EUROPEAN CENTRAL BANK

EUROSYSTEM

Shortages of critical goods in a global economy

Discussion

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In a nutshell

Approach

- Design a **dynamic** general equilibrium trade model to study how shortages of essential goods can arise and which policies (trade and industrial) can mitigate these
- Take the perspective of a (small) open economy producing essential and non-essential goods and facing a (temporary) **global increase** in the demand for essentials
- Relate to **Covid**-related shortages of medical gears

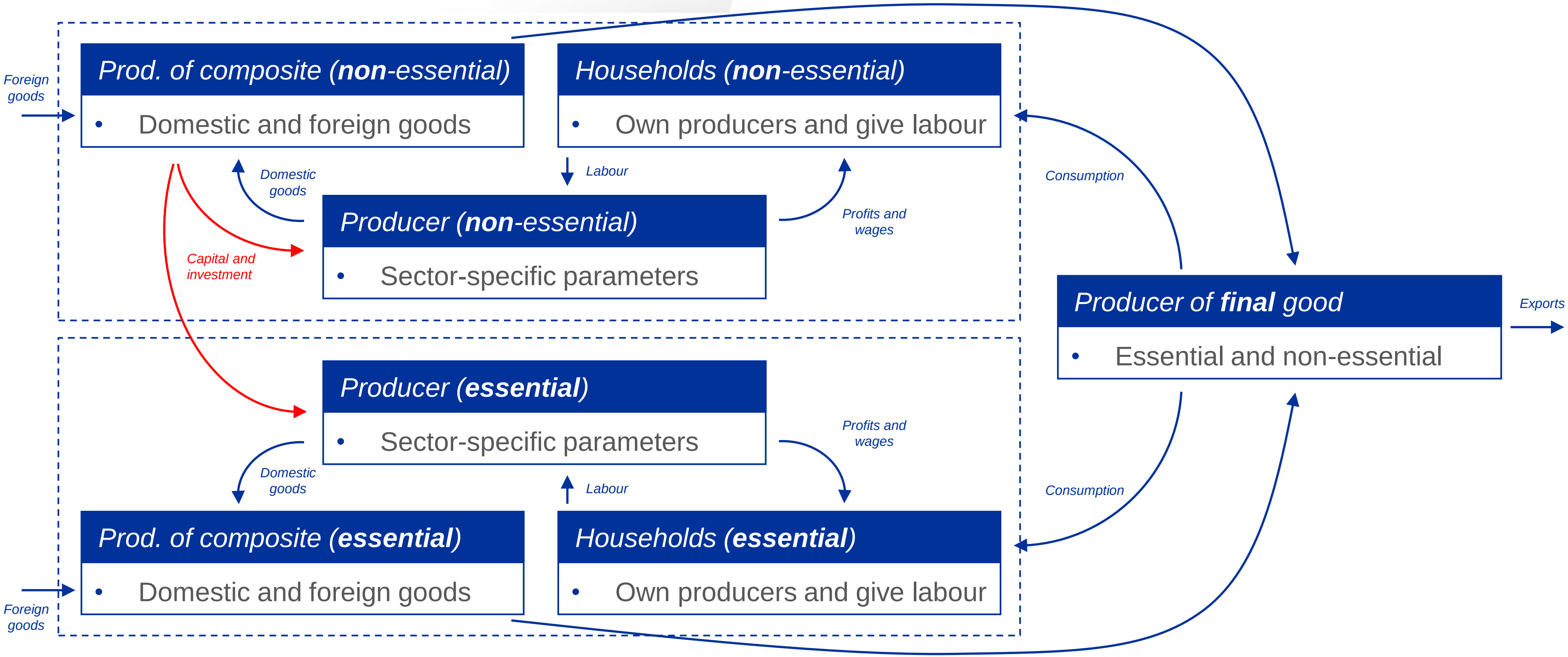
Results

- *Modelling*: ownership **heterogeneity** and **incomplete** financial markets critical to generate shortages
- *Policy*: optimal policies (from the perspective of the small open economy) is to combine **trade and industrial policies** on essential goods
  - Export tariffs
  - Import subsidies
  - Production subsidies

Overall assessment

- **Great** paper !
- **Well-rounded** – lots of comments already answered by section 5.4
- Highly **topical**
- (Relatively) straightforward model but key **policy implications**

Structure (abstracting financial and government)



Modelling

In the paper

- Trade policies as **tariffs**

- Most Covid-related measures were rather **restrictions/bans**
- Tariffs **asymmetrically rebated** to households

Could trade policies be modelled with **iceberg trade costs?**

In the paper

- Model describing outcome in a **small open economy**

- Model calibrated on the **US**

Do you need the “small” open economy for a **global shock?**

And also could an assumption for trade/industrial **policies**

In the paper

- Three **key** parameters:
  - Elasticity of substitution between varieties (ρ)
  - Inter-temporal elasticity of substitution (ξ)
  - Adjustment costs (Ω)

- Set or estimated (SMM) and **one** alternative value

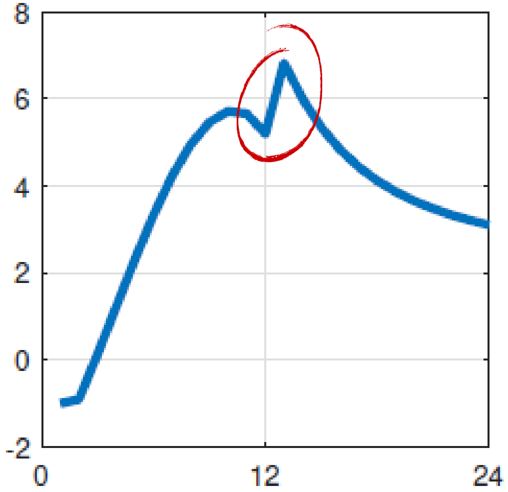
Enhanced **sensitivity analysis**?

Links to values in **literature**?

More clarity on **SMM**?

Interpretation of results

Exports of essential goods
(no policy set-up)



Optimal policies

	Welfare gain
Trade policy	0.011%
Industrial policy	0.004%
Trade and industrial policy	0.033%

Optimal policies and imbalances

	Export tax	Import tariff
Trade deficit	15.40%	– 9.81%
Trade surplus	8.29%	– 5.30%

Possible policy extensions

In the paper

- **Unilateral** focus centred on the (small) open economy
- **Global** shock (Covid-19)
- Essential goods not entering as **inputs to production**

Global focus

- Looking at effects on **rest of the world**
- Similar policy instruments in the rest of the world to derive **global** optimum

→ Maybe starting with a **two-country** set-up

Asymmetries

- Essentials produced in **one** country but consumed in the **other**
- **Idiosyncratic** shock on either of the countries

→ Participate to policy debate on **strategic dependence**

Production shortages

- Essentials goods also entering as **inputs to production**

→ Could see effects of shortages in critical goods on **production**

→ Maybe could extend production function with **intermediate goods bundle**

Other minor points (1/2)

- Costs of adjustment are largely heterogenous across sectors but could they be made **factor-specific** (capital / labour) instead of sector-specific?
- Maybe clearer with **nested production / consumption functions?**
- Maybe can go with interventions **one by one** (or at least export tariffs)? Could you clarify why there is **no role** for import subsidies (in online appendix)?
- What would happen in case of **permanent increase** (or trend increase) of essentials?
- Would it change the results to give governments **access to financial markets**?

Other minor points (2/2)

- Is **perfect foresight** playing a key role? Maybe since the temporary nature of the shock is important to generate under-investment leading to shortages

- **Heterogenous ownership** needed but is it compatible with **incomplete** financial markets (if production of essentials owned by **5%** of population)? Also maybe can get some criticism on the theoretical / empirical ground for this assumption?
    - Could under-investment be rather generated by **heterogenous firms** with financial frictions (but maybe too close to literature – Itskhoki and Moll, 2019)?
    - Could this be generated by **market power** (ration pricing) of firms to increase profits?
    - Could you set **bottom-low mobility** of production factors (labour and capital) across sectors to hinder production of essentials?