

# Trade Liberalization in APEC\*: Tariffs and Trade Facilitation

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# Introduction

- Use the recently-developed CoPS-GTAP model to investigate the impact of trade integration in APEC\*
- Dynamic CGE model features:
  - Detailed baseline calibrated to forecast of real GDP growth, energy demand, tariff reductions
  - Financial asset/liabilities module linking international financial stocks and flows with regional investment/savings and current accounts
  - Industry-specific capital; labour markets with endogenous employment in the short-run and endogenous real wages in the long-run
- Consider the impacts of trade integration in APEC\* via:
  1. Tariff reductions
  2. Trade facilitation

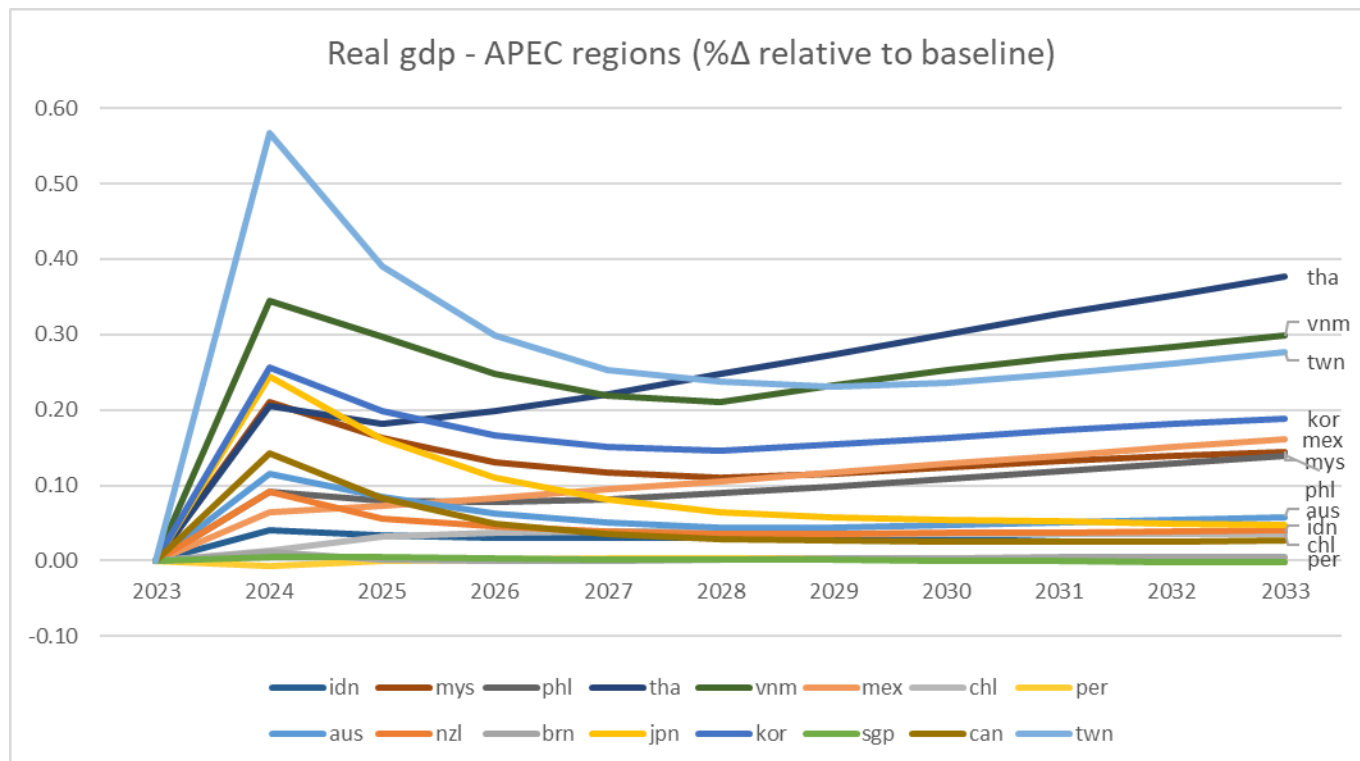
# 1. Tariff reductions

- By 2024, average import tariffs on intra-APEC\* trade are low, but there exist commodities where high tariffs remain

|     | APEC | ALL  | Fruit & Veg | Milk  | Motor Vehicl | Other Manuf |     | APEC | ALL  | Fruit & Veg | Milk  | Motor Vehicl | Other Manuf |
|-----|------|------|-------------|-------|--------------|-------------|-----|------|------|-------------|-------|--------------|-------------|
| aus | 1.16 | 1.32 | 0.00        | 0.02  | 5.99         | 0.40        | sgp | 0.00 | 0.00 | 0.00        | 0.00  | 0.00         | 0.00        |
| nzl | 0.74 | 0.99 | 0.00        | 0.02  | 3.14         | 2.36        | tha | 1.71 | 3.09 | 2.36        | 45.72 | 12.02        | 5.40        |
| brn | 0.01 | 0.06 | 0.00        | 0.00  | 0.00         | 0.02        | vnm | 1.85 | 2.57 | 0.57        | 1.37  | 12.98        | 12.84       |
| roc | 5.56 | 5.28 | 10.24       | 16.49 | 12.05        | 15.17       | can | 1.48 | 0.71 | 0.07        | 5.22  | 2.30         | 2.02        |
| jpn | 1.51 | 1.71 | 2.96        | 25.23 | 0.00         | 0.19        | mex | 2.60 | 1.01 | 0.45        | 10.72 | 5.80         | 9.29        |
| kor | 2.73 | 2.07 | 20.00       | 6.51  | 7.32         | 2.78        | twn | 2.08 | 1.82 | 15.14       | 4.63  | 14.59        | 1.43        |
| idn | 1.07 | 1.58 | 1.15        | 2.08  | 0.59         | 0.79        | chl | 0.33 | 0.27 | 0.32        | 0.55  | 0.08         | 1.17        |
| mys | 0.89 | 1.45 | 0.49        | 0.00  | 1.91         | 1.08        | per | 0.74 | 0.60 | 0.27        | 0.00  | 1.79         | 2.13        |
| phl | 0.94 | 1.64 | 2.56        | 0.17  | 1.92         | 4.10        | usa | 0.79 | 1.24 |             |       |              |             |

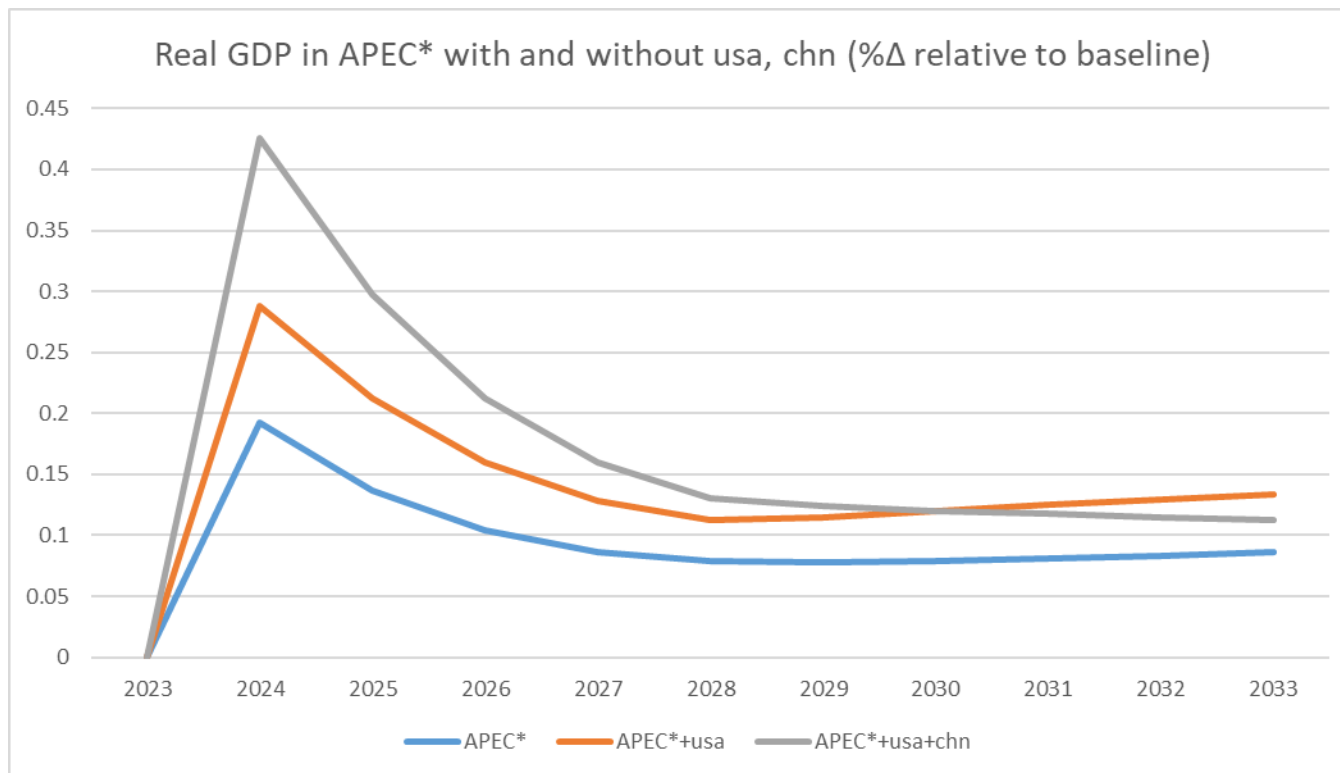
# 1. Tariff reductions

- Some APEC\* members do better through tariff removal:
  - Thailand, Taiwan and Vietnam see real GDP gain of around 0.3%
  - Real GDP gain in Australia is between 0.05-0.1%, about US\$0.9-2.3b



# 1. Tariff reductions

- Real GDP gains in APEC\* between 0.08-0.19%
- If the USA and China join APEC\*, real GDP gains increase, more than doubling in 2024 when tariffs are removed



## 2. Trade facilitation

- Trade facilitation involves a simplification of the rules and procedures that impact trade
- Widely accepted way of modelling trade facilitation is through import-augmenting technical change
  - Iceberg Method: from the point when a traded commodity leaves the exporter and arrives at the importer, trade facilitation causes a smaller amount to “melt away”
  - Same as import-augmenting technical change shock: same amount is exported, but larger amount arrives at importer compared to before trade facilitation measures were adopted
- How can we measure the size of the technical change shock consistent with the expected impacts of trade facilitation?

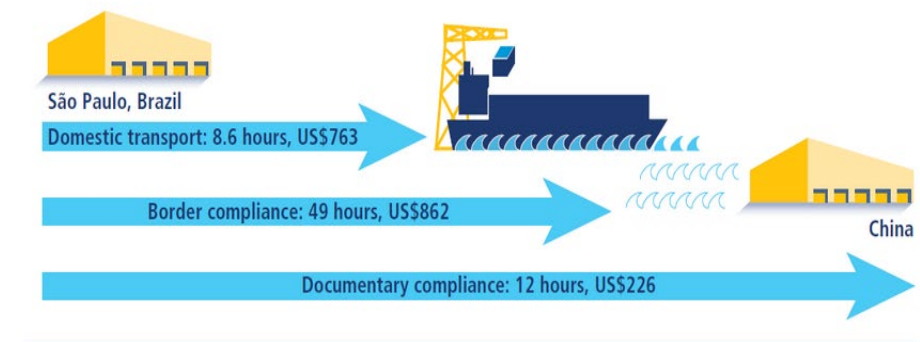
## 2. Trade facilitation

- To estimate the potential reduction in customs clearance times resulting from the WTO TFA, studies have used the World Bank Doing Business (DB) “Trading Across Borders” data set
- data on trading across borders are gathered through a questionnaire administered to local freight forwarders, customs brokers, port authorities and traders

### Trading across Borders methodology

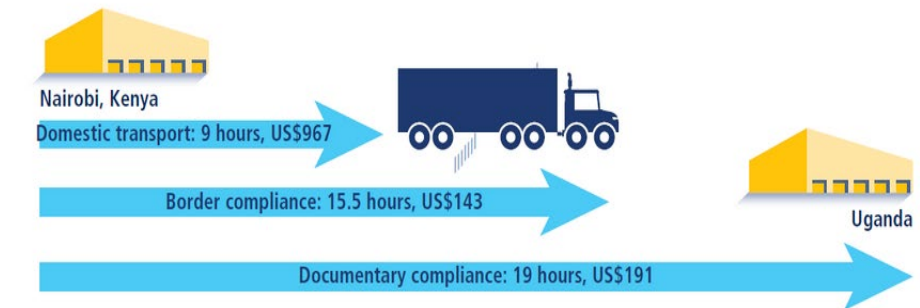
See Trading across Borders data here.

Figure 1. What makes up the time and cost to export to an overseas trading partner?



Source: Doing Business database.

Figure 2. What makes up the time and cost to export to a regional trading partner?



<https://archive.doingbusiness.org/en/methodology/trading-across-borders>

## 2. Trade facilitation

|            | Time to export: Border compliance (hours) |      | Time to import: Border compliance (hours) |      |            | Time to export: Border compliance (hours) |      | Time to import: Border compliance (hours) |      |
|------------|---|------|---|------|------------|---|------|---|------|
|            | 2015                                      | 2020 | 2015                                      | 2020 |            | 2015                                      | 2020 | 2015                                      | 2020 |
| <b>AUS</b> | 36  | 36   | 37  | 39   | <b>MYS</b> | 48  | 28   | 72  | 36   |
| <b>BRN</b> | 120                                       | 117  | 48  | 48   | <b>NZL</b> | 37  | 37   | 25  | 25   |
| <b>CAN</b> | 2   | 2    | 2   | 2    | <b>PER</b> | 48  | 48   | 72  | 72   |
| <b>CHL</b> | 60  | 60   | 54  | 54   | <b>PHL</b> | 42  | 42   | 72  | 120  |
| <b>IDN</b> | 63  | 56   | 99  | 99   | <b>PNG</b> | 42  | 42   | 72  | 72   |
| <b>JPN</b> | 23  | 27   | 40  | 40   | <b>SGP</b> | 12  | 10   | 35  | 33   |
| <b>KOR</b> | 13  | 13   | 6   | 6    | <b>THA</b> | 51  | 44   | 50  | 50   |
| <b>MEX</b> | 20  | 20   | 44  | 44   | <b>TWN</b> | 17  | 17   | 47  | 47   |
|            |   |      |   |      | <b>VNM</b> | 60  | 55   | 64  | 56   |

<https://databank.worldbank.org/source/doing-business>



## 2. Trade facilitation

- Adopt shocks from Walmsley and Minor (2016), “Willingness to Pay in CGE Models” – Table 4-5, p.33

| Import-augmenting | OECD | High Income | Medium Income | Low Income |
|-------------------|------|-------------|---------------|------------|
| Primary agric     | 0.46 | 1.00        | 0.55          | 0.19       |
| Processed agric   | 0.46 | 1.32        | 1.27          | 1.38       |
| Mining & petrol   | 1.26 | 1.47        | 2.11          | 4.07       |
| Light manuf       | 0.53 | 1.64        | 1.51          | 2.53       |
| Heavy manuf       | 0.83 | 1.98        | 2.15          | 2.65       |
| Export augmenting |      |             |               |            |
| Primary agric     | 0.27 | 0.27        | 0.88          | 0.47       |
| Processed agric   | 0.61 | 1.05        | 0.95          | 1.15       |
| Mining & petrol   | 1.02 | 2.89        | 1.74          | 1.64       |
| Light manuf       | 0.61 | 1.08        | 0.92          | 1.45       |
| Heavy manuf       | 1.16 | 1.44        | 1.58          | 5.01       |

[https://www.gtap.agecon.purdue.edu/resources/res\\_display.asp?RecordID=4902](https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=4902)

- Scale shocks to reflect 2015-2020 change in hours from WB-DB

# 2. Trade facilitation

- Real GDP gains in APEC\* are much higher than through tariff removal:
  - Average APEC\* real GDP gains are 1.2-1.4%, equiv. to US\$250-300b
  - Real GDP gain in Australia is 0.33%-0.45%, more than 3x tariff gains

