

A Study of Capital Flows on Exchange Rate in India

Vinti^{1*} Dr. Arun Kumar Srivastav²

¹ Research Scholar of OPJS University, Churu, Rajasthan

² Assistant Professor, OPJS University, Churu, Rajasthan

Abstract – The aim of this study is to the study attempts to understand capital impact trends and patterns in India and explores the empirical relationship between capital influxes and volatility in exchange rates between 1991 and 2013. The report also aims to include some policy recommendations to stabilize India's currency and capital inflows. With massive flows of capital in and out of the country, exchange rate management is difficult. India has worked hard over the last two decades to liberalize capital markets and made tremendous progress. India has increased FDI controls in different industries and allowed direct ODI and FII outward investment. The free market system needs liberalization of capital accounts). It is very clear that India is committed and eager to work towards this goal. Around the same time, the regulation of money laundering, terrorist funding and irregular movements of capital requires macro prudential protection measures. The analysis helped to explain the effects of capital flows and control of exchange rates. This study examines at foreign capital influx trends and patterns in the Indian economy and seeks to explain the relationship between capital flow and currency volatility. Global institutional (FII) influxes are highly unpredictable and are increasingly propensity to reverse capital if the possibility of macro-economic policy changes or economic growth and financial sector changes from within or outside the country is small. Changes in the country's or currencies economic situation lead to major capital shifts, often rapidly if financial capital is involved. Their propensity to overheat asset prices, loss of export competitiveness, and exposure to financial crises pose serious challenges for policy-makers. Capital inflows are positively correlated with the recipient countries' exchange rate appreciation. Portfolio investment flows, international loans, foreign assistance and foreign trade flows typically have a major impact on the exchange rate, whereas foreign direct investment-related capital inflows do not significantly influence the exchange rate.

Key Words: Capital Flows, Exchange Rate, India, Exchange Rate, India's Currency, FDI Controls, FII, Macro-Economic Policy

-----X-----

INTRODUCTION

After the start of the external sector economic reform process in the early 90s as a result of the payments balance crisis, India has seen a major increase in cross-border flows. The flows of net capital into India rose from 7.1 trillion dollars between 1990 and 1991 to 8.65 trillion dollars between 2000 and 2001 and to 89.30 trillion dollars between 2012 and 13. Based on this rising pattern of net capital flow volumes, gross inflows and outflows have raised even further. In 1990-91, gross capital inflows totaled \$22.77, and \$471.70, respectively, in 2011-12, compared with an exit of \$15.71 and \$382.40 bn. The net capital income, measured as a percentage of GDP, rose from 2.2% of GDP in 1990-91 to approximately 3.63% in the years 2010-2011 and to 4.84% in 2012-13. The growth in net capital flows requires a significant growth of its elements, which include FDI, Portfolio Flows and Debt Generating Flows, Banking

Capital, External Commercial Borrowing and NGD Deposits. In 2008, a brief retrogression in the global financial situation influenced the increase in capital mobility to India and other emerging markets. Yet capital flows to emerging markets resumed in late 2009 and 2010. Even since the recession has ebbed. One major feature of Indian capital flows is the increasing increase in capital outflows that has been activated by relaxing the capital outflow limit to encourage Indian direct overseas investments by joint venture companies and wholly owned subsidiaries, funding export support, in particular project exports, and reductions in the outflow of individuals' investments. Outbound Indian FDI flows rose to US\$ 16.52 billion in 2010-2011 from US\$ 0.76 billion in 2000-01, although a recent trend was observed.

There is a variety of push and pull factors which can be attributed to the rise in capital inflows witnessed

by India since liberalisation in the early 1990s. Whilst, following the opening of financial markets in the 1990s, the relatively high gaps between the interests of India and the rest of the world played a significant role in driving external capital, internal factors of pull-out, such as major institutional, regulatory and political changes following the balance of payment crisis in 1991, like the move to a flexible exchange rate regime. Foreign investors were also satisfied by domestic macroeconomic conditions and institutional structure factors such as strong economic bases, a stable financial sector, domestic maturity, improved business performance, investment opportunities and attractive valuations. Another significant feature of Indian capital flows, as in other emerging market economies, was their ever growing volatility over time. Inflows of capital, especially short-term capital flows, may be reversed shortly, which may lead to a financial crisis. Far from all research on the currency crisis, the emergence of short-term, so-called "hot money" as the principal factor responsible for the increase of financial frailty and ultimately an economic crisis in the countries of East Asia and Latin America in the late 1990's has been established. Capital flows instability is also a symptom of global engines. Investor countries with little influence over political and/or monetary effects, significant shifts in perceptions, and spread of contagion and so on, are known to destabilize capital flows in these economies. It is also understood that domestic factors, such as macroeconomic conditions, loss of investor confidence, and a lack of mature financial structures lead to capital flow volatility. In recent years since 2003-4, the rises in capital flow volatility have been more pronounced in India with net capital flows in the context of the global financial crisis rising to 9% of GDP in 2007-2008 and slumping to 0.8% of GDP in 2008-2019. In theoretical terms, the liberalization of capital flows will profit both the source and recipient countries from expectations of perfect markets and maximum knowledge by means of a more effective distribution of resources between both countries (IMF 2012). In addition to providing them with a chance to reduce risk across border by offering international diversifications of their resources, the cross-border movements of capital from a low-return country into a country with a high return rate benefits to source countries. As a result of the global allocation of money, the investment in the capital deficient recipient countries with the associated technology transfer stimulates economic growth and the enhancement of the standard of living. Capital flows help fund shortfalls in current account and boost social services, helping households to smooth their spending over time. In addition, capital flow liberalisation, through the accelerated growth of domestic financial structures due to increased competition and fiscal stability, will favor the beneficiary developed countries.

The capital inflows into India remained very small until the 1990's, but India adopted a broader approach in 1991, launching liberalisation,

privatization and globalization, which brought a drastic change in the size and composition of capital inflows into India. However, it became difficult to manage the exchange rate due to the large components of volatile capital inflows. The exchange rate appreciated during normal periods of major capital inflows and caused concern for the Indian export skills. Since the aggregate capital inflows – FIIs and short-term debt – controlled, exchange rates have declined significantly over the crisis period as a result of capital reversals. During the crisis the exchange rate declined. A more non-debt and long-term capital inflows than external commercial borrowing (ECB) and short-term influxes of FII debt were therefore required in the process of liberalizing capital accounts for India.

EXCHANGE RATE REGIME IN INDIA

Around 1950 and mid-1973 India adopted a rupee-linked sterling exchange-rate system with the exception of 1966/1971 devaluation. The relation of the rupee to British units continued, parallel to the depreciation of pounds and a de facto devaluation, as pound sterling floated on June 23rd 1972. Rupee's ties to the sterling pound were severed on 24 September 1975. India has maintained an effective, regulated floating rate of float rate scheme linked with a bench of currencies of India's key trading partners. India has introduced this scheme. In the early '1990s, the system experienced extreme stresses as the RBI moved to a two-stage change in terms of trade deficits and net invisible deficits. The latter was a dual exchange rate structure in March 1992, consisting of the official rate for government-specific, private transactions and a market-determined rate for other transactions, implemented by the liberalized exchange rate system (LERMS). Sehan A, 2005. Exceptions are made for public redistribution of foreign exchange to banks. The Foreign Exchange Dealers Association of India (FEDAI) announces the official rate and at 12:00 noon each day an indicative rate is determined. In comparison, LERMS work was smooth from the outset, despite concerns that rupees would be subjected to rapid depreciation. From March 3 to March 13, 1992, spread was 10.2 to 15.8 percent over ten days. The stability of the spread was guaranteed by a significant improvement in the amount of dollar transfers to the rupee at a market rate of 60% through banking channel, in particular from the gulf countries. Meanwhile, the government also permitted NRI imports of gold up to 5 kg once every six months to prevent a foreign-exchange havala market. It was common knowledge that dollar demand was related to the financing of gold smuggled to the nation on the illegal market. At the end of 1992, the exchange rate dropped to Rs 32 and decreased by 4% on the international rate and by 10% on the weighted average official and business rate. In addition, RBI foreign-exchange reserves maintained a steady upward trend hitting a \$5.5 billion point of \$975 million on 12 July 1992. On

12 July 1991. The main result was improvements in the currency system, with the intention of speeding up export repatriation of receipts and routing bank transfer payments. As of 1 March 1993, the LERMS was modified to introduce a market-determined rate of exchange for all receipts and payments both for BoP 's existing and capital transactions. However, the exchange control regulations still controlled foreign exchange receipts and payments. ADs that were free to retain the surrendered foreign exchange for sale on legal transactions and were not forced to surrender any portion to RBI should have their foreign exchange receipts. RBI was forced to buy and sell the Devises for ADs.

FACTORS OF EXCHANGE RATE VOLATILITY

Foreign-currency changes as variables that impact the prices of one of the two currencies are changed in market-based trade (floating currency). When demand is greater than its available supply, a currency appears to become more expensive. And if its demand is lower than its supply, a currency may become less expensive. The increased currency demand is either induced by increased demand for purchases or by increased demand for investments in the currency. The demand for transactions is highly linked to the market level, GDP growth and employment rates of the region. The central bank adapts its available cash supply in dirty float systems to meet growing demands for money from corporate transactions. Through raising interest rates, Central Bank also affects market demand. If the returns (interest) are high, a speculator may purchase a currency. In general, the higher the interest rates of a region, the higher the currency demand.

Short-term currency fluctuations may be affected by publicly accessible data such as GDP data updates, consumer price indices or labor market data. The following details open to the public instantly affects movement of currency:

- Release of local economic data and anticipation of those releases.
- Release of economic data in foreign countries, especially of major trading partners and anticipation of those releases.
- Raising or lowering of interest rates by central banks such as Reserve Bank of India, Federal Reserve or European Central Bank.
- Publication of monetary policy thoughts by central banks.
- Expectation of central banks making public their views on interest rates and monetary policy.

- Political developments in individual countries and globally.
- Natural disasters and perception about their impact on economies.
- Changes in the commodity prices, particularly oil and gold.

THE IMPACT OF CAPITAL FLOWS ON INDIAN ECONOMY

Several studies in the economic literature have documented that capital flows affect a wide range of economic variables such as real exchange rates, foreign exchange reserves, money supply, interest rates, inflation, savings and investment etc. The concept of real exchange rate has been most widely used in the theoretical literature and empirical studies to analyze the impact of capital flows on the economies of the developing countries. An important reason for this is that of all the macroeconomic effects associated with international capital flows, appreciation of real exchange rate is one of the main negative consequences. Appreciation of the real exchange rate, which is associated with capital flows, is an important determinant of the possible loss of external competitiveness, which hurts exports. This will lower the profitability of the trading sectors of the economy and disrupt the process of trade liberalization- a problem popularly known as Dutch disease. In the developing countries a large number of people are employed in the goods sector. This loss of competitiveness may thus have adverse implications for economic growth, equity and diversification. Maintaining high level of competitiveness is important for an economy as it enhances exports and enables it to sustain high output growth without straining the balance of payments, besides contributing to economic diversification. In addition, signification appreciation can lead to a jump in the aggregate demand leading to overheating of the economy, inflation, negative effect on savings & investments, thereby creating major problems for macroeconomic management & eventually sudden drying up of capital flows due to change in expectations culminating in a financial crisis. The real adjustment costs associated with exchange rate changes can severely disrupt economic processes within the economy. The volatility of the real exchange rate often translates into unpredictable movements in the relative prices in the economy adversely affecting economic growth. The negative impact of the real exchange rate volatility on growth can be transmitted through declining investment and by lower foreign trade -- particularly in the differentiated products. Countries with shallow financial markets are particularly vulnerable to growth shocks in an environment of rising exchange rate volatility. All these issues are of critical importance for India as it receives large volumes of capital flows of different compositions while it progressively opens up its capital account

and are increasingly motivated to make a transition to full capital account convertibility, more so as the capital flows to India in the recent years have become increasingly volatile. An understanding of the macroeconomic implications of these large and increasingly volatile capital flows is essential as policymakers in India devise policy responses to limit the damage and vulnerability to this growing trade in assets.

GLOBAL SCENARIO OF THE CAPITAL INFLOWS TO EMERGING MARKET ECONOMIES (EMES):

1. **Capital flows in 1990s:** The capital flow to emerging market economies has been increasing rapidly since the early 1990s, after being stagnant in the second half of the 1980s. Pull factors, such as the general improvement of macroeconomic efficiency, macroeconomic stability with inflation stabilization along with varying degrees of capital account opening and global engines, such as easing currency conditions in emerging economies leading to low interest rates and foreign searches for yields, are also pushed forward. In Fig 1, the data on the IMF World Economic Outlook database shows a pattern of net capital inflows for both developed and developing countries from 1990. Between 1990-96 net cash flows hit an annual average of US\$ 132 billion to all emerging-market economies and developing countries.

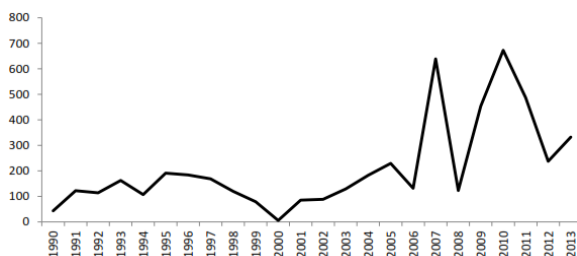


Fig. 1 Net Capital Flows to Emerging Market Economies (US\$ billions)

At the end of 1994, this episode of capital flow expansion suffered a setback in the Mexican crisis, and in reality, the Asian and Russian crisis began in 1997-1998. In 1997-2000, overall flows of private capital dropped to an average of US\$ 93 billion per year. The crisis has brought vulnerability to the instability and abrupt reversal of capital flows of fragile financial structures and underdeveloped capital markets (CGFS, 2009).

2. **Capital flows in 2000s:** In 2003, a renewed swing began with the capital flow to emerging market economies, which increased dramatically in the face of the US and other major developed economies' lower interest rate regime and the subsequent

quest for income. Net flows of capital rose by three times over the 2003-07 year-to-year average of \$262 billion, rising to \$639 billion in 2007. Decreased dependence on so called short-term foreign currency debt flux and currency mismatch avoidance made these flows more manageable and decreased their potential to cause international financial crises in comparison with the past (CGFS 2009). Through the course of the time in the emerging market economies the domestic financial system has become stronger, stock markets have deepened, domestic financial companies have strengthened, and the bond markets have evolved in the longer term. In contrast with the small deficits of the previous year, the significant surpluses in the capital accounts of the emerging markets were followed by smaller surpluses in their current balance of payments. Such surpluses contributed, apart from posing major new problems for macro-economic management and financial stability, to rising the currency reserves in these countries. A large rise in gross inflows and gross outflows has marked the sharp expansion of net capital flows from 2003 onwards. The emerging market economies in general have also been a major capital exporting business in the form of direct investment and equity debt investments. However, this period of boom in capital flows has been followed in 2008 and 2009 by a sharp reversal following the global financial crisis. Such reversals led to a downturn, leading to balance of payment and macroeconomic crisis, in these countries (Mohan and Kapur, 2010). These exchange reserves have become less controlled.

3. **Recent Episodes of Capital flows:** Capital flows to emerging markets rebounded at the end of 2009 and 2010, following the degeneration of the 2008 financial crisis. Net inflows have exceeded nearly all levels in many countries. However, in the second half of 2011, capital flows deteriorated rapidly in the deteriorating global economic outlook, removing many accumulated currency gains and placing emerging markets in trouble with heavy currency devaluation.
4. **Changing composition of capital inflows:** Throughout the 1990s and 2000s, the composition of capital flows in emerging markets shifted significantly. Although more debt flows were reported in the 1980s as the volume of capital flows, equity inflow in the 1990s increased to equal the inflow of debt. Since the 1997 Asian crisis, debt flows sharply reversed, but capital flows saw

modest growth in the years ahead. By the early 2000s, however, debt flows started to rebound, leading to more balanced capital flow trends (CGFS 2009). Figure 2 shows the pattern since 1990 for net fund flows to emerging markets. As can be shown, the volatility of EME portfolio flows represents both the domestic and global factors.

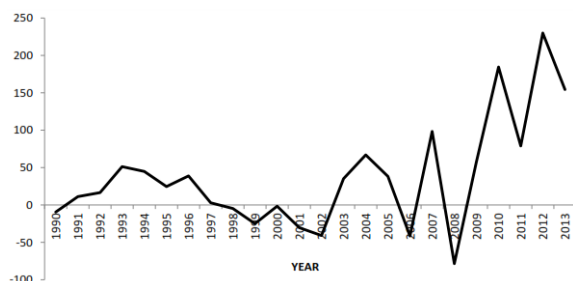


Fig 2 Private Portfolio flows to Emerging market and developing economies (US\$ billions)

Over the last two decades, Foreign Direct Investment (FDI) to EMEs has witnessed a steady increase as indicated in Fig 3.

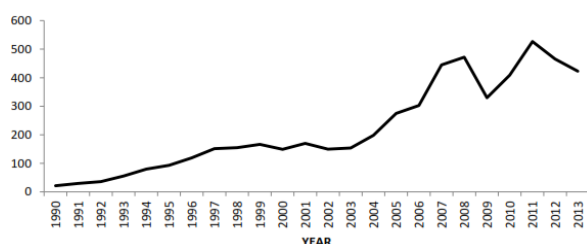


Fig 3 Net Direct Investment to emerging market and developing economies (US\$ billions)

The dominant source of capital flows to EMEs remained direct investment in the period 1990–2007. Nevertheless, unpredictable equity influx, which accounts for almost one-half the influx much higher than in the past, dominated the rise in the capital inflows following the 2008 global financial crisis. The predominance this time was less for direct investment and cross-border bank lending. Another characteristic of CFs in recent years is that many emerging market companies in other developing countries or developed countries are rapidly growing FDI outflows of major emerging market economies as a result of strong growth. However, net private portfolio flows from these countries outside of Canada also indicate a greater trend towards the total portfolio inflows (CGFS, 2009).

5. **Volatility of capital flows:** In the 1990's and 2000's, rising uncertainty over time was another significant feature of capital flows to emerging market economies. Capital flow instability is also a symptom of the global and national factors that underlie it. Capital shocks are known to destabilize capital movements in the economies in question as financial or monetary shocks in investor

nations, sudden shifts in the expectation and contagion, which lead to indiscriminate panic among foreign investors in other countries in an emerging markets region. Global history indicates that the boom times of capital flows have also been accompanied by cycles in which these flows are reversed. Over the past, though FDI regularly was the most stable source of capital flows, investment flows in the portfolio were typically more volatile and pro-cyclical. Lending across boundaries was also an insecure source of finance. Since the 2008 global crisis, the recent revival of capital flows into emerging market economies is marked by the proliferation of portfolio flows. This move towards portfolio flows means that increased volatility can be correlated with higher inflow volumes. Big capital-flow changes / fluctuations within the short term also place heavy costs on the economic real- and the financial sector and face severe macroeconomic management challenges. Domestic stock and banking system growth appears to reduce portfolio and banking volatility.

EVOLUTION OF OPENNESS TO EXTERNAL CAPITAL FLOWS IN INDIA:

India is usually divided into three major phases in its strategy for liberalization of international capital flows.

1. The Indian Government's economic policies have been decided by planning, control, and regulation (Mohan, 2008) in their first phase up to four decades after independence (until the 1980s). The policy for growth centered on flexibility and substitution to imports. Administrative restrictions restricted capital mobility and India had a closed capital account. The reviews were informed in large measure by the balances of payments. Official assistance in the form of multilateral and bilateral concessional funding dominated the international capital flows during this time. This conventional external funding source was then complemented with external commercial loans, including short-term debt and deposits from Indians who were not a resident (NRIs), in the sense of an improved current-account benefit. As a result, the share of short-term debt in India's overall foreign debt increased dramatically in the late 1980s.
2. The Second phase of the liberalization of capital flows was marked by the start, after the Trade Balance (BoP) crisis of 1991, of the external economic reform process. The main contributing factors of the BoP crisis were listed among the insufficient exchange

rate schemes, unsustainability of the current account deficit and substantial growth in the proportion of Indian short-term debt (Mohan, 2008). The IMF's structural adjustment plan and fiscal reform and capital liberalization plan were implemented in the aftermath of the crisis. The Indian government's reform process was planned to turn a regulated Indian economy into a market-oriented one and address the shortfalls that triggered the balance crisis to pay in 1991. The significant changes made to the financial, regulator and policy climate during this time were the rapid transition to a fixed exchange-rate regime, elimination of trade restrictions, full current-account convertibility and a gradual expansion of the capital accounts (Mohan, 2008). The BoP crisis showed that, if a country with an inflexible exchange rate had faced macroeconomic imbalances, debt flows might cause, in particular short-term, BoP difficulty. The policymakers learned from this experience that opening up economies to debt flows was cautious. Thus, while opening up private flows of capital, emphasis was put on a compositional transition from debt to non-debt generating flows, stringent regulation of external commercial debt, especially short-term debt, and discouragement of volatile NRI flows (Mohan, 2008).

3. The third stage of the liberalization of the capital account included relaxing the capital outflow caps to allow Indian direct overseas investments by joint ventures and wholly owned subsidiary companies and financial support to exports especially to the projects. The outgoing investment caps were also lowered by individuals. The main aim of opening up Indian companies' international equity investments was the development of networks of production, marketing and distribution and the enhancement of their access to new technology, new markets, and natural resources in order to increase their global outreach and competitiveness (Shah and Patnaik, 2008). India's 1992 liberalized foreign investment program was further liberalized in 1995. Since 2004, Indian companies have been allowed to invest up to 200% of their net worth annually in foreign companies. Since 2004, outbound Indian FDI flows have increased sharply. Capital controls on the outbound portfolio flow have also been improved in recent years. Individuals are now allowed to take out of the country \$200,000 annually per citizen. This increased the prospects for Indian investors to diversify their foreign portfolios.

CONCLUSION

India's capital account liberalisation process has undergone substantial change after wide liberalisation of 1991. Foreign Direct Investment (FDI) and foreign portfolio investment (FPI) through equity and debt channels have opened private capital flows, which had previously been regulated. This is because payment balance stresses continue and current-account shortfalls are continually increasing. In the late 1990s there were two quasi-sovereign debt problems. In 2000s, India subsequently opened up foreign trade borrowings. Breakthrough liberalization, capital inflows increased and the BoP position shifted to a high surplus position. Therefore, India liberalized both company and individual capital outflows. Wide-ranging liberalization also aimed at bringing rupees into an exchange-rate system (floating exchange rate). Export barriers were repealed in 1994 by the rupee's push to full convertibility. Gradually partial capital-account convertibility has been adopted. In India, the liberalization of capital accounts centered on attracting private capital inflows and non-debt inflows. Strictly controlled was the short-term debt and volatile components of capital inflows. Gradual liberalization was also a program of capital outflows. A strong order is observed in India to handle capital inflows. Since of its stability and technology transfer advantages, FDI is the most favoured capital inflow. The next preferred influx of capital is the FII, where foreign investors will bear monetary risks. Debt is the least favored inflow of capital and, in this group, a preferred longer-term infrastructure debt, whereas a low debt, due to the high risks of causing currency uncertainty and financial instability, is at the bottom of the list. Although in the second half of the 1990s constraints on internal and external flows of capital were slowly abolished, the current account dominated dynamics in the exchange-rate situation, and the rupee was seen as steady depreciation. Yet the pattern changed in the early 2000s, with massive influxes of capital and export growth resuming. The rupee was again valued but the appreciation pressure had been milder than before the economic crisis. In mid-2011 capital flows began to reverse and the rupee started to depreciate, despite upward sovereign US ranking. In the financial year 2012-13, this trend of capital reversals and rupee depreciation was reinforced with retrospective tax laws declaring a heavy depreciation of the capital influx and rupees.

REFERENCES

- Aglieta, Michel and Borgy, Vladimir (2005). "World Growth and International Capital Flows in the XXIst Century", Tokyo Club Conference in the Future Structure of International Capital Flows, Kyoto, November 21-22

- Alfaro Laura and Hammel, Eliza (2007). "Capital flows and capital goods", Journal of International Economics, 72, pp. 128–150
- Alfaro Laura, Kalemli-Ozcan Sebnem, and Volosovych Vadym (2005). "Why doesn't Capital Flow from Rich to Poor Countries? An Empirical Investigation", Harvard Business School
- Alfaro, L. Ozean, S Kalemli and Volosovych, V. (2004). "Capital Flows in Globalized World", International Capital Market Department, IMF, December
- Arumugam, S. (2006). "Neo-Classical Finance and the Fully Convertible Rupee", Economic Political Weekly, June.12
- Balkrishnan, R. and Tullin, V. (2006). "US Dollar, Risk Premium and Capital Flows", IMF Working Paper, No 160.
- Debelle Guy and Galati Gabriele (2007). "Current Account Adjustment and Capital Flows", Review of International Economics, 15(5), pp. 989–1013.
- Atish R. Ghosh, Jonathan David Ostry, Mahvash Saeed Qureshi (2014). Exchange Rate Management and Crisis Susceptibility: A Reassessment, IMF Working Paper No. 14/11.
- Audun Groenn, Maria Wallin Fredholm (2013). Baltic and Icelandic Experiences of Capital Flows and Capital Flow Measures, IMF Working Paper No. 13/259.
- Baba, Chikako, Kokenyne, Annamaria, Effectiveness of Capital Controls in Selected Emerging Markets in the 2000s, Working Paper No. 11/281, 2011.
- Balasubramayam and Mahambare (2004). Foreign direct investment in India, Working paper No. 2003/001, Department of Economics, Lancaster University Management School, International Business Research Group.

Corresponding Author

Vinti*

Research Scholar of OPJS University, Churu,
Rajasthan