Discussion of:

"A Quantitative Model for the Integrated Policy Framework" (Adrian, Erceg, Lindé, Zabczyk and Zhou, 2020)

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This paper

- New Keynesian model to evaluate and quantify the use of multiple policy tools
 - EMEs having to resort to procyclical policies in face of shocks
- FXI and CFM may improve policy tradeoffs for countries with inflation expectations not well anchored, FX mismatch, and subject to capital outflows and FX pressures



Intuition and main results in one slide

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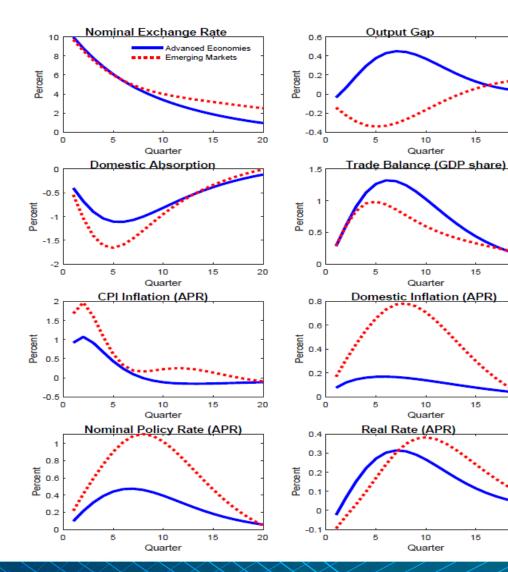
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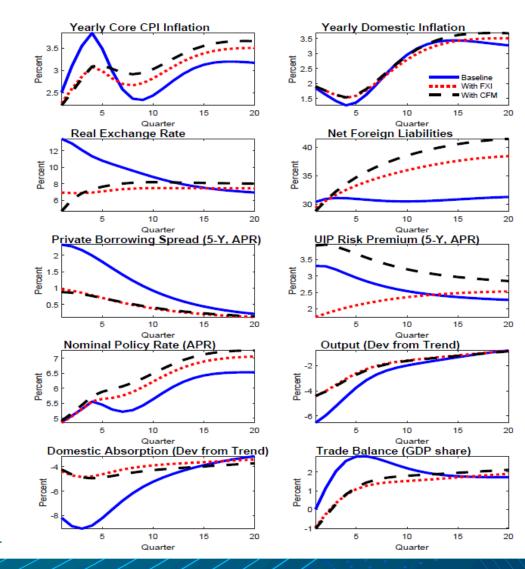
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Figure 1: Transmission of Risk-Premium Shocks in Advanced and Emerging Markets

Figure 5: Effects of FXI and CFM in Adverse Scenario for EME with High FX Debt





LE BANCO CENTRAL

Main model ingredients

New Keynesian small open economy model (Galí and Monacelli, 2005)

- + Local currency pricing (and alternatives)
- + Adaptive inflation expectations to account for imperfect credibility
- + Wage indexation with full pass-through from exchange rates
- + Incomplete markets with agents borrowing in foreign-currency denominated bonds
- + Nonlinear UIP risk premium where return depends on foreign liabilities
- + Nonlinear spread that depends on FX
- + ELB
- + FXI and CFM rules



Indexation and credibility

Phillips curve: $\pi_t - \iota_d \pi_{t-1} = \beta \delta_{\pi} (\pi_{t+1} - \iota_d \pi_t) + \kappa_{mc} mc_t$

"This persistence may be interpreted as dynamic indexation... Our preferred interpretation ... highlights the role of imperfect central bank credibility"

Link between credibility and indexation not so straightforward

- Modelling CB credibility (DSGE literature)
- Credible CBs may operate under wage and price indexation

Table 5: Posterior distributions of estimated non-financial-sector parameters: Model structure

s may operate	Parameter	Description	Posterior distribution of NAWM II			Posterior mode of NAWM	
			mode	5%	95%	CCW	updated
and price indexation	A. Preference	es					
	κ	Habit formation	0.62	0.56	0.66	0.56	0.65
	B. Wage and	l price setting					
	ξ_W	Calvo scheme: wages	0.78	0.73	0.82	0.76	0.72
	χ_W	Indexation to inflation: wages	0.37	0.24	0.52	0.63	0.41
	$\bar{\chi}_W$	Indexation to productivity: wages	0.66	0.46	0.83	[1.00]	[1.00]
	ξ_H	Calvo scheme: domestic prices	0.82	0.80	0.84	0.92	0.89
	χ_H	Indexation: domestic prices	0.23	0.15	0.32	0.42	0.48
	ξ_X	Calvo scheme: export prices	0.75	0.69	0.80	0.77	0.73
Coenen, Karadi, Schmidt, Warne (2019	χ_X	Indexation: export prices	0.31	0.21	0.44	0.49	0.52
	J) 💒	Calvo scheme: import prices	0.58	0.51	0.65	0.53	0.49
ECB Working Paper 2200	χ^*	Indexation: import prices	0.38	0.26	0.54	0.48	0.35
	<i>o</i> •	Oil import share	0.29	0.23	0.36	0.16	0.20



Pass-through

- Wage inflation: $\pi_{c,t}^{L} = (1 \Phi)\pi_{c,t}^{L} + \Phi(\xi \pi_{c,t-1} + (1 \xi)\Delta q_{c,t-1})$
 - Empirical evidence?
 - Implications of this channel to results?

Debt service: $(1+r_{d,t}) = \frac{1+i_{t-1}^*}{1+\pi_{d,t}} \frac{S_t}{S_{t-1}} \left[1+\Phi(d_{t-1},\overline{d}_{t-1},b_{t-1}))\right]$

- Empirical evidence of full pass-through?
- Implications of this channel to results?
- Effects of economic conditions on pass-through
- Empirical evidence suggest a decline in pass-through in emerging economies



FXI and CFM rules

- Foreign exchange intervention:
 - Central bank responds to movements "off relative to fundamentals".
 - Intervention reduces risk premium directly
 - Fixed FX regime is a special case
- Capital flow intervention:
 - Intervention affects FX directly
 - Inflows versus outflows
- Implementation timeframe
- Exogeneous rules with no costs associated with either policy
- No feedback effects!

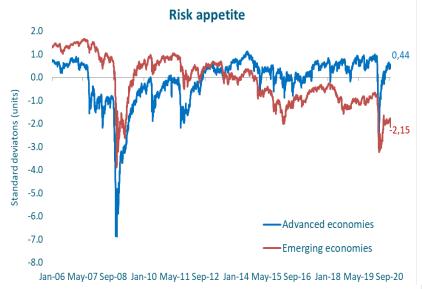


Additional comments

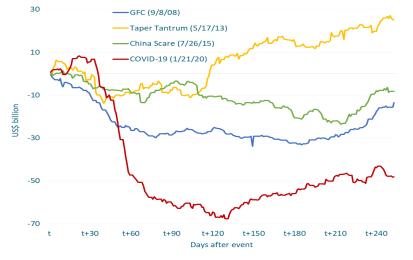
- Focus on AE versus EME or high-debt versus low-debt EME?
- Aggressive TR discussion missing cost-benefit analysis, hence, cannot infer on risks of de-anchoring no discussion about intervention rules
- Borrowing in hard currency only
- Decomposing net foreign liabilities
- No role for financial flows on net foreign liability
- Implications for commodity exporters
- Effects of exchange rate on intermediate inputs imports
- What are the drivers of the differences between AE and EME IRFs?
 - Calibration (PC, pass-through assumptions, shocks), model assumptions



Covid-19: Risk shock to EME, yet countercyclical policies



Accumulated non-resident portfolio flows to EM* since indicated date

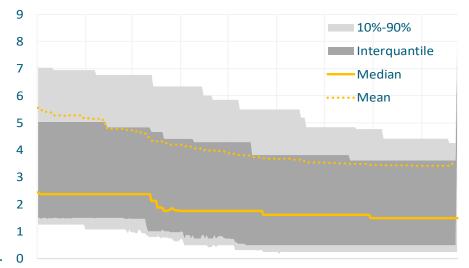


^{*} Daily net total flows for Mexico, Korea, Taiwan, India, Indonesia, South Africa, Thailand, Phillipines, Sri Lanka, and Vietnam.

High depreciation of EME Currencies**



Interest Rates in EME**



Jan-20 Feb-20 Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20

** Composite of currencies of Brazil, Mexico, Argentina, Chile, Colombia, Peru, China, Hong Kong, Taiwan, India, Indonesia, South Korea, Malaysia, Singapore, Thailand, Philippines, Russia, Turkey, Czech Republic, Balgaria, Romania, Hungary, Poland, and South Africa.



To conclude...

- Very nice paper!
- Timely discussion and interesting implications
- Several suggestions and model variations to understand result drivers, empirical properties and allow for cost-benefit analysis
- Heterogeneity across emerging economies is key!

