

# **WTO Accession and Trade Policy Uncertainty**

Seminar on WTO Accessions Rules, February 5, 2019



WORLD TRADE ORGANIZATION  
ORGANISATION MONDIALE DU COMMERCE  
ORGANIZACIÓN MUNDIAL DEL COMERCIO

# Disclaimer

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# Part 0 : Brexit

# Trade Policy Uncertainty

- Dhingra et al. (2017) use a quantitative trade model to estimate long-run impact: -2.7% GDP/capita
- Omitted factors (hard to model) affecting long-run welfare: fall in FDI stock, reduction in variety, weaker competition, erosion of vertical production chains, slower technology adoption, less learning from exports, less R&D.
- Dhingra et al. (2017) use “reduced form” evidence on impact of trade on GDP to include these dynamic effects: -9.5% to -6.3% GDP/capita

Part 1 :  
Trade Agreements and Policy Uncertainty

# Economic Rationale for Trade Agreements

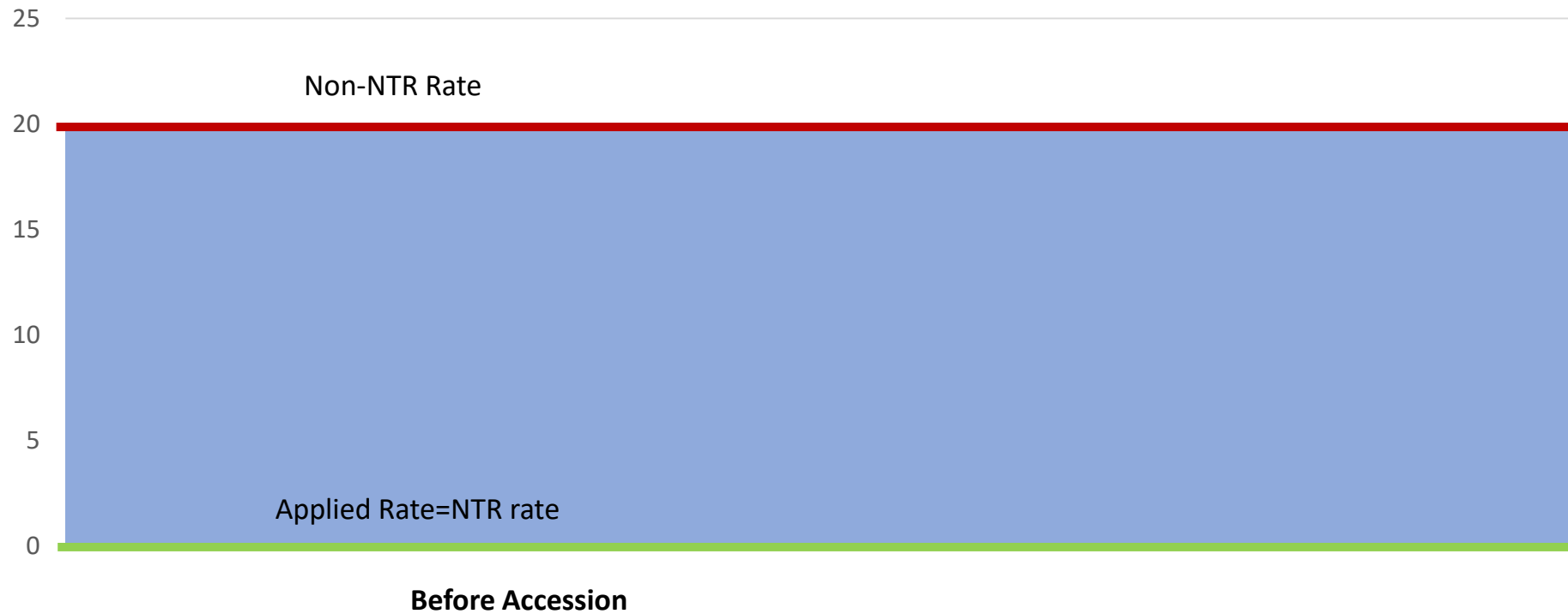
1. The terms-of-trade externality. Agreement neutralises effect of unilateral trade policies on world price (Bagwell and Staiger 1999, 2002).
2. Firm relocation externality (Ossa 2011).
3. **Reduction of trade policy uncertainty externality (Limão and Maggi 2015).**
4. Commitment motive. Being able to credibly commit to a policy despite future domestic pressures. (Maggi and Rodriguez-Claire 1998).

# Reducing uncertainty

- How do bindings reduce uncertainty?
- What is the cost of uncertainty?

# How do binding reduce uncertainty?

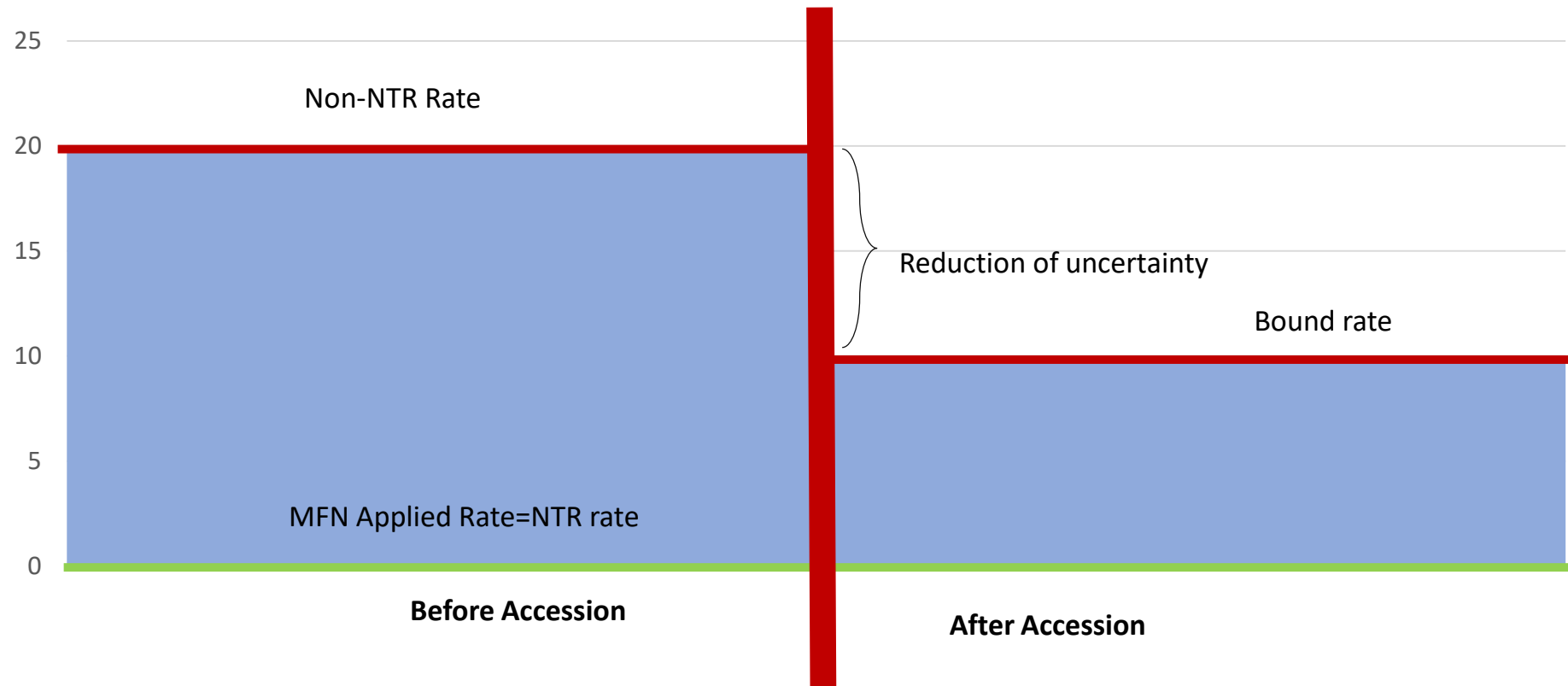
Example: China's accession to WTO and the US Permanent Normal Trade Relations





# How do binding reduce uncertainty?

## Example: China's accession to WTO and the Permanent Normal Trade Relations



# What is the cost of uncertainty?

IHS-Markit global PMI new export orders, Jan. 2010-Mar. 2018

(Index, base=50)



Note: Values greater than 50 indicate expansion while values less than 50 denote contraction.

Source: IHS Markit.

Since raising tensions among major trading partners ...

- An index of export orders has fallen from **54.1 in January** to **50.9 in April**
- An index of policy uncertainty based on news has risen to **154.9 in April** from **110.2 in January**. (Baker, Bloom, and Davis, 2016)

Uncertainty of trading conditions has an important effect on trade

# What is the cost of uncertainty?

- **Why uncertainty about trade policy can have trade effects?**
  - Firms worldwide report that policy uncertainty is a top constraint in doing business (World Bank Development Report 2005).
  - It leads investors and traders to delay investments and other trading decisions (Bernanke 1983, Dixit 1989).
  - There is an “option value” to waiting if the trader has to make sunk investments but is faced with uncertainty.
  - Extensive or Intensive margin?
    - Investment to enter a new market
    - Investment to upgrade capacity, investment by more firms to enter the market
- **Economists estimates significant effects on trade**
  - Osnago et al. (2018) show that the current system of commitments boosts trade by between 10 and 30 percent, compared with a world where at any moment tariffs could be raised to an arbitrarily high level (prohibitive level).

# Trade Policy Uncertainty



Kyle Handley (2011, 2014) shows that in an environment where trade policy reacts to shocks, the establishment of WTO binding commitments, **even if they are set at levels above the applied MFN tariffs**, lowers the option value of waiting to invest to enter foreign markets by mitigating the worst-case scenario, and hence increases exports.

Jakubik and Piermartini (2019) show that in general (1996-2011) trade policy (MFN rates and contingent protection) reacts to shocks for a large set of WTO members.

# Examples of Uncertainty Reductions



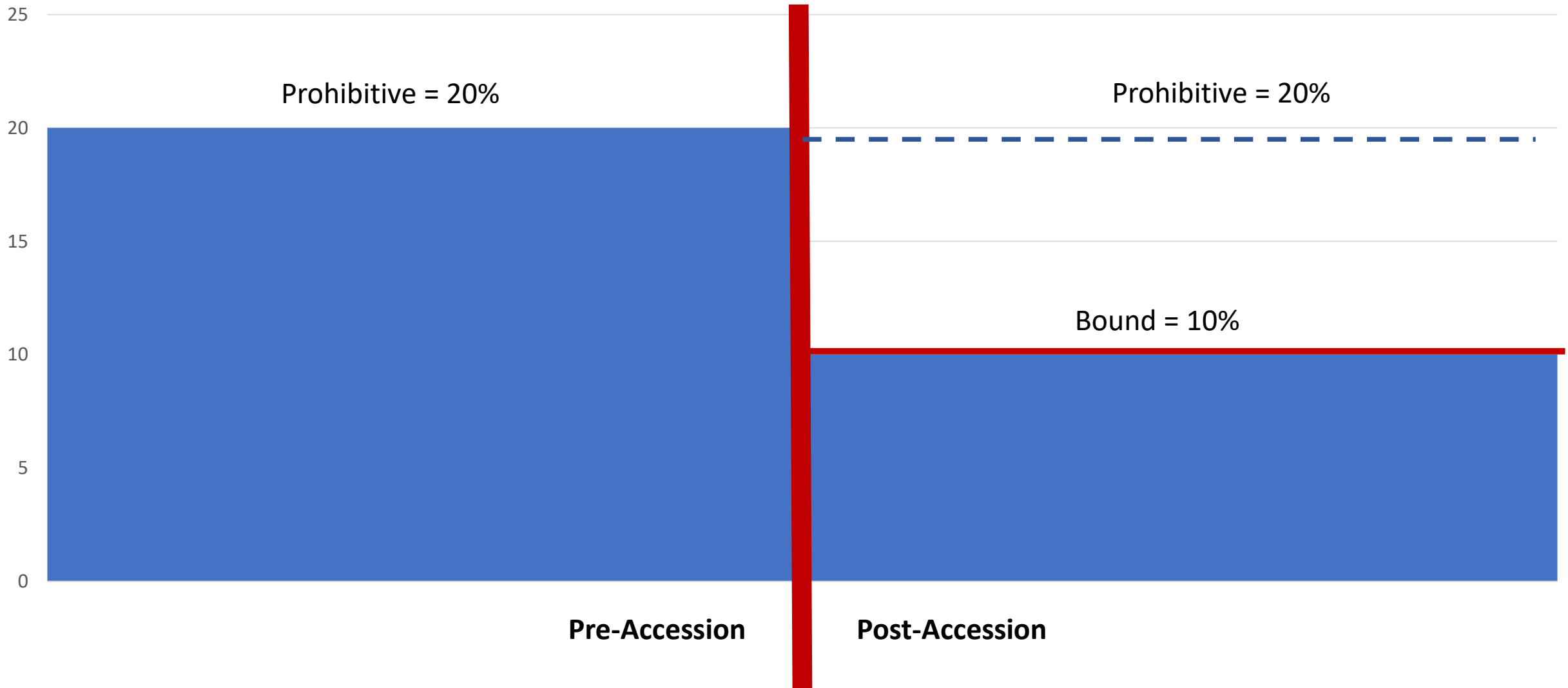
Handley (2014) – WTO bindings introduced in 1995 increased product variety (exporter market entry) of exports to Australia by 7.53%

Handley and Limão (2015) – Portugal's accession to European Community reduced 'bilateral' uncertainty and explains 61% of firm entry into exporting, 87% of export value growth.

Handley and Limão (2017) – China's WTO accession (reduced uncertainty) responsible for over **one-third** of 2000-2005 export growth to US. Reduced prices and increased consumer welfare in the US.

Part 2 :  
Measuring Trade Policy Uncertainty  
Reduction due to WTO Accession

# Bindings Create Policy Certainty



# A Definition

- Uncertainty faced by an exporting firms has two components:
- 1. Likelihood tariffs in destination increase (range: 0-1)
- 2. If they increase, **range of possible future tariffs** (range: 0-max)
- max = binding in trade agreement OR prohibitively high (no trade)
- Pre-accession = prohibitive / prohibitive = 1
- Post-accession = bound / prohibitive = from 0 to 1
- At product level, TPU reductions not correlated with tariff reductions



Definition:

Prohibitive Tariff =  $\text{Tariff} + (1 + \text{Tariff}) / \text{Import Demand Elasticity}$   
(Nicita, Olarreaga, Silva, 2018)

Import Demand Elasticity data from Kee, Nicita, Olarreaga (2008)

# Applied Tariffs Before Accession:

DATA AVAILABLE	NO DATA
China	Afghanistan
Chinese Taipei	Albania
Estonia	Armenia
Lao People's Democratic Republic	Bulgaria
Latvia	Cabo Verde
Liberia	Cambodia
Mongolia	Croatia
Nepal	Ecuador
Russian Federation	Georgia
Samoa	Jordan
Saudi Arabia	Kazakhstan
Tajikistan	Kyrgyz Republic
FYR Macedonia	Lithuania
Ukraine	Moldova
Vanuatu	Montenegro
Viet Nam	Oman
Yemen	Panama
	Seychelles
	Tonga

# Elasticities:

DATA AVAILABLE
China
Chinese Taipei
Estonia
Latvia
Mongolia
Nepal
Russian Federation
Saudi Arabia
FYR Macedonia
Ukraine

<b>MEMBER</b>	<b>Average Prohibitive Tariff</b>
<b>China</b>	<b>191</b>
<b>Chinese Taipei</b>	<b>160</b>
<b>Estonia</b>	<b>124</b>
<b>Latvia</b>	<b>358</b>
<b>Mongolia</b>	<b>131</b>
<b>Nepal</b>	<b>178</b>
<b>Russian Federation</b>	<b>219</b>
<b>Saudi Arabia</b>	<b>185</b>
<b>FYR Macedonia</b>	<b>178</b>
<b>Ukraine</b>	<b>317</b>

**Table 1: Reduction in trade policy uncertainty following WTO Accession**

<b>Member</b>	<b>Accession Year (Baseline TPU = 100%)</b>	<b>Trade Policy Uncertainty (TPU) Reduction Three Years Later (max = 100%)</b>
China	2001	86.1
Chinese Taipei	2002	92.4
Estonia	1999	87.4
Latvia	1999	89.7
Mongolia	1997	84.3
Nepal	2004	75.7
Russian Federation	2012	85.9
Saudi Arabia	2005	76.9
FYR Macedonia	2003	92.8
Ukraine	2008	92.8

*Source:* WTO IDB and Historic Bindings Database

Note: Data on import demand elasticity limits the number of members listed above.

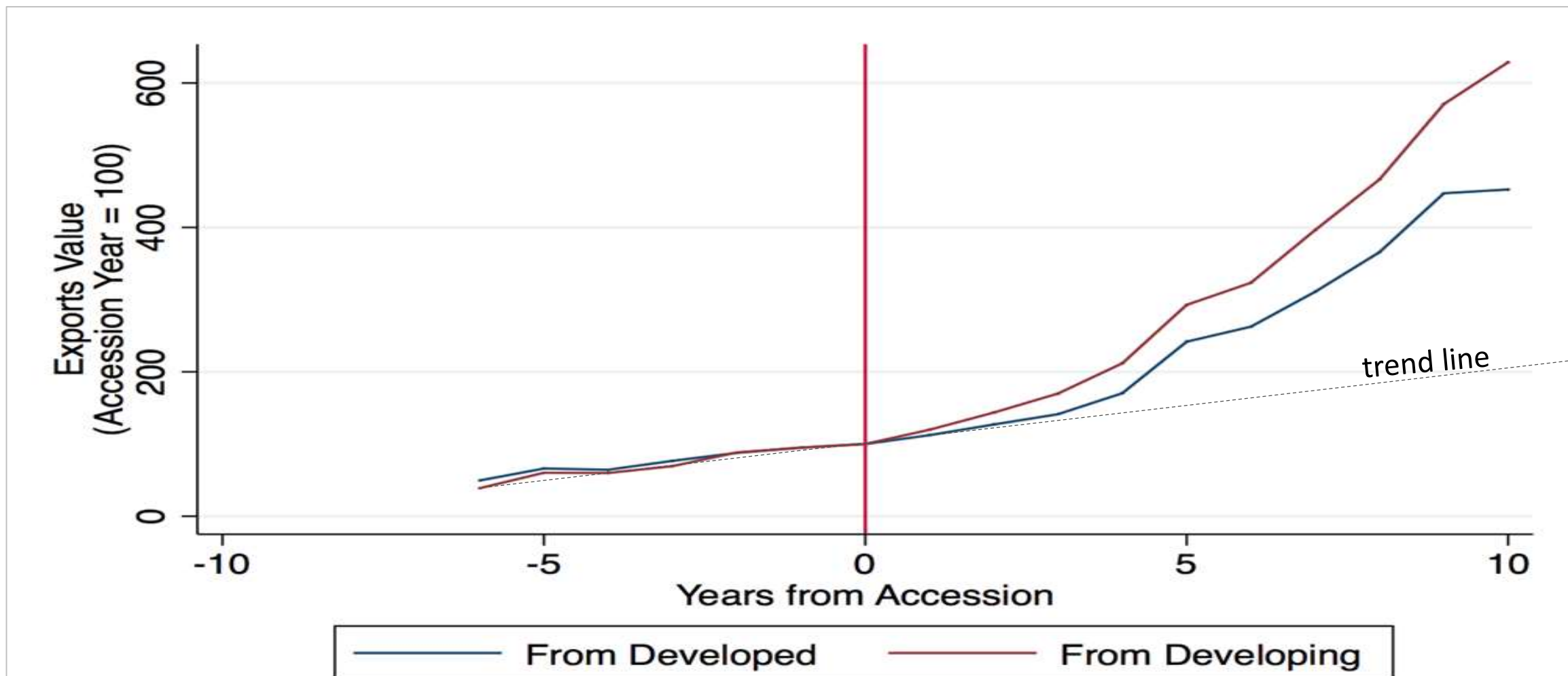
**Table 1: Reduction in trade policy uncertainty faced following WTO Accession**

<b>Partner</b>	<b>Reference Year</b>	<b>Trade Policy Uncertainty (TPU) Reduction</b>
Australia	2000	81.9
Canada	2000	91.3
European Union	2000	92.8
Japan	2000	89.4
United States of America	2000	90.7

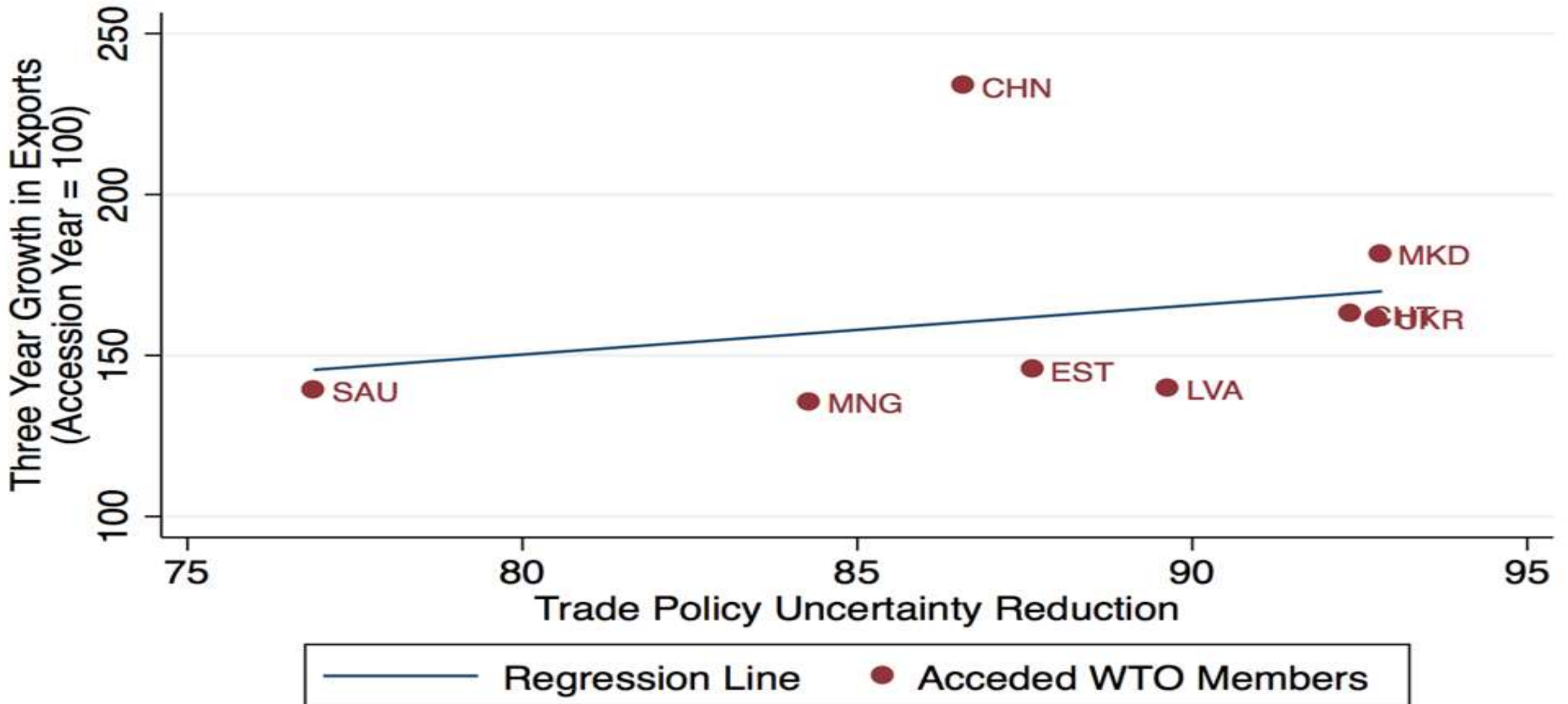
*Source: WTO IDB and CTS*

Part 3 :  
TPU and Exports to Acceded Members

# Exports to Acceded Members Have Increased Post-Accession

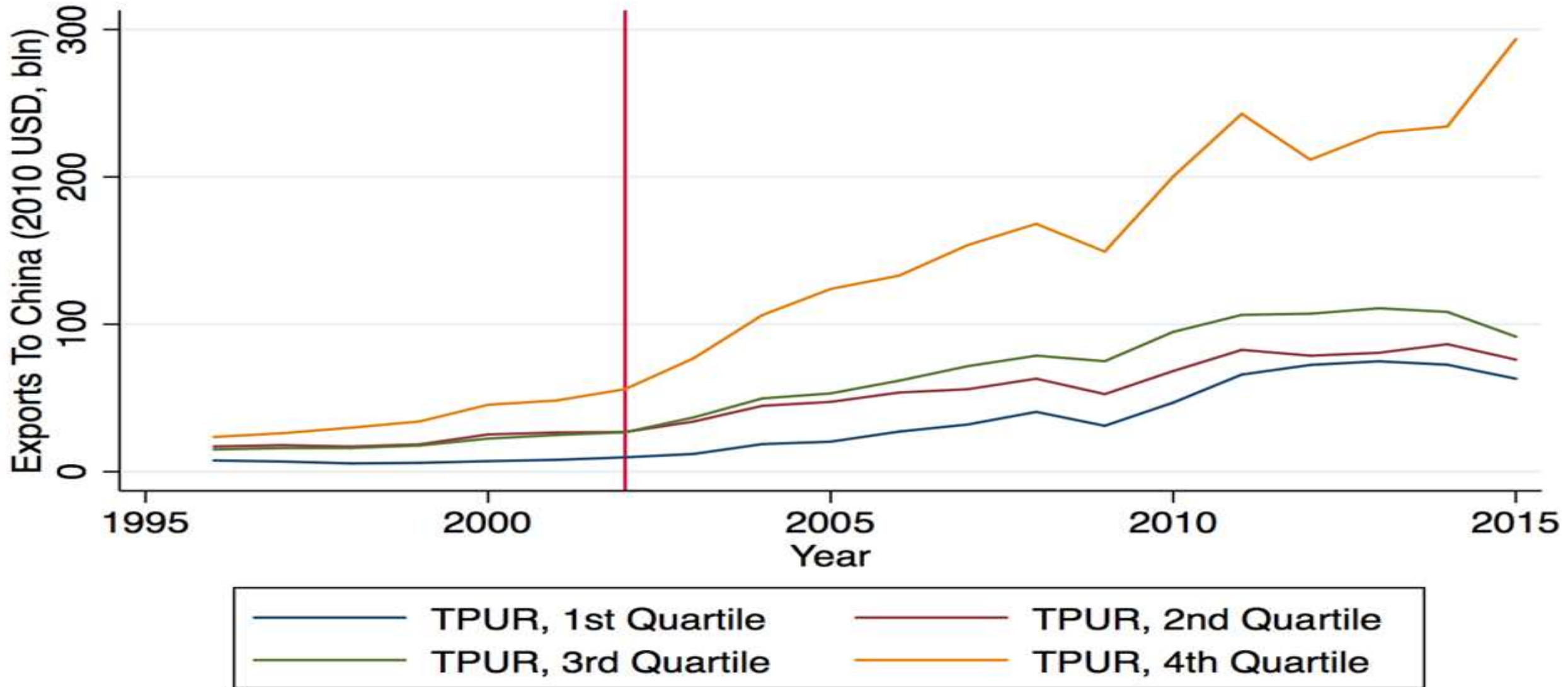


# Export Growth is Correlated with TPUR





# Also at the product level

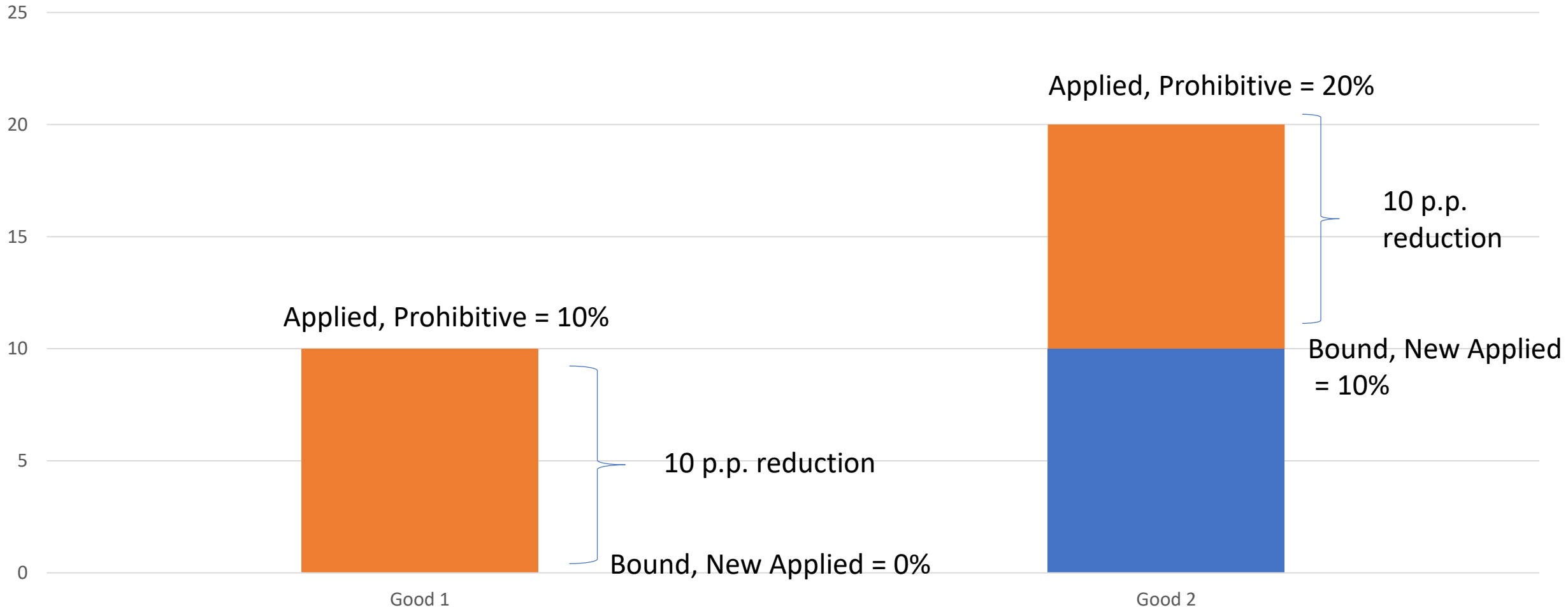


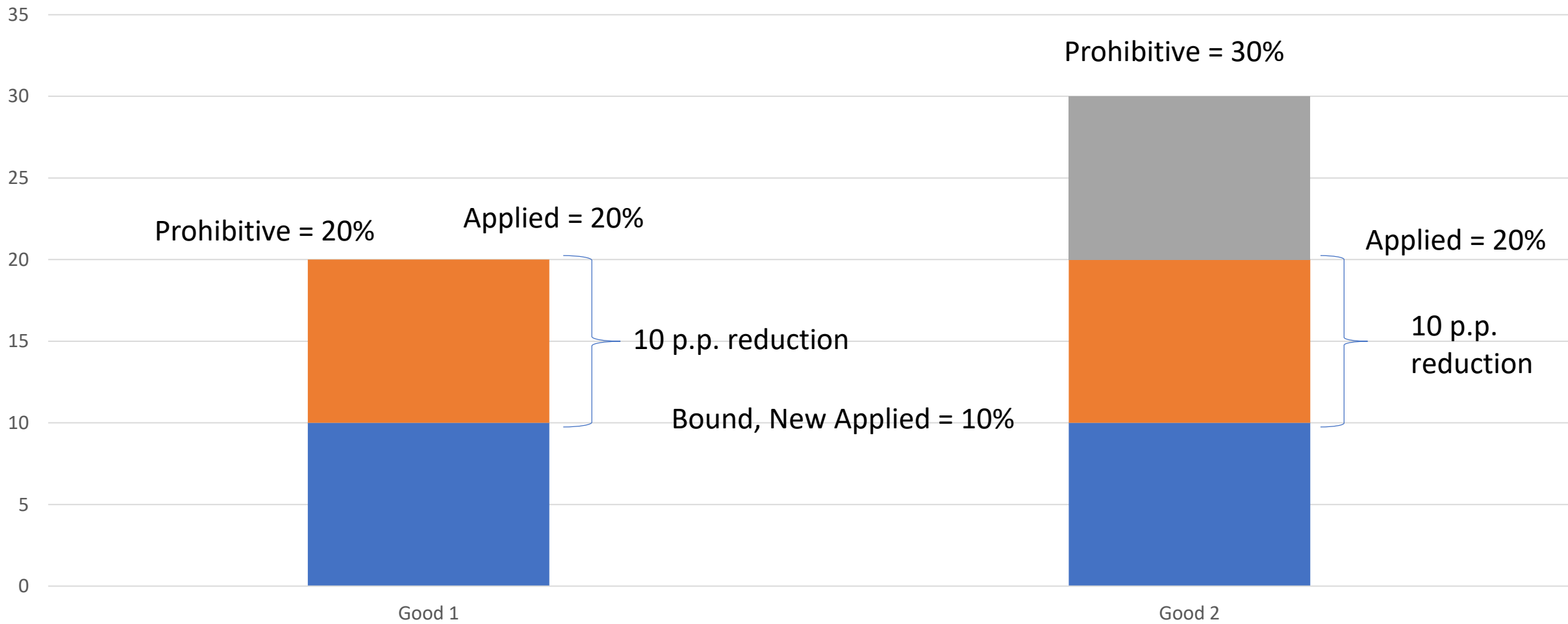
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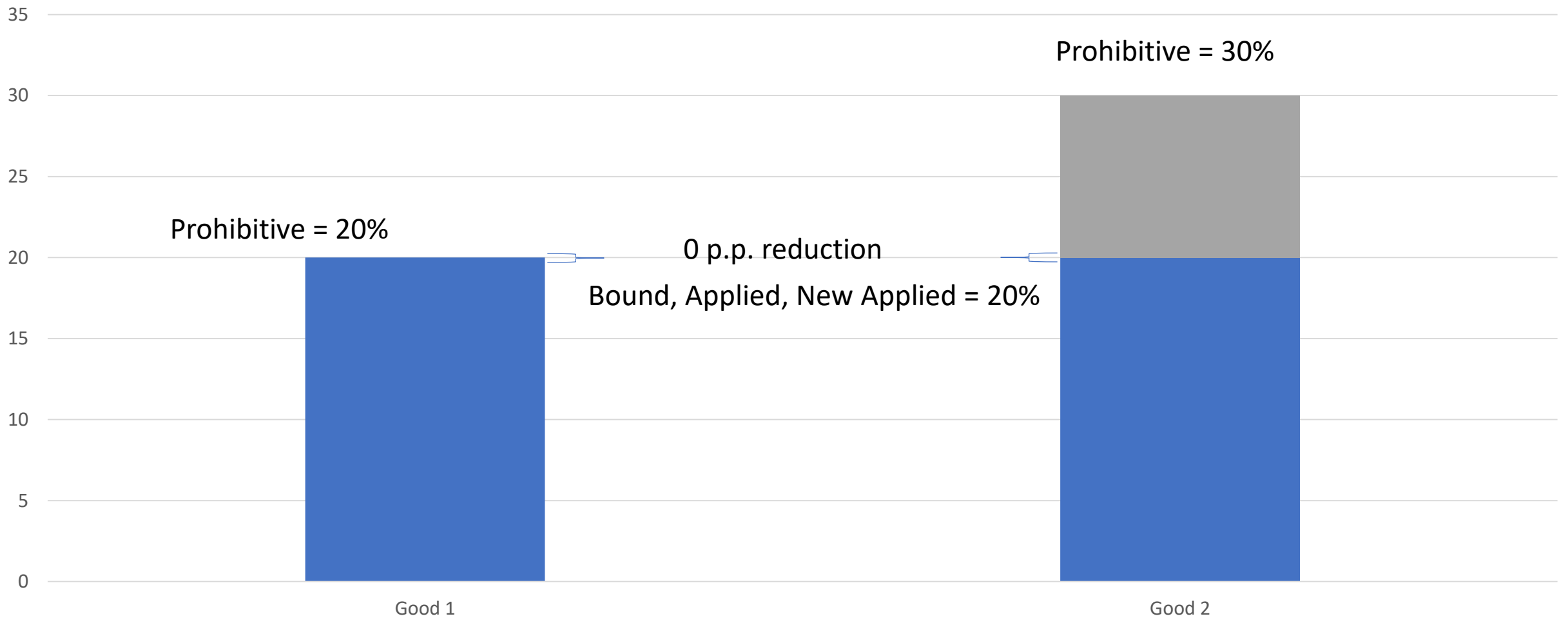
Comments, Questions?

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# Appendix







Prohibitive = 20%

Prohibitive = 30%

0 p.p. reduction

Bound, Applied, New Applied = 20%

Good 1

Good 2