Discussion of:

"Original Sin Redux"

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Opening Thoughts

Nice paper on an important topic.

Really nice to see the benchmark survey data being used.

I'll focus on things that would help me understand/internalize the main findings.

I'll Focus on These Questions

Why, according to the authors, is the paper important? What is the stated contribution?

What is done?

Did the authors deliver on the stated contribution?

What are the opportunities to move this literature forward?

Why, according to the authors, is the paper important? What is the stated contribution?

We know that many EMEs have conquered sin that wasn't original.

 Once inflation was under control and with strong institutions, EMEs were able to borrow in their own currency (Burger and Warnock 2003, 2006). Suggests that not being able to do so was sin, not original.

But it would be good to understand if being able to borrow in the local currency insulates EMEs from fluctuations in global financial conditions.

- It's stated on pg 1 that the development of local currency bond markets has not been enough to insulate (Carstens and Shin 2019). So to the extent the question has been asked and answered, this paper is providing further corroborating evidence.
- Qu: What is the relationship with Boermans and Burger (2020 DNB working paper #676)?

What is done?

(1) Examine the sensitivity of US investors' annual portfolio holdings to fluctuations in financial conditions (i.e., changes in the US dollar index).

- Mutual fund flows most sensitive to fluctuations in financial conditions.
- The US broad dollar index stands out as a barometer of financial conditions in that it has greater force than other indicators like the bilateral exchange rate, the VIX or US monetary policy.

(2) Examine dynamics of the relationship between portfolio shifts, financial conditions, and exchange rates.

- For EMEs for whom most US investment is in local currency bonds, a one percent increase in the USD index leads to a drop in the notional value of local currency holdings of 0.29%.
- "Borrowing in domestic currency does not suffice to insulate the borrower from currency depreciation."

Some questions before I can internalize the results.

- I have a difficult time understanding the duration results, mainly because the duration charts (Fig. 5) seem to indicate that US investors hold really long duration EME bond portfolios, even at the beginning of the sample. I didn't know that. And to my eye, T3 cols 2 and 6 suggest the findings don't differ by duration.
- By investor-type analysis...How much holdings are investor-type "unknown"? Early on with the benchmark surveys we were uncomfortable saying much about investor-type because "unknown" was a large portion. Some words on that would be helpful.
- Other variables seem to be afterthoughts. What is "inflation growth"? Burger et al. (2015 Economic Policy) found important roles for inflation volatility and the US 10yr yield (and LSAPs). More thought on other variables would be welcome.
- Some standard errors in T1 seem incorrect.

(1) Sensitivity of Holdings to Changes in Financial Conditions

It isn't entirely clear what the dependent variable is: "annual percentage change in notional <u>holdings</u> of EM govt bond <u>flows</u> denominated in local currency". Is it flows or changes in holdings? I'll assume flows, but I'm not sure.

T1: When broad USD appreciates, less mutual fund flows into local currency bonds.

But less flows into USD bonds too (col. 7). Not sure how this relates to the title.

(1) Sensitivity of Holdings to Changes in Financial Conditions

T3 (split by maturity): "Longer maturities mitigate rollover risk for borrowers, but this is achieved at the expense of greater sensitivity of bond prices to yield changes due to the greater duration risk for the lender. Mutual funds are the most sensitive to yield changes and show the greatest redemption activity that magnifies price reaction and generates larger outflows of local currency bonds when the dollar appreciates."

It's not clear the evidence in T3 -- regressions of flows on the broad USD, without other controls -- are super-supportive of that statement. And even so, the USD is weakly significant for long-term (col 2), more significant for short-term (col 6). More could be done here.

(1b) The US broad dollar index stands out as a barometer of financial conditions in that it has greater force than other indicators like the bilateral exchange rate, the VIX or US monetary policy.

From T5, bilateral exchange rates look pretty significant. Are they not a barometer? The authors argue "No", but that seems to come from coefficient size. Are there better indicators of impact?

Later (pg 39) the authors seem to agree: "Taken together, these results show that the US investors decisions are dictated by fluctuations in the bilateral exchange rates vis-a-vis the invested country currency..."

2. The monthly flow analysis (or is it holdings?)

"For EMEs for whom most US investment is in local currency bonds, a one percent increase in the USD index leads to a drop in the notional value of local currency <u>holdings</u> of 0.29%."

If holdings, as stated, a 1% decrease in the local currency and 0.29% decrease in holdings implies, absent yield changes, inflows.

 "Borrowing in domestic currency does not suffice to insulate the borrower from currency depreciation." That suggests flows, not holdings.

1. I think the paper would benefit from dropping the term Original Sin.

EH (1999): "the original sin hypothesis, which emphasizes an incompleteness in financial markets which prevents the domestic currency from being used to <u>borrow abroad or to borrow long term even domestically</u>"

It applied to all non-OECD countries, even those with good inflation performance.

The definition has morphed, mainly because upon further inspection it pertained to something very narrow: "place local currency debt directly in foreign markets".

What's the alternative? Autarky and financial exclusion.

Burger and Warnock (2006): "...the necessary conditions for bond market development are very similar to those that foster development of the banking system. Countries in which people are not willing to become creditors—at one extreme this is an unwillingness to deposit money in banks—will have undeveloped banking systems and underdeveloped bond markets."

Volatile inflation and weak institutions \rightarrow underdeveloped banking system, financial exclusion, underdeveloped local bond market and no foreign investment

Stable inflation and strong institutions \rightarrow better developed banking system, less financial exclusion, better functioning bond market, foreign investment (that, as this paper and others show, fluctuates)

2. I think we'd learn more if the paper encompasses what we already know about US investment in EME bonds. There's a long literature that uses the benchmark survey and produced some reasonable results. See for example Burger et al. (2015 Economic Policy).

Taking some of the past work as a starting point, what more do we learn from this paper? It could be that we learn a lot! But I'd like to start from what we already know.

See also Boermans and Burger (2020) from a euro area perspective.

3. Can the underlying data be pushed even more?

Back to the Questions

Why, according to the authors, is the paper important? What is the stated contribution?

 We know that Original Sin has been overcome, but good to know if EME flows are sensitive to global financial conditions. The answer is Yes: the paper shows the sensitivity of sectoral (esp. mutual fund) flows to changes in financial conditions.

What is done?

 Annual panel regressions of sectoral flows on dollar index, monthly VARs of flows exchange rates and yields.

Did the authors deliver on the stated contribution?

• Yes, flows are sensitive. Understandably there are a few things to tighten up.

What are the opportunities to move this literature forward?

 Other than tightening up some things, moving past the Original Sin term (and recognizing that the alternative is autarky and financial exclusion) and encompassing the existing literature would help. And can the underlying data be pushed more?

Concluding Slide

Nice paper, important topic!

Wonderful to see the benchmark survey data being used!