Measuring ICT-enabled Services Exports
project background and motivation

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Expert Meeting on Results from Pilot Surveys on Exports of ICT-enabled Services
28-29 November 2017
Geneva
Our project

- We come from the perspective of statistics on the information economy - including the ICT sector, and the use ICT by enterprises
- No comparable statistics on trade in ICT-related services
- Many existing alternative approaches and definitions
- Demand for better data from countries exporters of such services
- Need to understand the impact of enhanced ICT access and use on services trade
- Rapidly growing demand for better e-commerce statistics, and especially cross-border e-commerce
Motivation for the project

- Services are increasingly traded, but the statistical system for classifying and capturing them lags behind

- ICTs are a key enabling factor
  - Falling prices for voice and data communications
  - Can segment and relocate work to remote locations (ICT-enabled services)
  - Evolution from basic call centers to much more complex business processes (BPO >>> KPO)

- Trade negotiations: renewed interest in services and e-commerce

- It is crucial that policymakers can quantify such trade more accurately than the current statistical system allows

- Interest to understand how better ICT access can lead to growth in trade in services
Motivation for the project

- In **Thailand** exports of telecommunication, computer and information services + other business services = USD 9 billion, equivalent to 15% of Thai services exports in 2016, 7% annual growth rate in the past 10 years

- H.E. Alexander Mora, Minister of Foreign Trade of **Costa Rica**
  - "Digitally-enabled is key. We need to identify opportunities, such as from digital development, and bring those opportunities into business, and our societies"
  - telecommunication, computer and information services + other business services = USD 3.9 billion, or nearly ½ of services exports, 6.5 times higher than in 2005

- In **India** telecommunication, computer and information services + other business services = USD 109 billion, represent more than 2/3 of total services exports in 2016, and 3 times higher than in 2005 >>> Reserve Bank of India survey, 82% of software services are delivered via mode 1

- In **Egypt** - same sector - USD 1.3 billion in 2015 (latest year with available data), about 7% of total services exports; high volatility from one year to the next
Events and initiatives related to e-commerce and digital trade

- UNCTAD E-commerce Week 2017
- Global Aid for Trade Review July 2017
- MC11 WTO Ministerial Dec 2017
- G20 2017 discussions
- First UNCTAD Intergovernmental Expert Group on E-commerce and the Digital Economy, 4-6 October 2017

- recommended establishment of a Working Group on Measuring E-commerce and the Digital Economy

- **SAVE THE DATE**: UNCTAD E-commerce Week & 2nd Intergovernmental Expert Group on 16-20 April 2018
Motivation in similar studies and reports

- US BEA Trends in US Trade in ICT services and ICT-enabled services, May 2016:
  - "to promote a better understanding how US companies engaged in services trade are reaching global markets"
  - "it is not possible to identify precisely ICT-enabled services using the EBOPS 2010 measurement framework because this is based on types of services, not on the mode of delivery"

- Eurostat, November 2016
  - "there is a need to enable an assessment of the relative importance of the different modes of supply in a given sector and the impact of measures affecting each mode of supply"
The UNCTAD initiative on ICT services statistics

- Goal: to develop **indicators** + practical **proposals** on how to collect country-level data in the context of limited resources
- In 2014 set up Partnership Task Group on Measuring Trade in ICT Services and ICT-enabled Services (TGServ)
  - Members: UNCTAD, WTO, OECD, UNSD, UNESCWA, World Bank and ITU
  - Tim Sturgeon, MIT, lead consultant
  - Close interaction with UN Task Force on International Trade Statistics (TFITS)
  - Proposed definition and methodological approach
- Funding provided by the Government of Sweden
Outcome of the UNCTAD initiative on ICT services statistics

- **Definition and methodology**: UNCTAD Technical Note on International Trade in ICT Services and ICT-enabled Services: (TN/UNCTAD/ICT4D/03) [www.unctad.org/ict4d/technicalnotes](http://www.unctad.org/ict4d/technicalnotes)
  - United Nations Statistical Commission reviews and adopts definition, 47th session (March 2016)

- In 2016 produced a **model survey questionnaire**
  - Developed by Thierry Coulet, UNCTAD consultant
  - Comments received from: WTO, Costa Rica (Central Bank and Ministry of Foreign Trade), India (Ministry of Industry and Commerce), Thailand (Electronic Transactions Development Agency), Egypt (Ministry of ICT), IMF, OECD
  - Builds on existing methodologies and measurement frameworks: IMF balance of payments -model survey forms - and Statistics New Zealand Census of Services (2011) by mode of supply

- During 2017 technical assistance provides for survey implementation in Costa Rica, India and Thailand in 2017
Preparatory meetings for pilot survey implementation

Central Bank of Costa Rica
3-4 May 2017

Electronic Transactions Development Agency, Thailand, 30-31 October 2017

Ministry of Commerce and Industry, India
13-14 July 2017
Definition

- **Potential ICT-enabled services** = *services with outputs that can be delivered remotely over ICT networks*
  - Define **potential** ICT-enabled services using detail in CPC Ver.2.1 and the official correspondence to EBOPS 2010
  - Exclude **transport services** (involve manipulation or transport of people, physical objects, material, or electricity)
  - Exclude **on-site or in-person services** (require on-site or personal delivery)
  - EBOPS 2010 not amenable for identifying ICT-enabled services

- **Actual** ICT-enabled services are every similar to Mode 1 (GATS) cross-border supply for the selected services >>> survey question asks for *share of services delivered over ICT networks*

- Given the lack of data by mode of supply (GATS) a survey-based approach was preferred for producing the statistics

- For example: a firm delivers bookkeeping and accounting services by email/dedicated Internet platforms to a customer in a foreign country
The UNCTAD approach

- **1st step:** look at existing measurement frameworks and define the types of services that can be ICT-enabled >>> a taxonomy of such services using the most detailed international classification of services CPC Ver.2.1 >>> list of "potential ICT-enabled services" building on existing concepts, methods and classifications

- **2nd step:** it matters how these services are actually delivered >>> need to build in another type of survey question by mode of delivery >>> similar to the discussion on WTO GATS modes of supply >>> "actual ICT-enabled services"

- Focus on exports of services, as smaller population of firms to survey

- The survey approach is different from the simplified allocation by mode of delivery in MSITS (2010)
TGServ report main findings - under which headings would potential ICT-enabled services be included under existing trade in services data (EBOPS 2010 main components)?

Source: UNCTAD ICT4D Technical Note 3, derived from UN Statistical Division, “Correspondence between the EBOPS 2010 and the Central Product Classification (CPC, version 2) - Detailed version”
New Complementary Grouping for trade in ICT-enabled services

- "ICT-enabled services" more comprehensive coverage than "call centers" or “business process outsourcing (BPO)"

Categories for measuring trade in ICT-enabled services

<table>
<thead>
<tr>
<th>1.1 Telecommunications</th>
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<tr>
<td>1.2 Computer services (including computer software)</td>
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<tr>
<td>1.3 Sales and marketing services, not incl. trade and leasing services</td>
</tr>
<tr>
<td>1.4 Information services</td>
</tr>
<tr>
<td>1.5 Insurance and financial services</td>
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<tr>
<td>1.6 Management, administration, and back office services</td>
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<td>1.7 Licensing services</td>
</tr>
<tr>
<td>1.8 Engineering, related technical services, research and development (R&amp;D)</td>
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<tr>
<td>1.9 Education and training services</td>
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ICT services

Potential ICT-enabled services

Other potential ICT-enabled services
Strengths of the current approach

- Follows as closely as possible the recommendations of the MSITS (2010), existing methodological guidelines and uses international classifications

- Rather than use assumptions to allocate a predominant mode of supply, the survey asks the question on how the service was actually delivered

- Builds on the IMF model survey forms, as well as New Zealand's 2011 Census of International Trade in Services

- Model survey questionnaire provided + possibility to add national questions

- First stage focus on exporting enterprises- a smaller, more concentrated population, easier to survey

- Allows for identification of foreign controlled enterprises (can give a picture of integration in global value chains), allows for identification of partner countries

- Engagement of different interested stakeholders: typically Ministries of Foreign Trade, Central Banks, private sector IT associations, export promotion agencies

- Strong ownership of the project: implemented by national agencies, with technical assistance from UNCTAD
Main challenges encountered

- Challenges to identifying the appropriate sampling frame:
  - absence of a business register (or not up to date)
  - absence of a balance of payments register / ITRS register
  - limited experience of the trade in services data compiler with enterprise surveys

- Challenges related to data confidentiality and the sharing information between institutions on for e.g. sampling frames, administrative data for validation, non-existing unique enterprise identifier

- Missing legal framework to enforce such data collection

- Difficulties to collect data from more specialized sectors, such as insurance services

- Any other difficulties?
After testing the questionnaire

- Satisfactory response rate?
- Do we need to insert more/fewer methodological notes?
- Are some questions typically left unanswered?
- Which questions needed frequently further clarification?
- but also...
- Were you able to obtain meaningful data?
- How do the new data compare with previous estimates?
- Are you considering publishing the results?
- Are you considering conducting the survey again in the future?
- Would you like to add further questions to the questionnaire?
- Is there any particular related areas in which you would need further technical assistance?
Expected outcomes / Next steps

- **28-29 November 2017** - UNCTAD to organize **expert meeting** on lessons learned from the surveys already conducted or under way - with the participation of the implementing agencies and experts from international organizations.

- Update the questionnaire and prepare detailed report for the donors - opportunity to request additional funding for implementation in a second round,

- Publish a summary report of findings - first semester of 2018
Thank you for your attention!

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