RESEARCH

Special Series on COVID-19

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Emerging Market Capital Flows under COVID: What to Expect Given What We Know

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COVID-19 presents multiple shocks for emerging markets (EMs). EMs faced collapsing domestic and external demand, record capital outflows, and higher external borrowing costs. EM governments increased domestic borrowing via unconventional policies to assemble fiscal resources to fight the pandemic. This puts further pressure on external finance premiums and might reduce capital inflows further. This note summarizes recent empirical research on EM capital flows' composition before the COVID-19 shock and implications of this composition on capital flows during the COVID-19 shock, with a focus on the complex embrace between EMs' domestic fiscal and external financing needs. These findings will help the authorities in their policy decisions in terms of their support for the sectors whose main source of financing are cross-border bank loans.

I. EM CAPITAL FLOWS BEFORE COVID-19 SHOCK: COMPOSITION, COMOVEMENT, AND PROCYLICALITY

The history of EM financial crises has taught us that the vulnerability to external shocks can vary greatly depending on which economic sectors are on the receiving side of capital inflows. Sovereign debt proved to be the Achilles' heel in the Latin American crises, while private sector debt financed by capital inflows was the key source of fragility in the Asian financial crisis. The picture was similar for advanced economy (AE) crises. For example, during the global financial crisis of 2008 (GFC) in the United States the culprit was the domestic household debt held by global banks. By contrast, in the European debt crisis of 2010–12, sovereigns' and banks' external borrowing took center stage. Although a large literature shows that gross capital flows respond to global shocks, these historical patterns suggest that it is important to understand capital flow response by sector to draw lessons for COVID-19.[1]

[1] See Forbes and Warnock (2012), Milesi-Ferretti and Tille (2011), Cerutti, Claessens, and Puy (2015), Broner and others (2013), Catao and Milesi-Ferretti (2014), Lane (2013), Cerruti, Claessens, and Rose (2018), Rey (2013), Nier, Sedik, and Mondino (2014).

Recent research shows that capital inflows by nonresidents to the public sector serve as a countervailing force to private sector inflows in EMs.[2] EM public sector flows are countercyclical; whereas, bank and corporate sector (private) flows are procyclical.[3] In addition to these responses to GDP movements, private and public sector flows to EMs respond in opposite directions in response to global shocks. These patterns contrast with AEs, wherein public sector flows are procyclical and do not respond to global shocks.

Capital outflows by residents behave differently depending on the lending domestic sector—in EMs, sovereign outflows tend to retrench in the face of global shocks. Outflows from EM investors do not systematically respond to the domestic cycle for any sector, except for the public sector. During a downturn in a given emerging market economy, domestic private residents do not bring their investment back (retrench) to their own country. During stress periods, when foreigners flee from EMs, the EM sovereigns provide much needed risk sharing by retrenching. However, during a downturn in AEs, it is their banks that retrench and bring funds back to the country, helping to offset the shock.

There is a strong comovement between capital inflows and outflows in AEs, but not in EMs. The positive correlation between inflows and outflows is driven by AE domestic banks in as they behave procyclically and respond to global shocks as borrowers and lenders. The correlation between capital inflows and outflows is weak in EMs as their banking sectors do not receive capital inflows and send out capital outflows simultaneously as a response to domestic shocks and to global shocks as in the AEs.[4] The behavior of other sectors are also asymmetric, weakening the correlation between inflows and outflows.

In terms of stocks, banks owe the lion's share of the external debt for AEs, but in EMs the outstanding external debt stocks are split roughly equally among banks, firms, and sovereigns. Although most of the portfolio debt in AEs is due to corporate borrowing and most of the non-portfolio debt is due to bank borrowers, this pattern changes when examining EMs. There, sovereigns account for most of the portfolio debt owed (bonds), while banks and firms roughly split the other investment debt (loans). These patterns in the data during 2000–19 underline the importance of loan flows (other investment) rather than bond flows (portfolio) for the external borrowing of the private sector in EMs.

II. EM CAPITAL FLOWS DURING COVID-19 SHOCK: BALANCE OF PAYMENTS VS. HIGH-FREQUENCY CAPITAL FLOWS DATA

While balance of payment data for 2020 remain unavailable, high-frequency data on portfolio flows might not be fully informative for EMs. As official balance of payments data for 2020 are not available, researchers try to understand patterns of capital flows under COVID-19 using high-frequency real time data on portfolio flows. High-frequency real time data on portfolio flows from EPFR and IIF suggest a retrenchment of approximately $100 billion in emerging market portfolio equity and roughly $20 billion in emerging market portfolio bonds since February 2020. Portfolio equity flows account for less than 20 percent of total capital flows to EM, hence these figures will miss the big part of the picture. In addition, IIF data are for a very limited set of countries. IIF collects real time data either through central banks who report real time portfolio flows or use fund-

[2] These observations are based on dynamic patterns for the mean and median EM in a sample of 34 EMs. Some countries can be outliers to these typical patterns, such as Argentina.

[3] See Avdjie and Kalemli-Ozcan (2017) for quarterly GROSS flows by firms, banks, and sovereigns. See also Aguiar and Amador (2011), Gourinchas and Jeanne (2013), and Alfaro, Kalemli-Ozcan, and Volosovych (2014), who separate public and private NET flows at annual frequency and show that they move in opposite direction as a function of country-specific growth. Horn, Reinhart, and Trebesch (2020) show a similar result in 200 years of data, wherein private inflows leave during wars, natural disasters, and financial crises, official inflows to sovereign borrowers come in.

[4] See Caballero and Simsek (2018) and Bluedorn and others (2013).

level data from Bloomberg Finance, L.P. For example, for portfolio bond flows, IIF includes only nine countries: Hungary, India, Indonesia, Mexico, Poland, South Africa, Thailand, Turkey, and Ukraine. EPFR data rely solely on investment funds and hence do not coincide with the residency-based capital flow concept of balance of payments data (outflows from a fund can be both by domestic and foreign investors and may not correspond to outflows by nonresidents from a country).

Recently released Bank for International Settlements and Dealogic data show that adjustments to debt flows were limited during the first quarter of 2020, in stark contrast to the patterns during the GFC and Taper Tantrum. Figure 1 plots capital flows by nonresidents to corporate, bank, and sovereign sectors during the GFC and Taper Tantrum (panels a and b) and during COVID-19 (panel c), using data from 34 EMs.[5] Since these data are mainly for the first quarter of 2020, they also include large inflows into EMs (especially to firms) in January and February before the crisis fully took hold in EMs.

Given the size of the shock and importance of other sector flows, updated data for the second quarter of 2020 may reveal larger declines in inflows, including to banks, as experienced during previous crises. Since COVID-19 is mainly a health shock affecting first the real economy, it might propagate differently than previous episodes that were financial shocks. Foreign investors may expect higher sovereign defaults given the limited fiscal space of many EM governments, and hence their escape from the sovereign bond market first is not surprising. It is also a possible that, given the extensive dollar liquidity stimulus by the US Federal Reserve, capital flows during rest of the year might also revert back to EMs via search-for-yield motive of foreign investors.[6]

It is hard to conjecture about EM capital flows under COVID based on data on portfolio debt flows alone. Figure 2 plots portfolio debt flows from IIF and EPFR data and shows a much larger change in portfolio debt inflows in the first quarter of 2020 (about –$30 billion), relative to total debt flows in Figure 1. This discrepancy between these figures can be due to several possible reasons: Figure 1 include loans in addition to only bonds in Figure 2 and loans were still coming into EM during first quarter. Figure 1 also has a much more comprehensive set of EMs (34) compared to IIF (9) and EPFR (19). Loans played a stabilizing role during the first quarter. As noted above, EPFR data capture flows of EM debt in and out of investment funds by any investor, which may not reflect cross-border residency-based flows that we plot in Figure 1.

III. HOW DO CAPITAL FLOWS RELATE TO COVID-19 LOSSES? AND WHAT DOES THIS IMPLY FOR THE INTERACTION BETWEEN FISCAL AND EXTERNAL FINANCE NEEDS?

If capital flows to private sectors in EMs decline further during the rest of 2020, the output losses from COVID-19 can increase as capital flows provide the financing to production in private sectors in EMs. In order to focus on the complex embrace between domestic fiscal needs and external financing needs, we estimate COVID-19–related economic losses by sector and link those losses to sector level capital flows. We focus on a given EM to identify the links between capital flows and COVID-19 losses that are independent of the country characteristics and countries' varying policy responses to the pandemic. Based on an epidemiological

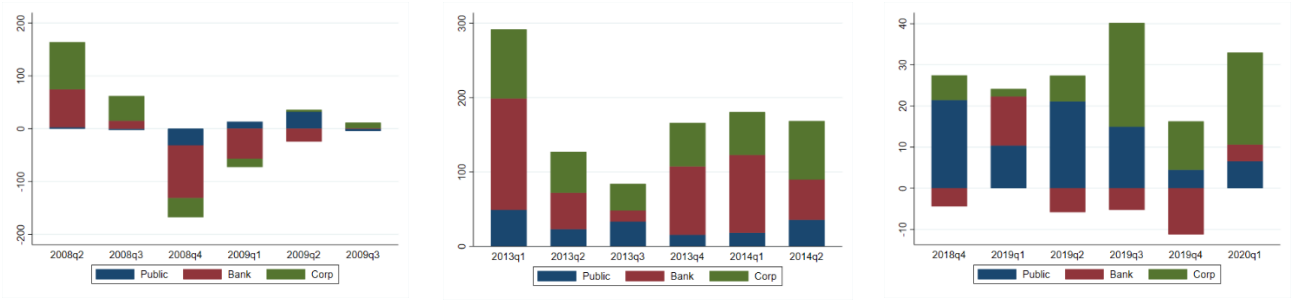
[5] Figure 1 is adapted from Avdjiev and Kalemli-Ozcan (2017). For the COVID-19 crisis, we utilize recently released BIS international debt securities (IDS) statistics in conjunction with syndicated loan data from Dealogic to capture both bond and loan flows for a large set of countries, defined comparably to balance of payments and split the flows by sector. Each bar denotes the change in nonresident inflows between the plotted quarter and the average of the previous two quarters.

[6] See Kalemli-Ozcan (2019). Plotting flows in each quarter instead of looking at changes in flows relative to previous quarters delivers the same message that is capital outflows during previous crises were out of banks; whereas for COVID-19, foreign investors reduced their investment in sovereign debt first (together with equities).

susceptible-infected-recovered (SIR) multi-sector macro model for a small open economy, we estimate the sector-specific output losses as a function of infection rates, external demand, and input-output linkages. Then, we show that sectors with the larger COVID-19 losses are also the ones with higher levels of foreign currency debt and tighter links to global supply chains (see Cakmakli and others 2020).

The main form of financing for the sectors with larger external financing needs and tighter links to global supply chains are bank loans. The stability of banking flows to EMs so far can be one of the reasons why a major disruption to EMs' supply chains has been avoided but this can change during the rest of the year. If banking and corporate sector outflows from EMs get accelerated during the rest of the year, the COVID-19 crisis can take another significant negative turn leading to major crises in EMs and bigger disruptions in global supply chains.

FIGURE 1. Crises and Debt Flows to Emerging Markets

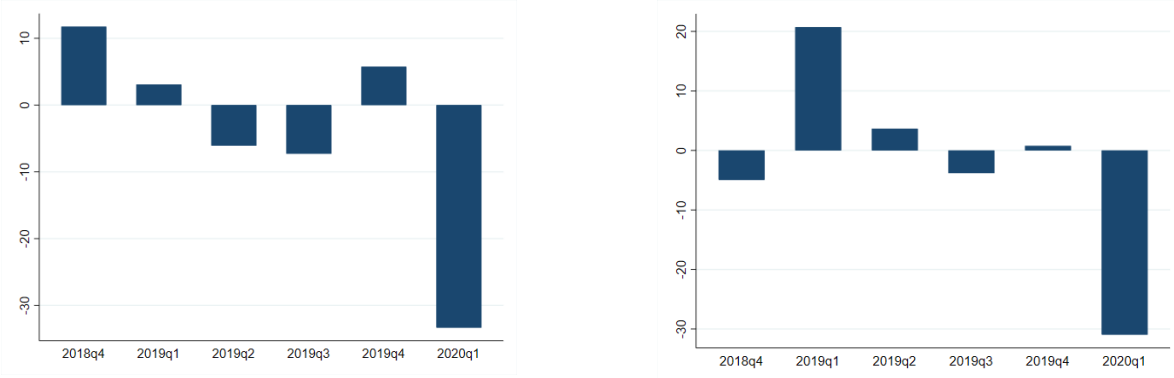


(a) Global Financial Crisis (b) Taper Tantrum (c) Covid-19 Crisis

Sources: Authors' calculations; BIS; BOP; Dealogic; IIP, and QEDS.

Note: Each bar shows the net debt inflows in the given quarter, expressed in billions of US dollars. Panels a and b use the authors' constructed data on net inflows by sector. Panel c plots net international bond and syndicated loan issuance by sector for the same set of countries from BIS, IDS, and Dealogic, respectively.

FIGURE 2. EPFR and IIF Portfolio Debt Flows to Emerging Markets



(a) COVID Crisis, IIF Data on Portfolio Debt Flow (b) COVID Crisis, EPFR Data on Portfolio Debt Flows

Sources: Authors' calculations; EPFR, and IIF.

Note: Panel a plots IIF data, capturing net portfolio debt inflows for the following nine countries: Hungary, India, Indonesia, Mexico, Poland, South Africa, Thailand, Turkey, and Ukraine. Panel b plots EPFR data, capturing flows of portfolio debt holdings of EM debt (from 19 countries) into investment funds (negative values indicating investment funds are selling their holdings to some other investor). Each bar shows changes in net inflows in the given quarter from the average of the previous two quarters.

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