

# Capital Flow Waves: Surges, Stops, Flight, and Retrenchment

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International capital flows typically undergo cycles or “waves” and capital flow volatility has increased in the past decade. In some countries these waves in capital flows can have detrimental economic consequences and present substantial challenges for policymakers. In other countries, such as countries which benefited from sudden capital inflows during the recent Global Financial Crisis, capital flow volatility is less challenging and can even be beneficial. What causes these different patterns in capital flows across countries and time? This paper attempts to answer this question by analyzing the causes of the major ebbs and flows of international capital. It does not attempt to explain small fluctuations in capital flows, but instead focuses only on extreme movements or “waves”.

Almost all previous work in this literature analyzed *net* capital flows, which cannot differentiate between the behavior of foreign and domestic investors. Our analysis instead focuses on *gross* capital flows, differentiating between capital movements initiated by foreigners and by domestic investors. This differentiation is important because foreign and domestic investors can be motivated by different factors, focus on different types of capital flows, and respond differently to various policies and shocks. Policymakers might also react differently based on whether extreme capital flow movements are instigated by domestic or foreign sources.

We use quarterly data on gross capital inflows and outflows for a broad sample of emerging and developed economies to create a new dataset of episodes of extreme gross capital flows into or out of a country. We call these episodes “surges” (when foreigners sharply increase inflows), “stops” (when foreigners sharply decrease inflows), “flight” (when domestics sharply increase outflows), and “retrenchment” (when domestics bring money home). Examining these episodes shows a number of fascinating patterns. For example, the recent Global Financial Crisis saw an unprecedented incidence of stops and retrenchment, as investors around the world liquidated foreign investments and brought money home.

In more formal empirical tests, we find that global factors—and especially global risk driven by changes in economic uncertainty and risk appetite—are the most important forces driving these capital flow waves. An increase in global risk is associated with more stop and retrenchment episodes and fewer surge and flight episodes. Other global factors can drive some, but not all, types of episodes. For example, strong global growth affects the behavior of foreign investors—causing stops and surges—but does not significantly affect the behavior of domestic investors. Faster growth in the global money supply increases the probability

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that middle-income countries will experience a surge of inflows, but does not affect the probability of other types of episodes (or even of surges in high income countries). Higher global interest rates increase the probability that countries experience stops or retrenchment, but does not affect the incidence of surges or flight.

In addition to these global factors, contagion is also important in explaining certain types of capital flow waves. A country is more likely to experience a stop or retrenchment if a country with which it has strong financial or trade linkages has recently experienced a similar episode. In contrast to the important roles for global factors and contagion, domestic variables appear to be less important in driving extreme capital flows. This is particularly noteworthy for capital controls—which have recently gained more support. There is no significant effect of capital controls on a country’s likelihood of experiencing a surge or stop of capital inflows from abroad.

The analysis in this paper provides insights for theory and empirical research. Our finding that the primary force driving capital flow waves is changes in global risk supports the focus on global factors, and especially risk, in much of the recent theoretical literature modeling the Global Financial Crisis. Our analysis shows the importance of using our more disaggregated focus on gross flows by the type of investor (instead of the more aggregate net flows used in previous work) in order to capture the complete dynamics and causes of capital flow cycles. For example, our analysis shows that many episodes previously identified as “surges” of foreign investment are actually driven by the retrenchment of domestic residents.

Finally, our results on the relative importance of global, contagion, and domestic effects in causing extreme movements in capital flows has important implications for economic policy. Capital flow volatility can have substantial economic costs, especially in emerging economies with less developed financial systems. Surges are correlated with real estate booms, banking crises, debt defaults, inflation and currency crises; sudden stops are correlated with currency depreciations, slower growth, and higher interest rates. Policymakers hoping to reduce these vulnerabilities and mitigate negative outcomes need a clear understanding of these episodes. Our results suggest that many domestic factors only have a limited effect on capital flow volatility. For example, capital controls do not appear to significantly insulate an economy against capital flow waves. As a result, governments concerned about capital flow volatility should prioritize how to strengthen their country’s ability to withstand this volatility rather than trying to reduce it. The significant role for global factors and contagion in driving episodes also suggests an important role for global institutions and cross-country cooperation to reduce the volatility of global capital flows.