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# How do foreign investors impact domestic economic activity? Evidence from India and China☆

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A B S T R A C T

There has been renewed advocacy for restrictions on international financial flows in the wake of the recent financial crisis. Motivated by this trend, we explore the extent to which cross-border flows affect real economic activity. Unlike previous research efforts that focus on aggregated capital flows, we exploit novel data on forced trading by global mutual funds as a plausible source of exogenous flow shocks. Such forced trading is known to generate large liquidity and price effects, but its real impacts have not been studied extensively. We find that both country- and firm-level investment growth rates are significantly affected by these exogenous capital shocks, and that their effect is more pronounced for firms whose marginal investment decisions are more equity-reliant.



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## 1. Introduction

Despite a large body of research, there remains a heated debate in the international finance literature on the costs and benefits of financial globalization.[1] An often-heard critique of financial openness is that it increases the macro-economic vulnerability of countries and the probability of a financial crisis (see Stiglitz (2000, 2010), for example). This critique arises from the perception that foreign capital not only increases financial market volatility, but also generates undesired volatility in the *real* economy. Indeed, the perceived disadvantages of unbridled capital flows, often termed "hot money" in popular parlance, have brought back proposals for a Tobin tax on cross-border capital flows (see Eichengreen et al. (1995)), and has led to the IMF publicly abandoning its position that capital controls are inappropriate for most countries (see Ostry et al. (2010)).

The literature on the effects of financial openness on macro-volatility finds generally mixed results (see, for example, Kose et al. (2003), Bekaert et al. (2006), Froot and Ramadorai (2008), Fratzscher and Imbs (2009)). However, a limitation of these approaches is that one cannot easily identify *shocks* to foreign capital. The estimated macro effects of foreign capital flows have generally been linked either to *de jure* measures of financial market restrictions that may or may not be binding, or to composite measures of realized, aggregated capital flows that could endogenously be driven by a host of factors, including expectations about future economic activity.

In sharp contrast, we exploit novel international data from Emerging Portfolio Fund Research (EPFR) on global mutual fund flows and security holdings to explore the real implications of forced trading. The global mutual funds we consider are largely domiciled in developed countries, but invest in the emerging world. We focus on the part of their flows to emerging economies that is driven by shocks to fund assets under management occasioned by withdrawals and investments by their developed country-domiciled retail investor base. Using this cleaner identification of capital flow shocks, we investigate their impact on subsequent real economic activity in emerging markets, in an attempt to illuminate the mixed evidence in the existing literature.

Our use of this identification strategy is motivated by a recent stream of the asset pricing literature that explores the effects of financial asset "fire sales." This literature demonstrates that forced trading can generate significant deviations of asset prices from fundamental values.[2] Indeed, building on Coval and Stafford (2007), Jotikasthira et al. (2012) show that subscriptions and redemptions in global mutual funds result in forced trading by these funds in emerging markets. Furthermore, they find that this forced trading generates significant price impact and subsequent reversals in equity markets in the emerging world.

Using this observation as our starting point, we check whether this plausibly exogenous component of global capital flows has implications for emerging market economic activity. We do so first using broad macroeconomic aggregates, and subsequently measure economic activity using data on firms located in two large and important emerging markets, namely China and India. We focus on these two large markets for three main reasons. First, these countries are the targets of a significant amount of global mutual fund investment, which means that the primary identification strategy that we employ is more likely to yield clear outcomes in either direction in this setting. Second, both China and India are especially cognizant of the potential vulnerabilities they have to global capital flows, and there have been important policy debates in both markets on this important issue. Finally, the two countries house an interesting cross-section of firms that vary in their needs for external finance, enabling our use of this additional source of variation to better identify the specific mechanism through which the effects of capital flow shocks operate. In addition, our use of firm-level data is motivated by literature suggesting

[1] On the benefit side, early research focusing on capital account openness generally finds mixed results for economic growth (see Eichengreen (2001) for a survey); however, recent evidence suggests a robust link between financial openness and economic growth. For example, Bekaert et al. (2005) and Quinn and Toyoda (2008) document strong macro-economic growth effects associated with financial openness. This evidence is further supported by micro-level studies (see Gupta and Yuan (2009) at the industry-level and Mitton (2006) at the firm-level). See Kose et al. (2009) and Prasad et al. (2003) for a counter argument.

[2] Shleifer and Vishny (1992) present a theoretical model in which the forced selling of industry-specific assets by financially distressed owners may cause transaction prices to significantly dip below assets' fundamental values. While this theory was first formulated for real asset sales, more recently, many authors have shown that these ideas are extremely useful for understanding asset market liquidity, and the valuation of financial assets.