Bond Flows at Risk: Global, Local and Pipes Factors in Latin America: Comments

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- In understanding its contribution, consider that traditional models of capital flows at risk focus on lower frequency analysis. The rationale is that several of the "sudden stops" crises in EMEs have common patterns that can be illustrated in such lower frequencies:
 - ✓ They are also illustrated in an early literature showing that large surges of inflows can lead to rapid credit and economic growth but trigger sudden capital flights and, sometimes, currency and debt crises (Calvo, 1998; Kaminski & Reinhart, 1999; Korinek & Mendoza, 2014; Caballero, 2016).
- Ramos Francia et al. (2021) takes a different route, considering higher frequency data.
 - ✓ This is relevant because the determinants of capital flows should be different, depending on the frequency of analysis.
 - Most importantly, this is an <u>extremely original approach</u> and, as far as I know, no other paper has ever done this.
 - ✓ A good implementation will guarantee publication in a good journal.

- Turning back to the traditional models of lower frequency data, and specifically to its rationale and that of sudden stop crises, it is worth noting that these models consider two types of regressions:
 - ✓ A "short-term" regression that studies determinants of capital flows in the short run (3-9 months);
 - \checkmark A "medium-term" regression studying the determinants in the medium run.
- Following this logic, the IMF has been very active in this front, considering different versions of capital flows at risk models in its flagship publications (GFSR, October 2018; Gelos et al., 2019; GFSR, April 2020).
 - ✓ GFSR October 2018 show that the spread on BBB rated corporate bonds has opposing impacts on the 5th percentile in the short and medium-term regressions.
 - ✓ Since the BBB refers to the corporate sector, a significant reduction in this spread is more likely to signal mispricing of risk than the DXY index and the 10-year US interest rate.
 - ✓ Thus, while this reduction improves prospects in the short run, it is related to excessive risk-taking and can trigger sudden capital outflows in a lower frequency, in the medium run.

- Along the same lines, the model of capital flow at risk we built ourselves for the case of Mexico shows that, not only the BBB spread has a similar behavior as in GFSR (2018), but economic growth also has opposing impact in the 5th quantile in the short and medium run.
- This matches the intuition stemming from the literature on sudden stops.

	Short term	Medium term
Intercept	0.00716***	0.00940***
BBB	-0.00071**	0.00092***
T-Bill 10 years	-0.00058**	-0.00078***
DXY	-0.00008***	-0.00012***
Economic activity	0.00042***	-0.00018*
Portfolio flows _{t-1}	-0.11108*	-0.24867***

Capital flows at risk for Mexico

Source: Own elaboration with International Institute of Finance, INEGI and Bloomberg data. Note: *,**,***, denote p values lower than 0.01, 0.05, and 0.10, respectively. Short term refers to an horizon of 2 quarters ahead. Long term refers to an horizon of 5-8 quarters ahead. The sample used has a monthly frequency.



Source: Own elaboration with IIF, INEGI and Bloomberg data.

- Nonetheless, none of these traditional model has ever used a setup capital flow at risk to analyze determinants of capital flows in the "<u>very short run</u>."
- In this horizon, financial intermediaries matter and, therefore, Ramos Francia et al. (2021) to make an additional contribution by analyzing the importance of **pipe factors**.
 - ✓ Such factors market liquidity, foreign investor participation and central bank market interventions can influence short term investors' expectations and, thus, make it more or less likely for them to end up coordinating in a bad equilibrium.
 - ✓ Pipe factors have largely been ignored in the previous literature.
- An additional nice point to consider is that it provides a rationale for this original empiricalhigh frequency approach using the conceptual contributions of global games.
 - ✓ This mimics the strategy followed by the traditional lower frequency paper, which finds a rationale in the early literature of sudden stops.

- One of the main results is that local factors are less important for the left tail. They use the difference between the 10-year term premium for EMEs and the U.S. as their local factor.
- This approach has the advantage that it can be easily interpreted in the context of global games: the difference between EMEs and U.S. premia can be seen as real time signal about what other investors are doing, and thus, captures precisely the type of strategic interaction about other players that matters in global games.
- However, it also has disadvantages with respect to using, not real time data but, instead, lagged local information:
 - ✓ Empirically, there can be endogeneity concerns. This can be aggravated by the fact that their lefthand side variable (bond flows) measures quantities for the same type of financial assets whose prices (yields) show up in the right-hand side of the equation.
 - Conceptually, while asset prices provide information about strategic behavior, they are not really delivered in real time but a second later. This is not a problem in global games where decisions are taken precisely in the moment in which price information is obtained, but it can be a problem in real life where losing less money requires arriving before the market.

- While lagged information does not tell us what is actually happening in the market in real time, it provides other type of relevant information about the likelihood of reaching a bad equilibrium.
 - ✓ History of sovereign defaults and macrofinancial fundamentals can act as a focal point since they provide investors with information about the likelihood of reaching such equilibrium, e.g. bad equilibrium are more likely in EMEs with weak fundamentals.



Exchange rate depreciation in EMES after tightening global financial conditions and dollar appreciation (WEO October 2018)

Source: WEO October 2018, IMF. Note: The real effective exchange rate is used.

- The authors could:
 - ✓ Use lagged information about EMEs macrofinancial fundamentals.
 - ✓ Alleviate potential endogeneity concerns by using different financial assets in the LHS and RHS. For example, they could use bonds on sovereign bonds in the LHS and the CEMBI indenx, which measures corporate bond spreads in the RHS.

Additional comments

- One of the main results is that the coefficient of the VIX is extremely high for the 5th quantile, compared to the coefficient of this variable for other quantiles.
- A concern in this regard could be that quantile regressions may not perform well in the tail of the distribution of the amount of data is not enough.
- This does not seem to be the case!! The authors claim that their observed (historical distributions) has fat tails.
- Advice: Not only mention this, show us the observed (historical) distribution. This would make a referee happier and strengthen the argument.

Extensions

- The analysis of central bank interventions focuses on the Covid-19 crisis. This is a very relevant question.
- The authors could extend the analysis to consider also central bank interventions in normal times that work in two directions, e.g., in non Covid times there are FX market operations to appreciate as well as to depreciate the exchange rate (Tobal and Yslas, 2018).
 - ✓ The advantage is that these policies tended to be implemented in the two tails of the distribution, that is, policies that were implemented in both good and bad times.
- Given the relationship of the paper with global games, an interesting extension would investigate the differentiated role of different global investors, particularly institutional and retail investors.
 - ✓ As suggested in policy outlets (GFSR, October 2019), institutional investors are more likely to have explicit return objectives, which could make them act more strategically than retail investors.
 - \checkmark Data for this distinction is available in EPFR.

Minor comments

- The authors use data from EPFR about investment funds.
 - ✓ This choice bodes well with the relationship between their work and the strategic behavior of investors.
- However, as the paper argues, EPFR data may not look much like BOP data.
 - ✓ In this explanation, the paper mention that other capital flow data sources disaggregated at a higher frequency, particularly, IIF data, have been shown to outperform EPFR information in nowcasting BOP (Koepke et al., 2020).
 - ✓ Our own suggests that this is also the case for Mexico.
- It could be interesting to use high frequency data from one of these resources to replicate their exercise.





Sources: IIF and EPFR.

