Discussion of "Push Factors and Capital Flows to Emerging Markets: Why Knowing Your Lender Matters more than Fundamentals" by Cerutti, Claessens, Puy

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Topic

Global financial cycle/ global liquidity

- Co-movement of asset prices and capital flows across the world (e.g. Rey 2013)
- Driver: U.S. monetary policy, global risk aversion (VIX), ?
- Credit inflow may lead to credit booms and busts, especially in EMEs
- Sensitivities to financial cycle vary across countries
- What can countries do to insulate themselves from the global financial cycle if desirable?

Research question in this paper:

- Which factors influence these sensitivities- fundamentals versus lender characteristics?

Summary

- Enjoyed reading the paper a lot
- Easy to follow, focused, clear
- Important, hot topic
- Useful insights into the role of country characteristics for determining the sensitivity of a country's capital inflows to global cycle
- A formal analysis of common factors and sensitivities that is comparable across countries and types of flows
- From macro to more micro view

Identifying common factors

Key fact: co-movement of capital inflows

Figure: Gross capital inflow correlations, Rey (2013)

Liability / Flows	Eq.NAm	Eq.LatAm	Eq.CEEU	Eq.WEU	Eq.EmAs	Eq.Asia	Eq.Afr	FDI.NAm	FDI.LatAm	FDI.CEEU	FDI.WEU	FDI.EmAs	FDI.Asia	FDI.Afr	Debt.NAm	Debt.LatAm	Debt.CEEU	Debt.WEU	Debt.EmAs	Debt.Asia	Debt.Afr	Cr.NAm	Cr.LatAm	Cr.CEEU	Cr.WEU	Cr.EmAs	Cr.Asia	Cr.Afr
Equity N.Am	1.00																											
Equity LatAm	0.39	1.00																										
Equity CE.EU	0.52	0.49	1.00																									
Equity W.EU	0.63	0.35	0.50	1.00																								
Equity Em.As	0.37	0.24	0.28	0.47	1.00																							
Equity Asia	0.24	0.31	0.28	0.40	0.31	1.00																						
Equity Africa	0.41	0.22	0.26	0.55	0.34	0.26	1.00																					
FDI N.Am	0.54	0.06	0.07	0.45	-0.07	0.22		1.00																				
FDI LatAm	0.41	0.10	0.08	0.29	0.32	-0.07	0.04	0.68	1.00																			
FDI CE.EU	0.46	0.11	0.08	0.18	0.23	-0.12	0.09	0.61	0.65	1.00																		
FDI W.EU	0.57	0.21	0.19	0.38	0.35	0.01	0.16	0.61	0.59	0.75	1.00																	
FDI Em.As	0.47	0.24	0.16	0.34	0.36	-0.04	0.04	0.65	0.77	0.69	0.64	1.00																
FDI Asia	0.36	0.16	0.03	0.29	0.30	-0.17	0.05	0.60	0.70	0.57	0.51	0.69	1.00															
FDI Africa	0.33	0.01	0.10	0.18	0.03	-0.16	-0.19	0.31	0.36	0.35	0.35	0.34	0.27	1.00														
Debt N.Am	0.42	0.17	0.32	0.51	0.29	0.21	0.31	0.40	0.39	0.55	0.51	0.48	0.37	0.08	1.00													
Debt LatAm	0.20	0.40	0.33	0.16	0.13	0.00	0.16	0.35	0.13	0.05	0.31	0.26	0.06	0.10	0.52	1.00												
Debt CE.EU	0.37	0.42	0.50	0.43	0.13	0.17	0.19	0.14	0.35	0.14	0.12	0.47	0.21	0.04	0.37	0.52	1.00											
Debt W.EU	0.49	0.05	0.33	0.50	0.23	0.27	0.47	0.29	0.10	0.44	0.27	0.25	0.02	0.10	0.58	-0.13	0.28	1.00										
Debt Em.As	0.40	0.58	0.65	0.35	0.20	0.23	0.20	0.13	0.24	0.25	0.37	0.35	0.15	0.02	0.32	0.38	0.53	0.14	1.00									
Debt Asia	0.16	0.18	0.24	0.22	0.16	-0.04	0.16	0.35	0.31	0.30	0.30	0.45	0.26	0.14	0.45	0.27	0.42	0.19	0.39	1.00								
Debt Africa	0.26	0.27	0.39	0.18	0.07	0.14	0.09	0.12	0.21	0.10	0.01	0.41	0.21	0.07	0.21	0.46	0.61	0.15	0.44	0.32	1.00							
Credit N.Am	0.29	-0.02	0.21	0.38	0.15	-0.01	0.32	0.20	0.02	0.19	0.12	0.09	0.04	0.37	0.14	0.23	0.25	0.23	0.25	0.03		1.00						
Credit LatAm	0.41	0.34	0.21	0.26	0.12	0.04	0.22	0.38	0.35	0.42	0.27	0.48	0.35	0.24	0.35	0.25	0.41	0.30	0.29	0.46	0.28	0.22	1.00					
Credit CE.EU	0.42	0.25	0.27	0.28	0.32	0.15	0.21	0.54	0.38	0.72	0.55	0.47	0.36	0.28	0.54	0.14	0.13	0.56	0.25	0.48	0.12	0.17	0.55	1.00				
Credit W.EU	0.19	-0.03	0.24	0.31	0.19	-0.16	0.26	0.27	0.08	0.20	0.10	0.13	0.15	0.45	0.20	0.25	0.33	0.26	0.45	0.16	0.63	0.30	0.34		1.00			
Credit Em.As	0.25	0.54	0.39	0.21	0.10	0.16	0.05	0.22	0.16	0.30	0.29	0.38	0.24	0.00	0.40	0.31	0.33	0.15	0.56	0.51	0.27	0.24	0.45	0.48	0.28	1.00		
Credit Asia	0.08	-0.03	0.02	-0.01	0.00	-0.40	-0.12	0.23	0.23	0.32	0.24	0.31	0.23	0.25	0.32	0.18	0.17	-0.01	0.13	0.37	0.08	0.43	0.35	0.23	0.52	0.37	1.00	
Credit Africa	0.11	0.06	0.01	0.15	0.01	-0.20	0.12	0.40	0.30	0.35	0.33	0.24	0.37	0.18	0.32	0.11	0.00	0.13	0.03	0.34	-0.02	0.24	0.30	0.40	0.36	0.30	0.31	1.00

"There is a very strong commonality in capital inflows across the world" with the exception of FDI flows (Rey, 2013)

Identifying common factors (Kose et al. 03)

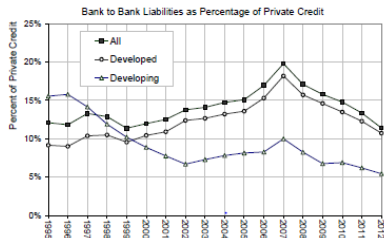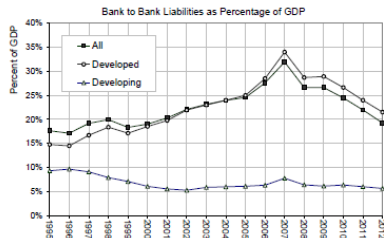$$y_{it} = \beta_i^{Global} f^{Global} + \beta_i^{IncomeGroup} f_t^{IncomeGroup} + \epsilon_{it} \qquad (1)$$
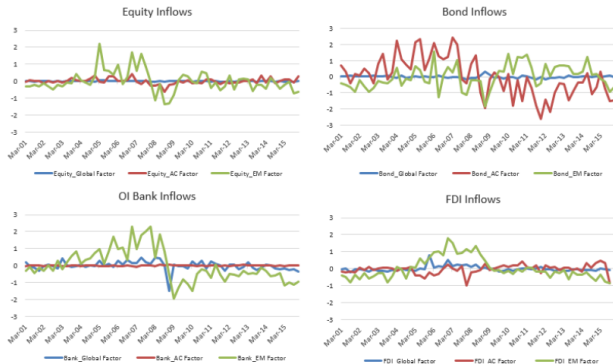
- No global factor; only marginal commonality among capital inflows to ACs
- Strongest common factor for EMEs, but not FDI

$\rightarrow$ Table with summary statistics on estimated factors would be useful

# Why is there no common factor for AC bank inflows?

Figure: Bank-to-Bank flows, Bruno and Shin (2015)

- Result seems surprising given the findings in the literature
- More detailed explanation of the approach and comparison with previous papers desirable
- What explains the absence of a common factor for ACs, in particular for bank flows?

What explains the estimated EME factors?

- Do the common factors capture the "global financial cycle"?
- What explains differences in factors across types of capital flows? (What does the theory say?)
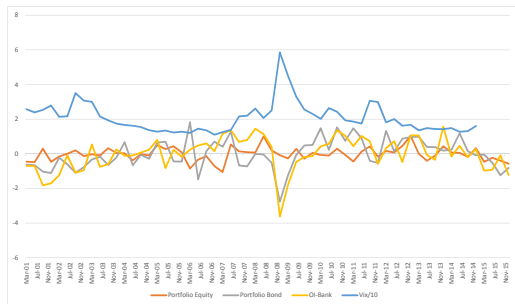
Correlations with VIX

	Portf. Equity	Portf. Bonds	OI Banks
VIX	-0.003	-0.61	-0.60

Sensitivity to common factors across countries

Explaining the sensitivity of factors

$$\beta_i^{EM} = \alpha \text{Fundamentals}_i + \beta \text{Market characteristics}_i + \epsilon_i \qquad (2)$$

- Sensitivity is constant over time (from 2001 to 2015)
- For which year are the Fundamentals and Market characteristics?
- Should control for macro-prudential policies or de jure openness
  - ▸ Changes in openness over time, policy interventions to limit inflows
  - ▸ Could explore whether changes in prudential policies post crisis changed sensitivity to common factor (IBRN dataset)

	Portf. Equity	Portf. Bonds	OI Banks
	Significant explanatory variables		
Market char.	MSCI Frontier Benchmark		Foreign BIS Claims
	Stock Turnover Ratio		Priv. Credit/GDP
	Corr. EPFR flows	Corr. EPFR flows	Corr. BIS flows
Fundamentals		Public Debt	
		FX regime	

Does the title best describe the paper's results?

Key result: If your investors are from ACs and you are more financially developed, then you co-move more with the common EME factor.

- This result is to be expected if the common factor captures the global financial cycle and the global financial cycle is driven by AC investors
- Open question: What makes AC investors invest in a country? It may well be fundamentals
- Other significant variables (Stock turnover ratio, credit to GDP) proxy financial development, which can also be seen as fundamentals

Little Exercise with BIS Locational Statistics

# Common factor estimated as an AC time-fixed effect

- Use bilateral bank flows from BIS Locational Banking Statistics
- Run fixed-effect regression:

$$\text{flow}_{ijt} = \alpha_{it} + \alpha_j + \text{factor}_t^{AC} + \text{factor}_t^{Other} + \epsilon_{ijt}, \qquad (3)$$

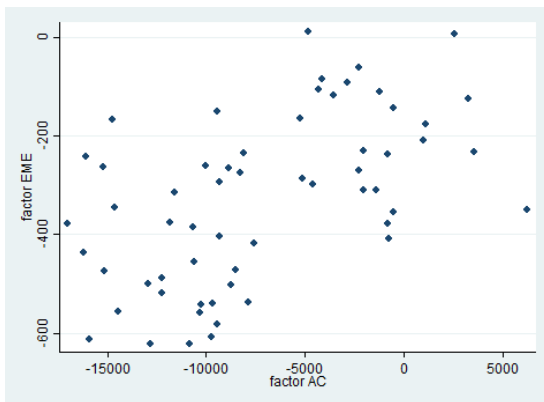 where factor_{jt}^{AC} is a time fixed effect for ACs
- Regress bank $\textit{flow}_{ijt}$ on factor_t^{AC} country by country to obtain β_is
- Regress β_is on country characteristics

Correlation with EME bank flow factor
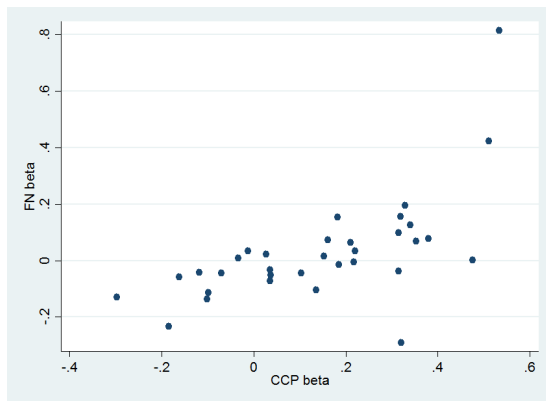
Correlation coefficient of 66 percent

AC factor versus EME factor

Correlation coefficient of 53 percent

Comparison of regression results

VARIABLES	(1) CCP betas	(2) my betas	(3) CCP betas	(4) my betas	(5) my betas
tradeopenness	-0.000555	-0.000833			
	(0.00129)	(0.000970)			
debt	-0.00230	0.000944			
	(0.00202)	(0.00164)			
reserves	0.00424	0.00185			
	(0.00445)	(0.00344)			
growth	0.0293	0.0551***			0.0482***
	(0.0235)	(0.0192)			(0.0174)
ruleoflaw	-0.0377	-0.0305			
	(0.0408)	(0.0329)			
investmentclimate	-0.0167	-0.0125			
	(0.0255)	(0.0207)			
fx_flexibility	0.0289**	0.00583	0.0106	-0.000194	
	(0.0138)	(0.0113)	(0.0106)	(0.0107)	
bank_foreignopen			-0.0102**	-0.00738*	-0.00563*
			(0.00370)	(0.00385)	(0.00327)
credittogdp			0.00205*	0.00175*	0.00150
			(0.00104)	(0.00103)	(0.000901)
corr_bank_bis			0.285*	0.171	
			(0.161)	(0.165)	
Constant	0.130	-0.0262	0.0234	-0.00915	-0.186**
	(0.266)	(0.216)	(0.111)	(0.115)	(0.0899)
Observations	33	34	33	34	34
R-squared	0.357	0.448	0.450	0.242	0.374

Standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

The 33 observations problem

- Also pay attention to how much of the variance variables explain
- Report squared semi-partial correlation coefficients
- Drop individual countries from regressions

Concluding remarks

- Nice paper. Enjoyed reading it.
- Valuable input for other studies. Estimated factor should be made publicly available.
- Pushes an important agenda and addresses relevant questions
- Some suggestions for more in-depth analysis and more robustness
- Key open questions:
  1. Are certain types of investors more or less sensitive to global conditions? Due to their business models, balance sheet constraints, regulation? Should countries prefer one type of investor over another?
  2. What can be done to insulate a country from the financial cycle (besides limiting capital account openness)?

Thank you!