Discussion of

The Global Network of Financial Intermediation and Exchange Rates

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Motivation

- The balance sheet of financial intermediaries can affect exchange rates
  Gabaix, Maggiori (2015), Itskhoki, Mukhin (2021), Du, Hebert, Wang (2021), Fang (2021)

- Little known about the role of financial connections within a global **network of financial intermediation** in the transmission of trade shocks to exchange rates.

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Model: Gabaix and Maggiori (2015) w/ N countries & **different** degrees of B/S capacity for **bilateral** capital flows

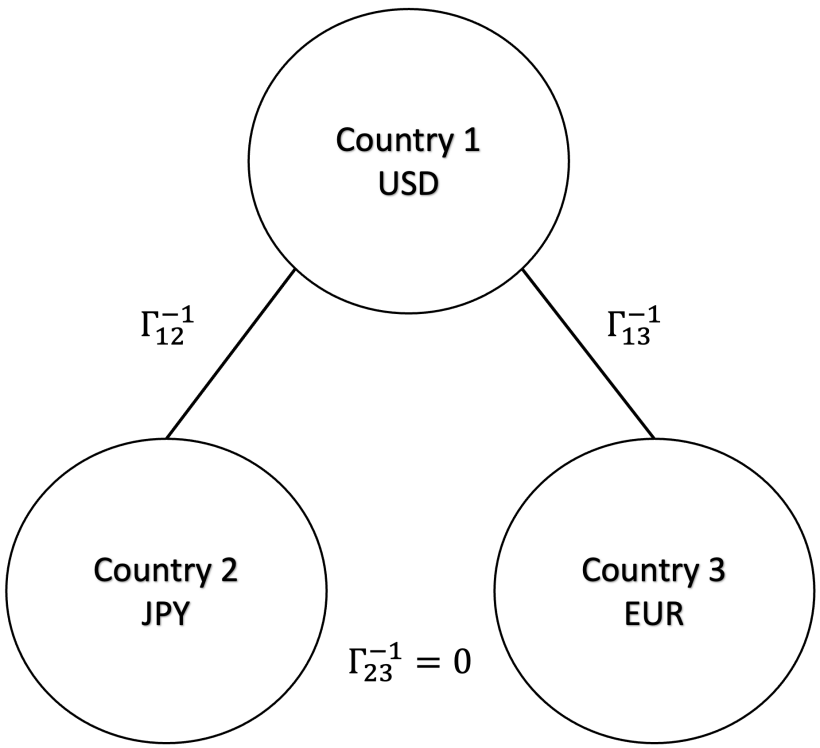
Data: Model predictions supported by the cross-border **banking** data from the BIS LBS.

Summary of Key Model Predictions: Three Country Example

- Net capital flows from Country 1 (US) to Country j:

$$Q_{j1} = \underbrace{\Gamma_{1j}^{-1}}_{\text{B/S Capacity}} \underbrace{(E^1_{\text{USD/j}} - E^0_{\text{USD/j}})}_{\text{Exchange Rate Returns}}$$

  - Short USD, Long Currency j
  - Abstract away from interest rates in the model
  - Let's assume $\Gamma_{23}^{-1} = 0$; no capital flows between countries 2 and 3.



- $\Gamma \to 0$, friction-less economy

$\Rightarrow$ $\Gamma^{-1} \uparrow$, relaxing the constraint

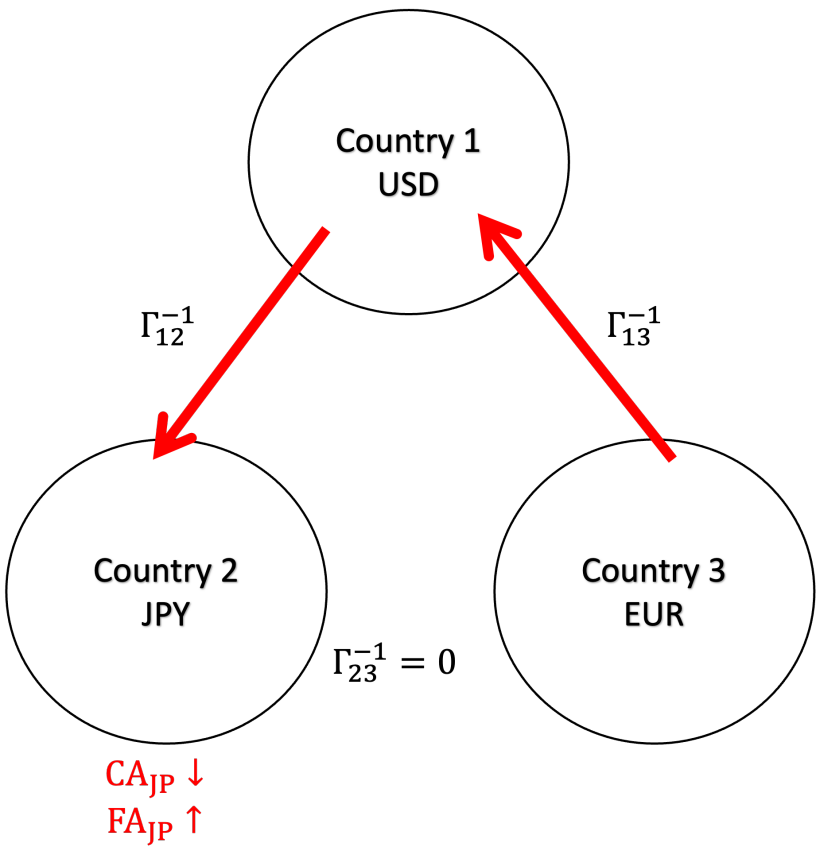
For Country 2 (JP),

- Γ_{12}^{-1}: first-order connection
- Γ_{13}^{-1}: higher order connection

Result # 1: Import Demand Shock in JP

- Import demand $\Uparrow$ in JP: $CA_{JP} \downarrow$ $FA_{JP} \uparrow$

$$E^0_{USD/JPY} \downdownarrows \quad \text{such that} \quad E^1_{USD/JPY} - E^0_{USD/JPY} \uparrow\uparrow$$



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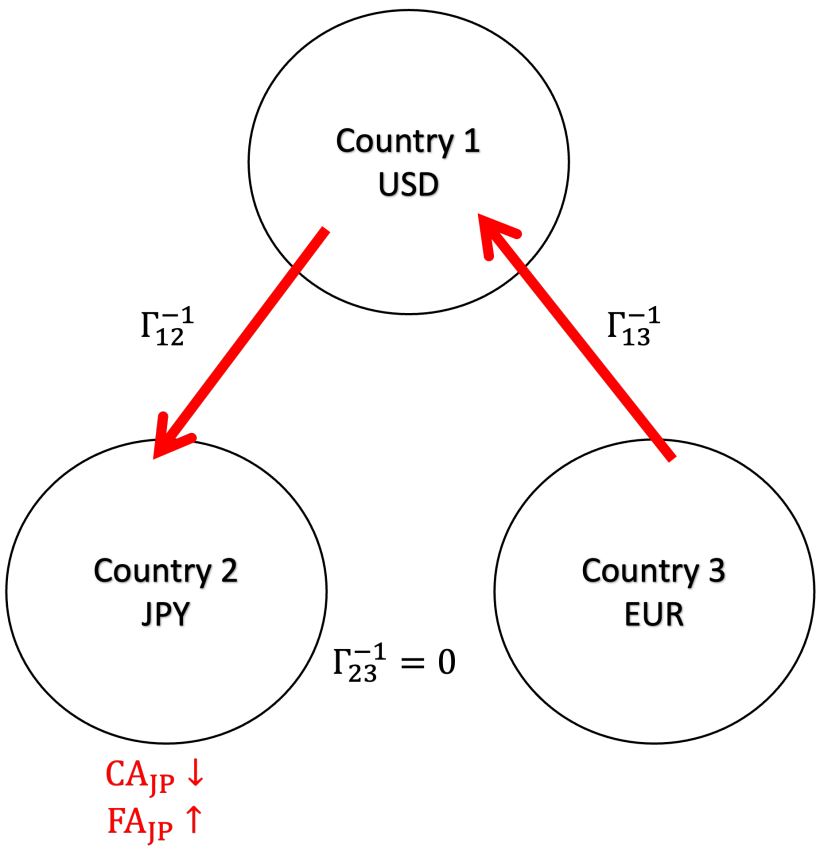

- With higher Γ_{12}^{-1},

  JPY depreciates **by less**:
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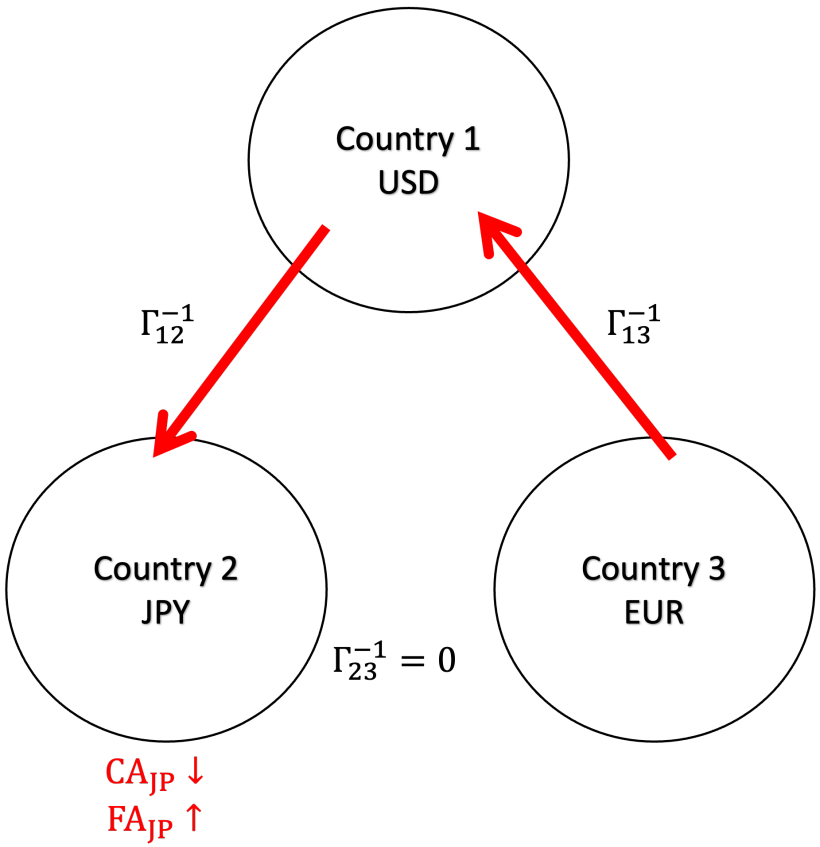

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- With higher Γ_{13}^{-1},

$\rightarrow$ Larger flows from EU to US

$\rightarrow$ Larger flows from US to JP should be absorbed

$\Rightarrow$ JPY depreciates **by more**:
$E^0_{USD/JPY} \downarrow\downarrow\downarrow$
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Result # 2: Import Demand Shock in US

- Import demand $\Downarrow$ in US: $CA_{US} \uparrow$ $FA_{US} \downarrow$ ($\underline{CA_{JP} \downarrow}$, $CA_{EU} \downarrow$)

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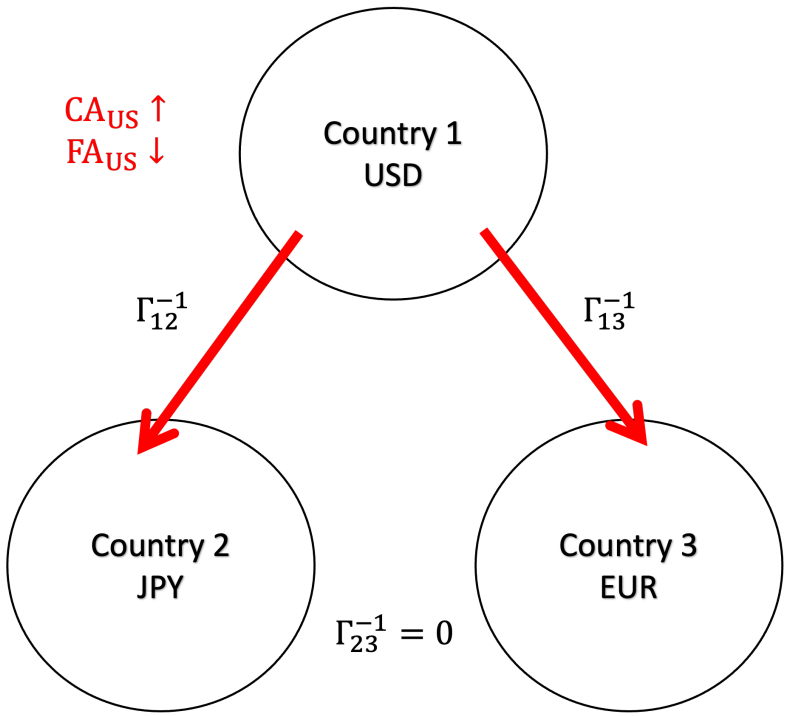

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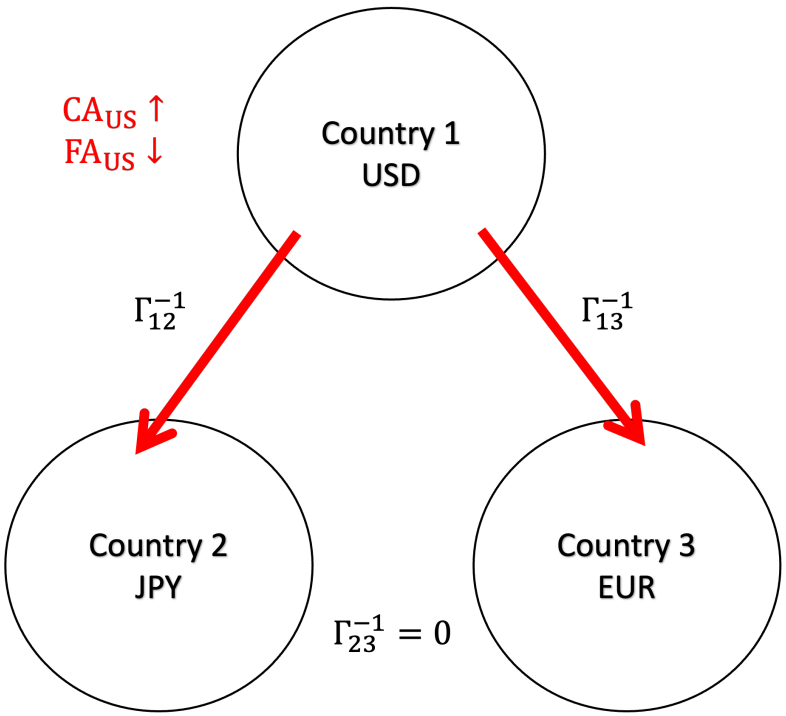

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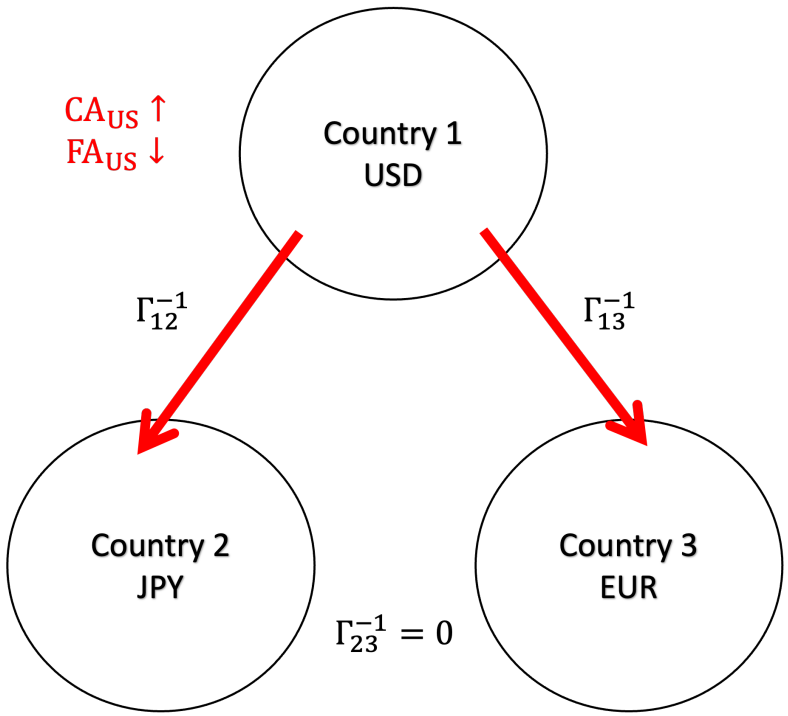

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- With higher Γ_{13}^{-1},

$\rightarrow$ Larger flows from US to EU

$\rightarrow$ $\underline{\text{Less}}$ flows from US to JP needed

$\Rightarrow$ JPY depreciates **by less**:
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Comment # 1 : First Order vs. Higher Order Connections

- Why not including the interaction with **first-order connection**, $F_{i,t}$, and import shocks, $I_{us,t}$ and $I_{i,t}$?
  - Qualitative & quantitative diff in the estimates on first-order and higher-order connections? How about R^2?
  - Endogeneity concern, lagged connections?
  - Informative to see estimates on $I_{us,t}$ and $I_{i,t}$, how large idio. shocks? How about global shocks?

TABLE 4. FINANCIAL CONNECTIONS AND EXCHANGE RATES

This table presents panel regression estimates based on the following specification

$$\Delta s_{i,t+1} = \beta\, \mathcal{H}_{i,t}\, I_{us,t} + \gamma\, \mathcal{H}_{i,t}\, I_{i,t} + \theta\, \mathcal{H}_{i,t}\, I_{i,t}\, L_{\alpha,t} + Controls_{i,t} + fe + \varepsilon_{t+1},$$

	(1)	(2)	(3)	(4)	(5)
$\mathcal{H}_i$	−1.000***	−1.058***	−1.023***	−1.278***	−0.858**
	(0.275)	(0.299)	(0.298)	(0.352)	(0.361)
$\mathcal{H}_i \times I_{us}$	−0.631***	−0.643***	−0.651***	−0.648***	−0.650***
	(0.216)	(0.221)	(0.217)	(0.219)	(0.219)
$\mathcal{H}_i \times I_i$	−0.281	−0.419	−0.449	−0.445	−0.353
	(0.277)	(0.289)	(0.299)	(0.297)	(0.283)
$\mathcal{H}_i \times I_i \times L_\alpha$		1.886***	1.843***	2.246***	2.051***
		(0.551)	(0.579)	(0.433)	(0.432)
# Observations	14,981	14,981	14,981	14,981	14,981
Time fe	✓	✓	✓	✓	✓
Country fe			✓		✓
Controls				✓	✓

Comment # 2 : Measurements & Descriptive Statistics

- **Visualization** of first-order and higher-order connectedness for each country
  - Authors standardize the measures for each country
  - Interesting to see both measures visually before and after standardization

    e.g. country w/ highest/lowest connection, country w/ highest/lowest increase or decrease in its connection etc.

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- Can we compute, **for each country pair**, the direct connection and higher order connection and use this information to see how the **bilateral exchange rate returns** depend upon them differently qualitatively or quantitatively?

Comment # 3 : Banking vs. Other Flows, Currency, Flows/Stocks

- Banking flows vs. *other* capital flows?
  - EMs rely more on banking flows,

    but AEs rely also on portfolio flows, equity & bond flows
  - Other datasets: IMF CPIS, BIS IDS, Avdjiev et al. (2017)
  - Exploring heterogeneity across different types of flows? Which network of flows matter more? Heterogeneity across countries?

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- When computing connectedness, authors use the **sum** of claims and liabilities held by country i against banks in country *j* denominated in **currency** *j* only
  - It's a bit of jump from "flows" to "stocks"
  - Why not using net assets or net liabilities? technicality?
  - How about those denominated in currency *i*?
  - What if we measure them including all the currencies?

    ... or just excl. those denominated in vehicle currencies?
  - In Table 5, 'vehicle currency connectedness' seems to matter for the effect of domestic import shock on the exchange rate returns.
  - More stocks/flows $\iff$ more B/S capacity? Market prices adjusted?

Minor Comments

- Model predictions pertaining the exchange rate returns are coming from **zero** interest rate assumptions.
  - Forward premium controlled in the analysis to address this concern
  - Systematically larger CIP deviations in EMs than AEs
  - Check w/ the interest rate differential
- What do you have in mind for the sources of different bilateral portfolio frictions? Illiquidity in the FX mkt?

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Nicely executed paper with clean theoretical predictions and data validation! Excited to see the next version!