



**Asia-Pacific
Economic Cooperation**

2018/SOM2/CTI/WKSP/005

Non-Tariff Measures in Preferential Trade Agreements: Towards Deeper Integration

Submitted by: KIEP

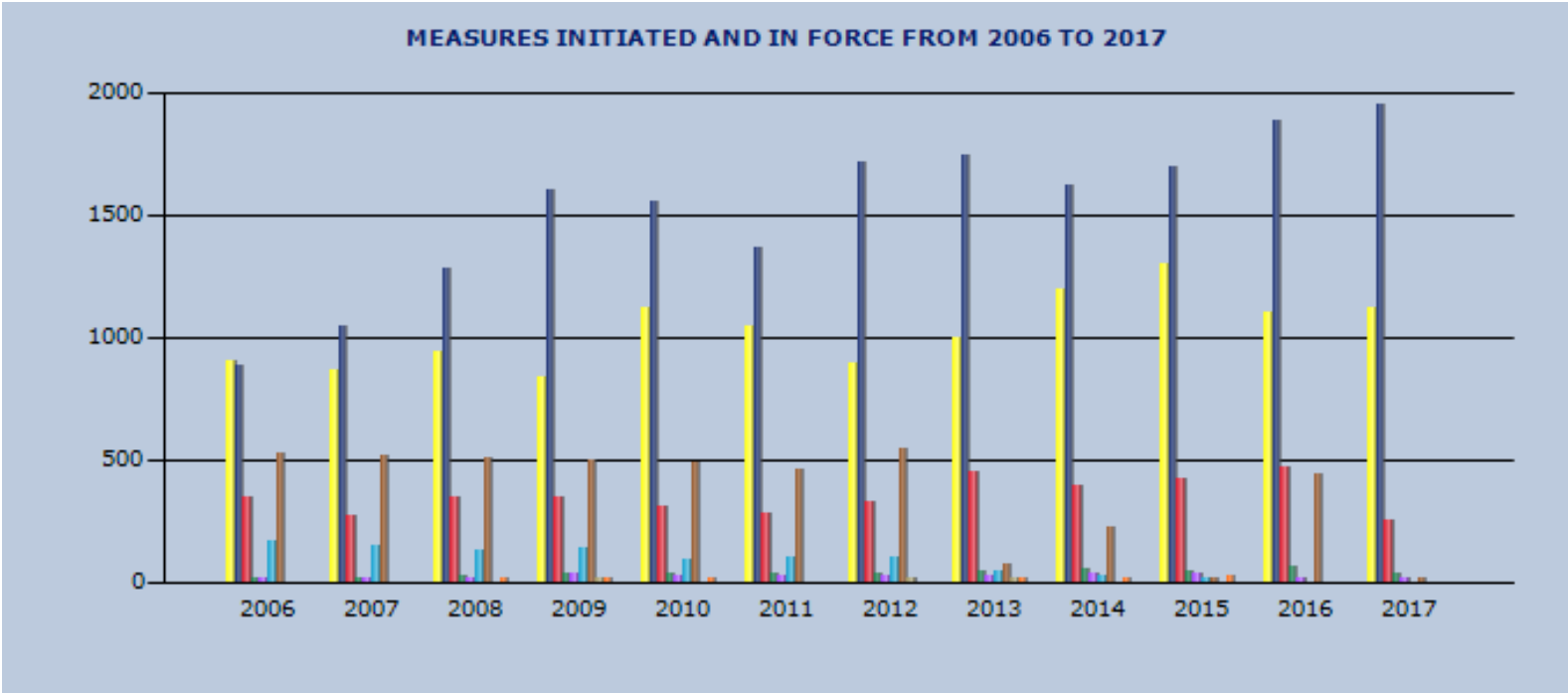


**Capacity Building Workshop on
Addressing Non-Tariff Measures in
Free Trade Agreements and Regional
Trade Agreements
Port Moresby, Papua New Guinea
17 May 2018**

NTMs in Preferential Trade Agreements: Towards Deeper Integration

Bo-Young Choi (KIEP)

World NTMs Through Time



Source: WTO i-TIP (Accessed on: May 6, 2018)

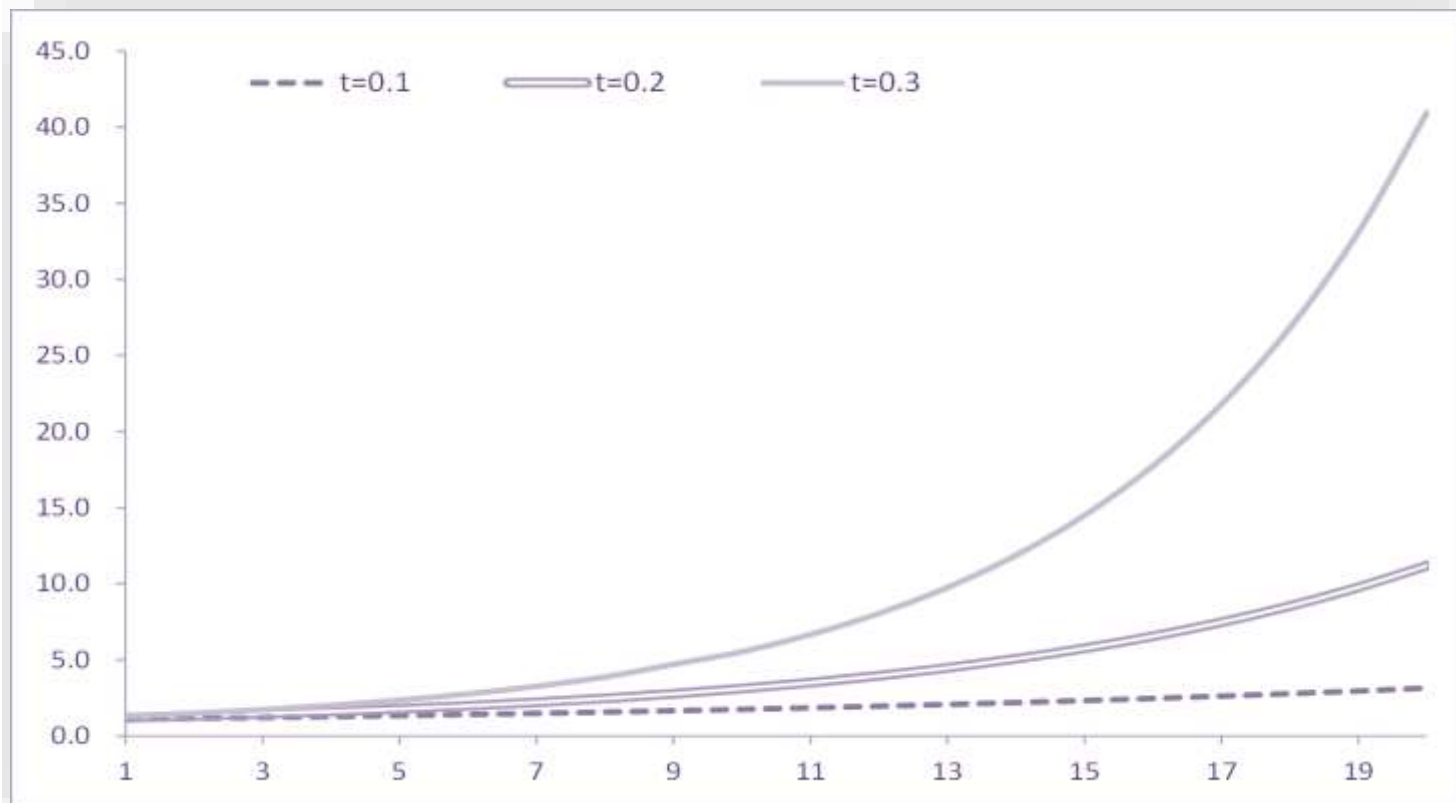
Cumulation of trade costs in global value chains

$$c(1) = (1 + t)$$

$$c(2) = \frac{1}{2} (1 + t)^2 + \frac{1}{2} (1 + t)$$

$$c(3) = \frac{1}{3} (1 + t)^3 + \frac{1}{3} (1 + t)^2 + \frac{1}{3} (1 + t)$$

$$c(n) = \sum_{i=1}^n \frac{1}{n} (1 + t)^i$$



NTMs in Trade Agreements

- While trade arrangements mostly focused on tariff reductions in the past, more recent PTAs include provisions covering policy areas that go beyond this.
 - Regulatory issues such as services, intellectual property rights protection, investment, and competition policy among others

PTA Dataset

- Horn, Mavroidis and Sapir (2010)
 - Classifies provisions into two groups
 - WTO+ areas, WTO-X areas
 - 14 US and 14 EU PTAs notified to WTO as of 2008
- WTO (2011)
 - Expands the data to 178 countries
 - 100 PTAs signed during 1958-2010
- World Bank (2016)
 - Expands the WTO database to 1958-Aug 2015
 - 279 PTAs signed by 189 countries

WTO+ and WTO-X areas

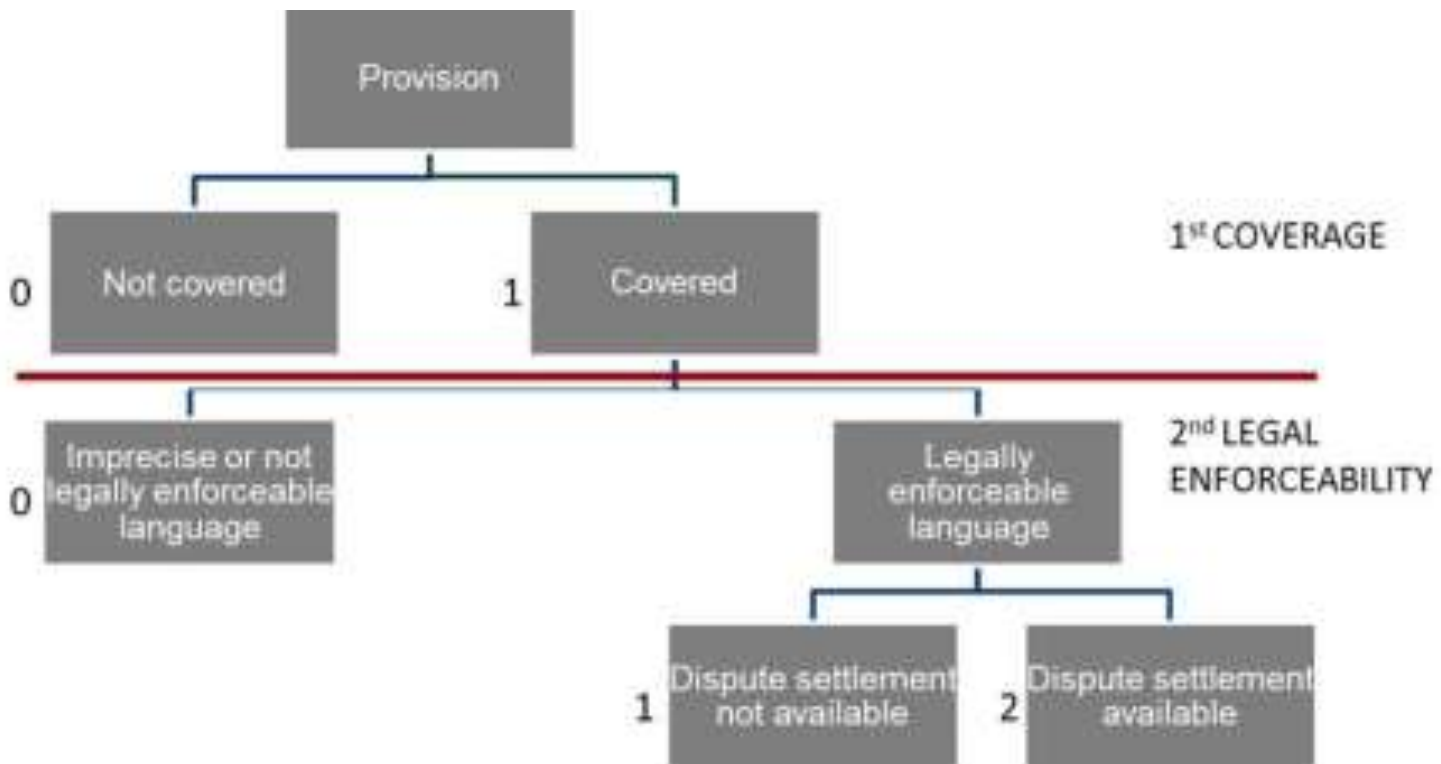
- WTO+ (WTO plus)
 - Provisions that reconfirm the existing commitments in the WTO agreements and/or add substantive new disciplines as being covered
- WTO-X (WTO extra)
 - Provisions in areas outside the mandate of WTO

| WTO+ Areas | WTO-X Areas | |
|---|---|--|
| FTA Industrial FTA Agriculture Customs Export Taxes(duties) SPS TBT State Trading Enterprises Anti-dumping Countervailing Measures State Aid Public Procurement TRIMs GATS TRIPs | Anti-Corruption Competition Policy Environmental Laws IPR Investment Labor Market Regulation Movement of Capital Consumer Protection Data Protection Agriculture Approximation of Legislation Audiovisual Civil Protection Innovation Policies Cultural Cooperation Economic Policy Dialogue Education and Training Energy Financial Assistance | Health Human Rights Illegal Immigration Illicit Drugs Industrial Cooperation Information Society Mining Money Laundering Nuclear Safety Political Dialogue Public Administration Regional Cooperation Research and Technology SME Social Matters Statistics Taxation Terrorism Visa and Asylum |

Coverage and Legal Enforceability

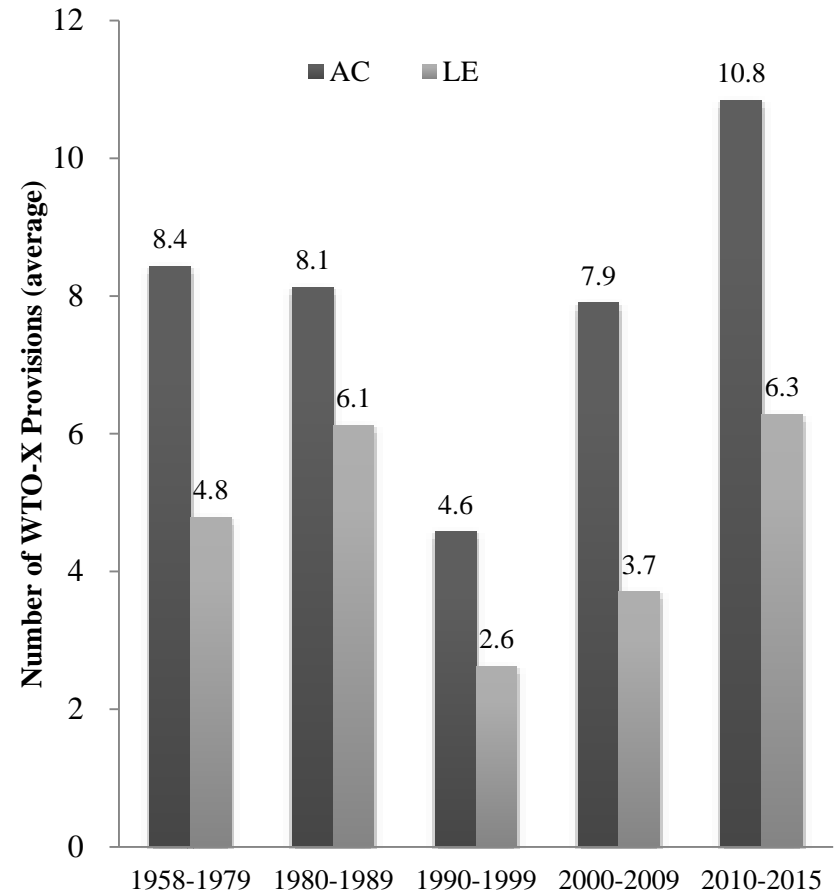
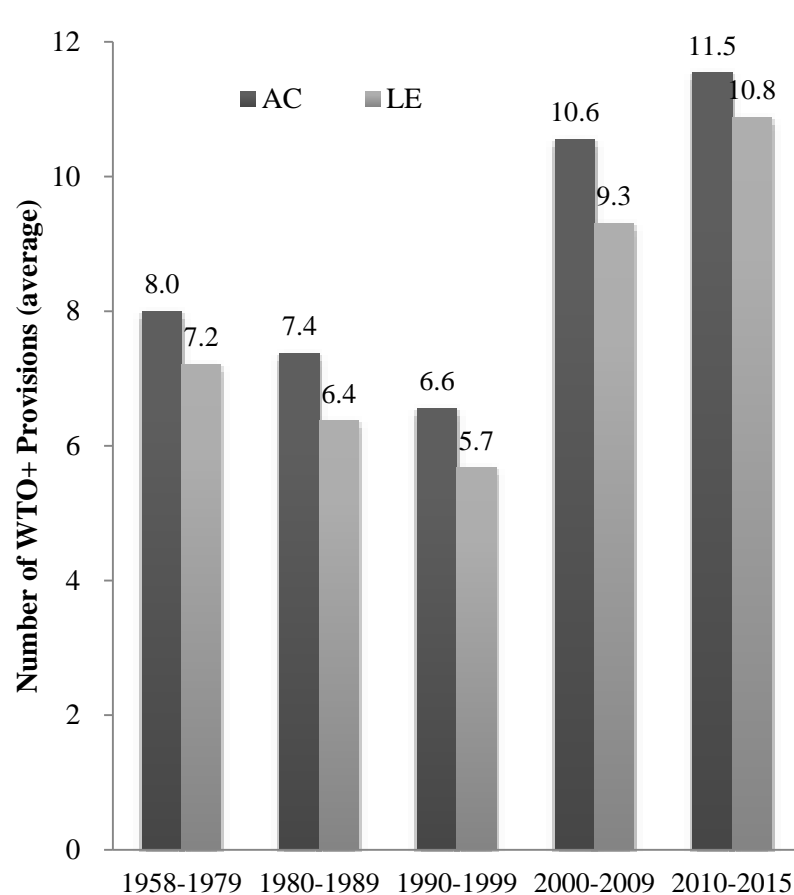
- Coverage
 - A policy area is considered being “covered” by an agreement if the agreement contains an article, chapter or provision, providing some form of undertaking in the field.
- Legal Enforceability
 - A provision that contains clearly defined legal obligations, likely to be invoked by a complainant in dispute settlement proceedings, is classified as legally enforceable

Assessment of Legal Enforceability



Source: Horizontal Depth-A New Database on the Content of Preferential Trade Agreements (Hofman, Osnago and Ruta (2016))

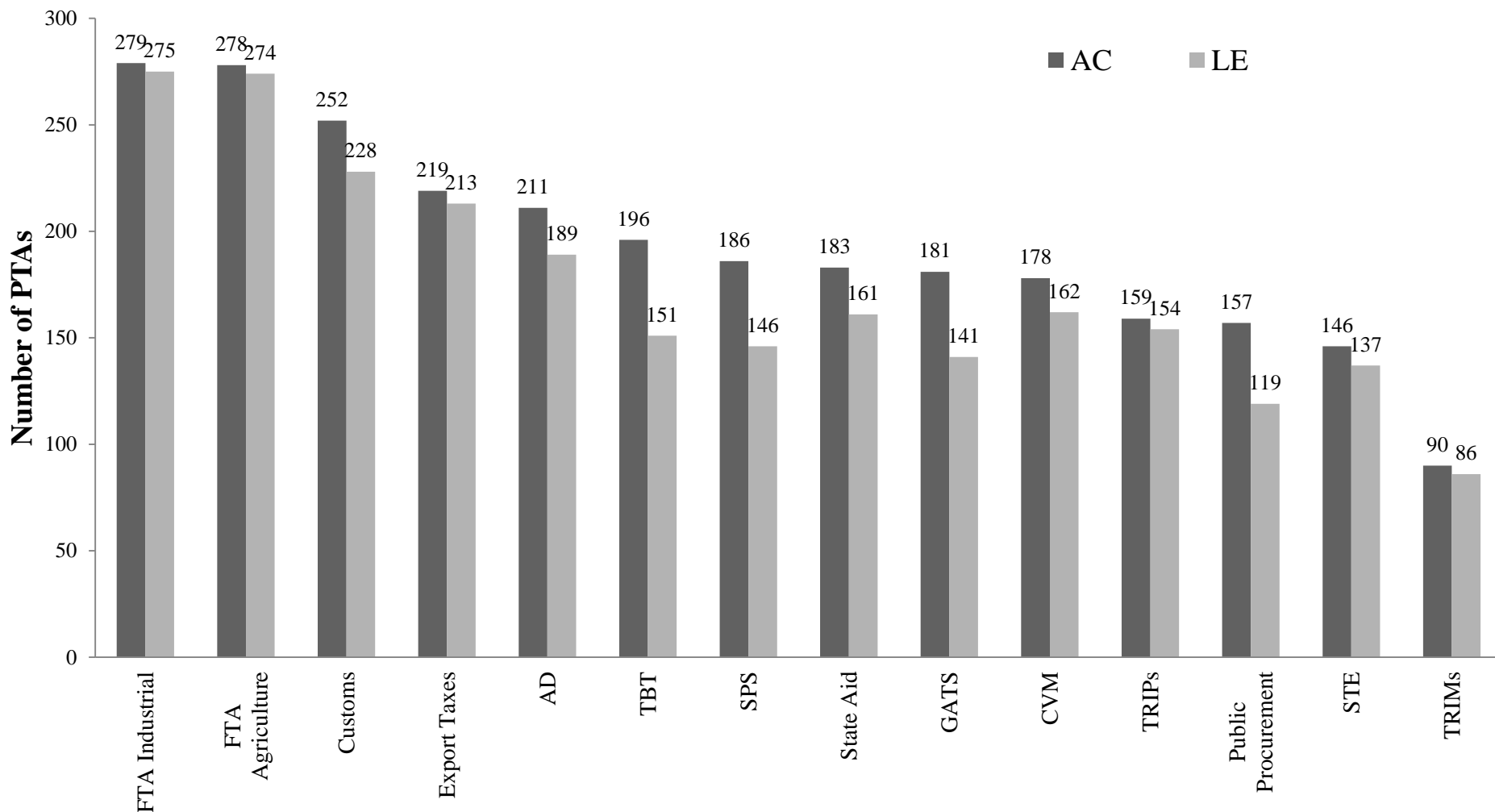
WTO+ and WTO-X Areas in PTAs Worldwide, Over Time



Note: AC: "Area Covered"; LE: "Legally Enforceable".

Source: Own calculations based on World Bank Data. Content of Deep Trade Agreements. (<http://data.worldbank.org/data-catalog/deep-trade-agreements>). (updated October, 2016).

Number of Agreements Covering WTO+ Provisions in World PTAs



Note: AC: "Area Covered"; LE: "Legally Enforceable".

Source: Own calculations based on World Bank Data. Content of Deep Trade Agreements. (<http://data.worldbank.org/data-catalog/deep-trade-agreements>). (updated October, 2016).

WTO+ Areas in Korea PTAs

| | Korea-Chile | | Korea-Singapore | | Korea-EFTA | | Korea-ASEAN | | Korea-India | | Korea-EU | | Korea-Pe ru | | Korea-US | | Korea-Turkey | | Korea-Australia | | Korea-Canada | | AC | LE | |
|--------------------|-------------|----|-----------------|----|------------|----|-------------|----|-------------|----|----------|----|-------------|----|----------|----|--------------|----|-----------------|----|--------------|----|-----|-----|----|
| | A/C | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | A/C | LE | A/C | LE | AC | LE | AC | LE | | | |
| FTA Ind. | | | | | | | | | | | | | | | | | | | | | | | 11 | 11 | |
| FTA Agr. | | | | | | | | | | | | | | | | | | | | | | | | 11 | 11 |
| Customs | | | | | | | | | | | | | | | | | | | | | | | | 11 | 10 |
| Export Taxes | | | | | | | | | | | | | | | | | | | | | | | | 10 | 10 |
| SPS | | | | | | | | | | | | | | | | | | | | | | | | 11 | 11 |
| TBT | | | | | | | | | | | | | | | | | | | | | | | | 11 | 11 |
| STE | | | | | | | | | | | | | | | | | | | | | | | | 9 | 9 |
| AD | | | | | | | | | | | | | | | | | | | | | | | | 11 | 11 |
| CVM | | | | | | | | | | | | | | | | | | | | | | | | 11 | 11 |
| State Aid | | | | | | | | | | | | | | | | | | | | | | | | 7 | 6 |
| Public Procurement | | | | | | | | | | | | | | | | | | | | | | | | 9 | 8 |
| TRIMs | | | | | | | | | | | | | | | | | | | | | | | | 8 | 8 |
| GATS | | | | | | | | | | | | | | | | | | | | | | | | 11 | 10 |
| TRIPs | | | | | | | | | | | | | | | | | | | | | | | | 11 | 11 |
| WTO+ Total | 14 | 13 | 12 | 12 | 13 | 13 | 12 | 11 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 12 | 11 | 13 | 13 | 13 | 13 | 142 | 138 | |

Note: AC: "Area Covered"; LE: "Legally Enforceable".

Source: Own calculations based on World Bank Data. Content of Deep Trade Agreements. (<http://data.worldbank.org/data-catalog/deep-trade-agreements>). (updated October, 2016).

WTO+ Areas in Japan PTAs

| | Japan-Singapore | | Japan-Mexico | | Japan-Malaysia | | Japan-Chile | | Japan-Thailand | | Japan-Indonesia | | Japan-Brunei | | Japan-ASEAN | | Japan-Philippines | | Japan-Switzerland | | Japan-Vietnam | | Japan-India | | Japan-Peru | | Japan-Australia | | AC | LE | |
|--------------------|-----------------|----|--------------|----|----------------|----|-------------|----|----------------|----|-----------------|----|--------------|----|-------------|----|-------------------|----|-------------------|----|---------------|----|-------------|----|------------|----|-----------------|----|-----|-----|----|
| | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | A | LE | | | |
| FTA Ind. | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 14 | 14 | |
| FTA Agr. | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 14 | 14 |
| Customs | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 14 | 14 |
| Export Taxes | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 9 | 8 |
| SPS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 9 | 9 |
| TBT | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 11 | 10 |
| STE | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 7 | 6 |
| AD | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 12 | 11 |
| CVM | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 12 | 11 |
| State Aid | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 7 | 6 |
| Public Procurement | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 12 | 10 |
| TRIMs | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 12 | 12 |
| GATS | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 14 | 14 |
| TRIPs | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 13 | 13 |
| WTO+ Total | 12 | 11 | 12 | 12 | 10 | 10 | 14 | 14 | 9 | 9 | 9 | 9 | 13 | 9 | 9 | 9 | 11 | 9 | 12 | 12 | 12 | 12 | 13 | 12 | 10 | 10 | 14 | 14 | 160 | 152 | |

Note: AC: "Area Covered"; LE: "Legally Enforceable".

Source: Own calculations based on World Bank Data. Content of Deep Trade Agreements. (<http://data.worldbank.org/data-catalog/deep-trade-agreements>). (updated October, 2016).

WTO+ Areas in China PTAs

| | China-Hong Kong | | China - Macao | | China-ASEAN | | China-Chile | | China-Pakistan | | China-New Zealand | | China-Singapore | | China-Peru | | China - Costa Rica | | China-Iceland | | China-Switzerland | | AC | LE |
|--------------------|-----------------|----|---------------|----|-------------|----|-------------|----|----------------|----|-------------------|----|-----------------|----|------------|----|--------------------|----|---------------|----|-------------------|----|-----|-----|
| | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | AC | LE | | |
| FTA Ind. | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 11 | 11 |
| FTA Agr. | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 11 | 11 |
| Customs | | | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 9 | 9 |
| Export Taxes | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 7 | 6 |
| SPS | | | ■ | ■ | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 8 | 8 |
| TBT | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 8 | 7 |
| STE | | | | | | | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | ■ | ■ | 5 | 4 |
| AD | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 11 | 10 |
| CVM | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 11 | 11 |
| State Aid | | | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | ■ | ■ | ■ | ■ | ■ | ■ | 7 | 5 |
| Public Procurement | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | 2 | 2 |
| TRIMs | | | | | ■ | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | 5 | 3 |
| GATS | ■ | ■ | ■ | ■ | ■ | ■ | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 9 | 8 |
| TRIPs | | | | | | | ■ | ■ | ■ | ■ | | ■ | ■ | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 6 | 6 |
| WTO+ Total | 5 | 5 | 8 | 6 | 6 | 4 | 11 | 8 | 9 | 9 | 13 | 13 | 10 | 10 | 12 | 12 | 11 | 11 | 12 | 12 | 13 | 11 | 110 | 101 |

Note: AC: "Area Covered"; LE: "Legally Enforceable".

Source: Own calculations based on World Bank Data. Content of Deep Trade Agreements. (<http://data.worldbank.org/data-catalog/deep-trade-agreements>). (updated October, 2016).

Legal Inflation of NTMs Provisions

| | Korea's PTAs | | | Japan's PTAs | | | China's PTAs | | | EU PTAs | | | US PTAs | | | World's PTAs | | |
|--------------------|--------------|----|-----------|--------------|----|-----------|--------------|----|-----------|---------|----|-----------|---------|----|-----------|--------------|-----|-----------|
| | AC | LE | LI | AC | LE | LI | AC | LE | LI | AC | LE | LI | AC | LE | LI | AC | LE | LI |
| Export Taxes | 10 | 10 | 0 | 9 | 8 | 11 | 7 | 6 | 14 | 42 | 42 | 0 | 13 | 13 | 0 | 219 | 213 | 3 |
| AD | 11 | 11 | 0 | 12 | 11 | 8 | 11 | 10 | 10 | 45 | 45 | 0 | 12 | 12 | 0 | 211 | 189 | 10 |
| CVM | 11 | 11 | 0 | 12 | 11 | 8 | 11 | 11 | 0 | 39 | 39 | 0 | 12 | 12 | 0 | 178 | 162 | 9 |
| SPS | 11 | 11 | 0 | 9 | 9 | 0 | 8 | 8 | 0 | 25 | 18 | 28 | 12 | 12 | 0 | 186 | 146 | 22 |
| TBT | 11 | 11 | 0 | 11 | 10 | 9 | 8 | 7 | 13 | 30 | 18 | 40 | 11 | 11 | 8 | 196 | 151 | 23 |
| STE | 9 | 9 | 0 | 7 | 6 | 14 | 5 | 4 | 20 | 32 | 31 | 3 | 9 | 7 | 22 | 146 | 137 | 6 |
| State Aid | 7 | 6 | 14 | 7 | 6 | 14 | 7 | 5 | 29 | 36 | 36 | 0 | 11 | 11 | 0 | 183 | 161 | 12 |
| Public Procurement | 9 | 8 | 11 | 12 | 10 | 17 | 2 | 2 | 0 | 31 | 23 | 26 | 14 | 13 | 7 | 157 | 119 | 24 |

Related Empirical Studies

- Orefice and Rocha (2014)
 - Positive association between deeper integration and trade in parts and components (GVC integration)
- Choi and Jang (2018)
 - Examines trade between DAC members and recipients
 - find that AfT increases bilateral trade significantly, and this effect is greater when the incidence of TBT is higher.
 - Focus on aid for trade policy and regulation. (CRS 331)

Conclusion

- Korea and Japan both tend to sign deep agreements.
- China's PTAs have evolved most dramatically with time.
 - Since its first PTA signed with a developed country, New Zealand in 2008, China has increased the number of WTO+ and WTO-X provisions in its PTAs
- Since many APEC members are involved in the GVC, these NTMs provisions must be considered carefully.
- Also, aid for trade, especially on trade policies and regulations may be important.