Introducing EM Portfolio Flows Tracker 4.0 Methodology Note



- Launched in March 2014, the IIF EM Portfolio Flows Tracker is a monthly indicator that provides estimates of non-resident
 portfolio debt and equity inflows to 25 key emerging markets.
- Our estimates in "Tracker 4.0" reflect significant methodological improvements, building on our recently expanded set of daily flows series, EM bond issuance and EM stock market performance.
- Tracker 4.0 includes estimates for non-resident portfolio debt and equity flows to China. While China's inclusion does not change the overall trend, it does boost our already-strong 2017 EM flows aggregate.
- The new Tracker 4.0 estimates will continue to be released each month as part of the IIF's monthly <u>Capital Flows Tracker</u> and will be available to download for IIF members on our <u>website</u>. We will release our July estimates on August 2, 2018.

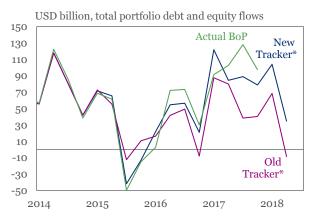
More comprehensive: As part of ongoing efforts to improve our monitoring of capital flows to emerging markets, we are introducing a new version of the EM Portfolio Flows Tracker. Our new Tracker provides a more comprehensive picture of non-resident portfolio flows with a particular focus on China and EM bond issuance. New improvements include (i) enhancement in the estimation procedure and (ii) introduction of portfolio debt and equity flow Trackers for China. The estimates will continue to be released each month as part of our monthly Capital Flows Tracker, and the underlying data sets will be available for download on our website.

China matters more: China's efforts to open its domestic bond and stock markets have prompted a substantial rise in non-resident portfolio flows to China. Since 2016, China has attracted more than \$160 billion of non-resident portfolio inflows, making up nearly 40% of total portfolio flows to the EMs in our sample. This is a sharp increase from less than 25% for the 2010-2016 period. Against this backdrop, the greater discrepancy between our old Tracker estimates and actual balance of payments (BoP) data has prompted us to revisit our tracking methodology (Chart 1).

To improve the accuracy of our estimates:

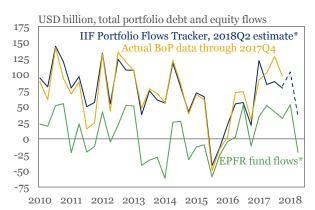
- We incorporate a number of additional predictors in <u>our simple two-stage econometric model</u>, including stock prices and bond issuance data. Our Tracker provides much closer estimates to actual BoP data than many other sources, including fund flows data (Chart 2).
- We model portfolio inflows to China and EMs (ex-China) seperately to improve the fit of our tracking estimates. We develop a simple model to quantify portfolio equity flows

Chart 1: Non-resident portfolio flows to EMs



*Monthly data aggregated into quarterly figures Source: IIF, National Sources

Chart 2: Non-resident portfolio flows to EMs



*Monthly data aggregated into quarterly figures Source: IIF, National Sources, EPFR to China using data from the China-Hong Kong stock connects. Indeed, daily stock connect data allow us to produce estimates for the current month, which are combined with our EM ex-China estimates to provide a more robust aggregate figure (Chart 3).

• For portfolio debt inflows, we incorporate data on FX-denominated debt issuance to improve the accuracy of our estimates (Chart 4). Given the lack of high-frequency data for China, we model portfolio debt flows to China and EM ex-China together to derive estimates for the current month. That said, we also provide monthly debt flow estimates for China, with a one-month lag (Chart 5).

FREQUENTLY ASKED QUESTIONS

What are portfolio flows?

Portfolio flows arise through the transfer of ownership of equity or debt instruments from one country to another. Our data measure the net purchases (or sales) by non-residents of EM assets. Additionally, non-resident portfolio flows are a subsection of overall net capital flows, which include all types of flows from both residents and non-residents covering portfolio flows, banking flows, direct investment, and other components of the financial account in a nation's balance of payments (BoP). The Portfolio Flows Tracker seeks to provide a more timely, monthly estimate of official portfolio flows, which are typically published at a quarterly frequency and with a significant time lag.

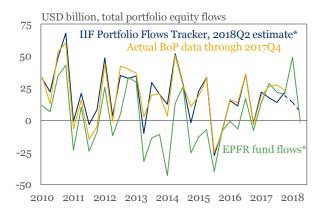
What accounts for the difference between the IIF Portfolio Flows Tracker and measures of fund flows?

While both portfolio flows and fund flows (published by EPFR, Lipper, etc.) can be useful measures of investor appetite for EM assets, there are conceptual differences. The IIF Portfolio Flows Tracker follows standard balance of payments definitions, so a flow is recorded when there is a transfer of ownership of an EM asset between a resident and nonresident. Per these definitions, the entire equity and bond universe (hard, local currency; sovereign, corporate issuers) are within scope of portfolio flows so long as a transfer of ownership is involved. Fund flows, however, only track investor flows to and from EM-dedicated mutual funds and ETFs - a universe that does not reflect all activity of institutional investors, hedge funds, and sovereign wealth funds buying and selling EM assets directly. Other discrepancies arise due to funds' use of cash buffers (they may not have to sell underlying assets even while facing redemptions) or residency of the fund.

Why do historical data get revised?

We revise our Portfolio Flows Tracker estimates as we incorporate updated country flow data. We also periodically revise our model to ensure an accurate fit to historical data as flow dynamics evolve and investor behavior changes.

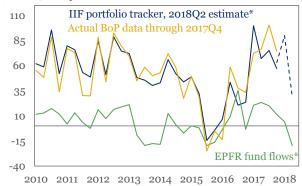
Chart 3: Non-resident portfolio equity flows to EMs



*Monthly data aggregated into quarterly figures Source: IIF, National Sources, EPFR

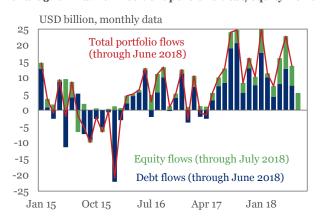
Chart 4: Non-resident portfolio debt flows to EMs

\$ billion, total portfolio debt flows



*Monthly data aggregated into quarterly figures Source: IIF, National Sources, EPFR

Chart 5: China: non-resident portfolio debt/equity flows



Source: IIF, National Sources