customers’ shopping experience.

For example, in the electronics section, no more in-store brand promoters but:

- An initial adviser who advises clients on the best product suited for their needs
- An expert who is available to answer technical questions and
- Comprehensive training in-store to costumers on product use

Source: Iacovone, Mattoo and Zahler (2013)
Mutually reinforcing relationship between trade and innovation: Exporters spend much more on innovation than non-exporters

Propensity to spend on innovation of exporters and non-exporters

Trade and innovation in services are increasingly seen as a way of breaking out of the middle income trap: But are current IP and innovation assistance regimes biased against services?

Source: Iacovone, Mattoo and Zahler (2013)
3. Demographic change and services trade

Shifting dependency ratios...

...are creating a mismatch between the demand and supply of face-to-face services

Source: Ozden (2012)
Despite growing cross-border trade, the gains from services trade yet to be fully realized

- Production of goods and electronically-traded services has been fragmented but not other face-to-face services like care of the elderly, health care and even education

- One dimension is movement of services providers

- Other dimension is movement of services consumers held back by more subtle barriers
The US could save over $1.4 billion annually even if only one in ten US patients chooses to undergo just 15 types of low-risk treatment abroad

<table>
<thead>
<tr>
<th>Procedure</th>
<th>US inpatient price ($)</th>
<th>US inpatient volume</th>
<th>US outpatient price ($)</th>
<th>US outpatient volume</th>
<th>Foreign price including travel cost ($)</th>
<th>Savings if 10% of US patients undergo surgery abroad instead of in the US ($)</th>
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<tbody>
<tr>
<td>Knee surgery</td>
<td>10,335</td>
<td>399,139</td>
<td>4,142</td>
<td>60,000</td>
<td>1,236</td>
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<td>Shoulder Arthroplasty</td>
<td>5,940</td>
<td>23,300</td>
<td>7,931</td>
<td>N/a</td>
<td>2,204</td>
<td>8,704,809</td>
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<td>TURP</td>
<td>4,127</td>
<td>111,936</td>
<td>3,303</td>
<td>88,064</td>
<td>2,385</td>
<td>27,581,317</td>
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<td>Tubal Ligation</td>
<td>5,663</td>
<td>78,771</td>
<td>3,442</td>
<td>621,229</td>
<td>1,248</td>
<td>171,065,574</td>
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<td>Hernia Repair</td>
<td>4,753</td>
<td>40,553</td>
<td>3,450</td>
<td>759,447</td>
<td>1,608</td>
<td>152,655,706</td>
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<td>Skin lesion excision</td>
<td>6,240</td>
<td>21,257</td>
<td>1,696</td>
<td>1,588,884</td>
<td>812</td>
<td>151,952,860</td>
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<td>Adult Tonsillectomy</td>
<td>3,398</td>
<td>17,251</td>
<td>1,931</td>
<td>102,749</td>
<td>1,010</td>
<td>13,588,218</td>
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<td>Hysterectomy</td>
<td>5,783</td>
<td>640,565</td>
<td>5,420</td>
<td>N/a</td>
<td>1,869</td>
<td>250,704,845</td>
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<td>Haemorrhoidectomy</td>
<td>4,945</td>
<td>12,787</td>
<td>2,081</td>
<td>137,213</td>
<td>781</td>
<td>23,160,663</td>
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<td>Rhinoplasty</td>
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<td>3,417</td>
<td>N/a</td>
<td>1,906</td>
<td>2,284,315</td>
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<td>Bunionectomy</td>
<td>6,046</td>
<td>3,139</td>
<td>2,392</td>
<td>41,507</td>
<td>1,487</td>
<td>5,186,290</td>
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<td>Cataract extraction</td>
<td>3,595</td>
<td>2,215</td>
<td>2,325</td>
<td>1,430,785</td>
<td>1,133</td>
<td>171,078,116</td>
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<td>Varicose vein surgery</td>
<td>7,065</td>
<td>1,957</td>
<td>2,373</td>
<td>148,043</td>
<td>1,393</td>
<td>15,618,521</td>
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<td>Glaucoma procedures</td>
<td>3,882</td>
<td>-</td>
<td>2,292</td>
<td>75,838</td>
<td>1,017</td>
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<td>Tympanoplasty</td>
<td>4,993</td>
<td>754</td>
<td>3,347</td>
<td>149,246</td>
<td>1,261</td>
<td>31,408,685</td>
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</table>

Total savings: $1,415,264,725

Source: Mattoo and Rathindran (2006)
Potentially big gains from the international fragmentation of education

- Need for education to be fragmented between:
  - Standardized components which poor would have a comparative advantage in providing and
  - Specialized components which would continue to be provided in rich world

- Cost-saving from even 2 years of education abroad could be $90,000 or 40% of the cost of a 4-year US medical education

- Quality is probably not a serious problem. Why?
  - About one-quarter of doctors, medical faculty, and nurses are already foreign trained

- Mobility is already rising:
  - Post-secondary US students studying abroad jumped from 65,000 in 1987-88 academic year to 260,000 in 2008-09.
  - US students studying in developing countries increased from around 2,500 students in 1987-88 to 57,000 in the 2008-09 academic year.

Source: Mattoo and Subramanian (2013)
Shifting economic dynamism is creating new incentives for North-South flows

Total Emigration from Five EU Countries Worst Affected by the Crisis, 2002-2011

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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>100,000</td>
<td>200,000</td>
<td>300,000</td>
<td>400,000</td>
<td>500,000</td>
<td>600,000</td>
<td>700,000</td>
<td>800,000</td>
<td>900,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Greece</td>
<td>50,000</td>
<td>150,000</td>
<td>250,000</td>
<td>350,000</td>
<td>450,000</td>
<td>550,000</td>
<td>650,000</td>
<td>750,000</td>
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<td>950,000</td>
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<td>Spain</td>
<td>200,000</td>
<td>300,000</td>
<td>400,000</td>
<td>500,000</td>
<td>600,000</td>
<td>700,000</td>
<td>800,000</td>
<td>900,000</td>
<td>1,000,000</td>
<td>1,100,000</td>
</tr>
<tr>
<td>Italy</td>
<td>50,000</td>
<td>100,000</td>
<td>150,000</td>
<td>200,000</td>
<td>250,000</td>
<td>300,000</td>
<td>350,000</td>
<td>400,000</td>
<td>450,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Portugal</td>
<td>20,000</td>
<td>40,000</td>
<td>60,000</td>
<td>80,000</td>
<td>100,000</td>
<td>120,000</td>
<td>140,000</td>
<td>160,000</td>
<td>180,000</td>
<td>200,000</td>
</tr>
</tbody>
</table>

Total Emigration from Spain by Region of Next Residence, 2011 (percentage of total emigration)

- EU: 33%
- Latin America: 32%
- Africa: 17%
- Asia: 10%
- Other: 8%

Source: Mattoo and Subramanian (2013)
Growing two-way flows

- **South-to-North mobility**
  - Unskilled workers move for work, preferably on a temporary basis, to boost the productive base in North and improve the fiscal situation; with the proviso that they could be remunerated at levels below nationals of the host country;
  - Students move for education, perhaps being charged higher for their education than the fees applicable to nationals in the host country;
  - The high skilled and talented move to boost global innovation
  - High skilled professionals (doctors and engineers) move to deliver medical and other services

- **North-to-South mobility**
  - Students move to acquire at least the standardized components of skilled professional education;
  - The sick move to acquire medical services, with the proviso that the fees that they are charged for services be higher than that for host country patients
  - The elderly in response to reduced pension benefits move to enjoy better standards of living and perhaps even cheaper medical care

Source: Mattoo and Subramanian (2013)
4. Shifting emphasis from market access negotiations to regulatory cooperation

While multilateralism has failed to deliver liberalization…

Uruguay Round Commitments, Doha Offers and Actual Policy

Source: Borchert, Gootiiz, Mattoo 2011
Regionalism too has so far had limited impact on actual policies

AFAS commitments, applied policy and Blueprint goals for each country

Note 1: Applied policy information for Brunei is missing.

Note 2: MMR = Myanmar, BRN = Brunei, THA = Thailand, PHL = Philippines, IDN = Indonesia, LAO = LAO PDR, MYS = Malaysia, SGP = Singapore, VNM = Vietnam, KHM = Cambodia.

Source: Gootiiz and Mattoo (2013)
What Role for Infrastructural Coordination?

Infrastructural Coordination; e.g. EASSY Cable

- Harmonization of regulatory frameworks and institutions.
  - ECOWAS- SADC- COMESA

- Building Regional Backbone Infrastructure.
  - RCIP

- Reduction of costs associated with rights of way through the installation of optical fibre cable on power lines to carry electricity supply between countries that have electricity.
  - ECOWAS- WAPP

- Pooling Demand and resources from regional capacity building

- Supporting regional players:
  - Celtel’s One Network expands 400 million people across 12 countries
Moreover, regulatory externalities matter in an insecure world

- Security a growing concern along multiple dimensions
  - Financial internationalization and financial security
  - Digital trade and informational security
  - Labor mobility and security
  - Demographic change and health and old-age security

- Common theme: a regulatory or policy externality transmitted through exports
- To which trade restrictions can become a second best response
- First best is regulatory cooperation
Regulatory cooperation is not just an “add-on” but a precondition for further liberalization

• In goods, a country could liberalize trade policy and still apply technical regulation at the border.

• The intangibility of services and the simultaneity of production and consumption makes pre-consumption inspection and post-production regulation difficult.

• An inability to ensure compliance with desired regulations ex ante translates into a reluctance to liberalize.

• Conversely, regulatory reassurance is a pre-condition for liberalization.
International cooperation for trade liberalization

- Conventional trade negotiations and rule-making discipline importers: tariffs are bound; quotas are prohibited or restricted; discrimination is prohibited or restricted; product standards must be “necessary”
- Limited scope for exporter disciplines or commitments (except on export subsidies, quotas and agricultural assistance)
- Advancing liberalization requires greater regulatory cooperation/policy coordination between exporters and importers
- Can happen multilaterally, regionally, bilaterally
What does regulatory cooperation mean in practice?

• Cooperation to ensure liberal trade in digital services and free data flows by addressing divergent standards of privacy. E.g. EU-US Safe Harbor Agreement; commitments by US firms to adhere to EU standards policed by US FTC; evolving and renegotiated

• Cooperation between host and source countries on mode 4 (as in bilateral labor agreements). E.g. Spain-Ecuador; Korea-Philippines; commitments by source countries to certify, facilitate repatriation, combat illegal migration

• Cooperation to address heterogeneity in prudential regulation in finance, “financial nationalism”, etc. E.g. threat to the EU internal financial market and the EU-US markets by the erosion of regulatory cooperation (e.g. Icesave dispute; implications of Dodd-Frank)

• Cooperation on pro-competitive regulation (e.g. in financial, transport and communication services) E.g. EU-US cooperation on price rigging by financial institutions, EU-US action on collusive arrangements in air and maritime transport; but less so far in developing countries
Regulatory cooperation creates a risk of exclusion

• Regulatory cooperation will inevitably be among a sub-set of countries – at least initially
• New emphasis on regulatory convergence in mega-regionals (e.g. TPP, TTIP)
• Risk of trade based on mutual trust rather than comparative advantage
• Both harmonization and mutual recognition can benefit and hurt third countries
Trade diversion through harmonization?

• Benefit: Harmonization creates a common standard which is the same for firms all over the world who can all reap economies of scale (analogous to a customs union)

• Downside: If the harmonized standard is more stringent than some of the original standards, then since costs of compliance vary, those less equipped to meet the higher standard could suffer.

• For example, when the EU decided in the late 1990s to harmonize standards for aflatoxins, eight member states (including Italy, the Netherlands and Spain) drastically tightened national standards. As a result, African exports of cereals, dried fruits and nuts to Europe may have declined by as much as US$ 670 million (Wilson et al. 2001)
Trade diversion through MRAs?

- Benefit: mutual recognition grants firms the opportunity to fulfill the least stringent requirement – even more liberalizing than harmonization (analogous to an FTA).

- Downside: imposition of restrictive rules of origin. If benefits of MRAs not available to firms in other countries, they must continue to fulfill separate requirements and are disadvantaged.

- Example: EU’s MRAs on professional services standards. Chen and Mattoo (2008) finds that, when MRAs include restrictive rules of origin, intra-regional trade increases at the expense of imports from other countries and developing countries tend to suffer most.
• Article VII on Mutual Recognition Agreements balances permissiveness with conditions to ensure “open recognition” (VII:2) and non-discrimination (VII:3)
• The ability to leveraging MRAs via MFN principle could be diluted by treating MRAs as covered by (and notified under) Article V on regional agreements
• Ideally:
  – First, participants should generally favor mutual recognition and agree not to impose restrictive rules of origin.
  – Second, where participants consider harmonization, there should be a stronger presumption in favor of international standards where they exist; if they don’t, countries should favor the less stringent of the original standards unless there is credible evidence that it would not help meet the relevant regulatory objective.
  – Third, there could be WTO mechanisms for multilateralizing MRAs to reduce the costs of relying on individual third-country initiatives.
• Inadequate appreciation of the costs of harmonization especially when standards are not separable, e.g. Philippines and privacy law
How can we strengthen case for foreign recognition without sacrificing access to services at home?

Tyranny of international standards? For example in:

- Professional services
- Privacy and data flows
- Financial regulation

Adhering to international standards could jeopardize access to services at home.

Are dual standards a solution?
Developing appropriate standards?

- A precedent is training and certification of medical technicians whose services are more affordable and who are willing to work outside of Maputo.