



# Electronic transmissions and international trade – Shedding new light on the Moratorium debate

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## » Value in bringing new perspectives to this debate

- No official WTO agreement on definition of an electronic transmission making it difficult to identify its economic impact. Assumption need to be made about:
  - What has been digitised and what will be digitised in the future; and
  - What the scope of the Moratorium is i.e. what tariffs could be charged on which goods and/or services or content absent the Moratorium.
- With no easy answer as to what the counterfactual to the Moratorium should be, there is value in taking a step back to:
  1. Put existing estimates into perspective.
  2. Deepen the debate about the impact of tariffs; and
  3. Broaden the debate so as to take into account the benefits of electronic transmissions (given rather narrow focus on revenue implications).



# 1. PUTTING EXISTING ESTIMATES INTO PERSPECTIVE

# Estimated foregone revenue ranges widely, but as a share of overall revenue it is small (and concentrated in countries which rely least on customs revenue).

Study	Duty type	Average total revenue losses					
		million USD		% of total customs revenues		% of total government revenues	
		Developed countries	Developing countries	Developed countries	Developing countries	Developed countries	Developing countries
Schunknecht and Pérez-Esteve (1999)	Applied rates	233.4	613.5	0.70	0.90	0.01	0.13
Teltscher (2000)	Applied rates	264.0	449.3	1.39	0.70	0.02	0.07
WTO (2016)	Applied rates	117.2	236.8	0.20	0.65	0.01	0.06
Banga (2017)	Bound rates	24.5	255.8	0.03*	0.15*	0.00*	0.01*
Banga (2019)	Applied rates	123.8	2,788.5	0.16*	1.58*	0.00*	0.08*
	MFN duties	212.2	3,482.9	0.24*	2.00*	0.00*	0.10*
	Bound rates	212.2	8,043.9	0.24*	4.35*	0.00*	0.23*

\*Estimates obtained using World Development Indicators

## » And it is worth recalling that

- Not all trade that can be digitised will be digitised i.e. in USA e-books represent 20% of total book sales.
- More e-transmissions can lead to greater demand for phones, speakers, headphones, etc.
- The value of trade that is likely to become digitisable in the next few years is also small – according to McKinsey 1-2% of physical trade could be replaced by 2030. This is because
  - Adoption of 3D printing tech., while growing, has been slow.
  - There are limitations to the use of 3DP (lack of economies of scale, long print-time, material limitations, size of objects).
  - Adoption of technology does not necessarily imply a reduction in cross-border trade in goods (case of hearing aids – World Bank Study).
- There can be methodological issues with the use of bound tariffs for this analysis (assumes changes in objective function of government and calculation might not consider price effects).

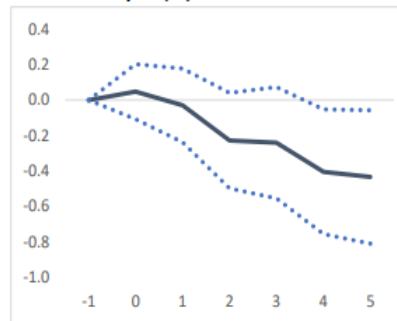


## **2. DEEPENING THE DEBATE: THINKING ABOUT THE COSTS OF TARIFFS**

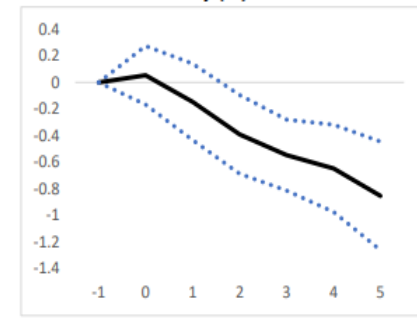
## Tariffs fall on domestic consumers and can have adverse macroeconomic effects

- The **burden of tariffs falls mainly on domestic consumers** who face higher prices rather than on foreign firms.
- Tariffs can also have **adverse macroeconomic effects** (IMF, 2019).

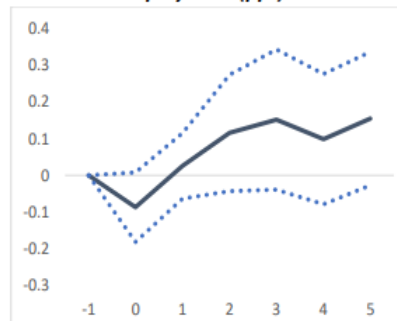
Panel A. Output (%)



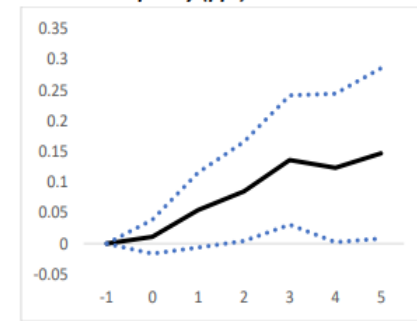
Panel B. Productivity (%)



Panel C. Unemployment (ppt)



Panel D. Inequality (ppt)



## » Tariffs can be an unstable source of government revenue and might be difficult to collect on electronic transmissions

- Relative to alternative taxes, customs duties are “easy to collect” (Aizeman and Jinjark, 2006), which is why developing countries tend to be more reliant on them. Unclear if this is the case for electronic transmissions.
- Tariffs can
  - Be a **volatile source of revenue** (Ebeke and Ehrhart, 2011)
  - Be an **inefficient source** relative to other taxes (Kowalski 2005)
  - **Apply to a narrow base** (Whalley, 2002).
- This is why countries are moving to **other forms of taxation**, especially for the digital economy (e.g. Australia GST and BEPS).





### **3. BROADENING THE DEBATE: IDENTIFYING THE BENEFITS OF ELECTRONIC TRANSMISSIONS**

## » Removing tariffs is, overall, welfare enhancing

- Impact of removing tariffs = Consumer welfare – producer welfare – revenue loss.
- Simple experiment on impact of liberalising the 49 digitisable goods in Banga (2019) using WITS-SMART partial equilibrium model shows that **revenue impact is completely offset by gains in consumer welfare**, and this even before considering gains associated to reductions in transport costs.

	Tariff Revenue	Consumer Surplus	Net Impact
Developing	- 844,078.67	917,813.11	73,734.44
Developed	- 20,446.86	20,582.69	135.83
TOTAL	- 864,525.53	938,395.80	73,870.27

## Need to look more closely at benefits arising from trade cost reductions and use of digital inputs and technologies

- Digitising goods is tantamount to a **reduction in transport costs** (see WTO (2018) which can represent between **20-30% of total trade costs** for goods (Duval, Utoktham and Kravchenko, 2018).
- This suggests that electronic transmissions can offer poorer countries new opportunities to overcome their trade cost disadvantages.
- The **use** of foreign business services, which can increasingly be digitally delivered, is found to **increase export competitiveness** (more in lower middle income and lower income countries).
- Digital technologies such as webpages or digital delivery **allow firms in developing countries, including SMEs, to become exporters**, giving rise to new opportunities to grow.



**WHAT DOES THIS ALL MEAN?**

## Summary and policy considerations

- The paper suggests that a broader view of costs and benefits allow for a more holistic understanding of the issues around the Moratorium debate.
- Careful consideration should be given to all these issues and not just revenue implications when thinking about whether or not to extend Moratorium.

## **Contact us**

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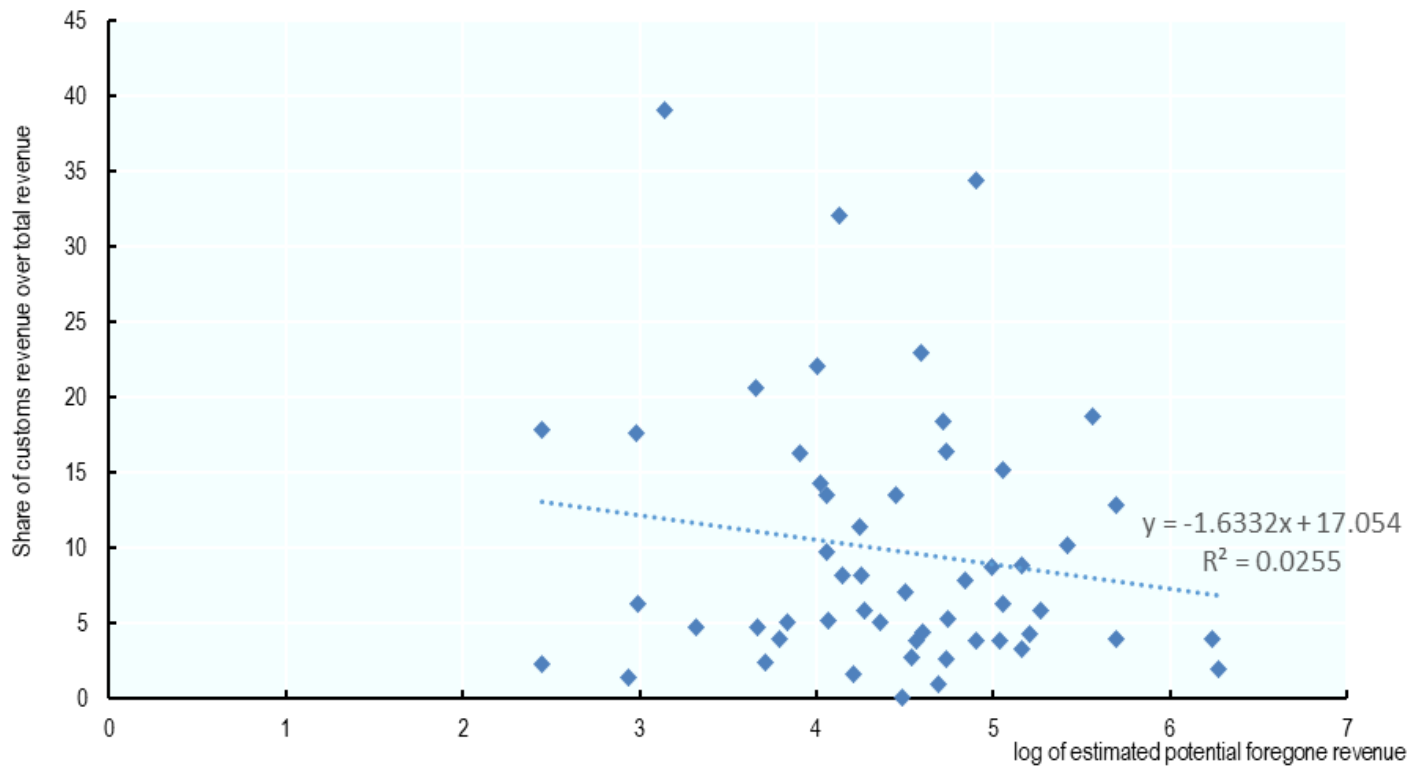
[tad.contact@oecd.org](mailto:tad.contact@oecd.org)



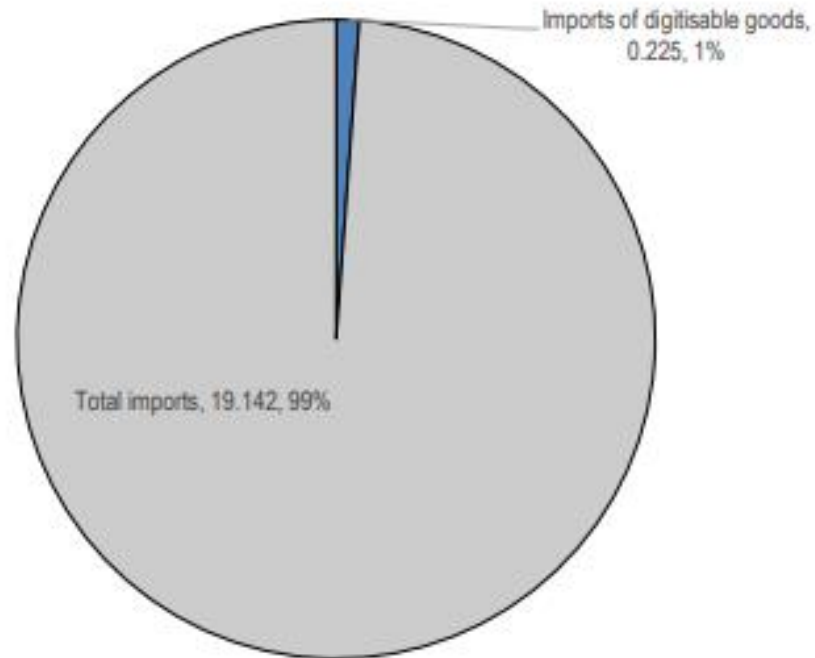
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# ➤ Potential revenue losses are in countries which rely least on customs revenue as a source of overall government revenue



## » The amount of trade that is involved is, to date, relatively small...



Note: Values in USD trillion. Includes countries covered in Banga (2019).  
Source: Own calculations using Banga (2019<sub>[25]</sub>) and WDI.



## » Using Bound tariffs for analysis

- Using bound tariffs to calculate potential revenue implications can be controversial as it assumes that:
  - Countries would revert to bound tariffs even when there are preferences and commitments in FTAs.
  - Governments would change current tariff policy stance to favour revenue collection over other objectives
- Matters because results vary considerably.
- Also, calculation in Banga (2019) **assumes no price effects**. If tariff goes up from 13% to 80% as would be the case for Nigeria, then demand should fall... multiplying bound rate by value will overestimate revenue collection.

Country	Value of imports (million USD)	Applied rate	Bound rate	Revenue loss 1 (AHS)	Revenue loss 2 (BND)
Nigeria	726	13%	80%	94.38	580.8

## Estimates of revenue implications vary widely

	Physical Imports of Digitizable Products (\$Mn)	Estimated On-Line Imports or ET of Digitizable Products (\$Mn)	Estimated Total Imports of Digitizable Products (\$Mn)	Simple Average of Bound Duties in 2017 (%)	Simple Average of MFN Duties in 2017 (%)	Potential Tariff Revenue Loss using Average Bound Duties (\$Mn)	Potential Tariff Revenue Loss using Average MFN Duties (\$Mn)
WTO Developing members (excluding LDCs)	28 399	51 558	79 957	12.6	6.5	<b>10 075</b>	<b>5 197</b>
WTO High-Income	81 604	62 962	144 566	0.2	0.2	289	289

- Value of ‘digitazable products’ \* applied tariff  $\approx$  Revenue impact
- Value of ‘digitazable products’ \* bound tariff  $\neq$  Revenue impact