

Uncertainty and International Capital Flows

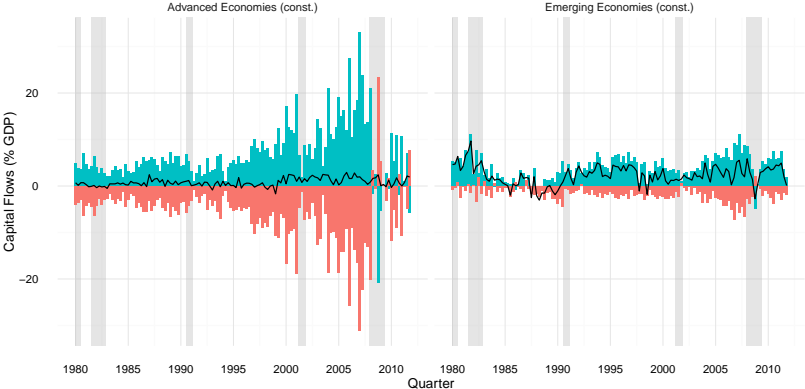
Gourio, Siemer, Verdelhan

Discussion by Robert Richmond

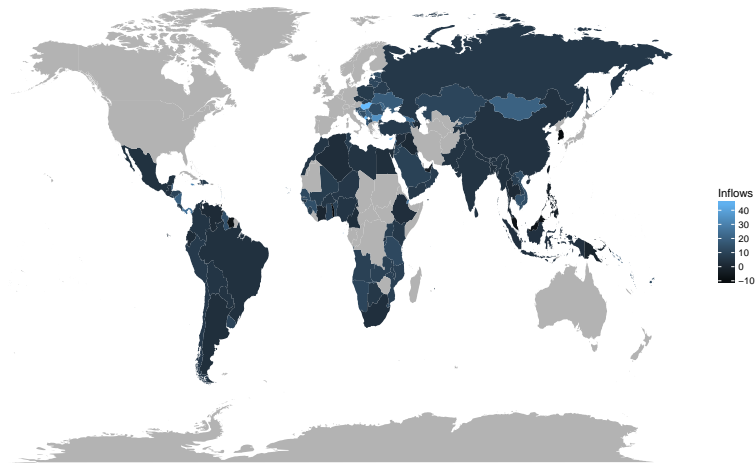
UCLA Anderson/NYU Stern

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International Capital Flows



Cross-Section during the Great Recession (2008)



What drives cross-sectional differences in capital flows?

Uncertainty

- Uncertainty measured as (quarterly) realized variance:

$$\frac{1}{\tau + 1} \sum_{k=t-\tau}^t (R_k^i)^2$$

- Uncertainty explains capital flows

$$CF_t^i = \alpha^i + \beta_1 Vol_{t-1}^i + \beta_2 X_{t-1} + \epsilon_t^i$$

Uncertainty explains future capital flows

- Uncertainty ↗ (relative to other emerging)
- Capital inflows ↘
 - Foreigners disinvest in the high uncertainty domestic market
- Capital outflows ↘
 - Domestic residents bring capital home

The need for an asymmetry

- Domestic uncertainty $\nearrow \implies$ rebalance
- **Issue:** Not everyone can rebalance the same direction
- **Data:**
 - Foreign residents revert to foreign assets
 - Domestic residents revert to domestic assets
- **Asymmetry:** Expropriation risk
- Increase in expropriation risk leads to less demand for domestic tree
 - \implies capital flows back to foreign
 - Market clearing leads to retrenchment of domestic investors

Expropriation risk in the data

- Expropriation risk ↗
 - Gross inflows ↘
 - Gross outflows ↘
- Uncertainty (vol.) forecasts political/expropriation risk
- “Instrumented” expropriation risk also explains capital flows
- Is the magnitude of the expropriation risk high enough to drive the capital flows?
 - Ballpark the magnitudes given that part of the risk index is quantitative!

Global uncertainty decomposition

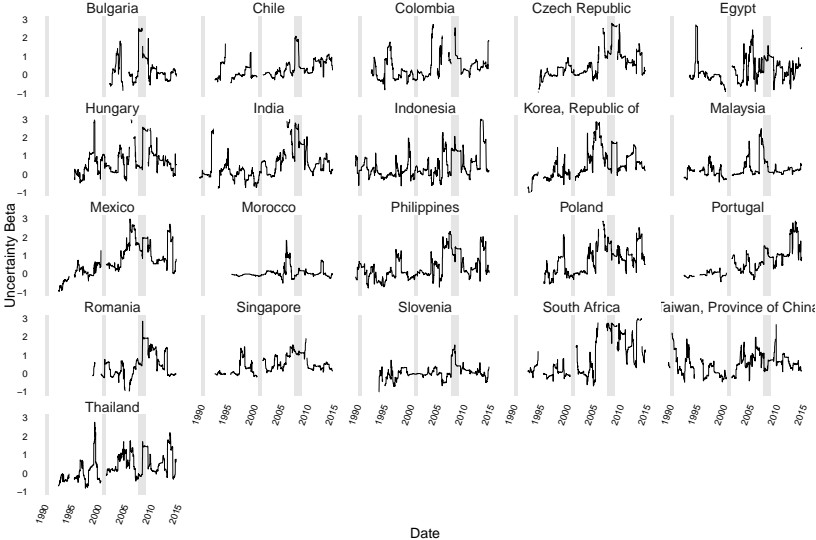
$$(R_k^i)^2 = \alpha^i + \beta^i (R_k^W)^2 + \epsilon_k^i$$

Total variance: $\frac{1}{\tau + 1} \sum_{k=t-\tau}^t (R_k^i)^2$

Country specific: $\frac{1}{\tau + 1} \sum_{k=t-\tau}^t (\alpha^i + \epsilon_k^i)$

Global component: $\frac{1}{\tau + 1} \sum_{k=t-\tau}^t \beta^i (R_k^W)^2$

Global uncertainty decomposition



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- Good Volatility/Bad Volatility

Good:
$$\sqrt{\frac{1}{\tau + 1} \sum_{k=t-\tau}^t 1\{R_k^i > 0\} (R_k^i)^2}$$

Bad:
$$\sqrt{\frac{1}{\tau + 1} \sum_{k=t-\tau}^t 1\{R_k^i < 0\} (R_k^i)^2}$$

Good Volatility/Bad Volatility

	In	Out	Net	In	Out
Total Volatitlity	-6.809** (-2.040)	-4.728* (-1.820)	-2.669 (-1.386)		
Good Volatitlity				2.831 (0.663)	0.001 (0.000)
Bad Volatitlity				-13.590*** (-3.284)	-4.717 (-1.283)
R ²	0.370	0.500	0.442	0.377	0.457
Num. obs.	1503	1503	1503	1503	1503

Whose Capital?

- Currently comparing emerging countries to other emerging countries
 - We know that developed and emerging capital flows are very different
- Trading partners?
- Developed countries?
- All of the controls are about the country itself:
 - Try an index of trading partners relative volatility

Conclusion

- Nice paper!
- Interesting empirical facts explained with a simple theoretical mechanism
- Leads to many interesting questions about uncertainty in international markets

Bibliography