



Global Trade Analysis Project

Does the U.S.-China Tariff War Benefit or Hurt the U.S. Economy?



Introduction

- **A large scale tariff war broke out between the United States and China covering billions worth of goods.**
- **Stakeholders in the U.S. have divided views on the tariff action.**
- **There is a possibility that the tariff war may continue to escalate and affecting all products traded between the two countries.**

Research Questions

How will the U.S.-China tariff war affect the **macro U.S. economy** in the short and medium runs?

How will the U.S.-China tariff war affect the **U.S. agriculture and manufacturing sectors**?

Methods—Aggregation

❖ 6 Countries/regions

- **USA**
- **China (including Hong Kong)**
- **Canada**
- **Mexico**
- **EU(28)**
- **Rest of the world**

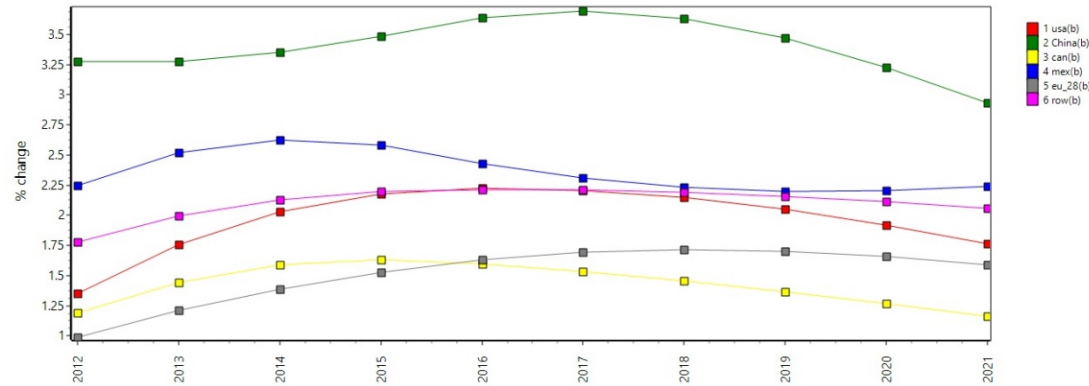
❖ 5 Sectors

- **Agriculture**
- **Manufacturing**
- **Processed good**
- **Extraction**
- **Service**

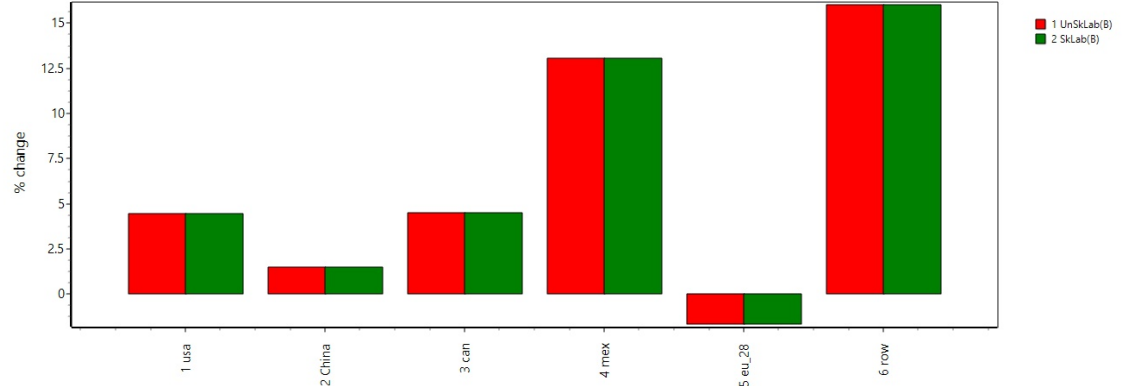
❖ **Duration (10 years): 2011-2021**

We also assume year-on-year capital accumulation

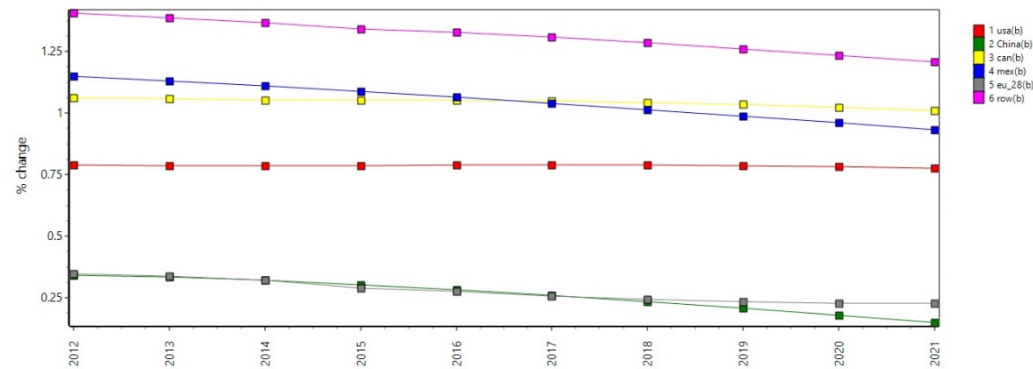
Methods—Base shock



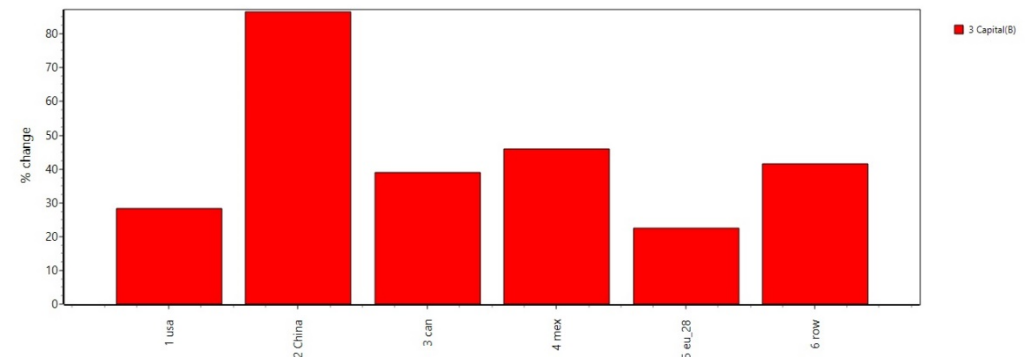
Real GDP per capita growth



Workforce growth



Population growth



Capital growth

Policy shock 1—tariff war

- Assume a 25% tariff was imposed on goods traded between the U.S. and China in 2017 and stayed from 2018 to 2021.

```
shock tms = file PolScen.har header "RTMS";
```

- **Closure**

year-on-year capital accumulation

```
swap qe("capital",REG) = capadd(REG);
```

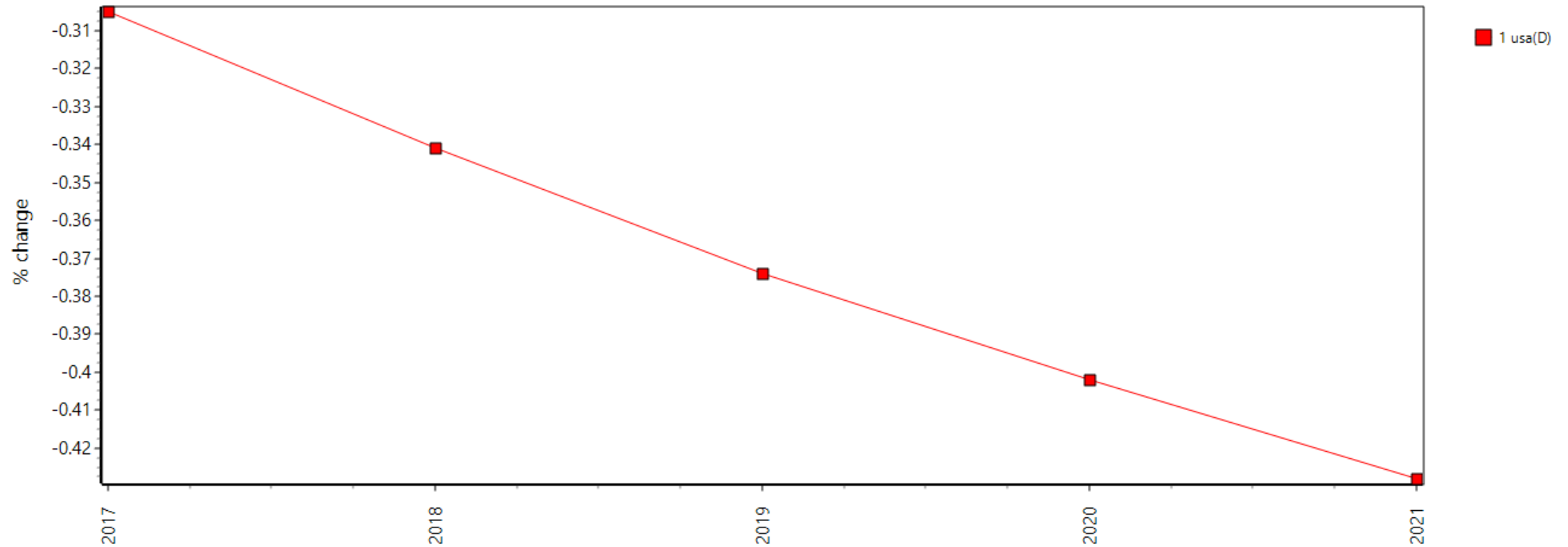
sloping supply curve for sector-specific factor

```
swap qesf = qesfsupply;
```

Upward sloping supply curve for sluggish factor

```
swap qe(ENDWS,REG) = qelsupply(ENDWS,REG);
```

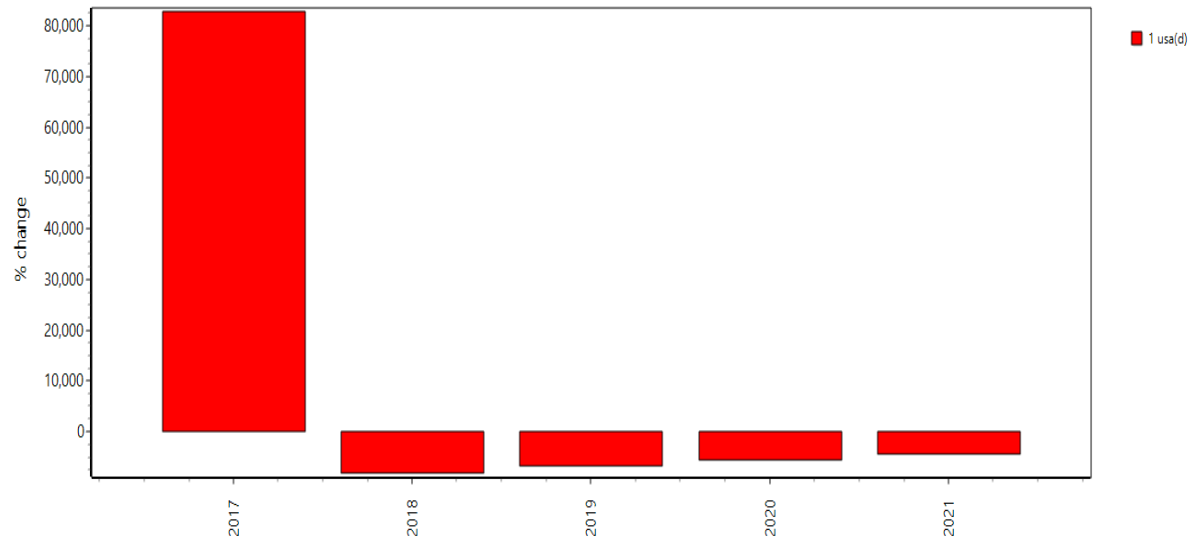
Difference of Policy vs. base rerun % change of GDP growth (qgdp)



Difference of Policy vs. base rerun

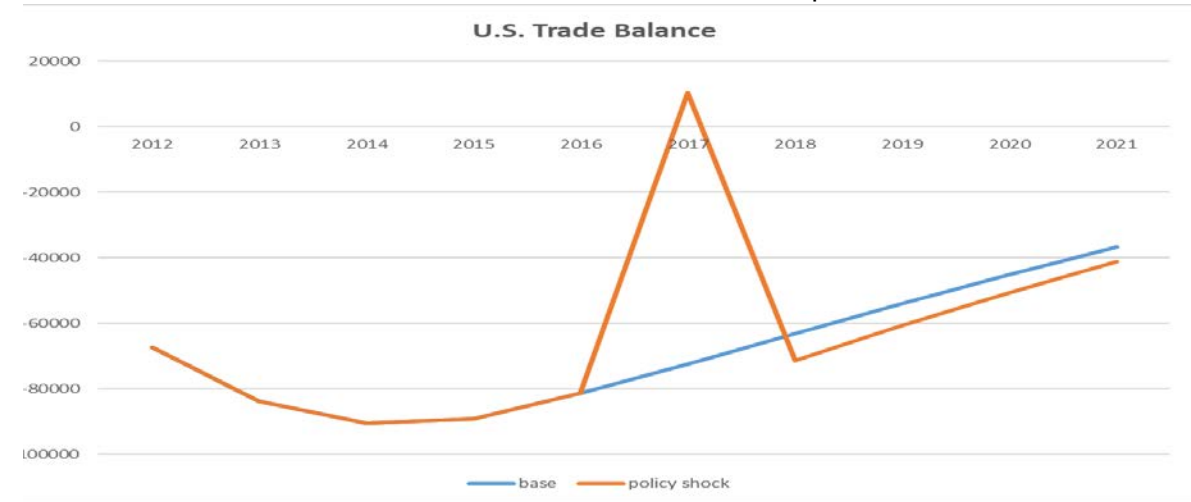
Trade balance (del_tbal)

Unit: \$million USD



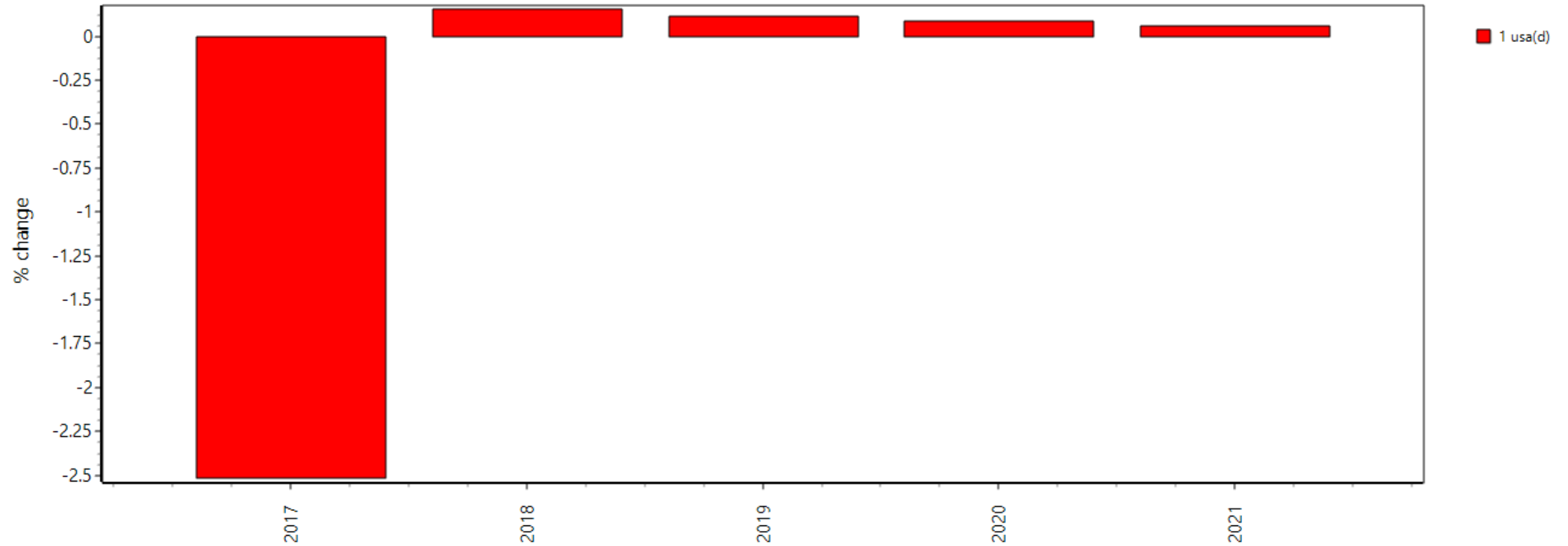
Year on year U.S. trade balance: difference of policy vs. base rerun

Unit: \$million USD

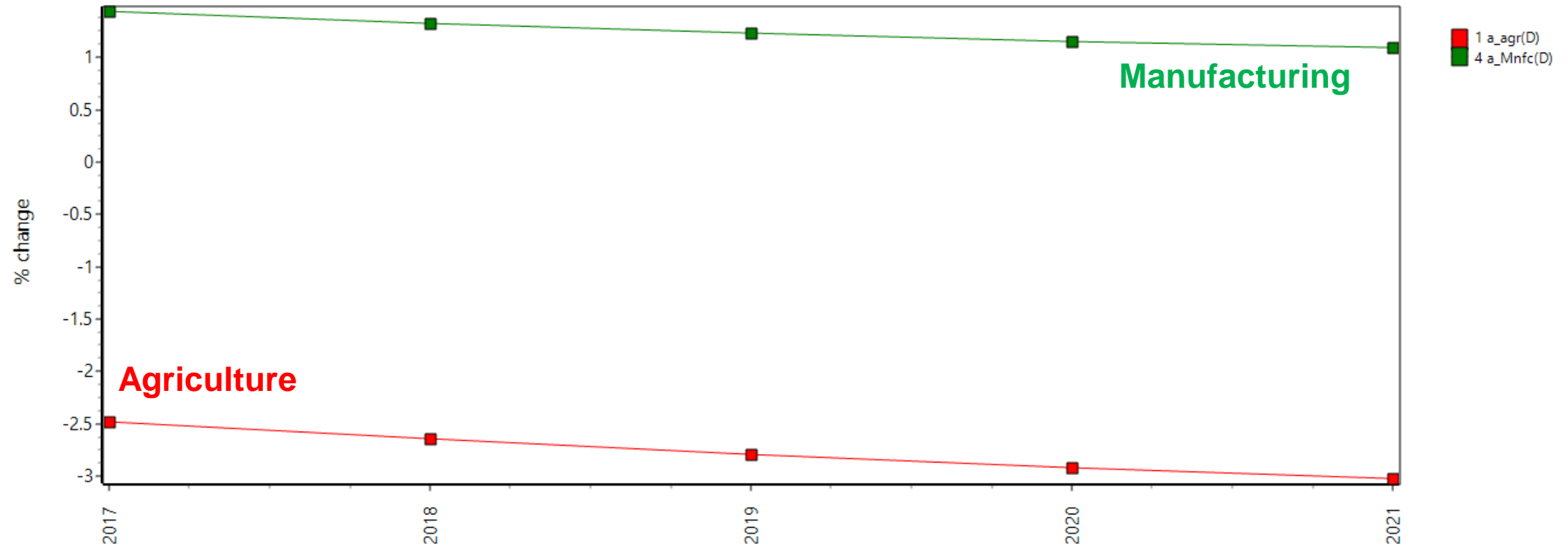


U.S. trade balance: policy vs. base run

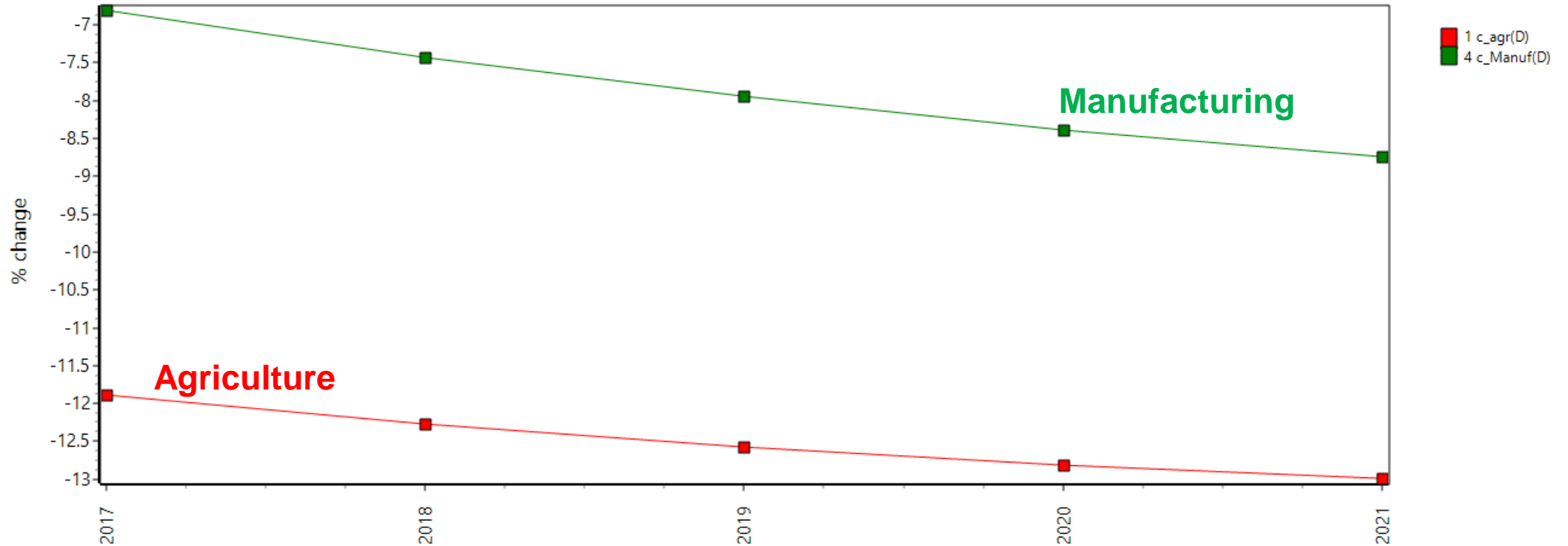
Difference of Policy vs. base rerun % change of investment (qinv)



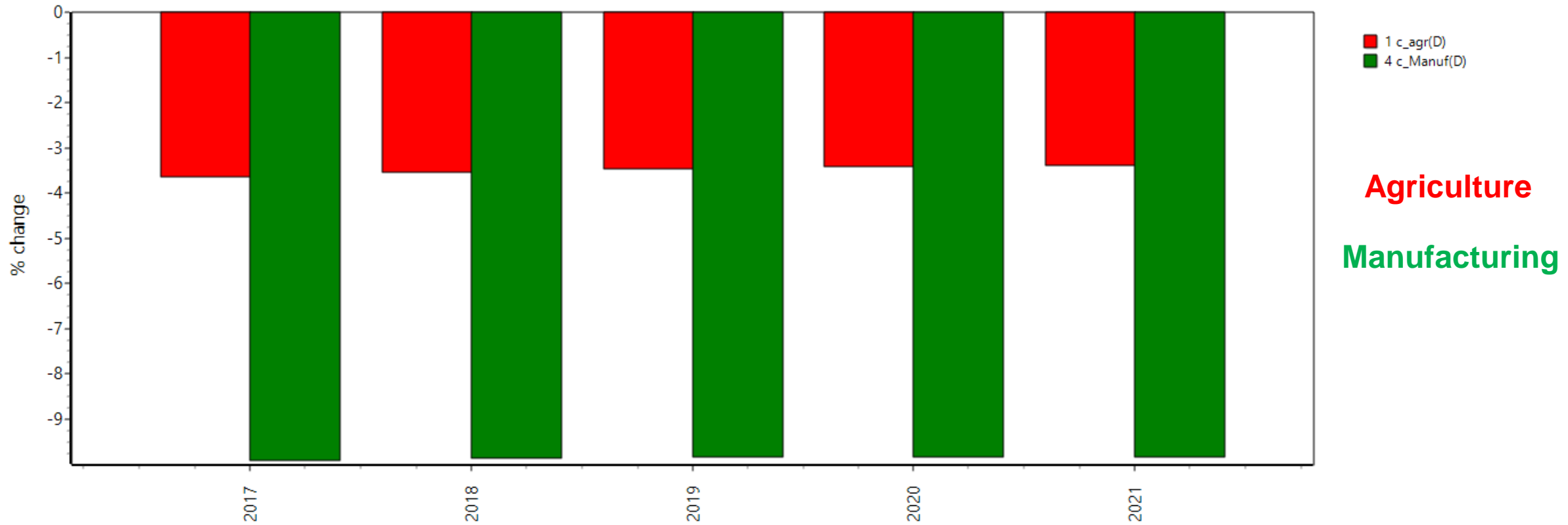
Difference of Policy vs. base rerun % change of output (qo)



Difference of Policy vs. base rerun % change of export (qxw)



Difference of Policy vs. base rerun % change of imports (qms)



Policy shock 2—tariff war ended in 1 year

- Assume a 25% tariff was imposed on goods traded between the U.S. and China in 2017 and ended in 2018.

```
shock tms = file PolScen2.har header "RTMS";
```

- **Closure**

year-on-year capital accumulation

```
swap qe("capital",REG) = capadd(REG);
```

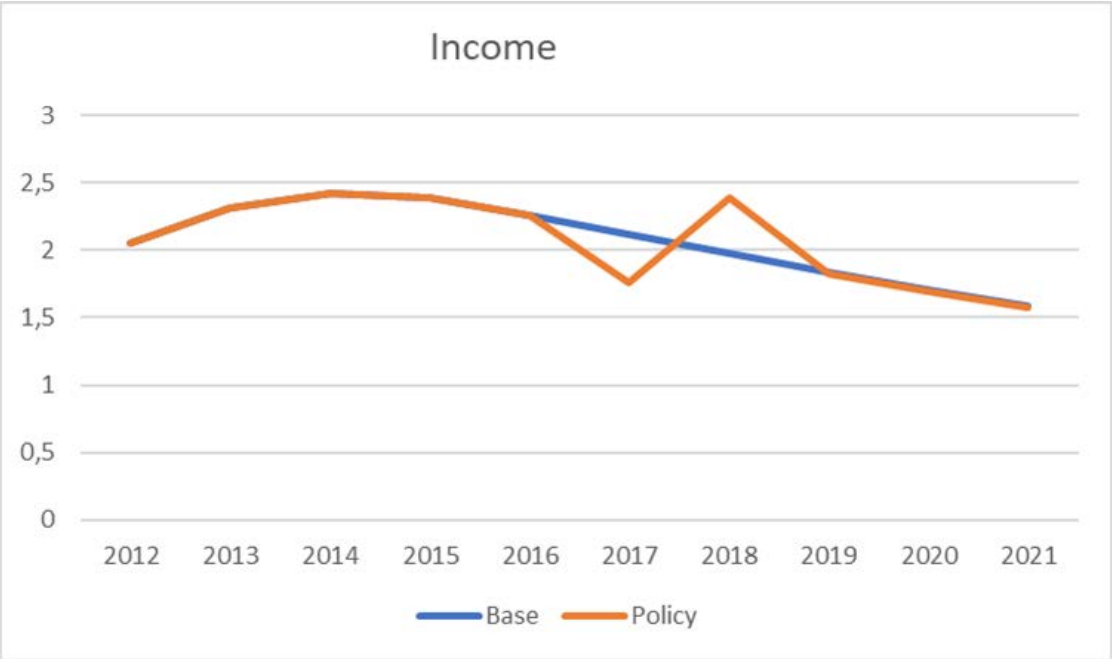
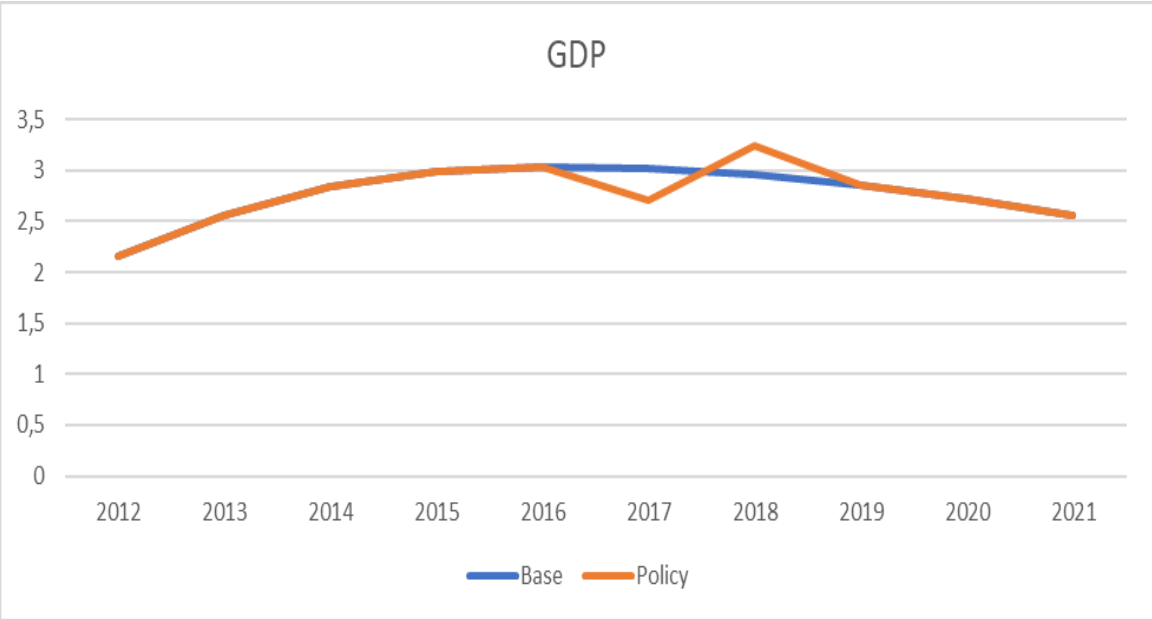
sloping supply curve for sector-specific factor

```
swap qesf = qesfsupply;
```

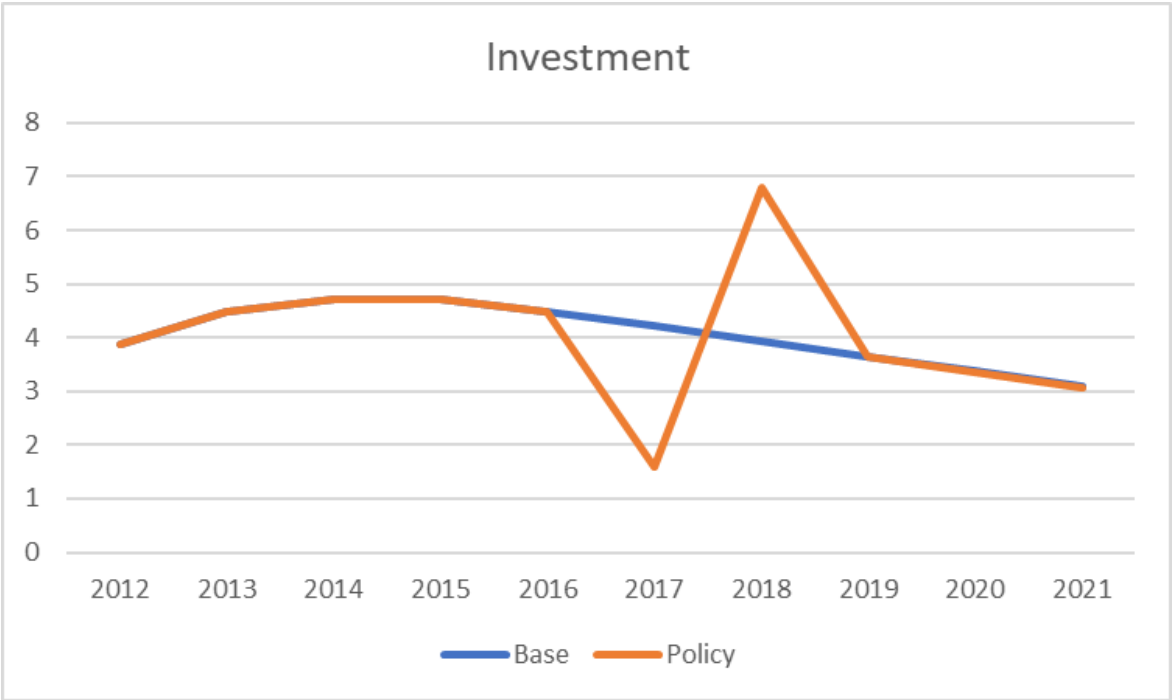
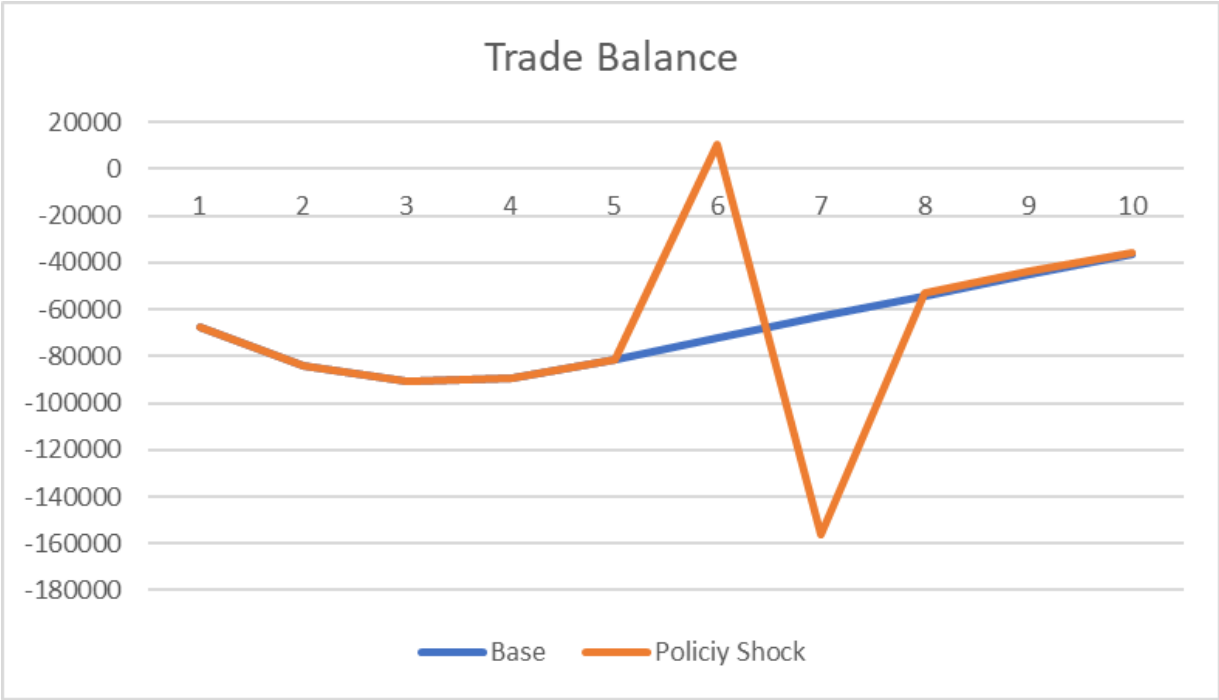
Upward sloping supply curve for sluggish factor

```
swap qe(ENDWS,REG) = qelsupply(ENDWS,REG);
```

Macro Results (Baseline vs Policy Shock 2) Year-on-Year



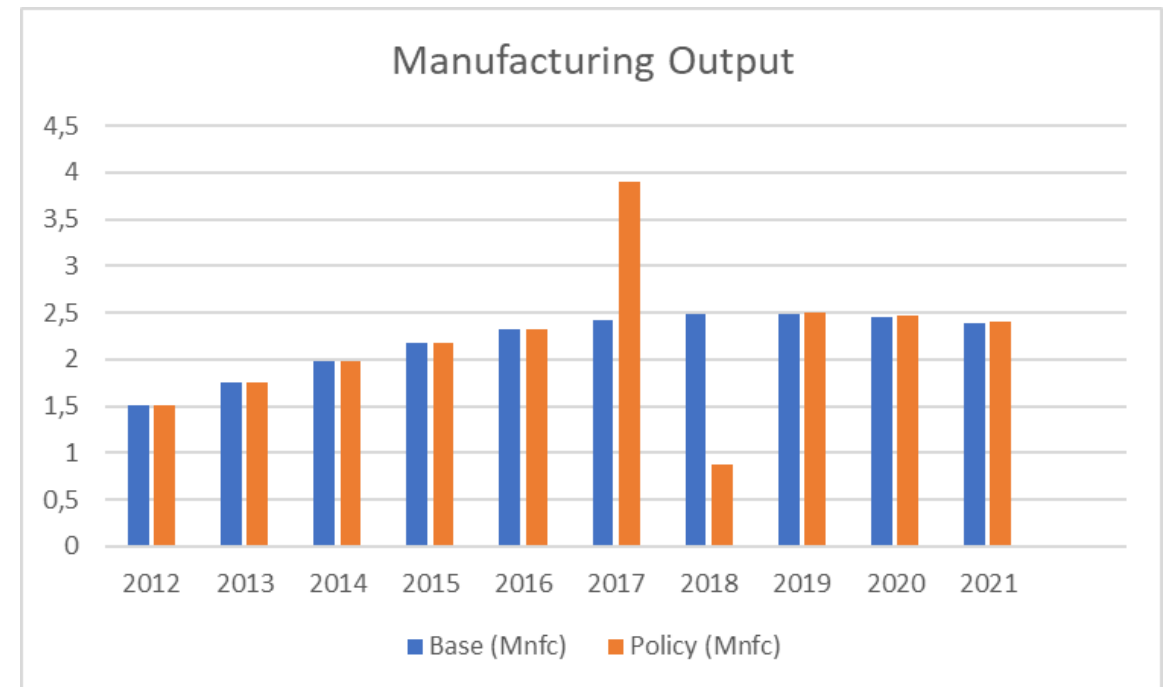
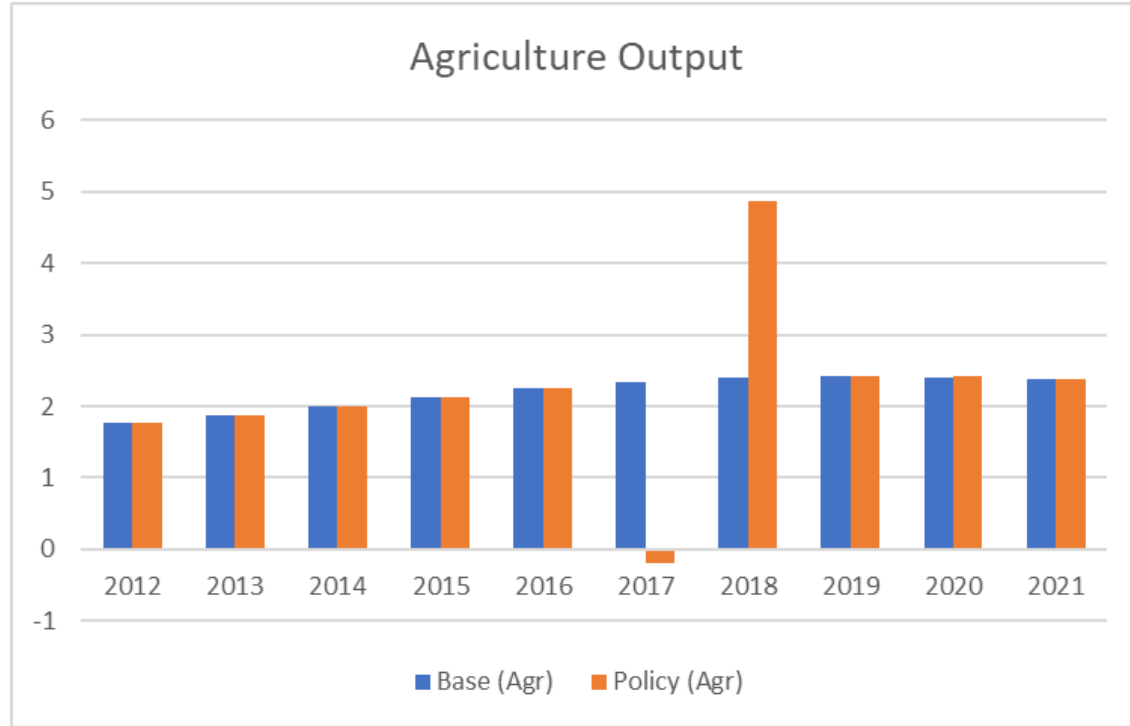
Macro Results (Baseline vs Policy Shock 2) Year-on-Year



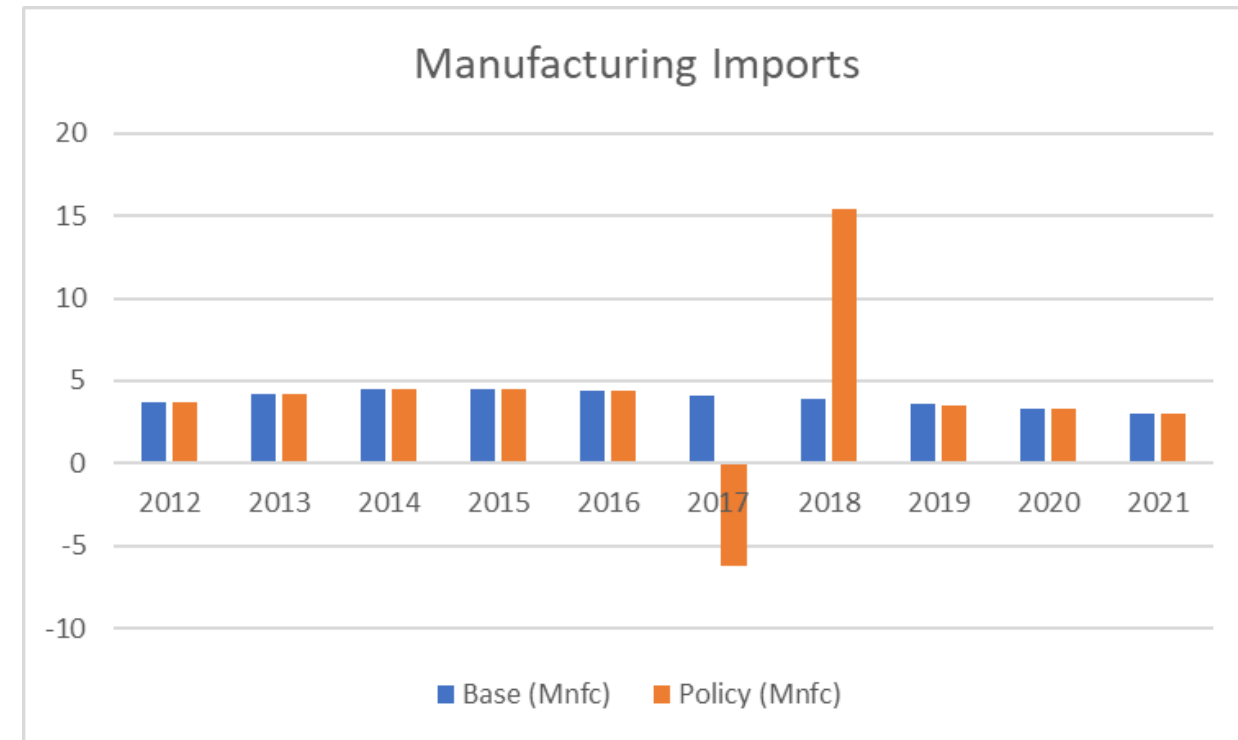
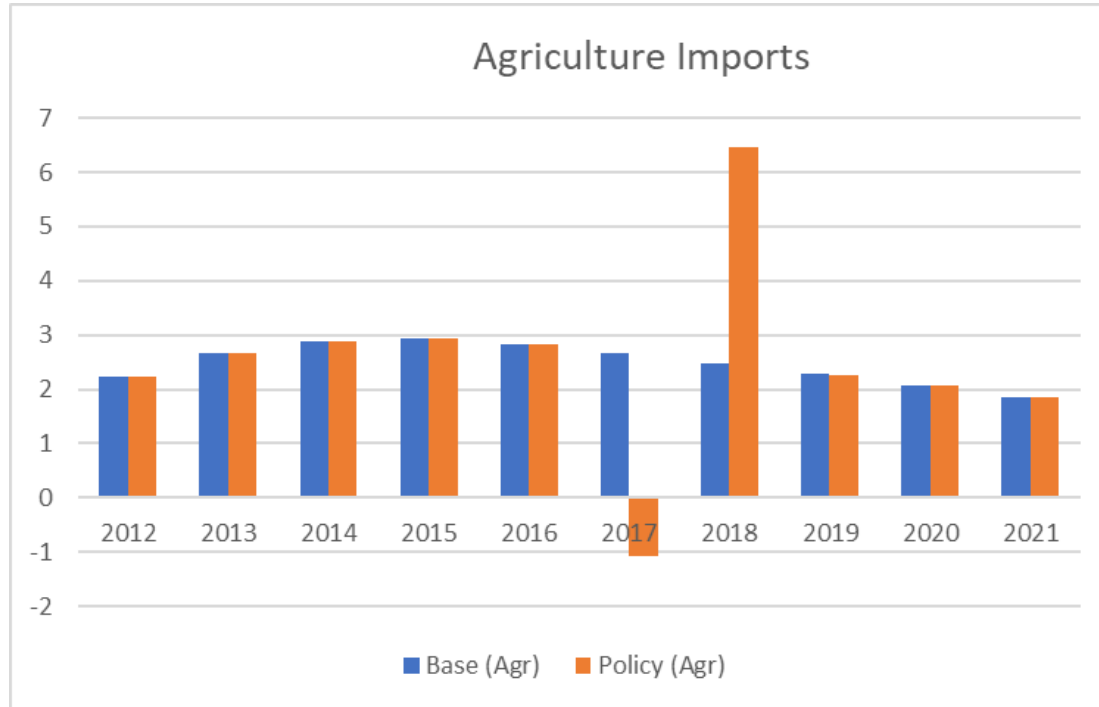
Macro Results (Differences-Policy v Rerun Shock 2)



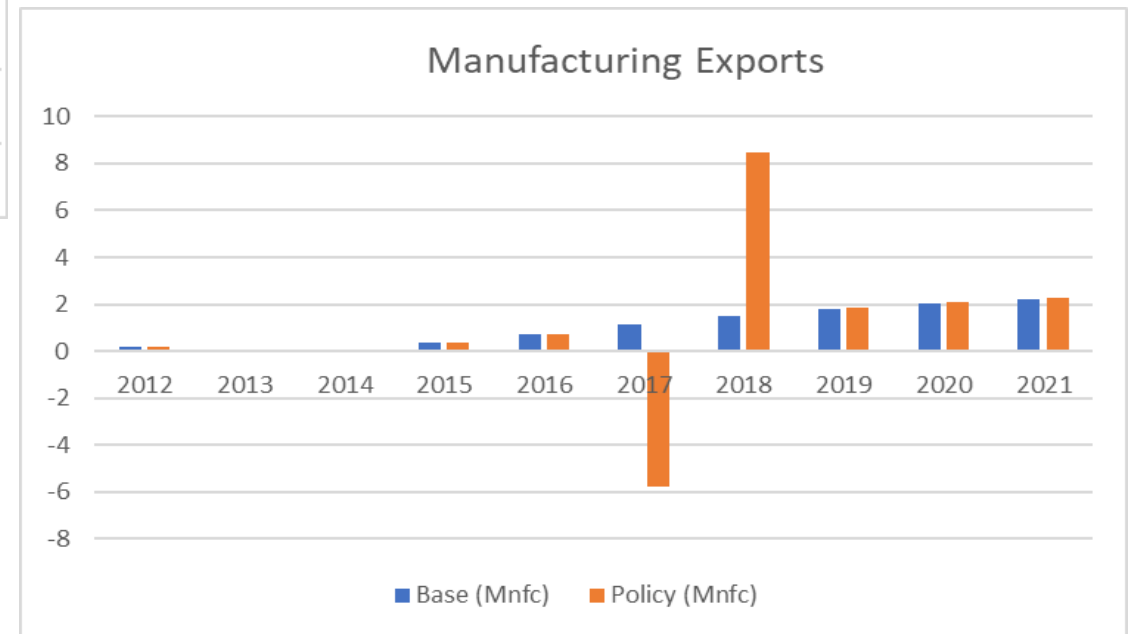
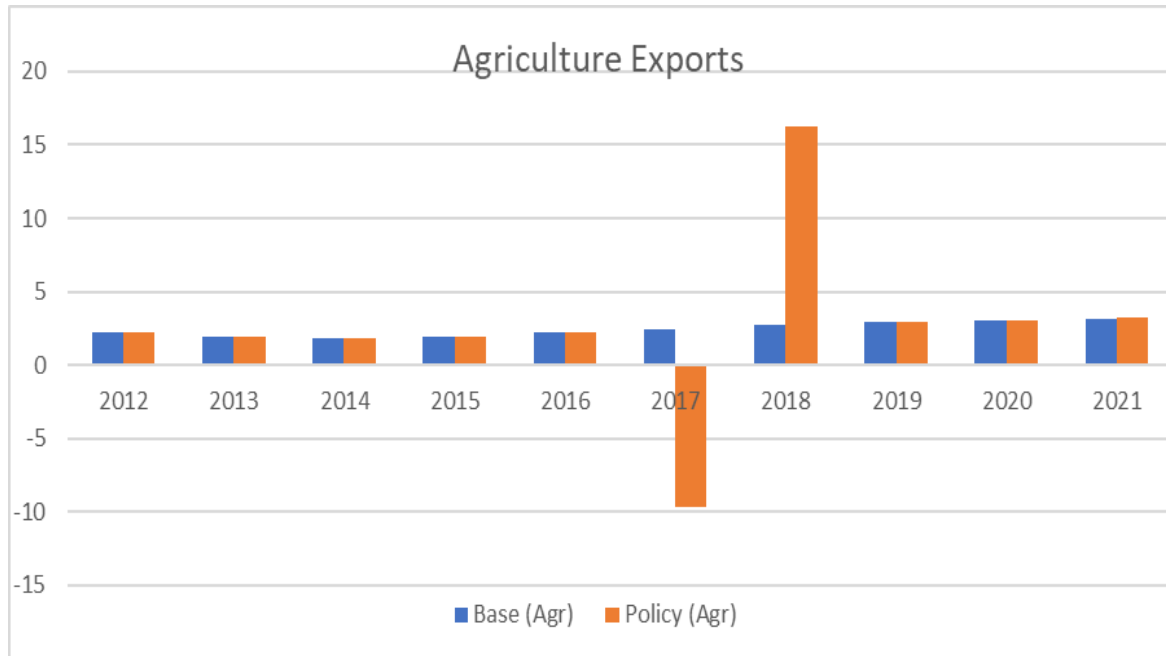
Sector Results (Baseline v Policy Shock 2) Year-on- Year



Sector Results (Baseline v Policy Shock 2) Year-on- Year



Sector Results (Baseline v Policy Shock 2) Year-on- Year



Conclusions and implications

- **The U.S.-China tariff war hurts the U.S. economy overall.**
- **The tariff war may create both sectoral winners and losers in the United States.**
- **The longer the tariff war lasts, the more impacts it will exert on the United States.**

Limitations and future research agenda

- The dynamic CGE model may not accurately reflect the short-term impact of the policy change.
- The actual long-term impacts of the U.S.-China tariff war could be even larger than findings of this study because of other factors not captured by the model.
- Future studies can continue to evaluate the impact of the trade war at the more disaggregated sectoral or agent level.
- It may also be interesting to explore the impact of the U.S.-China tariff war on other regions of the world.