In a nutshell

Approach

- Develop a multi-country multi-sector model with production and **investment networks**
- Simulate scenarios of **trade fragmentation** along geopolitical lines (West, East, and Neutral bloc)

Results

- **Dynamic** effects of trade fragmentation – higher in short-run due to inflexibility of supply chains
- Impact of **capital accumulation** channel – around half of effects in the long-run
- Consequences of trade fragmentation on **inflation** rates

Modelling perspective

Dynamic Stochastic General Equilibrium (DSGE) models

- **Dynamic** effects
- **Limited granularity** in terms of countries and sectors

Multi-country multi-sector (MCMS) General Equilibrium models

- **Static** effects
- Features detailed **global sectoral linkages**

This paper

- **Dynamic** effects
- Features detailed **global sectoral linkages**

Huo, Levchenko, Pandalai-Nayar (2023)
Boeckelmann, Imbs, Pauwels (2024)

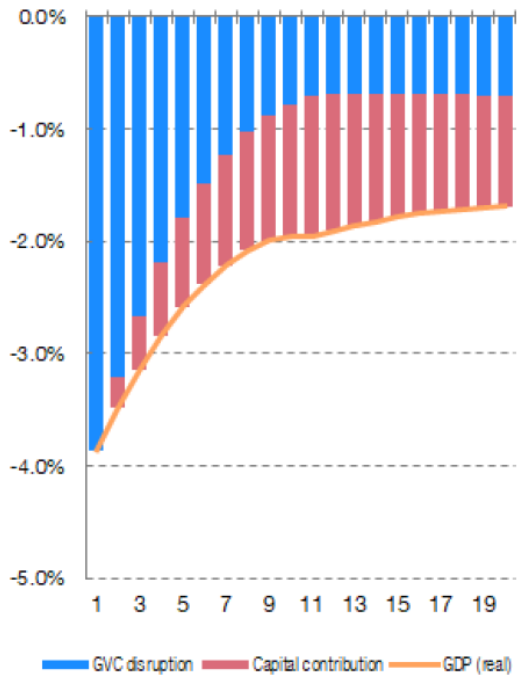
Overall assessment

- Nice **modelling** contribution
- High **policy relevance** with many applications on the inflationary effects of trade fragmentation and more generally the role of GVCs for inflation
- Paper with **tons of potential**
- Still in **drafting** stage

A nice contribution: capital accumulation channel

Real GDP (West)

(percentage deviation from initial steady state)



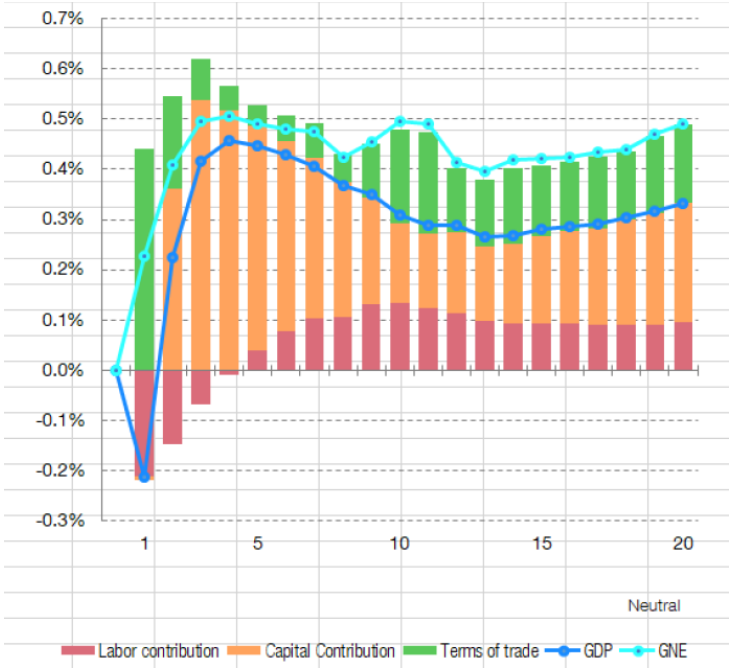
Source: Quintana (2024).
Note: Effects relate to the Cold War scenario (150% increase in iceberg trade costs across all products between West and East blocs).

- Ignoring capital accumulation effects **underestimates real GDP losses** form trade fragmentation by around half
- Complements the literature on the importance of **global capital linkages** (Foerster, Sarte, and Watson, 2011; Ravikumar, Santacreu, and Sposi, 2019)
- Very close to **Fernandez (2017)**

Dynamics of fragmentation – time profiles

Real GDP and GNE (Neutral)

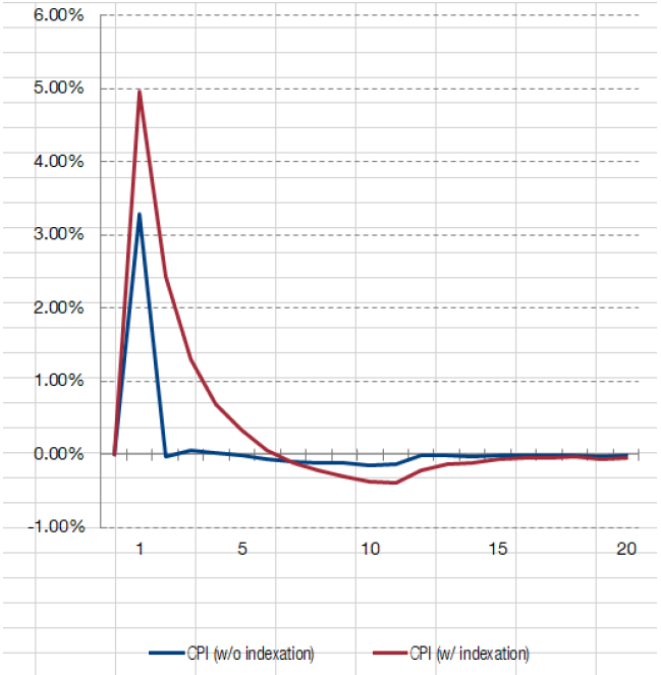
(percentage deviation from initial steady state)



Source: Quintana (2024).
Note: Effects relate to the Cold War scenario (150% increase in iceberg trade costs across all products between West and East blocs).

CPI inflation (West)

(percentage points deviation from steady state)



Source: Quintana (2024).
Note: Effects relate to the Cold War scenario (150% increase in iceberg trade costs across all products between West and East blocs).

Dynamics of fragmentation – nominal side

In the paper

- Dynamic model with **nominal impact** (CPI) based on investment decisions over time

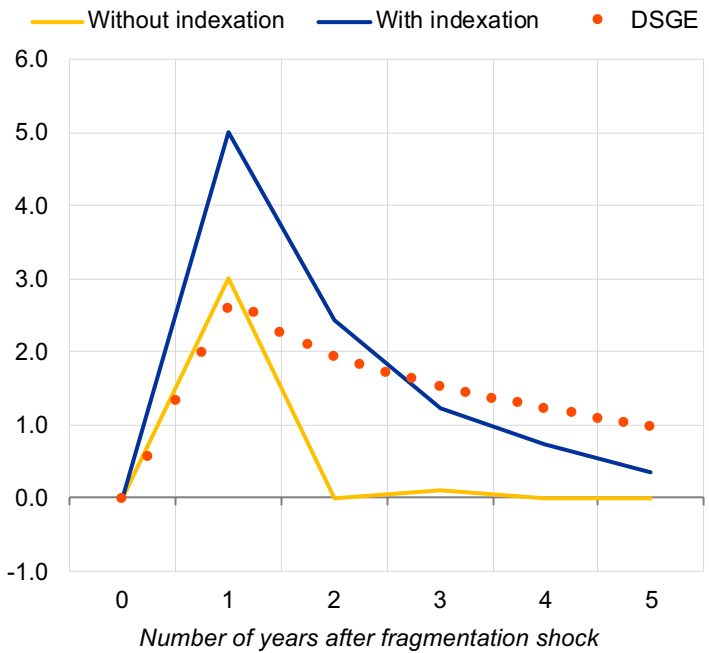
- Might miss **central bank bloc** whose reaction would affect inflation rates and investment
- Might need **price stickiness** (e.g., Calvo pricing) to stagger price hikes over time – above all with supply chains

- Prices likely pinned down in **relative terms** as in most MCMS models – could be more explicit on the assumptions needed to derive CPI inflation (e.g., nominal anchor, FX)

Dynamics of fragmentation – comparison with DSGE results

CPI inflation (West)

(percentage points deviation from steady state)



Sources: Quintana (2024) and Lechthaler and Mileva (2024).
Note: Effects relate to the Cold War scenario (150% increase in iceberg trade costs across all products between West and East blocs). DSGE model with three blocs (East, West, Neutral) and calibrated on same IO table as Quintana (2024).

- DSGE model calibrated with **same shock** and **same trade** linkages
- More **inflation persistence**
- Could also look at **Ravikumar, Santacreu, and Sposi (2019)**

Dynamics *vs.* capital accumulation

In the paper

- Dual focus on **capital accumulation** channel and on **dynamic MCMS** with the possibility to recover nominal impacts

- Nice and clear contribution on **capital accumulation** – complementing the literature
- Some concerns about dynamic effects on the **nominal side**

Suggestions

- Could focus the paper rather on **capital** accumulation effects (as alleviates remarks on solving the model)
- Rework inflation dynamics and / or make caveats more explicit on **dynamic nominal effects**

Scenario calibration

In the paper

- Different **trade elasticities** for short-run (Boehm et al., 2023) and long-run (Fontagné et al., 2022)

- Boehm et al. (2023) gives **both SR and LR** elasticities
- Large **differences** in LR estimates across the papers

Suggestion

- Directly use sectoral time-varying trade elasticities from **Boehm et al. (2023)**

In the paper

- **Time-varying** trade elasticities but not the case for other elasticities

- **Practical** rationale? Can be that other elasticities have limited effects (Baqaee et al., 2024)
- But limited **economic** rationale

Suggestion

- Try introduce **time-variation** in production elasticities – as in Baqaee et al. (2022)

In the paper

- **Across-the-board** trade shock (i.e., on all sectors) along **three blocs**

- Limited use of **multi-country multi-sector** dimension of the model
- Most real-life trade measures are **targeted**

Suggestion

- Run scenario with **sectoral** trade shocks on **specific** countries (e.g., CN-US tariffs)

Other points

- Are there conditions on **balanced trade** as in Alvarez (2017)? Or does it allow for capital account **imbalances** (Ravikumar, Santacreu, and Sposi, 2019)

- How are **investment goods** produced? Is it combining labour, capital, energy, and intermediate inputs as for other producers?

- Maybe the paper could play around with **expectations**, moving away from perfect foresight? What implications if producers have rather **myopic expectations**?

- Some effects (e.g., CPI in West, stock of capital) abruptly **change at 10 years**: is it imposed by the calibration of the model where, e.g., 10-year is the horizon where "long-run" is set?