

Global Monetary Policies and Implications for Financial Flows to India and Other Emerging Markets



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1 Introduction

The central banks of the G-4 advanced economies (USA, Euro Area, UK, and Japan) embarked on extraordinary monetary easing to counter the effects of the Global Financial Crisis (GFC) in 2008–09, during the post-GFC period, and most recently, during the COVID-19 health crisis in 2020–21. These included large-scale purchases of financial assets and close to zero or negative policy interest rates. Studies suggest that the monetary easing broadly had positive effects in terms of reducing the cost of capital and improved economic activity in the advanced economies including in the USA and the Euro Area (Bernanke, 2020, Krishnamurthy et al., 2018).

However, the increase in global liquidity and a search for higher yields resulted in spillovers to emerging market economies in the form of surges and sudden stops in capital flows, accompanied by greater volatility of financial asset prices and exchange rates (Aizenman et al., 2016; Chari et al., 2017; Eichengreen & Gupta, 2015; Lim & Mohapatra, 2016).

This chapter reviews the experience of monetary easing by the G-4 central banks and the spillover effects of such policies on developing countries. The chapter builds on the work of Basu et al. (2014) and Medvedev et al. (2019) on the effect of the specific episode of expectation of tapering of quantitative easing by the US Federal Reserve in 2013 on financial asset prices and exchange rates in India. It considers the implications of QE in the period spanning 2009–19 as well as the impact of the recent COVID-19 monetary easing, for developing countries and particularly for India. The implications of these developments are examined for private capital flows, exchange rates, capital controls and macroprudential measures, and the conduct of monetary policy.

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The next section discusses the contours of monetary easing during the GFC and COVID-19 crisis. This is followed by a discussion of the spillover effects of such policies on developing countries, and specifically for India, in Sect. 3. Some policy options to deal with spillovers are examined in Sect. 4. Section 5 concludes with directions for the future.

2 Global Monetary Easing During Global Financial Crisis and COVID-19 Crises

The central banks of the major advanced economies undertook unconventional monetary policies involving significant large-scale purchases of financial assets during the Global Financial Crisis in 2008–09 and in the years following the GFC. In the period between August 2008, just prior to the collapse of Lehman Brothers, and the end of 2014, the combined assets of the US Federal Reserve (US Fed), European Central Bank (ECB), and the Bank of Japan rose threefold from \$2.8 trillion to about \$8.7 trillion. As a result of the unconventional monetary policies, the US Fed assets registered the steepest increase from \$906 billion to \$4.5 trillion, a fivefold increase, while the assets of the ECB and the Bank of Japan rose 1.8 and 2.5 times, respectively, in dollar terms in the same period (Fig. 1). In the 2015–19 period prior to the COVID-19 crisis, while the US Fed slowed its pace of asset purchases as US economic growth picked up, the ECB and the Bank of Japan continued to expand their balance sheets to provide support for their economies. The purpose of quantitative easing (QE) or large-scale asset purchases were to provide abundant liquidity to financial markets and the banking sector; reduce bond yields (see Krishnamurthy & Vissing-Jorgensen, 2011, for evidence from the USA, and Krishnamurthy et al., 2018, for

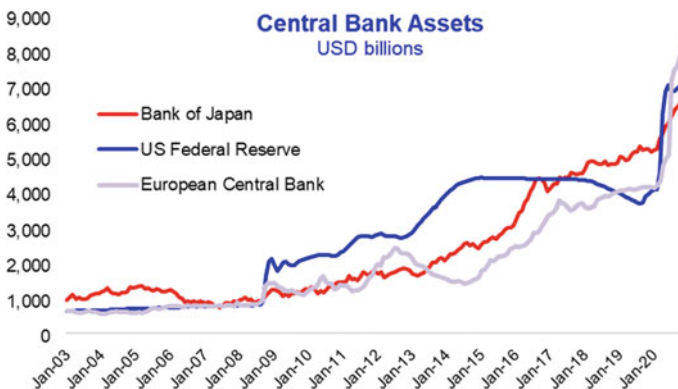


Fig. 1 Quantitative easing by central banks of major advanced economies. *Source* Federal Reserve Bank of St. Louis FRED database

evidence from Europe) and borrowing costs for corporates; restore confidence; and stimulate investment and economic growth.

Similar large-scale central bank purchases of financial assets and liquidity infusions were undertaken during the COVID-19 health crisis in 2020 in order to help the banking system and corporates absorb the unprecedented shock to aggregate demand and incomes. By the end of 2020, the assets of the US Fed, ECB, and BoJ had risen to about \$22.5 trillion, 1.7 times the \$13.5 trillion in December 2019. The assets of the ECB and US Fed rose by 2.0 and 1.8 times, while the Bank of Japan's assets rose by a smaller 1.3 times (Fig. 1). Compared to the ECB's initial reticence to implement quantitative easing in the GFC and post-GFC period, it has been relatively more willing to ease monetary policy during the COVID-19 crisis.

The unconventional monetary policy measures above were implemented after or together with a sharp reduction in the main policy interest rates by the major central banks. With the collapse of the US housing market that preceded the GFC, the US Fed reduced its main short-term interest rate from 5.3% in mid-2007 to nearly 0% by the end of 2008 as the crisis deepened (Fig. 2, left panel). In a unique period for monetary history, the US Fed kept its main policy rate close to zero for an extended period of 7 years even as it continued to implement the quantitative easing operations discussed above. The ECB cut its marginal lending facility rate, its main policy rate, from 5.25% in mid-2008 to 1.75% in May 2009 during the GFC (Fig. 2, right panel). The ECB's newly introduced main refinancing operations rate ("repo rate") was reduced from 3.75% in October 2008 to 1% in May 2009 and then gradually to 0.0% by March 2016 and kept at that level in subsequent years. With the US economic growth gaining steam, the US Fed's policy interest rate was raised 2.4% in January 2019 to counter inflationary pressures but then was reduced to mitigate the impact of the US–China "trade war" in 2019, and subsequently to close to 0% in April 2020 as COVID-19 infections started spreading across the world.

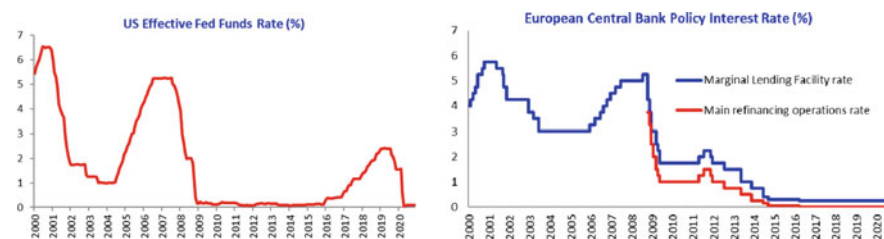


Fig. 2 Policy interest rates of central banks of major advanced economies. *Source* Federal Reserve Bank of St. Louis FRED database

3 Spillover Effects of Global Monetary Policies on India and Other Emerging Markets

Although the unconventional monetary policies in the advanced economies were aimed at supporting their domestic economies, the ultra-low interest rates and quantitative easing in the advanced economies led to significant expansion of global liquidity and spillover effects for emerging market countries such as India via equity and debt flows (Fratzcher et al., 2018; Lim & Mohapatra, 2016). These spillover effects were facilitated by greater openness to foreign capital in emerging markets and increasing integration of financial markets between the emerging economies and the advanced economies.

Monthly foreign equity and debt inflows into India and the average inflows into other large emerging market countries, drawn from the database compiled by Koepke and Paetzold (2020), show considerable volatility (Fig. 3). Equity inflows to India and other emerging markets fell sharply during the Global Financial Crisis in 2008–09. Debt inflows to India were relatively smaller in magnitude compared to other emerging markets but also slowed during this period. Facilitated by an economic recovery and the abundant liquidity in global financial markets due to quantitative easing and ultra-low interest rates in the advanced economies (as discussed in the previous section), both equity and debt inflows to India and other emerging markets rose sharply in the years following the GFC (see Turner, 2014, for evidence on the links between global interest rates and foreign investment in bond markets in emerging market countries).

The testimony by the US Fed Chairman Ben Bernanke in the US Congress in May 2013 about “tapering” or gradual reduction of its quantitative easing program resulted in a sharp slowdown of foreign capital flows to emerging market countries (Chari et al., 2017). The expectation of the fall in the pace of bond purchases by the US Fed was accompanied by a rise in long-term bond yields in the USA, which made emerging market assets relatively less attractive. This was more pronounced in terms of a reversal of foreign debt inflows into India (Fig. 2 right panel), while

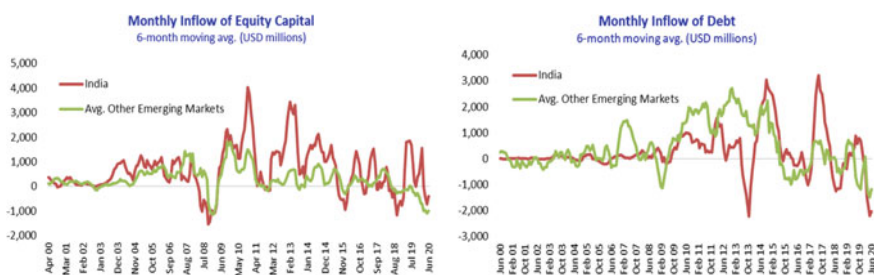


Fig. 3 Foreign equity and debt inflows into India and other emerging markets. *Note* The avg. of other emerging markets is the average monthly equity capital inflows into Brazil, South Africa, Turkey, and Mexico. Data for Mexico is from June 2009 onward. Disaggregated data for China is unavailable. *Source* Koepke and Paetzold (2020)

equity inflows also slowed down (Fig. 2 left panel). An increase in external financing needs due to a rise in India's current account deficit to 5% of GDP in 2012 made it particularly vulnerable to changes in global financial markets, with India being termed as part of the "Fragile Five" countries with fiscal and external imbalances. During the COVID-19 crisis in 2020, while foreign equity inflows to India remained fairly resilient relative to other emerging markets, partly due to domestic monetary policy support, debt inflows to India declined in tandem with other emerging markets.

The supportive global liquidity conditions due to ultra-low interest rates and quantitative easing in the post-GFC period was evident in a relatively quick recovery of equity markets in the large BRICS countries, namely Brazil, Russia, India, China, and South Africa (Fig. 4). The strong monetary policy response during the COVID-19 crisis by the advanced economy central banks such as the US Fed, ECB, and Bank of Japan (as discussed earlier) as well as the implementation of large-scale liquidity operations by emerging market central banks such as the Reserve Bank of India gave support to emerging equity markets during the global health crisis (Fig. 4).

The two-year rolling correlation of equity markets in advanced economies and India, usually driven by foreign capital inflows and outflows, rose steadily between 2000 and 2007, illustrating the increasing openness of Indian equity markets and its integration with international financial markets. In the post-GFC period, the correlation fell somewhat, although still remaining in the 40–60% range, mostly stemming from domestic factors. The linkage between advanced economies' and India's equity markets has usually strengthened during crisis, with rolling correlation between the two rising to more than 80% both during the GFC in 2008–09 and during the COVID-19 crisis in 2020 (Fig. 5).

The rising inflows of capital into emerging market countries in the post-GFC period due to quantitative easing and ultra-low interest rates in the advanced economies have influenced the exchange rates of the emerging markets. While exchange rates of the BRICS countries depreciated relative to the US dollar in late

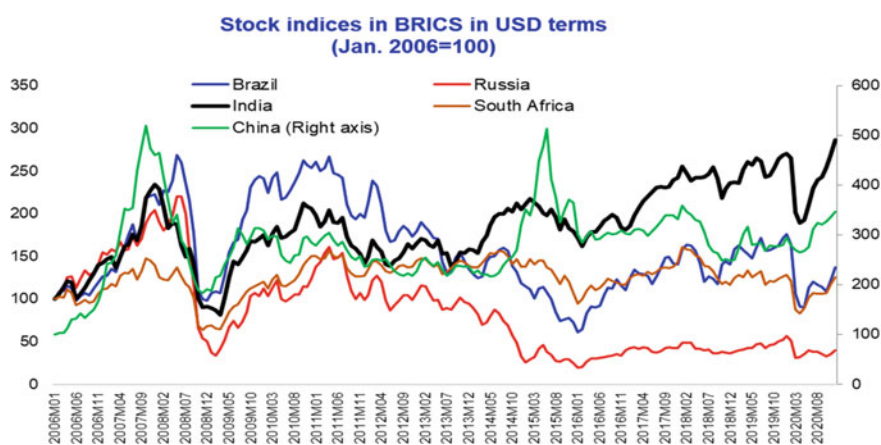


Fig. 4 Equity indices of India and other emerging markets. *Source* World Bank

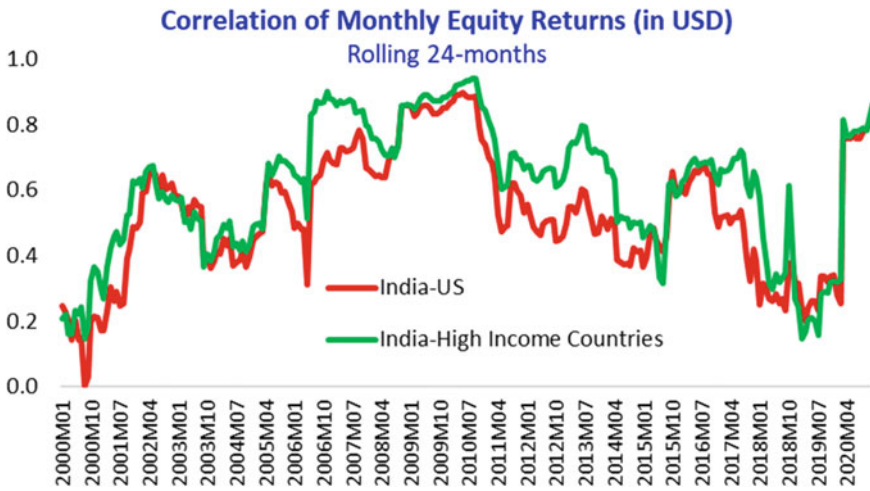


Fig. 5 Correlation of monthly equity returns of India and advanced economies. *Source* Author’s calculations based on World Bank data

2008 when capital flowed out of these countries, the unconventional monetary policies and resumption of capital inflows in the post-GFC period (as discussed earlier) resulted in appreciation of nominal exchange rates in most of the BRICS countries and to some extent in India, but with the exception of the managed Chinese renminbi (Fig. 6, left panel—higher values of the nominal exchange rate indicate depreciation). The post-GFC appreciation of BRICS’s currencies in 2009–11 was even more evident in the behavior of real effective exchange rates or REER which account for differences in inflation rates across countries (Fig. 6, right panel—note that higher values of the REER indicate appreciation). This led to concerns about a possible erosion of external competitiveness of the emerging market countries.

The “taper tantrum,” denoting the sharp reversal of foreign capital flows in 2013 due to concerns over tapering of the US Fed’s QE, resulted in a depreciation across the BRICS, excepting for China (see also Eichengreen & Gupta, 2015; Medvedev

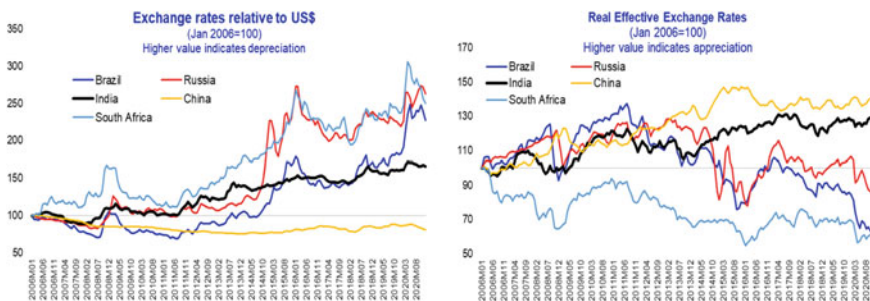


Fig. 6 Real and nominal exchange rates of India and other emerging markets. *Source* World Bank

et al., 2019). However, in the subsequent years the exchange rates of the BRICS followed divergent paths reflecting heterogeneity in the domestic growth performance across these emerging market countries. Notably, while India's nominal exchange rate depreciated, its REER strengthened in the years following the taper tantrum. During the COVID-19 crisis in 2020, India's nominal exchange rate did not depreciate significantly, as equity inflows and durable foreign direct investment (FDI) inflows offset the slowdown in debt inflows, as the nominal and real exchange rates did not experience a steep depreciation unlike the GFC period.

4 Dealing with Advanced Economies' Policy Spillovers to India and Other Emerging Markets

The spillovers of advanced economies' extraordinary monetary policies to emerging markets, as discussed in the previous section, have occasioned both proactive and reactive policy measures. During the period of quantitative easing and ultra-low interest rates, emerging market countries such as India have faced challenges in responding to the spillovers in the form of volatile capital flows that can lead to an impact on domestic equity markets and exchange rates.

The vulnerability of emerging markets such as India is linked to the need for external financing, usually due to a current account deficit and reliance on foreign portfolio flows (sometimes termed as "hot money") to bridge the gap. When capital flows are strong and exports are booming, as happened in India during the pre-GFC period, the concerns usually revolve around the consequences of an appreciating real exchange rate. India's current balance was in surplus of 1.2–1.4% of GDP in 2003–04; however, it deteriorated moderately to -1.0% by 2006 (see Fig. 7) as strong

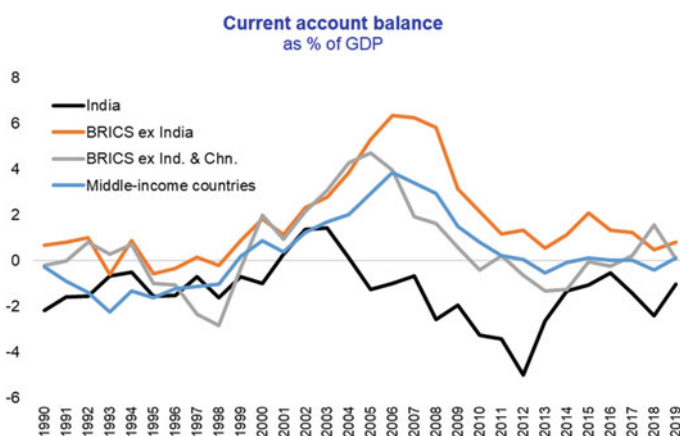


Fig. 7 Current account balance of India and other emerging markets. *Source* Author's calculations based on IMF World Economic Outlook data

domestic GDP growth resulted in increasing demand for imports. In the post-GFC period, India's current account deficit almost doubled from -2.6% of GDP in 2008 to about -5% in 2012, as a swift recovery of the Indian economy combined with an appreciating real effective exchange rate and high international crude oil prices (in addition to a rise gold imports) which resulted in India's overall imports outpacing exports. While the strong foreign debt and equity inflows to India in the post-GFC period were facilitated by the ultra-low interest rates and quantitative easing in the advanced economies (as discussed earlier), this reliance on hot money inflows also exposed emerging markets such as India, particularly those with fiscal and current account imbalances, to sudden reversal of capital flows during the taper tantrum in 2013 (see also Basu et al., 2014).

This experience suggests that two of policy options to reduce the impact of spillovers on the domestic economy include (a) a reduction in current account imbalances and (b) lower reliance on "hot money" portfolio flows. Fortunately, India's current account deficit has narrowed substantially in the years following the "taper tantrum" in 2013, to -1% of GDP in 2019 prior to COVID-19 crisis (Fig. 7), albeit resulting from both lower international oil prices and a weakening of overall economic growth and consequent slowing of import demand. By contrast, the large current account surplus position of the BRICS countries excluding India has become smaller and turned into deficit for countries excluding India and China, in the same period. In parallel, net foreign direct investment inflows have risen strongly, from \$24 billion in 2012 to \$50.6 billion in 2019, according to World Bank data. FDI inflows tend to be relatively longer term compared to foreign portfolio (equity and debt) inflows and less prone to sudden reversals when global financial conditions change. The decline in India's current account deficit and the robust FDI inflows suggest that India's external position in the pre-COVID-19 period was stronger compared to the situation in 2013.

The Reserve Bank of India, India's central bank, has been proactively purchasing foreign currency assets during surges in foreign capital inflows in the years prior to COVID-19 period in order to stem a further appreciation of the real effective exchange rate. This has resulted in a substantial increase in India's foreign exchange reserves. While India's international reserves measured in months of imports are smaller than the other BRICS countries, it has risen by 41% in 2013–19, from the equivalent of 6.4 months of imports in 2013 to 9 months of imports in 2019 (Fig. 8). In US dollar terms, India's reserves rose by a larger 55% during this period, with a further increase in 2020 as inflows remained strong due to global liquidity conditions while domestic demand collapsed during a nationwide lockdown for a substantial part of the April–June quarter of 2020. The RBI's interventions in foreign currency markets have prevented an even larger appreciation of India's real effective exchange rate, as seen earlier. Moreover, an improved international reserve position is usually seen as a sign of strength by international investors and rating agencies and can discourage speculation against the currency.

Other policy options to deal with volatile portfolio capital flows include capital controls and macroprudential measures. According to Forbes et al. (2015), capital controls are any type of restrictions on cross-border financial activity that discriminate

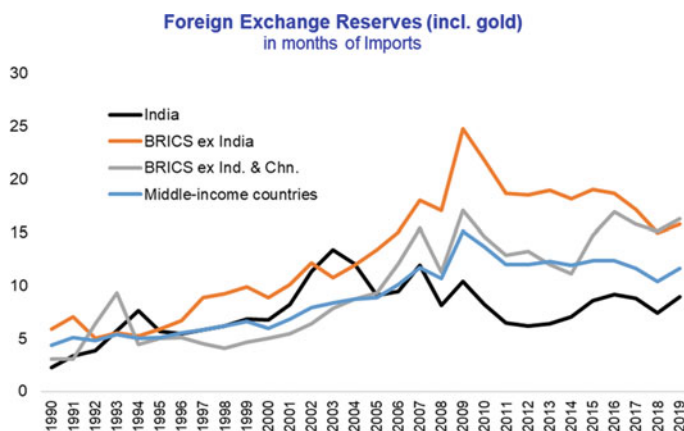


Fig. 8 International reserves in India and other emerging markets. *Source* Author's calculations based on IMF World Economic Outlook data

based on residency, whereas macroprudential measures do not discriminate based on residency but relate to cross-border or foreign currency exposure or lending. The authors discuss a variety of capital control measures: quantitative limits on foreign ownership of domestic companies' assets; quantitative limits on borrowing from abroad; limits on ability to borrow from offshore entities; restrictions on purchase of foreign assets, including foreign deposits; special licensing on FDI and other financial transactions; minimum stay requirement for new capital inflows; taxes on capital inflows; and reserve requirements on inflow of capital.

Forbes et al. (2015) also discuss a variety of macroprudential measures that do not discriminate based on an investor's residency and are primarily designed to reduce systemic risk arising from cross-border transactions. These include reporting requirements and limitations on maturity structure of liabilities and assets; restrictions on off balance sheet activities and derivative contracts; limits on asset acquisition; limits on bank's foreign currency positions; limits on bank's new lending in foreign currency; asset classification and provisioning rules; taxes on foreign currency transactions; capital requirements on foreign currency assets; and differential reserve requirements on liabilities in local and foreign currencies. Controls, taxes, and other special requirements on capital inflows or outflows should be temporary and implemented with care, as sustained controls can create severe disincentives for foreign investors.

5 Conclusion

The increasing financial integration of advanced and emerging market economies such as India brings with it both opportunities as well as challenges. The discussion in

the chapter and the extant literature highlights how global monetary policies implemented by the advanced economies' central banks can create spillover effects for emerging market economies. These include conventional policy interest rate changes and unconventional measures such as quantitative easing involving large-scale financial asset purchases. Such spillover effects can take the form of greater volatility in foreign portfolio capital inflows, changes in equity valuations, and exchange rate movements. These may be more relevant particularly during episodes such as the Global Financial Crisis and the taper tantrum in the past, and the COVID-19 health crisis in 2020–21.

Policy makers in emerging market economies such as India need to be cognizant of the developments in global financial markets and attempt to reduce their external vulnerabilities, in particular, current account imbalances and reliance on “hot money” inflows. While the monetary policies of the advanced economies are aimed at their domestic goals of reducing unemployment and fostering economic growth, the spillovers to emerging market economies documented in this chapter underscore the importance of greater international coordination in monetary policy.

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