



Discussion of Cerutti Claessens Puy Push Factors and Capital Flows to EMs: Why Knowing Your Lender Matters More Than Fundamentals

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Central Questions:

- (1) Are there co-movements in gross capital inflows for 21 ACs and 33 EMEs (2001-2015)?**
- (2) Among EMs, what factors determine the sensitivities of a countries inflows to changes in global conditions?**

Questions are addressed empirically:

- (1) Latent factor model to extract the common dynamics in gross inflows.
- (2) Regress factors on local fundamentals and market conditions.

And the answers are

- (1) No for the entire set of 54 countries, yes for EMs (not FDI).
- (2) Global factors, especially market structure (i.e., composition of investor base)

The Plan

- Some Nitpicks
- One aspect of the paper I don't understand
- An Aside: A better way to compute flows
- Then I'll conclude by saying how much I like the paper

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Two Assumptions I'll make:

-- Friederike covered banking flows. So I'll focus on portfolio flows.

-- Stijn, as he always does, gave a very clear presentation, so I won't discuss the details.

Some Nitpicks

- Analysis of factors associated with comovements are based on 33 obs. Not sure anything can be done about that.
- In the portfolio flows analysis, there is really no “know your lender” (i.e., investor) except in the title.
- A few too many “truthy” statements for my taste, especially about EPFR data.

One thing I don't understand: the description (and use) of EPFR data

- EPFR flows are supposed to (I think) serve as a proxy for “the composition of the recipient’s foreign investor base”, or at least their correlation with BOP flows is. This is the “know your lenders” (ie investors) part of the title, I think.
 - Let’s leave aside for now that the country-level correlations between BOP flows and EPFR “flows” seem to be pretty unstable.*
- A bigger issue for me: Some statements are...
 - “As a result of its extensive coverage and quality,¹⁸ EPFR global has been used in a number of recent analyses...”
 - Not exactly sure that use is correlated with quality, but let’s look at fn 18:

One thing I don't understand: the description (and use) of EPFR data (cont.)

- “As a result of its extensive coverage and quality,¹⁸ EPFR global has been used in a number of recent analyses...”

- fn 18:

“The EPFR dataset has been found to be a reliable data source.”

- Why? Because Total Net Assets and monthly returns of a subsample of EPFR funds and CRSP mutual fund data are similar. And the reader is referred to Puy (2016 JIMF) for a thorough discussion of the EPFR dataset.

OK...let's look at Puy (2016).

One thing I don't understand: the description (and use) of EPFR data (cont cont)

- The Puy (2016 JIMF) discussion of the EPFR dataset.
 - It's Section 2.1, which has 4 paragraphs.
 - The first two are innocuous about size etc.
 - The third states how country flows are created from EPFR data. It's either uninformative or I'm slow (or both).
 - The 4th paragraph “emphasize[s] the key strengths of the EPFR global dataset”.
 - High frequency
 - Wide industry and geographic coverage.
 - And “The EPFR dataset has been found to be a reliable data source”, citing the CRSP/EPFR comparison and Miao and Pant (2012) that EPFR is correlated with BOP for EMEs (although I think, but am not sure, that that paper analyzed aggregate and regional flows).

One thing I don't understand: the description (and use) of EPFR data (cont cont cont)

- I might agree that EPFR is a reasonable indicator of aggregate and perhaps even regional EME inflows
- But its country-level flows are just last period's country weights times this period's change in AUM.
 - So what EPFR is calling flows is actually, by fund, net inflows into the fund distributed across countries by last period's weights.

How do we understand EPFR flows?

- EPFR flows are, by fund, net inflows into the fund distributed across countries by last period's weights.
 - To me that sounds a lot like the Kraay and Ventura (2000, 2003) and Tille and van Wincoop (2010) “portfolio growth flows”, as discussed in Ahmed Curcuru Warnock Zlate (2016).
 - “Consider a small country that receives a[n]...income shock and saves a part of it...[A] reasonable guess is that investors allocate the marginal unit of wealth (the income shock) among assets in the same proportions as the average unit of wealth.” Kraay and Ventura (2000 QJE)
 - I agree, it is a reasonable guess for Kraay and Ventura. And, personally, I enjoy distinguishing portfolio growth flows from reallocation flows. But is this reasonable guess really how we want to create flow data?

A flow decomposition from Ahmed Curcuru Warnock Zlate (2016) inspired by Kraay and Ventura (2000, 2003) and Tille and van Wincoop (2010)

Can consider portfolio flows (and, hence, the flows EMEs experience) as the result of *allocating new savings based on existing weights and active portfolio reallocation*.

Let $CF_{i,t+1}$ be capital flows in period $t+1$ to country i

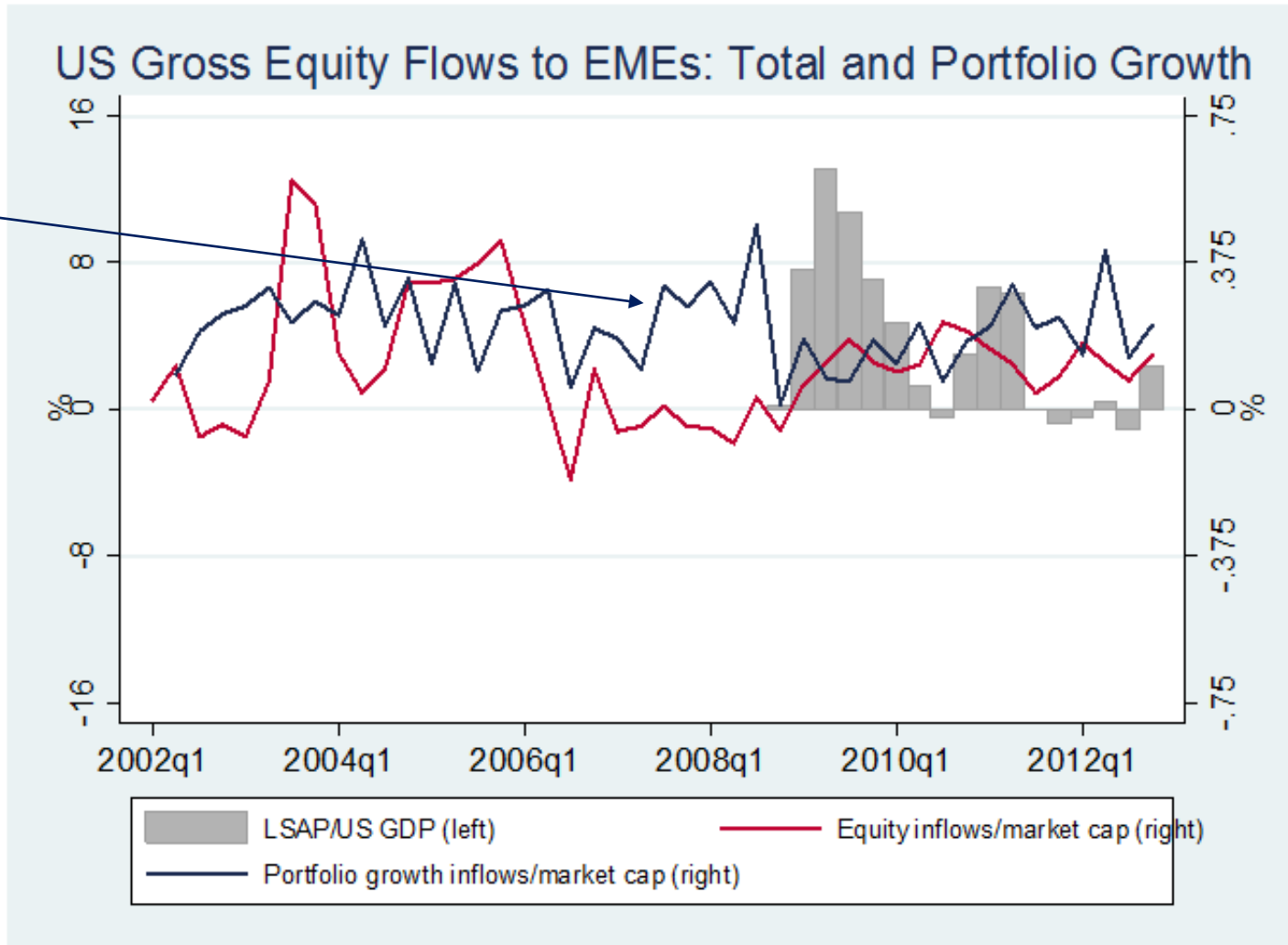
$$CF_{i,t+1} = \eta_{i,t} * S_{t+1} + \text{ReallocationFlow}_{i,t+1} \quad (1)$$

Portfolio growth component of flows are those due to new savings, S_{t+1} , allocated passively based on existing portfolio weights ($\eta_{i,t}$). Seems similar to EPFR's flow construction.

In (1), Reallocation Flows are the residual. No analog in EPFR?

Much flows to EMEs can be characterized as portfolio growth flows.

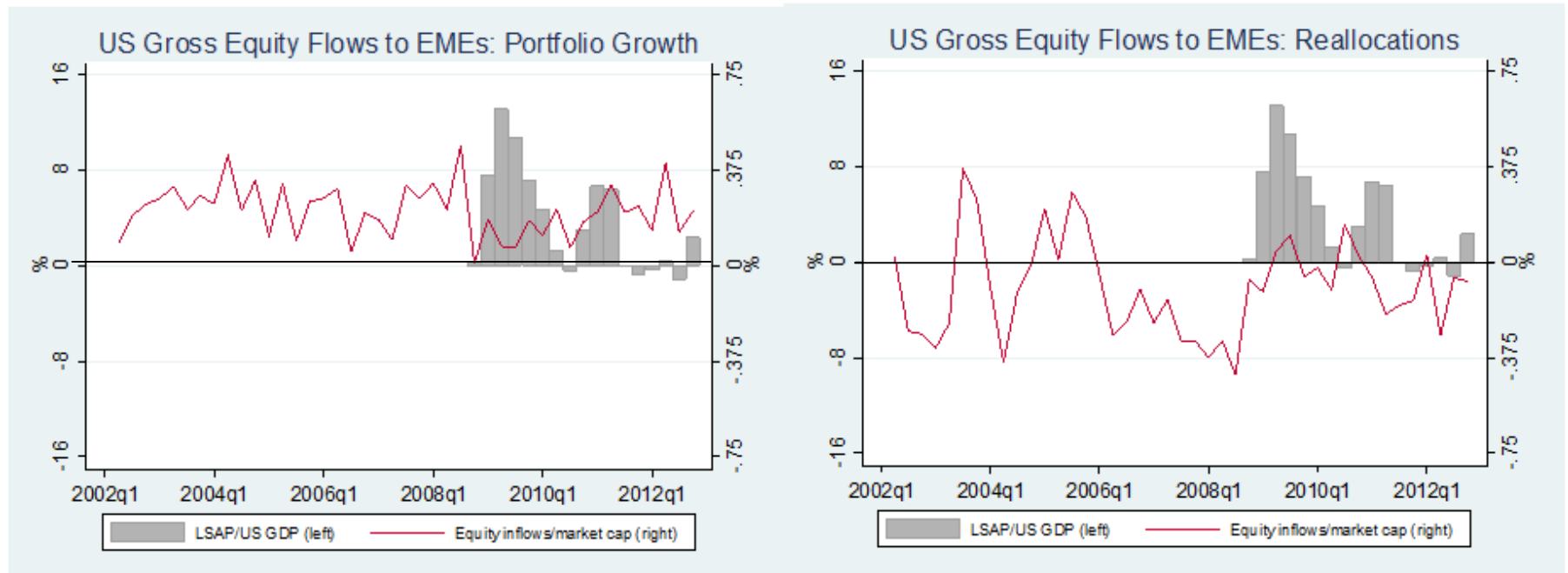
Portfolio
Growth
Flows



Portfolio growth flows can be substantial. Over the past few years, annual US portfolio growth flows into all foreign equities averaged \$100 billion, while total US flows into foreign equities averaged \$128b.

Portfolio Growth and Reallocation Flows

EMEs receive positive portfolio growth flows every year, sometimes substantial. Reallocation flows are more volatile, sometimes positive sometimes negative.



Portfolio Growth flows calculated with weights based on total US financial assets.

Reallocation Flows are rarely large and positive.

EPFR data (cont cont cont...)

- One thing that just doesn't come across in Puy (2016 JIMF, Section 2.1) or this paper:
 - EPFR may well be a reasonable indicator of aggregate flows to EMEs
 - But its country-level flows are just last period's country weights times this period's change in AUM.
 - So what EPFR is calling flows is actually, by fund, net inflows into the fund distributed across countries by last period's weights.
- I get it. EPFR is widely reported, high frequency, has been used in some papers placed in good journals. But we can do better. We must do better.

If we were to start from scratch, how would we create a high quality global funds dataset?

- Use security-level data on holdings.
- Make sure you have a good source of returns data.
- Back out flows from the security-level holdings and returns series.

If we were to start from scratch, how would we create a high quality global funds dataset?

- Use security-level data on holdings.
 - Make sure you have a good source of returns data.
 - Back out flows from the security-level holdings and returns series.
 - If I know that Stijn held \$100m in Stock X in period t-1 and \$90m in t and that Stock X fell 10% in period t, I can impute that Stijn had zero net flows into or out of Stock X.
 - Not perfect. Stijn could have traded a lot in period t, confounding this simple calculation. But if he trades a lot he'll fall out of the database pretty quickly.
 - EPFR seems to instead say “Whatever Stijn’s new savings are in period t, let’s allocate them according to his portfolio weights from period t-1 and call these his period t flows.”
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- Make sure you have a good source of returns data.
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What follows is all preliminary, ongoing work. There are still some kinks to work out, but we're getting there.

A better way...start from security-level data

(Bloomberg has 83,520 funds with security-level allocation data)

	EPFR	BLOOMBERG
Number of Funds Covered	47,000 (as of 2013)	83,520 (funds with security-level allocations)
AUM	\$24 trillion (from EPFR's web site, yesterday)	\$34 trillion (74% of all funds covered by BBG)
Geographic Coverage	80 countries	114 countries
Allocation Determination	Indirect: Derived from funds' country allocation shares, adjusted by change in AUM.	Direct: Based on funds' actual security-level holdings as directly reported to Bloomberg or reported through regulatory filings.

A better way...start from security-level data

(BBG coverage is reasonable and improving as we learn more)

As of 11/15/2016

Mil.USD		WCAP	AMOUNT HELD	
AMERICAS				
U.S	Bloomberg United States Exchange Market Capitalization USD	24,547,673	24,145,169	98%
CANADA	Bloomberg Canada Exchange Market Capitalization USD	1,915,183	1,227,996	64%
BRAZIL	Bloomberg Brazil Exchange Market Capitalization USD	666,757	1,630,290	245%
MEXICO	Bloomberg Mexico Exchange Market Capitalization USD	307,957	206,522	67%
CHILE	Bloomberg Chile Exchange Market Capitalization USD	211,664	193,852	92%
EMEA				
U.K	Bloomberg United Kingdom Exchange Market Capitalization USD	2,984,553	2,371,376	79%
FRANCE	Bloomberg France Exchange Market Capitalization USD	1,853,398	1,370,979	74%
GERMANY	Bloomberg Germany Exchange Market Capitalization USD	1,777,050	944,252	53%
SWITZERLAND	Bloomberg Switzerland Exchange Market Capitalization USD	1,399,147	900,029	64%
SPAIN	Bloomberg Spain Exchange Market Capitalization USD	610,197	377,691	62%
RUSSIA	Bloomberg Russia Exchange Market Capitalization USD	516,364	453,276	88%
ASIA/PACIFIC				
JAPAN	Bloomberg Japan Exchange Market Capitalization USD	5,020,852	3,554,731	71%
CHINA	Bloomberg China Market Cap USD	6,747,998	4,938,380	73%
HONG KONG	Bloomberg Hong Kong Exchange Market Capitalization USD	4,044,646	1,170,694	29%
INDIA	Bloomberg India Exchange Market Capitalization USD	1,542,592	1,092,757	71%
AUSTRALIA	Bloomberg Australia Exchange Market Capitalization USD	1,156,638	451,127	39%

Source: Bloomberg Economics. WCAP is mktcap. Amount held is for funds for which the terminal has security-level allocations. **Listed are destination countries.**

A better way...start from security-level data

	Number of Funds Covered by Bloomberg	AUM OF All Funds Covered by Bloomberg	AUM OF Funds Reporting Security-Level Holdings data	
GLOBAL	160,697	45,871,136,832,038	34,388,960,315,974	75%
UNITED STATES	27156	20,716,911,228,484	19,328,711,733,150	93%
BRITAIN	16308	4,674,379,425,854	1,370,710,139,274	29%
LUXEMBOURG	13491	3,592,580,385,916	3,090,921,318,566	86%
IRELAND	4567	2,808,357,780,536	1,019,557,980,421	36%
ITALY	1312	1,965,832,237,553	176,494,595,764	9%
CANADA	6822	1,596,763,725,167	1,491,849,465,209	93%
BRAZIL	15085	1,521,854,115,805	1,349,329,837,645	89%
CHINA	3620	1,321,490,083,730	1,265,787,393,884	96%
FRANCE	5383	1,216,578,149,094	813,056,776,143	67%
JAPAN	6900	742,833,192,077	708,560,868,095	95%
SWITZERLAND	1961	702,069,601,703	448,691,170,438	64%
AUSTRALIA	8942	622,603,327,294	158,569,795,524	25%
GERMANY	2062	482,671,096,945	361,390,001,822	75%
SOUTH KOREA	4805	371,053,239,225	359,069,366,154	97%
CHILE	887	346,406,280,932	293,287,686,089	85%
SPAIN	6409	334,493,950,126	246,789,761,869	74%
INDIA	3191	303,615,560,828	282,075,407,010	93%
SWEDEN	808	289,135,144,633	287,248,128,506	99%
HONG KONG	1009	202,995,900,206	103,588,104,125	51%
CAYMAN ISLANDS	5928	176,320,735,471	13,333,189,554	8%
SOUTH AFRICA	1307	145,989,605,326	112,709,059,112	77%
BELGIUM	1066	138,570,915,384	105,740,148,268	76%
MEXICO	766	134,576,908,911	92,216,686,436	69%

Source: Bloomberg Economics. **Listed are source countries.** So, for example, US funds on the BBG have \$20.7t AUM ; we have security-level allocations for \$19.3 of that.

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Concluding Thoughts

- I do like the paper. I think the techniques used are better than most. I like the questions being asked. And the banking flows portion, which I didn't look at, may well be spectacular.
- For the portfolio flows portion, in the context of this particular application I just don't know how to think about EPFR flows, which almost mechanically are a common component times last period's weights.
 - I suspect Stijn's presentation made this clear though.