Discussion of:

Capital Flows and Exchange Rates: A Quantitative Assessment of the Dilemma Hypothesis

By Ambrogio Cesa-Bianchi, Andrea Ferrero & Shangshang Li

Discussant: Tatjana Schulze (IMF)*

ERSA-CEPR Workshop, Pretoria

January 26, 2024

^{*}Disclaimer: The views expressed herein are those of the author and should not be attributed to the IMF, its Executive Board, or its management.

Key question: Does a flexible FX rate insulate from US monetary policy tightening?

Following a US monetary policy tightening...

Key question: Does a flexible FX rate insulate from US monetary policy tightening?

Following a US monetary policy tightening...

Mundell-Fleming:

- Trilemma: flexible FX rate helps with macro adjustment
- Expenditure-switching channel: FX depreciation boosts demand/exports

Key question: Does a flexible FX rate insulate from US monetary policy tightening?

Following a US monetary policy tightening...



- Trilemma: flexible FX rate helps with macro adjustment
- Expenditure-switching channel: FX depreciation boosts demand/exports
- Dilemma: no insulation from GFC regardless of FX regime
- Financial channel: capital flows pro- and borrowing costs counter-cyclical

Key question: Does a flexible FX rate insulate from US monetary policy tightening?

Following a US monetary policy tightening...



Key question: Does a flexible FX rate insulate from US monetary policy tightening?

Following a US monetary policy tightening...



Discussion: Cesa-Bianchi, Ferrero & Li

How does US monetary policy transmit to SOEs?

Empirics: panel VAR, Jarocinski & Karadi shocks, Cholesky identification

How does US monetary policy transmit to SOEs?

- Empirics: panel VAR, Jarocinski & Karadi shocks, Cholesky identification
- Model: 2-country DSGE model, IRFs matched to empirics
 - ▶ Financial frictions: cross-border lending \rightarrow amplification
 - Nominal/real frictions: incomplete exchange rate pass-through (ERPT), local/dominant currency pricing of exports → empirical fit
 - ▶ Difference to SOE model: feedback from financial frictions and foreign demand contraction

How does US monetary policy transmit to SOEs?

- Empirics: panel VAR, Jarocinski & Karadi shocks, Cholesky identification
- Model: 2-country DSGE model, IRFs matched to empirics
 - ▶ Financial frictions: cross-border lending \rightarrow amplification
 - Nominal/real frictions: incomplete exchange rate pass-through (ERPT), local/dominant currency pricing of exports → empirical fit
 - ▶ Difference to SOE model: feedback from financial frictions and foreign demand contraction

Should we nonetheless stick with a flexible FX regime?

▶ Policy counterfactuals: (i) peg, (ii) tax on domestic credit, (iii) tax on foreign credit

What does the paper do?

Related work:

Gourinchas (2018), Fukui et al. (2023), Georgiadis & Schumann (2023), Hofmann et al. (2022), Alla et al. (2020)

Related work:

Gourinchas (2018), Fukui et al. (2023), Georgiadis & Schumann (2023), Hofmann et al. (2022), Alla et al. (2020)

Key contribution:

- Revisits the dilemma in a quantitative framework matched to empirics, building on more recent evidence on dominant currency pricing (DCP) and financing (DCF)
- Financial frictions in hegemon country + endogenous UIP premium in SOE that depends on share of banks' FC liabilities
- \Rightarrow Nice combination of model + cross-country evidence!
- \Rightarrow Well-written paper without much fuss!

Key results

Model fit:

- ► VAR results (robust!) suggest that flexible FX regime does not offer enough insulation
- Financial frictions, incomplete ERPT, and LCP are jointly relevant in explaining spillovers
- Financial channel dominates over expenditure-switching channel

Key results

Model fit:

- ► VAR results (robust!) suggest that flexible FX regime does not offer enough insulation
- Financial frictions, incomplete ERPT, and LCP are jointly relevant in explaining spillovers
- Financial channel dominates over expenditure-switching channel

Policy counterfactuals:

- Flexible exchange rate + domestic MPM achieves highest combo of welfare gains + limited macro volatility
- Peg increases macro volatility (because no counter-cyclical MP) but can be mitigated with CFM/MPMs

A few comments and food for thought

- Comment 1: Country heterogeneity
- Comment 2: DCP
- Comment 3: GFC
- Comment 4: MP shocks
- Comment 5: CFM/MPMs
- Other comments

Comment 1: Heterogeneous transmission across AEs vs. EMs

- ▶ 15 countries in the VAR sample:
 - EMs: Chile, Mexico, South Africa, Thailand
 - AEs: Australia, Canada, Germany, Japan, Korea, New Zealand, Norway, Singapore, Sweden, Switzerland, United Kingdom



Nominal FX depreciation on impact ...



... but small/insignificant increase in prices $$_{\rm CPI}$$

Comment 1: Heterogeneous transmission across AEs vs. EMs

Evidence from the literature:

- EMs: higher ERPT (Carriere-Swallow et al, 2021), higher currency risk premia (persistent UIP deviations) (Kalemli-Ozcan & Varela, 2020), fewer CFMs/MPMs ex ante?
- AEs: stronger monetary policy frameworks, stronger inflation targeters, lower reserves, lower/no currency mismatch

Comment 1: Heterogeneous transmission across AEs vs. EMs

EMs have higher pass-through rate of NEER depreciation to consumer prices...



Note: Estimation using local projections over Jan-1995 to Jun-2019. Dashed lines denote the share of household final consumption that is imported (including direct imports and the import content of domestically produced goods) averaged over the sample period and across countries in each group.

Comment 1: Heterogeneous transmission across AEs vs. EMs

... despite a more similar response of import prices (close to complete pass-through).



Figure 2: Carierre-Swallow et al. (2021): Cumulative percentage impact of 1 pp. nominal effective depreciation on import prices in local currency for AEs (0.16) and EMs (0.81 after 2 years)

Comment 1: Heterogeneous transmission across AEs vs. EMs

Evidence from the literature:

DCP prevalent in both but more pronounced in EMs (Boz et al. 2022)



Comment 1: Heterogeneous transmission across AEs vs. EMs

Evidence from the literature:

 UIP premia are zero on average in AEs (and due to deviations from FIRE) and positive in EMs (reflecting risk premia) (Kalemli-Ozcan & Varela, 2020)



Figure 4: Kalemli-Ozcan & Varela (2020): Figure 1

Discussion: Cesa-Bianchi, Ferrero & Li

Comment 1: Heterogeneous transmission across AEs vs. EMs

Why does it matter?

- Both empirical evidence and inflation responses in the model show mixed directions
- Model counterfactuals: Financial frictions push up inflation, imperfect ERPT pushes down inflation, LCP pushes up inflation
- Important for the model mechanism: inflation ↑ → real income ↓ → less expenditure switching → policy rate ↑ → credit spreads ↑

Suggestion:

- Estimate VAR and ERPT separately for AEs and EMs
- Consider non-linear ERPT in the price-setting decision of importers

Comment 2: Export contraction under DCP/LCP

Model and empirical response to US monetary policy tightening align well, except...



Figure 5: Baseline model vs. empirical IRFs

Tatjana Schulze

Discussion: Cesa-Bianchi, Ferrero & Li

Comment 2: Export contraction under DCP/LCP

... data suggests deeper contraction in exports than model ...



A missing link?

- Frictions help the model match the empirical IRFs in all but one aspect: exports
- Due to limited expenditure switching or limited strength of the financial channel in the model?

Comment 2: Export contraction under DCP/LCP

Possible extension:

- 3-country model to allow for stronger contraction in global trade (Gopinath et al. 2020; Georgiadis & Schumann 2021) and "spillbacks" to hegemon (Breitenlechner et al., 2022)
- > Other countries' imports are the mirror image to the home country's exports
- Allow for a full-blown "GFC meets DCP"



Figure 2. Impulse Responses to a 25 Basis Point Monetary Tightening in ${\it U}$

Figure 6: Export response to monetary tightening in dominant currency country in Gopinath et al. (2020)

Tatjana Schulze

Discussion: Cesa-Bianchi, Ferrero & Li

January 26, 2024

15 / 22

Comment 2: Export contraction under DCP/LCP

DCP - Why care?

- If it is in fact DCP that explains in the data why flexible FX rates don't bring about enough expenditure switching/trade to counter the financial channel, ...
- Integrated Policy Frameworks, Basu et al. 2020) ...
- ... so as to ease monetary policy trade-offs.

Comment 3: Global Financial Cycle

What is the GFC (Rey 2013)?

- Large common movements in asset prices, gross flows and leverage
- Credit cycles, triggered by US MP and global risk aversion
- But there are also US MP shocks that do not trigger the GFC

How is this captured in the model?

Cross-border (bank) flows: big global banks lend in foreign currency to local banks

Suggestion to strengthen the narrative:

- Add credit/broker-dealer leverage (Cerutti & Zhou 2023) and capital flows to the VAR
- What happens in response to a US MP easing shock in the VAR? Would we see a corresponding flow of capital into SOEs as the GFC suggests? [DSGE model is linear]

Comment 4: Not all negative US MP surprises are alike

How do effects differ depending on pure MP vs. information news shock? (Ciminelli et al. 2022; Ugazio & Xin, 2024)



Comment 4: Not all negative US MP surprises are alike

A. U.S. - Equity B. Global - Equity C. EMs - Equity 81 50 ---------ġ ò 2 Info news shock - equity flows A. U.S. - Equity B. Global - Equity C. EMs - Equity 8-* -d- 0.0 0.4 3 4 2 3 4 2 0 2

Pure MP shock - equity flows

How do effects differ depending on pure MP vs. information news shock? (Ciminelli et al. 2022; Ugazio & Xin, 2024)

Comment 5: Credit tax (MPM) vs. capital (inflow) tax (CFM)

Rey (2013): Independent monetary policy possible IFF capital account is managed, directly or indirectly

- Can we replicate welfare gains under MPM through a carefully calibrated CFM? Tax on foreign borrowing should also curb domestic credit
- Evidence suggests MPMs are more effective at dampening GFC shocks than CFMs (Bergant et al. 2023) - why is this the case in your model?

Regime	Welfare change	Std. of real GDP	Std. of inflation
Fully flexible exchange rate	-0.01	0.20	0.03
Baseline	0.00	0.25	0.02
Baseline + tax on domestic credit	0.69	0.01	0.03
Baseline $+ \tan$ on foreign borrowing	0.27	0.08	0.01
Peg	-13.27	12.87	0.33
Peg + tax on domestic credit	1.14	0.66	0.29
Peg + tax on foreign borrowing	-0.02	1.00	0.15

Other Comments

- Estimation: Posterior (0.17) of share of FC liabilities of home banks x is small how does this compare with the data? Strong financial accelerator despite limited currency mismatch?
- Costs of peg: in this model (as in others) there is no direct cost to peg (FXI), so does not surprise that peg + CFM/MPMs can achieve relative welfare gains
- Foreign financial frictions: are they really needed to match the data? Figure 3 qualitatively suggests domestic financial frictions could suffice (see also Gourinchas 2018)
- Minor point on exposition: start from pre-friction benchmark (Mundell-Fleming) and add the frictions one by one to compare

In Sum

- Empirics + model show that flexible exchange rates cannot fully insulate from US monetary policy in the absence of capital controls \rightarrow dilemma
- > Peg always increases macro volatility relative to float, irrespective of the capital account
- Main suggestion: Differentiate AEs and EMs both empirically and in terms of likely transmission mechanism given country characteristics

 \Rightarrow Very nice and neat paper!