# FTA between China and East Asia

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# Introduction

China is the largest trade partner for Japan;
China is the largest trade partner for Korea;
Japan is the 2nd largest trade partner for China;
Korea is the 3rd largest trade partner for China;
Japan is the 2nd largest trade partner for Korea;
Korea is the 2nd largest trade partner for Japan.

**The three countries has recognized the importance of FTA for their economy.**
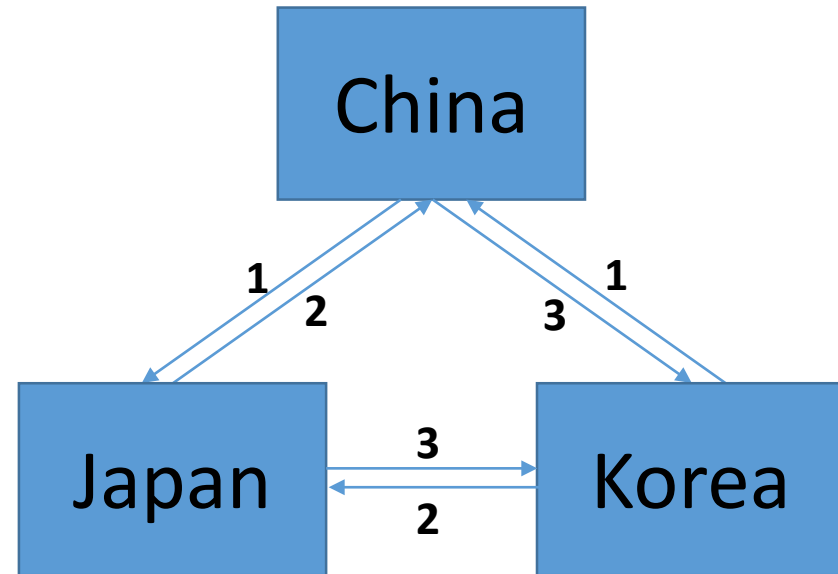
**Trade partnership among three countries**

# Introduction

- In 2010, the joint study committee for an FTA among China, Japan and Korea was established.

- In 2015,China and Korea has signed free trade agreement (FTA).

- ……

- Like '3mini example', this presentation will assess the impact of FTA between China and east Asia (Japan and Korea) using GDyn model.

# What we did (1)- New data, New Policy

- New Data : 12 Regions, 5 industries, 50 years
  - 12 Regions has China and East Asia
  - 50 years integrated to 10 periods : 5years each
  - Data for baseline : App2_SC/1flexagg/SC2010
    - Same baseline closure and shocks with 3mini example (more regions and more periods)
  - Data for shocks: App2_SC/2baseline/Alabor,Bmacro,Cpolicy
    - Base shocks: App2_SC/2baseline/Alabor, Bmacro(more regions and more periods)
    - Policy shocks: App2_SC/2baseline/Cpolicy
- New Policy: RTMS between China and East Asia goes to zero in 2016~30
  - Base data : base run result in 2010~2015
  - Shock occurs : 2016~20, 2021~25, 2025~2030
    - In period 2021~25, all RTMS between China and East Asia disappears

# What we did (2) – New Policy Shocks

- 1. Create  shocks: FTA import duty reduction schedule
  - HS code (12,000 items) converted into 5 industries
    - Duty reduction schedule on each HS code item is different : 0~5yr, 10yr, 15yr.
    - Industry  schedule  = max (# of items schedules applied)/(#items in industry)
- 2. Create tax data before and after FTA: RTMS goes to zero
  - Gtaxnew.har : baseline 2010-2015
  - Gtaxnew1.har: gtaxnew. har with 2016~20 shock
  - Gtaxnew2.har: gtaxnew1.har with 2021~25 shock
  - Gtaxnew3.har: gtaxnew2.har with 2026~30 shock (last)
- Taxshk1.har=shocks.tab[shocks1.sti(gtaxnew,gatxnew2)]
  - Taxshk2=shocks2.sti(gtaxnew2,gtaxnew1)/Tashk3=shocks3.sti(gtaxnew3,gtaxnew2)
- Taxshks1/2/3 : applied as ashock

# RTMS: East Asia -> China (China Collects)

| RTMS | schedule | 2015 | 2016-2020 | 2021-2025 | 2025-2030 | Taxshk1 | Taxshk2 | Taxshk3 |
|---|---|---|---|---|---|---|---|---|
| 1 food | 10 | 14.38116 | 7.19058 | 0 | 0 | -7.19058 | -7.19058 | 0 |
| 2 extract | 0 | 1.565981 | 0 | 0 | 0 | -1.56598 | 0 | 0 |
| 3 LghtMnfc | 10 | 16.91226 | 8.456129 | 0 | 0 | -8.45613 | -8.45613 | 0 |
| 4 mnfc | 5 | 8.615756 | 0 | 0 | 0 | -8.61576 | 0 | 0 |
| 5 serv | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Schedule 10: eliminate in 10 yrs after FTA comes into effect
Schedule 5: eliminate in 5 yrs after FTA comes into effect
Schedule 0: eliminate immediately when FTA comes into effect

# RTMS: China -> East Asia (East Asia Collects)

| | Schedule | 2015 | 2016-2020 | 2021-2025 | 2025-2030 | Taxshk1 | Taxshk2 | Taxshk3 |
|---|---|---|---|---|---|---|---|---|
| 1 food | 15 | 44.18628 | 29.45752 | 14.72876 | 0 | -14.7 | -14.7 | -14.7 |
| 2 extract | 0 | 1.688063 | 0 | 0 | 0 | -1.7 | 0.0 | 0.0 |
| 3 LghtMnfc | 0 | 8.343351 | 0 | 0 | 0 | -8.3 | 0.0 | 0.0 |
| 4 mnfc | 0 | 1.110208 | 0 | 0 | 0 | -1.1 | 0.0 | 0.0 |
| 5 serv | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 |

Schedule 15: eliminate in 15 yrs after FTA comes into effect
Schedule 0: eliminate immediately when FTA comes into effect

# Closures and  Shocks

# Result 1: Bilateral Export gains- China (cumulative difference qgdp)

Export from China to East Asia
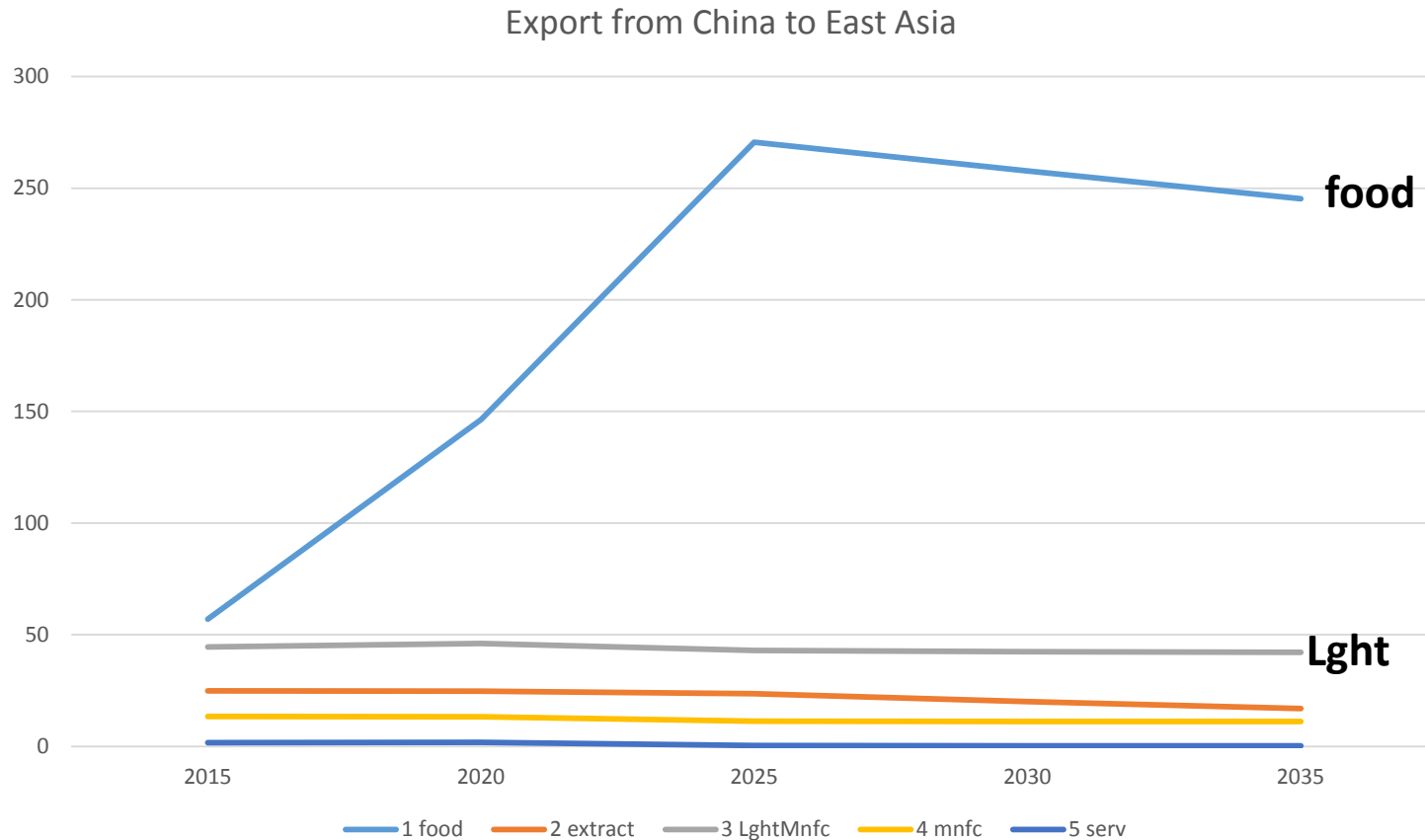


| | Schedule | 2015 |
|---|---|---|
| 1 food | 15 | 44.18 |
| 2 extract | 0 | 1.68 |
| 3 LghtMnfc | 0 | 8.34 |
| 4 mnfc | 0 | 1.11 |
| 5 serv | 0 | 0 |

Bilateral Trade only: China's gain is from Food. (Highest Tariff)

# Result 1: Bilateral Export Gains – East Asian (cumulative difference qgdp) (cont.)

Export from East Asia to China



| RTMS | schedule | 2015 |
|---|---|---|
| 1 food | 10 | 14.38 |
| 2 extract | 0 | 1.56 |
| 3 LghtMnfc | 10 | 16.91 |
| 4 mnfc | 5 | 8.61 |
| 5 serv | 10 | 0 |
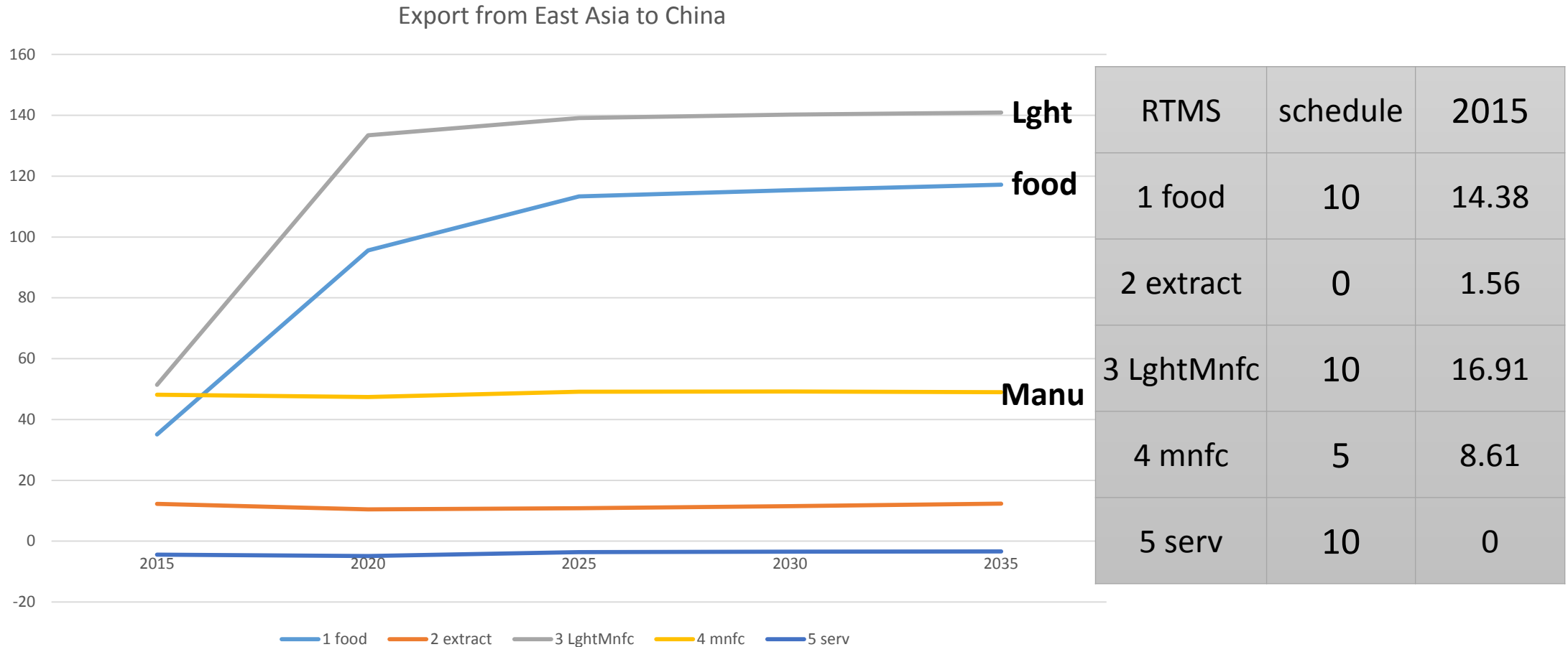
Bilateral Trade only: East Asia's gain is from Lght and food. (Highest Tariff)

# Result 2: GDP (cumulative difference qgdp)

Growth rate (cumulative difference)



2 China    3 EastAsia
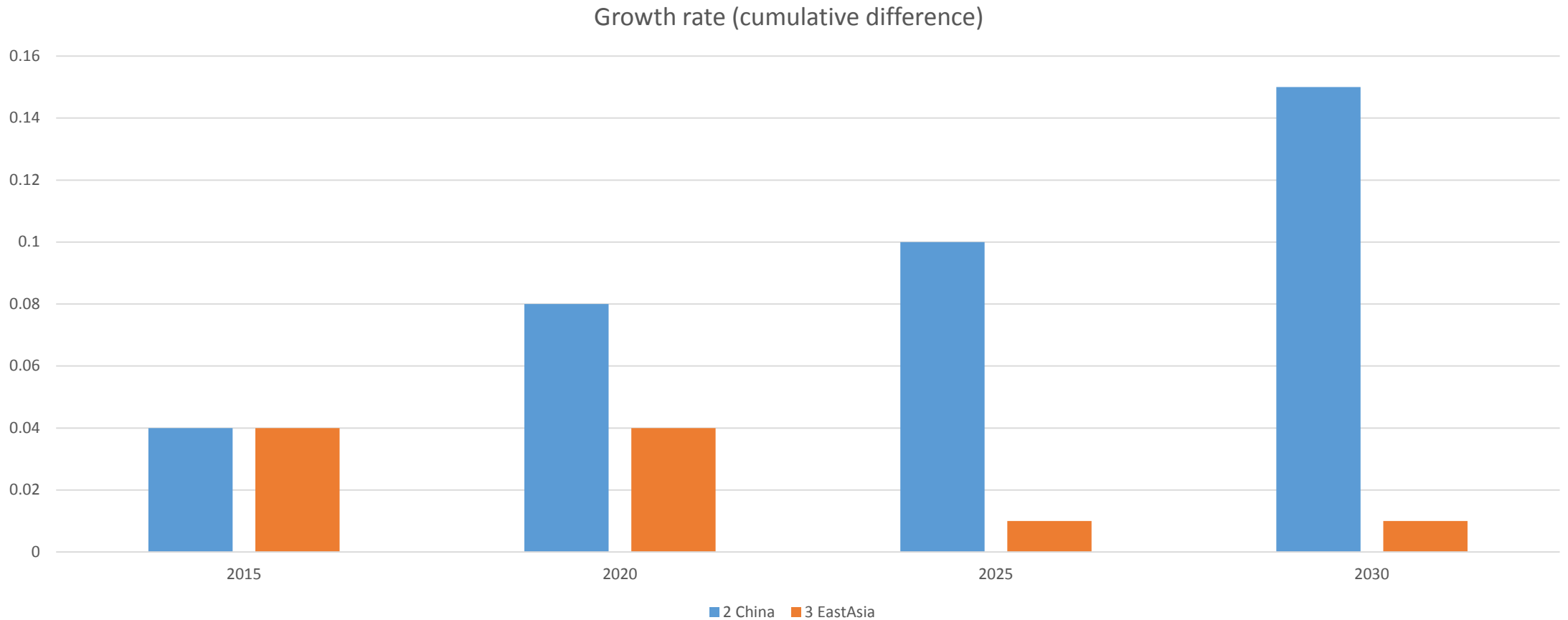
Both countries are benefited from FTA. China has larger gain

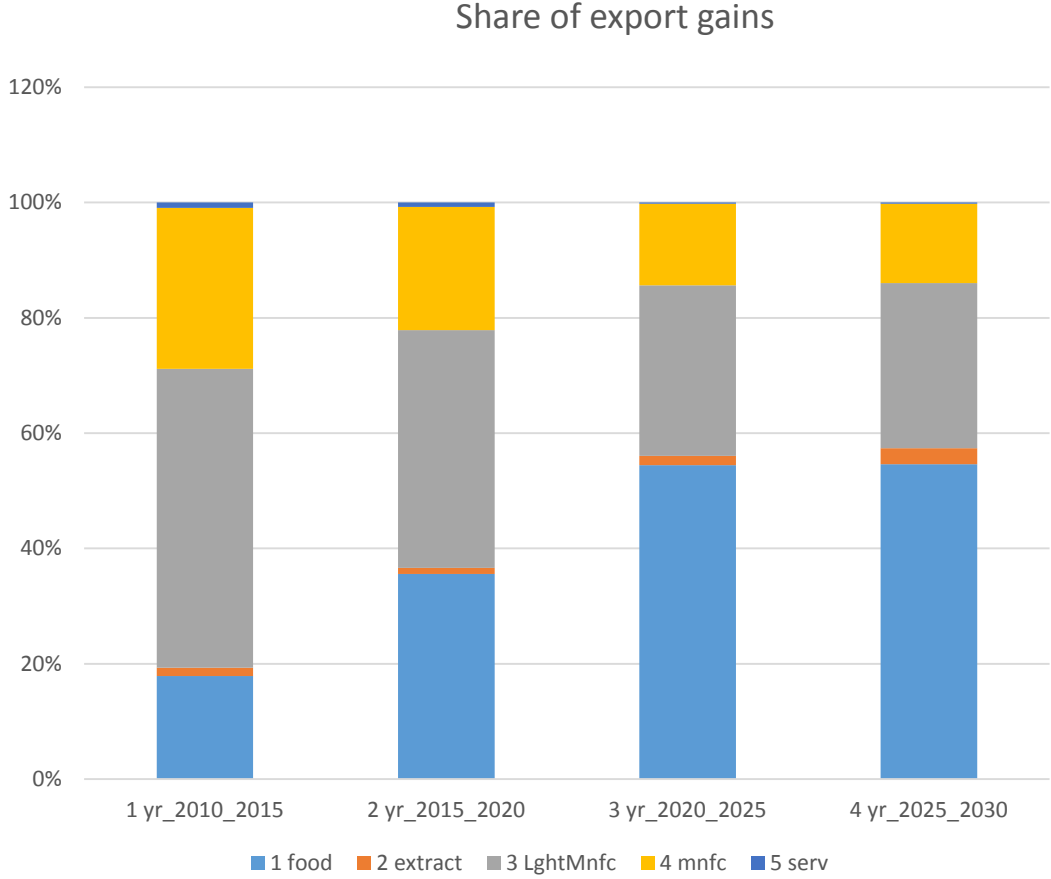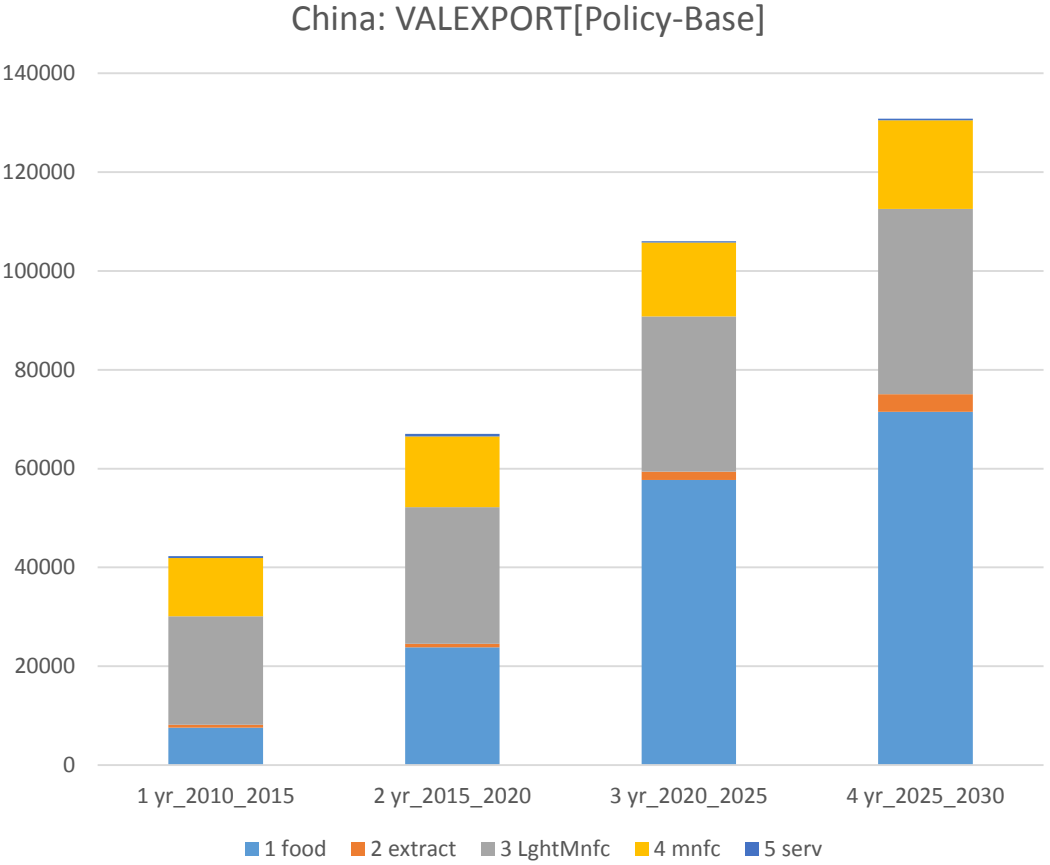# Result 3: Rental rate, PCGDS and rorga (cumulative difference)
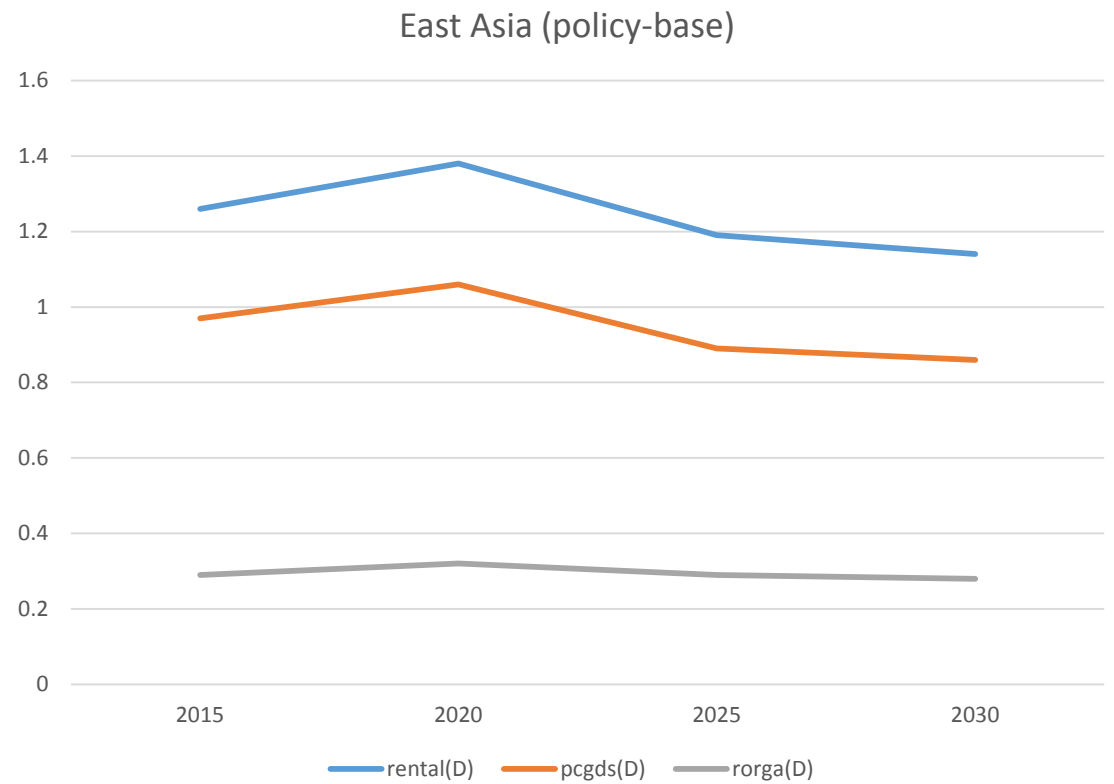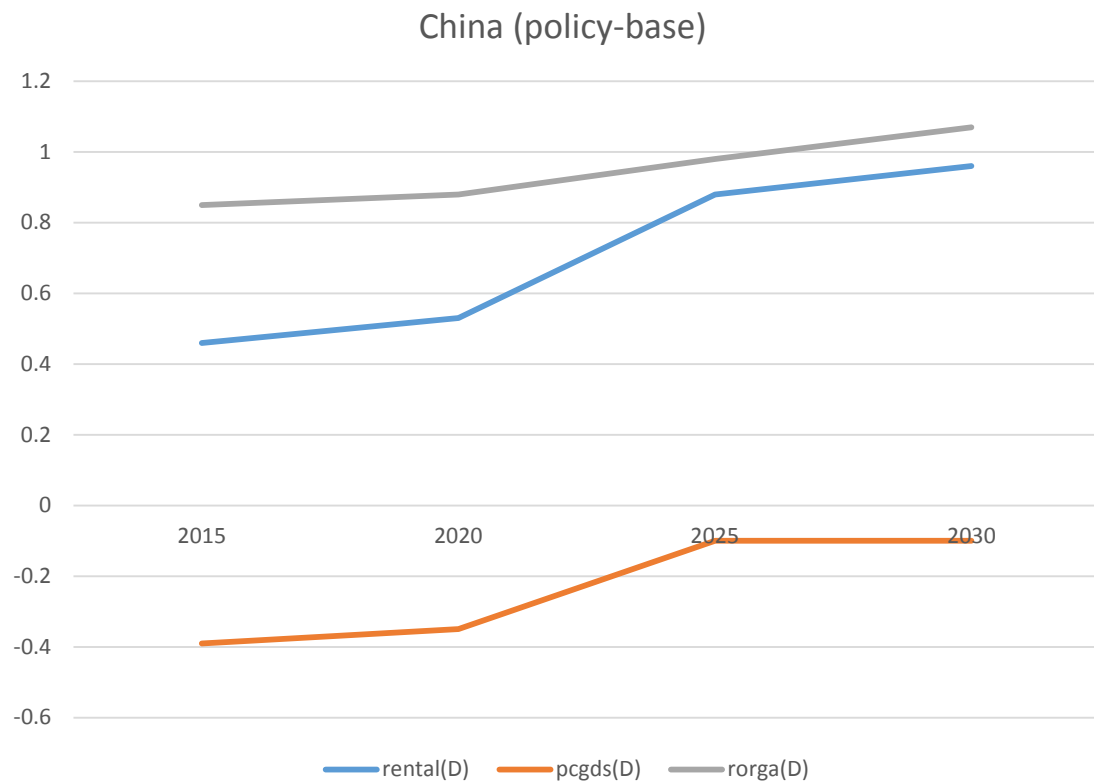
# Discussion

- Unavailability of the tariffs elimination between China and Japan, so here assume it is the same with that between China and Korea

- The first shocks should be during 2015-2020

- Re-constructing the business as usual scenario: the start year of current model is 2001; while FTA begins from 2015. we need to update the start year data or incorporating WTO reality in the BAU scenario (such as quotas reduced or tariffs elimination)

- Finding the advantage of GDyn: With/o capital flow (non-Gdyn)
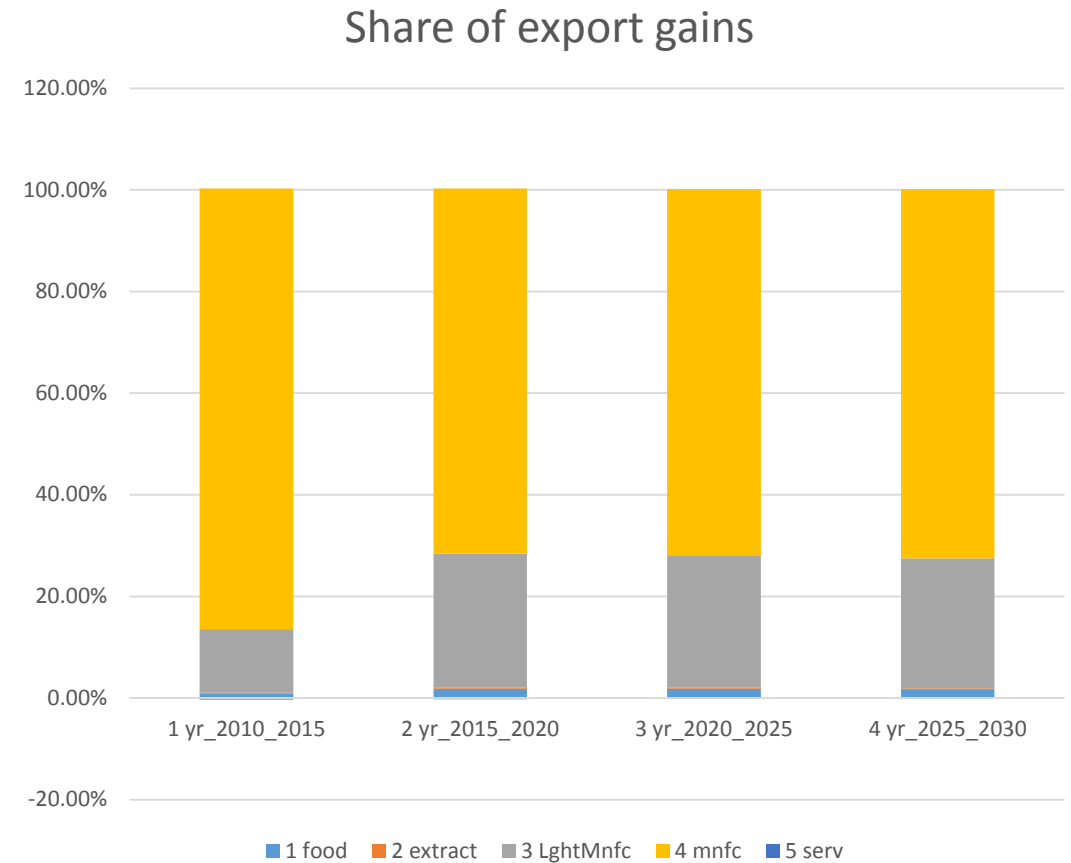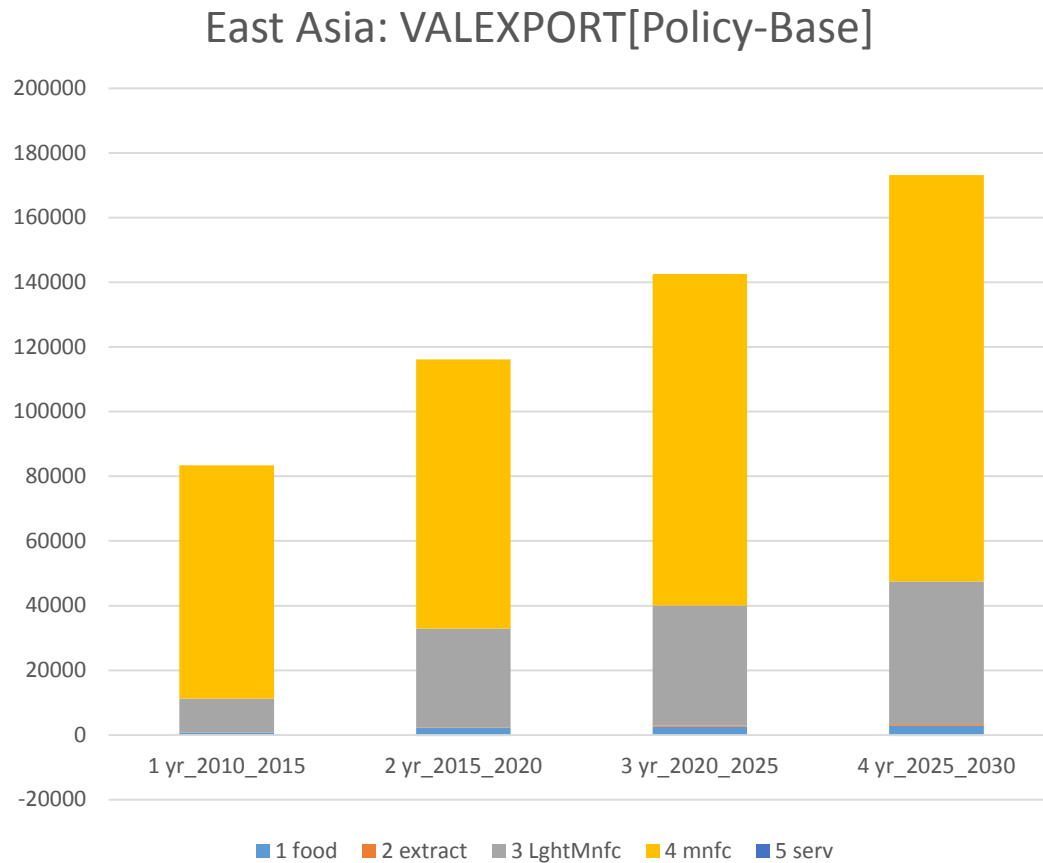
# Any comments are welcome!

# Special thanks to Zeynep and Dileep!

# Result 2: Bilateral Export gains- China



China: VALEXPORT[Policy-Base]

Share of export gains

Legend: 1 food, 2 extract, 3 LghtMnfc, 4 mnfc, 5 serv

Bilateral Trade only: China's gain is from Food. (Highest Tariff)

# Result 2: Bilateral Export Gains – East Asian



East Asia: VALEXPORT[Policy-Base]

Share of export gains

Bilateral Trade only: East Asia's gain is from Manufacturing. (Highest Tariff)

# Result 3: Trade Balance (TRADACCT)



Trade balance : China (Policy- Base)

Trade balance : East Asia (Policy-Base)
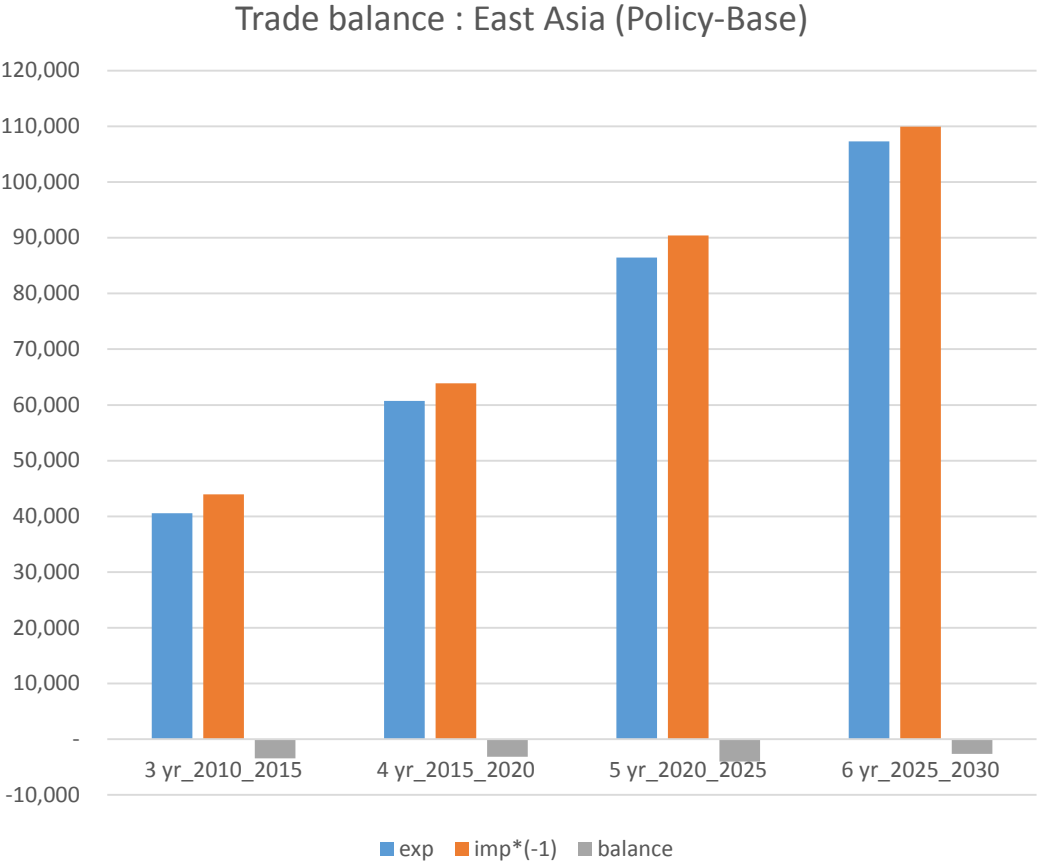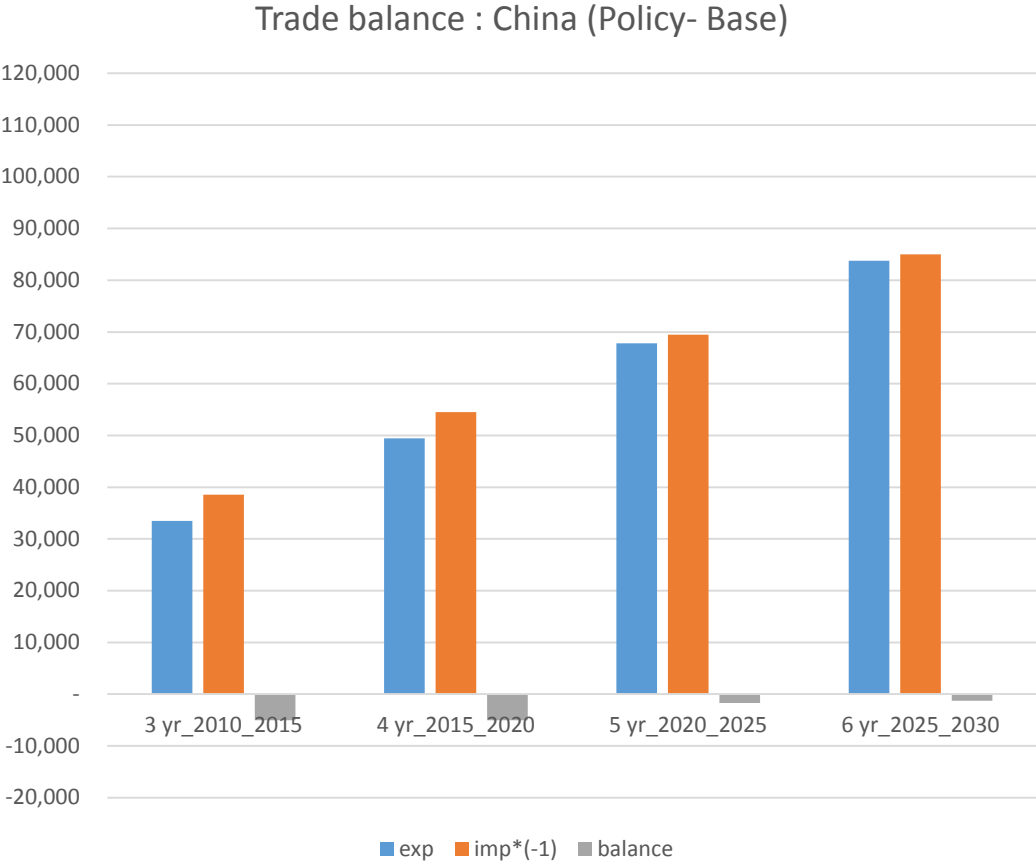
Export and import becomes bigger at the same time: small and negative trade balance gain