Book review

Monetary, Investment, and Trade Issues in India

Edited by Ramkishen S. Rajan
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India's rapid integration with the global economy during the past two decades has confronted the Indian policymakers with a number of new macroeconomic management issues. These issues, emanating both in the real sector as well as the financial sector, warrant rigorous analysis, some of which has been relatively less forthcoming. In this context, *Monetary, Investment, and Trade Issues in India*, which is a collection of papers by Ramkishen S. Rajan and co-authors, is valuable contribution in this field. The book is divided into three distinct sections, each of which concentrates on a particular aspect of the Indian economy namely exchange rate and inflation, management of international reserves, and international trade and investment.

The first part, which comprises three chapters, focuses on issues relating to inflation and exchange rate in the Indian context. In Chapter 1, the flexibility of the Indian rupee is analyzed using a series of Frankel Wei regressions. The baseline regressions indicate a strong degree of pegging to the US dollar, which has increased since the mid-90s. The traditional Frankel Wei estimations are then enhanced using alternative measures of exchange market pressure indices which yield similar results. The use of EMP indices helps to take into account the shocks in the demand for currency.

While looking at the exchange rate regime over a significantly long period it needs to be recognized that most countries alter their exchange rate regimes in tune to the overall management of the macroeconomy. Consequently, one would expect changes in both parameters and regime over a long period of time. While the authors account for the former change by using recursive estimates, they don't account for the latter. One of the ways to account for regime changes is to identify structural breaks using the estimation technology developed by Bai and Perron (1998). Frankel and Xie (2010) identify six structural breaks in India's exchange rate regime between 2000 and 2009.

The second chapter deals with the very topical issue of appropriate monetary framework for the Indian economy. Using a backward looking model from the existing literature, the chapter attempts to estimate a Monetary Policy Rule (MPR) for the Indian economy. The analysis provides some mixed results in terms of an inflation targeting framework, concluding that while the Reserve Bank of India (RBI) is following a policy rule that targets current inflation, it does not respond to inflationary expectations.

The estimates of the MPR obtained by the author indicate some interesting results. Despite the use of a backward looking model the MPR has a high coefficient on the interest rate smoothing parameter, which is contrary to what one would expect. In most backward looking models, expectations tend to be policy-invariant functions of observable variables, and thus the expectations channel is shut off, and policies that, under rational expectations, rely on the effects of anticipated movements in short-term interest rates, perform poorly. Furthermore, as argued in Levin and Williams (2003) since shocks take a longer time to

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subside so the policymaker would need to respond vigorously to current inflation and output gap, which would not be possible with a high degree of interest rate smoothing[1]. In that case a natural question arises as to why is the RBI smoothing interest rates if the economy is indeed characterized by a backward looking model.

The authors also argue a case for India adopting an inflationary targeting framework pointing out the benefits of following a time consistent policy. Here, it would have been instructive if the authors indicated how some of the constraints associated with successful adoption of inflation targeting in India could be overcome. These include the fact that food articles in most consumer price indices carry a large weight, and prices of these are vulnerable to vagaries of nature and cannot be controlled by monetary policy. Moreover, factors such as the recent increase in fiscal deficit, widespread prevalence of administered interest rates in India, and a nascent and illiquid bond market are also likely to blunt the effectiveness of monetary transmission mechanism, and the case for inflation targeting.

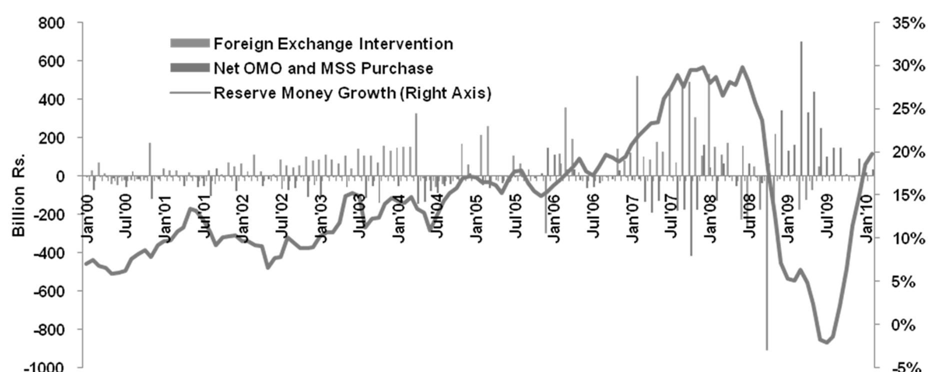
Chapter 3 investigates the evidence for exchange rate pass through (ERPT) in the Indian economy. Given the recent surge in volatility in the rupee-dollar rate, this issue has assumed great importance in the Indian context. The authors conclude that a 100 percent change in the bilateral exchange rate results in about 40 percent change in the Indian consumer price index. Using a split sample technique, the authors do not find any significant change in ERPT between pre- and post-liberalization periods.

The second part of the book refers to the issue of management of India's foreign reserves, which had been steadily increased over the last decade peaking at over $300 billion in 2008. With international reserve management being closely tied with other policies affecting the macroeconomy such as exchange rate policy and monetary policy, chapters 4 to 6 focus on the interplay between these policies and reserve management.

Chapter 4 evaluates the impact of India's reserve accumulation on liquidity and inflation. It estimates both the "sterilization coefficient" and the "offset coefficient" in a simultaneous equation framework. The findings indicate that while India attained a moderate degree of de facto capital account openness, capital inflows were heavily sterilized between 1998 and 2006. The RBI sterilized these flows by drawing down its holding of government bonds, with net domestic assets declining from Rs. 1.9 trillion in April 2001 to Rs. 0.19 trillion in April 2004. Towards late 2003, the RBI started to run out of government bonds for sterilization, and in January 2004, a new instrument for sterilization – market stabilization scheme (MSS) bonds – was introduced. The RBI sold these MSS bonds on the behalf of the government to sterilize the impact of capital inflows. By August 2005, the amount of outstanding MSS bonds increased to Rs. 0.71 trillion.

Extending the data beyond 2006, one finds that the rising cost of sterilization due to the widening interest rate differential between the foreign assets and domestic bonds forced the RBI to resort to incomplete sterilization of capital flows in 2006-07 and 2007-08. Consequently, there was a sharp increase in the growth rate of monetary base (see Figure 1).

The determinants of reserve accumulation are the focus of Chapter 5, where the authors point out that India's reserve holdings in recent times have been well above traditional reserve adequacy indicators like import to reserves ratio or the Guidotti-Greenspan rule or even reserves to M2 ratio. The idea of reserve adequacy based on traditional indicators needs to be revisited in the light of the recent financial crisis. The recent crisis witnessed a simultaneous drop in the export growth rate, and a withdrawal of non-resident and portfolio investment from the equity market. Consequently, looking at single indicators in isolation may not give the correct picture, and a more comprehensive reserve adequacy measure encompassing trade and capital account openness, the prevailing exchange rate regime as well as short-term debt is



Source: Reserve Bank of India

Figure 1.
Foreign exchange intervention, sterilization and reserve money growth

required. Further, it is generally believed that the large stockpile of India's reserves had a signaling effect, and helped mitigate the impact of the crisis. If India faced the crisis with \$100-\$150 billion in reserves, instead of \$300 billion, the rupee would have depreciated more precipitously, and the capital outflow could have been larger.

The authors test the buffer stock model and a generalized model to outline the key factors determining India's demand for reserves. The buffer stock model indicates that asymmetric intervention by the RBI is a key reason for reserve accumulation in India. The asymmetric intervention hypothesis is a variant of mercantilist motive: international reserve accumulation is a response to keeping the domestic currency from appreciating and reducing export competitiveness. The generalized model shows that India's reserve demand can be explained by its per capita GDP, current account deficit and ratio of M2 to GDP. Given that in India the reserves accretion was driven primarily by capital account surplus and not current account surplus, as well as the fact that reserves are meant to protect against short-term flows, which have increased considerably in India in recent years, it might be instructive to analyze the role of capital flows in influencing reserve holdings.

The last chapter in this part evaluates alternative use of international reserves, focusing on two different uses – Sovereign wealth funds (SWF, focusing on external assets) and financing domestic infrastructure. It is argued that India can earmark a small portion of its reserves to form an SWF, limiting itself to passive portfolio investment and taking small stakes in a wide range of equities. Given that, in the aftermath of the subprime crisis, advanced economies' interest rates are at an all time low, while the borrowing cost to the government for financing the cost of these reserves are high, the notion of diversifying out of low yield foreign treasury bonds is attractive. However, there needs to be an appropriate consideration of risk concerns. The investment framework must incorporate risk return trade-off when evaluating investment options faced by the RBI as well as make use of a comprehensive reserve adequacy indicator to evaluate "excess reserves" that can be channeled into such alternatives. This becomes especially important for India as in this case the international reserves do not represent sovereign wealth. The reserves have neither been accumulated on the back of windfall commodity-price gains nor are a result of excess domestic savings over domestic investments. As described in the chapter, bulk of the accumulation has taken place due to surge in capital flows, a large part of which is reversible.

Again, with a burgeoning infrastructure deficit, the idea of channeling a part of the reserves to finance infrastructure is appealing. However, there are a number of regulatory and macroeconomic issues associated with this, which have been enumerated in the chapter. To prevent the use of reserves for financing infrastructure from increasing

domestic liquidity, and fueling inflationary pressures, it has been suggested to use the funds to import intermediate inputs needed for infrastructure project. However, as has been pointed out in Panagariya (2008) that regardless of whether the reserves are used to finance domestic or foreign spending there would be an identical increase in the current account and fiscal deficit. Moreover, to ensure that the infrastructure spending does not crowd out private investment, an exchange rate policy that would support a higher current account deficit would have to be formulated.

The final part of the book focuses on India's trade and investment linkages. In particular, emphasis is laid on foreign direct investment (FDI) flows and linkages with countries of East Asia. In Chapter 7, the authors analyze inward FDI flows, focusing on the sectoral and spatial decomposition of FDI as well as the country source of FDI. The chapter outlines various factors contributing to lack of FDI in Indian manufacturing by reviewing reports prepared by the World Bank, World Economic Forum, and Economic Intelligence Unit. Finally, the authors provide a number of policy recommendations aimed at improving the investment climate in India.

While, as pointed out by the authors, most of these recommendations are meant to be practical and not ground breaking, a few of them would have to be debated more to comprehend the complete implications. For example, while both banking and insurance sectors in India are of great interest to foreign investors, and are likely to witness a surge in FDI with the removal of investment caps, the desirability of doing so must also evaluate the repercussions on financial stability.

Outward FDI by the Indian corporate sector is the focus of the next chapter. In recent years India has become a major player in the global arena, and was the fourth largest overseas business acquirer among developing countries. The chapter documents the trends of India's outward FDI, highlighting the key destinations and sectors, as well as the main drivers of outward FDI. While it is difficult to identify a common set of causes that have attributed to internationalization of Indian firms, factors such as availability of inexpensive but high-quality manpower and the ability to adapt products and processes contributed to the comparative advantage enjoyed by the Indian firms.

The authors employ an augmented gravity model using a two-stage Tobit estimation to identify the key determinants of outward FDI across a set of countries. The control variables are interacted with an Indian dummy to identify the behavior of the Indian corporate sector. The authors find that outward FDI is influenced by home and host country size, distance between two countries, host country's spending on R&D, stock market capitalization, and natural resource endowment. It would be instructive to evaluate if institutions have a role in attracting FDI as one would expect FDI is attracted to countries with good institutions such as law and order, political stability, low corruption, high bureaucratic quality, etc.

The evolution of the export structures in India and China is the subject of focus in Chapter 9 of the book. The RCA indices used to compute comparative advantage indicate China's comparative advantage in manufacturing of machinery and transport equipments, textile and apparel, and footwear. In contrast, India's comparative advantage lies across a broader spectrum of products including food and live animals, crude minerals, organic minerals, textiles and fabrics, and non-metallic mineral manufactures.

However, a problem of using RCA indices is that observed trade patterns are distorted by government interventions like import restrictions, export subsidies, managing the exchange rate, and other protectionist policies of governments, resulting in misrepresentation of underlying comparative advantage. The recent export restrictions imposed by China on exports of raw materials considered crucial for foreign

manufacturers, while keeping them less expensive and more readily available for Chinese manufacturing, as well as long standing issue of an undervalued Renminbi are cases in point. Furthermore, De Benedictis and Tamberi (2001) and others have questioned the standard RCA on the grounds of upper bound variability and asymmetry.

The chapter also analyzes India's success in services outsourcing, especially IT and IT-enabled services. The chapter documents the sharp increase in export revenue and employment in these sectors before the global financial crisis. It argues that to retain India's preeminence in these services there is a need to significantly improve the skill level coming out of Indian educational institutions. Additional domestic reforms that would help Indian service providers to generate additional export earnings would include strengthening data protection to meet global standards and improve certification and documentation processes in India to facilitate the movement of IT personnel.

The concluding chapter focuses on India's trade and investment linkages with Japan, Korea, and some of major ASEAN countries. While there has been rapid increase in trade and investment with a number of East Asian countries, there is yet a lot of untapped potential that could be exploited. This is especially true in case of Japan, Philippines, and Korea. The chapter also outlines India's free trade agreement strategy till date and highlights some of the key concerns associated with signing these agreements.

The recent global crisis has highlighted the perils of rapid integration with the global capital market and world trade. This collection of papers highlights a number of issues that emerging markets, including India, will have to revisit, in the wake of the global financial crisis. These include the appropriate exchange rate policy stance, optimal holding of reserves and reserve management, and pattern of trade and investment linkages. Thus, this collection of essays is an extremely important and timely contribution to the debate in India on such issues. I think this book is a particularly valuable input for policymakers, academics, and other stakeholders who are focusing on key policy challenges facing India as it becomes increasingly integrated in global economy.

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Note

1. Other papers like Hutchison *et al.* (2009) find a much smaller coefficient on the lagged interest rate.

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