Competition to Catch the Capital Flight

Ashish Kumar Sedai
Colorado State University

Kishore Kulkarni
Metropolitan State University of Denver

The study examines the nature and trends of Foreign Direct Investment (FDI hereafter) flows in India and China since their economic reforms, especially after the sub-prime crisis 2008. A comparative perspective is outlined to delineate the structure, conduct and performance of FDI regimes. We conduct an empirical estimation using Granger Causality test to examine the relationship between FDI inflows and economic growth and find that economic growth to be imperative for FDI inflow. The paper also tries to address vital issues in the management of FDI in the new era of globalization in India and China.

INTRODUCTION

Investment climate is central to economic growth, development and poverty reduction. Improving the opportunities and incentivising firms to invest productively, create jobs, and to expand should be a top priority for governments in both advanced and emerging economies. It is not just about increasing the quantum of investments, but also about spurring productivity improvements that are the keys to sustainable growth (Dollar, 2005). The world is currently witnessing an unprecedented level of capital flows, financial integration, cross-border economic, financial and business integration both within developed and developing states. Globalization unarguably is the defining feature of international geopolitical movement.

Global economy has seen the rise of star performers over the past half a century since the WWII, but since half a decade the power equation has been tilted towards the Asian super giants, China and India (Kwasnicki, 2011). From 2000 and 2007, China achieved an average GDP growth of 10.1% per year, and according to World Bank (2009), it is projected to surpass the United States in GDP terms by 2030. India, on the other hand, has enjoyed an average GDP growth of 7.6% over the same period and is expected to continue above 6.8% through 2015, despite the global slowdown.

However, 2010 onwards, the miraculous Chinese economy has registered a slowdown, after experiencing near double digit growth rates even after the financial crisis. China’s growth rates started falling from 9.5% in 2011 to 7.4% in 2014 (IMF, 2016). China has cut its growth expectation from 7.3% to 7% for 2015 and experts believe it would be harder to achieve the revised expectations (World Bank, 2016).

The growth miracles are a result of measured, regulated, yet profound, liberalization of foreign investment restrictions, beginning with China in 1978 and later followed by India in 1984 with the doing
away of License Raj\textsuperscript{1} and New Economic Policy, 1991\textsuperscript{2}. Since the advent of these reforms, there has been an extraordinary inflow of foreign capital which has been the driving force behind the economic growth of the Asian Tigers (Erian, 2008). It is remarkable to note that both India and China slipped through the global financial crisis least harmed, maintaining an above-average economic growth, while major economic powers experienced painful economic contraction. Despite the rapid liberalization and outstanding financial inflows, China and India are still ranked below advanced economies, 132 and 123 respectively, in terms of economic freedom, ease of doing business (Miller, 2009). Thus, there is an evident need for reformulating laws and regulations governing foreign investments, as well as rules and policies instituted by national or local government. Although there have been new inclusions into the automatic route for Foreign Direct Investment and Mergers & Acquisitions (M&A)\textsuperscript{3}, there would be a continuous need for revamping the FDI and M&A policies.

Both China and India are the frontrunners for global finance and epitomes of economies moving towards a more liberalized economy. Nevertheless, the state of affairs with respect to FDI and M&A are vastly different (Sachdev, 2006). India’s regime for M&A is much more relaxed as compared to China, which is evident in the movement from protectionist to liberal form of investment regimes on FDI and M&A; from Monopolies and Restrictive Trade Practices Act (1969)- Foreign Exchange Management Act (1999) to the establishment of the Competition Commission of India (2002) and now the budget 2017 proposal to abolish the Foreign Investment Promotion Board, India has come long way in restructuring the investment regimes to promote FDI.

China in contrast, inherits a complex structure of investment policies and regimes, combining puzzling securities law and takeover law restrictions with complicated regulatory approval requirements often overseen by a number of Chinese agencies (Huang, 2008). With respect to authorized investments, the regime facilitates a relatively straightforward investment process through the use of standardized legal entities tailored for FDI, a centralized regulatory approval system, and clear guidance on which sectors of the economy are open for foreign investment (Sweeney, 2010).

**FDI Trends and Policies**

Despite the stringent regime, China has been able to acquire more FDI than India in the past decade. Total FDI inflow in China exceeds the FDI inflow in India. It is interesting to note that the contribution of FDI to GDP in China is on a decline while for India it is on a rise and their growth rates are reversed (Sachdev, 2006).

**FIGURE 1**

**FDI NET INFLOW IN CHINA AND INDIA IN MILLION, US DOLLARS**

![Graph showing FDI inflow in China and India](image)

Source: World Development Indicators
The success of FDI regime requires looking beyond the regulations at a superficial level, a need to examine the significant differences in how each regime functions and in how each government and agencies interacts with that investment regime. The reforms required in both nations goes beyond merely looking at the simplification of the investment regimes. The role of the government is crucial in structuring and regulating the national intention with regards to foreign investments and economy growth. For sustained growth in the face of increasing globalization, both China and India would require increased openness and continued dissolution of restrictive investment regimes (Sachdev, 2006).

Increasing openness and dissolving regulations comes with politico-economic opportunity costs (Dougherty & Herd, 2007). The costs are both explicit and implicit. Explicitly, dissolving regulations affects the fostering of infant industries in host economies. Before 1991, there was a strong political support for infant industry protection in India, which restricted the flow of FDI in sectors currently categorized as FDI under automatic route (Melitz, 2005). The argument was, fostering infant industries would maintain the domestic control of assets and is required to stabilize the labour market. Implicitly, increased openness makes the economy vulnerable to global economic shocks. Capital flights, De-nationalisation, stunted economic growth and rising inequality are case in points of the East Asian economic crisis, owing to unwarranted levels of openness and the flow of hot money3 (Patnaik, 2003). The global economic recession 2008, has unveiled the consequences of aggressive liberalization, and has hit the champions of free trade the most (Patnaik, Devaluation of the Yuan, 2015).

Sustained economic growth and stability would require a balanced investment regime which caters to required foreign investments comprising of tangible FDI investments and intangible portfolio investments. There should be no dearth for efficient capital which in turn requires productive investment outlays. Attracting hot money could temporarily fuel economic growth but is vulnerable to quick outflow should there be an opportunity to migrate elsewhere (Patnaik, 2003). Among other forms of investment, FDI acts as a strong buffer against global economic swings, creates larger employment opportunities, and hence is a more effective investment, especially in labour abundant developing countries (Scholte, 2005).

Channelization of the inflow is a significant area of concern in the new age of globalization. It is not only about the number of dollars that flow in, but more about where the dollar goes (Prasad & Wei, The Chinese Approach to Capital Inflow: Patterns and Possible Explanations (Working Paper no. 11306), 2005). Productive investment is the key to development. It is important for China and India to realize and channel the investments in areas of productive investment, keeping in mind the social, economic, cultural and political fabric of the nation. The investment regime should not only be concerned about the inflow of FDI, but should carefully evaluate the effectiveness and efficiency of the flow given the geographic, economic, political and social differences (Sweeney, 2010).

Part I of this paper would analyse the background, costs and benefits of financial liberalization with specific focus on FDI. Part II would discuss the investment regimes of China and India post their respective economic reforms, especially after the financial crisis of 2008. Part III would discuss the differences in approach of investment regimes of both the nations and would critically evaluate the relative effectiveness and efficiency of the regimes in attracting beneficial and stable FDI. Part IV would empirically examine the relationship between FDI and Economic growth and Part V would discuss potential avenues for reforms in the investment regimes.

Background: The need for Market Liberalization

The objective of sustained economic growth is second to none for all countries. Economic growth, although much widely debated in its effectiveness, has been empirically proven to reduce poverty (Prasad & Wei, 2005). The Neoclassical model of economic growth requires economies to open up to free trade. Liberalization has been understood as a prerequisite step to realize the growth potential of developing economies that had long been clustered under the ambit of protectionist policies, liberalization in terms of doing away with inefficient growth retarding regulations, and opening up the economies to global capital.

Opening up of economies is a quest for modernity, awareness, information, alleviating poverty, improving the life span, improving living standard and carrying out political and social reforms (Frieden
& Lake, 2000). In this age of globalization, no country can live in isolation, and the ones which have tried have had abysmal performance (Park, 2003).

The assumption that market liberalization would always produce benefits is erroneous in many respects (Schneider E. F., 2007). To produce the desired results FDI must be channelized to diverse sectors in accordance with the needs. China and India would benefit from FDI that provides technology, employment and expertise (Sweeney, 2010). The East Asian Crisis and the recent recession of 2008 are illustrations of economies experiencing capital flight and slowdown of economic growth without systematic investment regimes and unwarranted levels of influx of foreign dollars (Miller, 2009). Indian regulators, since 1991, have managed a systematic influx of foreign dollars according to requirements of an emerging economy, preserving the benefits of global integration while minimizing costs (Rajan R., 2012). The same is true for Chinese regulators post the 2008 crisis where the influx of foreign investment was slowed down.

According to Rajan, the fast growing, easy era of demand driven growth is over and it will be more difficult to sustain the economic growth of the both developing and developed economies. In this light, China and India have to realize that the current regime of investment needs to be structured to meet the demand of a new era of growth and globalization (Brainard, Litan, & Woo Thye, 2007) fuelled by the revolutionary ICT and Fourth Industrial revolution5.

FIGURE 2
FOREIGN DIRECT INVESTMENT, NET INFLOWS (% OF GDP)

Source: World Development Indicators
China’s Investment Regime and FDI performance

(a). Investment Regime

In the past two decades, Chinese investment regime has been ostensibly motivated by the desire to open its market in anticipation of growth in exports and technology creation. One of the major transformations that occurred after being a WTO member was reducing the control over state-owned-enterprises (SOEs) and businesses owned and managed by the government (Sweeney, 2010). Of nearly 1,35,000 SOEs, four to five thousand are privatized annually.

Chinese investment regime provides a centralized government approval that vertically integrates local, regional and national authorities (Sachdev, 2006). The regime distinguishes FDI in two categories based on the source of capital: (i) Domestic companies, having less than 20% of shareholders or foreign capital (ii) Foreign Investment Enterprises (FIEs) which are of three types; Foreign Invested Companies Limited by Shares (FICLS), Joint Ventures (JVs) and Wholly Foreign Owned Enterprises (WFOEs). The choice of the specific legal entity is determined by the investment being made.

Joint Ventures are distinguished according to capital requirements, tax requirements and structures. There are two types of JVs: Equity Joint Ventures (EJVs) and Contractual Joint Ventures (CJVs). EJVs are the most common type and are approved by the Ministry of Commerce. CJVs provide increased flexibility over EJVs in managing and structuring joint ventures due to contractual freedom provided by the law. WFOEs allow foreign investors to exercise complete control over the company where a domestic partner cannot be found or there are concerns regarding shareholding of the company.

Chinese investment regulation allows investors to choose from a variety of investment entities, however, the destination of investment could be severely limited or closed altogether (Sweeney, 2010). Business sectors have been defined into three types: (i) Encouraged, (ii) Restricted and (iii) Prohibited (Dav13). The designation of each business determines whether foreign investment would be allowed, and the quantum of investment that can be undertaken. Regulations are fixed depending on the restrictiveness. Sectors where FDI is encouraged have easy access to domestic market whereas the restricted businesses require extensive regulatory authorization and investment in such cases is limited to Joint Venture entities (Huang, 2007)

(b). Performance

It can be stated with no second thoughts that China is the strongest pillar and propeller of world economic growth (Dav13). Over the past three decades, especially after being a member of WTO in 2001, China has made remarkable progress in developing a sound regulatory framework to attract and promote investments (Huang, 2007) (Deming, 2009) (Dav13) (FDI, 2016). Its major institutional reforms from protectionist planning to liberal markets, over the last 40 years, created incentives for entrepreneurs to start new businesses that increased competition leading to lower resource costs and helped to improve the performance of many state owned companies (Prime & Kulkarni, 2017). Despite intense competition from other emerging economies, China continues to be the favorite destination for FDI in various investment surveys all over the globe. This is true even with the most restrictive regime for FDI inflows amongst major economies attracting FDI.
The inflow of FDI is supported by strong statistics; by 2010, China had accumulated FDI stocks worth 569 billion USD and from 2000-2010 China attracted more FDI than any other country in the world. The rise of FDI inflows in China following the economic recession 2008, suggested that China is a safe haven for investors.

China’s investment regime encouraged foreign firms to invest in China with dual objectives of exports to earn foreign exchange, and to upgrade China’s technological capabilities. Foreign direct investment grew and exports followed. FDI reached over 4 per cent of GDP in the late 1990s, with exports reaching 19 per cent of GDP. By the 2000s China’s export share reached 30 per cent of GDP (Prime & Kulkarni, 2017). In 2010, FDI inflows to China recovered strongly, 17.4% year-on-year to reach a record high of USD 105.7 billion. In 2011, FDI rose 11.3% to USD 117.7 billion before decreasing by 3.7% to USD 113.3 billion in 2012.
The major investors in FDI for China are Hong Kong, Free Ports, European Union, Singapore and Japan; however, their contributions are uneven as Hong Kong provides more than 60% of the Chinese FDI (Sachdev, 2006). The main sectors of investment in order of FDI share in 2016 are Manufacturing (43.2%), Real Estate (21%), Business Services and Renting (6.2%), Wholesale and Retail trade (5.7%) and Transport, Storage, Telecommunications, Postal Services (2%) (FDI, 2016).

The study by Beddoes (2008) argues that the Chinese investment regime is one of the most restrictive in emerging economies. Nevertheless, the investors who are allowed to invest in China have the highest level of protection to their investments. China’s investor protection is the best in the world in terms of Index of Transaction Transparency, Index of Manager’s Responsibility, Index of Shareholder’s Power and the Composite Index of Investor Protection. In all these parameters, China scores 10/10, better than any other country in the world (World Bank, 2016).

**FIGURE 5**

**TOTAL FDI INFLOWS AND PERCENTAGE FROM TOP FIVE FDI DESTINATIONS IN CHINA IN 2015**

![Graph showing percentage of total FDI flows from top five countries in China and FDI inflows in USD Million]

Source: FDI Markets.

The pace of the Chinese economic growth has been remarkable in the past few decades. In fact, no less than any wonders of the world. Economically, China has witnessed double digit economic growth as a rule rather than exception. But suddenly, the growth outlook for China seems to be pessimistic. OECD has predicted Chinese GDP growth for 2017 to be 6.6% and 6.3% for 2018. Consequently, the question arises: What has caused the world’s fastest growing economy to slow down?
FIGURE 6
TRENDS IN REAL GDP GROWTH RATE FOR CHINA, 2005-2015

Source: OECD database

Factors affecting Chinese Slowdown

There are scores of studies eliciting various sources for the decline of FDI inflows in China. A study by Barry (2011) had almost correctly predicted the Chinese slowdown to come about in 2015. The predictions are in line with the current scenario, and the study could be given the credit for being the focal point of all studies on slowdown of fast growing economies. According to this study, high growth rates in late-developing economies cannot last forever. Initially emerging economies register huge growth rates by employing imported technical know-how and developing export-led manufacturing sector wherein the unemployed agricultural labour is shifted. But slowly this underemployed pool of labour is drained, the gap between technology narrows and hence country needs to shift to productivity in service sector and indigenous innovation.

The regression results suggested that countries like China whose unusually fast growth is associated with undervalued exchange rates have a larger tendency to slowdown. Rise of old-age dependency ratio, low consumption share of GDP due to high savings, export led growth, all pointed towards an imminent slowdown, according to the study.

A study by Liu (2015) explains the growth miracle of China 1980 onwards, emphasising on how total factor productivity (TFP) was the main growth engine that fuelled the growth till 2008. The study believes that investment growth approach followed by China post 2008 is unsustainable. Major reasons for the slowdown are decline in TFP and other structural challenges faced by China like export led growth, capital account restrictions, inefficient credit allocations, lack of social safety nets, among others. The paper predicts that China might be falling into the “middle income trap” which most of fast growing economies follow.

A study by Roy (2012) suggests that rebalancing the economy, away from exports and allowing the exchange rates to appreciate, if done on time, can save the economy otherwise, once the slowdown has come, such actions are difficult to achieve the required objective and may disrupt the growth process altogether.

Indian Investment Regime, Performance and Challenges

(a). Investment Regime

India began the process of market liberalization in response to lackluster growth registered throughout the protectionist period (1951-1984). India’s economic performance during the first three decades since
independence was christened the “Hindu Rate of Growth”, a term to connote the disappointing growth (3-3.5%). Many economists including (Rodrik & Subramanian, 2004) have explained how the process of Liberalization and the flow of foreign investments catalyzed the pace of economic growth since 1980. Since 1984, India has not looked back to protectionism and prohibition except for a few sectors.

In 1991, the big breakthrough happened, spurred by a balance of payment crisis, Indian policy makers turned to Dr. Manmohan Singh, the then Finance Minister, who promptly began the process of liberalization. Trade barriers were slashed, the remains of License Raj were buried, foreign investments were welcomed and privatization began. According to Rodrik and Subramanian (2004) the trigger for India’s economic growth was an attitudinal shift on the part of the national government in the 1980s in favour of private business and foreign investments.

Like all caricatures, the above story has elements of truth (See figure 3). India is well above OECD economies and major emerging economies in terms of FDI restrictions. The political economy of Pro-Market and Pro-Business that governed economic growth has been central to the foreign investment regimes, and their complexity has impeded the pace of reforms in investment regimes. FDI in India is governed by a number of laws, foremost of which is the FEMA Act 1999 for FDI and Stock Exchange Board of India (SEBI) for M&A and Take Over codes. Acting under FEMA, the Reserve Bank of India (RBI) issued a set of regulations which outline an “automatic route” through which foreign investors are granted automatic approval for investments”

**FIGURE 7**

**FDI RESTRICTIVENESS COMPARISON OF EMERGING ECONOMIES, 2010-2016**

![Graph showing FDI restrictiveness comparison of emerging economies, 2010-2016.](image)

Source: OECD database

The figure above depicts the reductions in restrictiveness of FDI in India. However, the level of restrictiveness is still above many emerging and advanced economies. India restricts foreign investment in certain sectors of the economy. The restrictions are altogether prohibitive or to put a cap on the percentage of FDI allowed. Foreign investment is prohibited via the automatic route in banking and atomic energy. In telecommunications, pharmaceuticals and mining, FEMA regulations cap the percentage of investments in a company\(^\text{10}\).

Automatic issuance of shares or convertible debt to foreign investors is allowed through Schedule 1 and 2, provided the company is not involved in any restricted activity. These regulations do not require an industrial license per the Industries Act of 1951, and the issuance is not done with an view of acquiring existing shares of any Indian company\(^\text{11}\). The Industries Act of 1951 has been updated from time to time.
keeping in mind the goal of liberalizing foreign investment mainly via reducing the list of Industries where licensing is required.

In case where FDI cannot be made via the automatic route, investors need to take permission from the Foreign Investment Promotion Board (FIPB). In addition to need for approval (for restricted industries and industries requiring license), government approval is also required in instances where the foreign investor has already made an existing investment in the same economic sector (Thilak, 2004).

**FIGURE 8**

Source: FDI Markets

(b). Performance

India is the most favored destination for foreign investment (2015-2016) and amongst the top recipients of FDI in the past decade, owing to restructured policies and regulations (Economic Survey, 2017). The relaxation of complex policies and increasing impetus on the ease of doing business have slowly but surely started to bear fruits (Press Trust of India, 2016). The finance minister, during his Budget 2017 speech proposed to do away with FIPB and further the relaxations, which would incentivize investors. This landmark proposal explains the transformation of India’s investment regime from a conservationist, protectionist regime before 1991 to restrictive and prohibitive regime after 1991, to being one of the most investor-friendly regimes in the world today. A renewed optimism prevails for the future of foreign investments in India (Bhattacharya, 2017).

For the first time in 2015, India- 63bn USD, overtook China-56.6bn USD in terms of the best capital investment destination in the world (FDI, 2016) (IMF, 2016) (World Bank, 2016). Many economists including (Dougherty & Herd, 2007) (Iamsiraroj & Doucouliaigos, 2015) have asserted that economic growth, market reforms and market potential of India economy in the recent years have been the main driver of FDI inflows. Recent reforms to enhance the ease of doing business have added impetus to the total capital investments (World Bank, 2016).

India is performing exceptionally well amidst a gloomy picture of FDI flows throughout the globe (Bagchi, 2017). It is one of the few countries where investment is still attractive because of the demand potential of the huge economy. Globally, there is a decline in investments of around 30% whereas in India it has increased by 18% in the financial year 2016-2017 (Bhattacharya, 2017). During April-November 2016, India attracted 32.5 billion USD, and from then on till March 2017, the total financial year figure jumped to 46.4 billion USD in the form of FDI, a record of 18% jump (Rao & Dhar, 2016).

Mauritius is India’s top source of FDI at $12.88 billion in the financial year 2016. Mauritius accounted for 20.8 per cent of FDI in India followed by the US, UK, Singapore and Japan (Press Trust of India, 2016).
Economic Growth and FDI

According to Iamsiraraj and Doucouliagos (2015), economic growth attracts FDI. The economic growth trajectory of India and China crossed paths in 2016, with the former moving upwards and the latter moving downwards. In 2016, both China and India achieved 7.1% GDP growth. However, the forecast of growth made by international organizations put India ahead of China at least for half a decade in the future (IMF, 2016) (World Bank, 2016).

The Chinese economic slowdown has had a positive impact on the FDI inflow in India (Bhattacharya, 2017). The slump in Chinese stock market was partially due to the withdrawal of foreign funds, these funds would find their destination in the next best alternative, India (Bagchi, 2017). Bagchi’s paper provides some recent examples of outward FDI flow from China to India in search for lucrative investment destination in India’s rapidly expanding infrastructure sector.

FIGURE 9
FDI INFLOWS BY SECTORS 2011-2015 IN INDIA AND CHINA

FIGURE 10
FDI INTO CHINA AND INDIA BY CAPITAL INVESTMENTS, 2015 ($BN)
Factors affecting FDI flows

FDI is a far more stable form of investment as compared to speculative investment flows in local securities market and foreign institutional investments, especially in times of global economic panic, thus a halt in FDI can have painful implications for the economic growth (Hanson, 2009). A rapid reduction in FDI flows can have devastating impact on communities and businesses that are largely dependent on the FDI activity. However, the relationship between FDI and economic growth is far from being straightforward and varies across countries and time periods (Brainard, Litan, & Woo Thye, 2007).

There have been scores of studies investigating the potential determinants of FDI including the significance of sound investment climate and political stability (Schneider & Frey, 1985), human capital in terms of educated workforce (Paloni & Youssef, 2001), infrastructure (Wheeler & Mody, 1992), trade openness, comparative labor costs, taxes and tariffs, and access to natural resources among many others. India and China are yet to make the conditions for FDI flows comparable with developed western and OECD countries (Bhattacharya, 2017).

Policy regimes in each country emerge from a broad socio-economic and political context, and thus are inseparable. Contemporary economic research has noted the impact of certain characteristics and threshold requirements for smooth flows of FDI in the developing economy. These factors determine the desirable level of FDI, where should it be employed, and how effective it will be (Alfaro, Chanda, Ozcan, & Sayek, 2009). The upshot is that economic growth may not be the only way to improve the flow of FDI; there are many other factors that tangentially determine the flow of FDI such as, the physical infrastructure of the economy, stable political climate, educated workforce, developed financial markets.

The discussion above points to an important debate: Does economic growth cause FDI inflow? Many researchers have argued that there are multiplicities of factors which determine the flow of foreign investments, some of which were cited above. Some researchers have pointed to a clear causality between economic growth and FDI inflow including (Iamsiraraj & Doucouliagos, 2015).

It is interesting to note that in terms of political climate, infrastructure, educated workforce and financial markets, India is far behind China as of date (Bagchi, 2017) but in terms of attraction of FDI, India has surpassed China 2015 onwards (Bhattacharya, 2017). Coincidentally, this is also a period when Chinese economic growth has slowed down while, on the contrary, economic growth has picked up in India surpassing that of China in the past five years. Thus it would be interesting to see if there is ‘causality’ between economic growth and FDI flow.

Model

The relationship between FDI and economic growth can be understood through the interactions with domestic investment, growth and wider spillover effects. FDI results in technical progress through capital
deepening in the form of increase in the number and varieties of capital goods available (Romer, 1990) (Grossman & Helpman, 1989) and (Agenor, 2003) among others.

These studies suggest that an economy produces a single consumption good, following a technology relation:
\[ Y_t = AL_t^\alpha K_t^{1-\alpha} \]  

(1)

Here, ‘A’ represents the exogenous component of the ‘environment’, ‘L’ represents the ‘labour’ (Romer, 1990) and Human Capital (Grossman & Helpman, 1989), and ‘K’ represents the ‘physical capital’. The exogenous component comprises of various economic and non-economic factors including policies, level of productivity, political economy, etc.

The model assumes a given endowment of human capital, considering it as a stock variable. While physical capital ‘k’ consists of a vast array of capital goods that goes on into production, which in turn allows capital accumulation through an expansion of the productive capital of the economy. Assume that there are two types of firms that produce capital goods: (i) Domestic firms and (ii) Foreign firms. The domestic firm produces ‘n’ varieties of capital goods out of the total ‘N’ capital goods, and the foreign firm produces ‘n1’ of the total capital goods which is n1 = N-n.

An increase in the variety of capital goods requires acquiring new technology (Romer, 1990). FDI allows the introduction of new technologies and new capital goods from advanced economies. The process of technology adaptation requires firms in developing economies to incur fixed set up costs. The study by Grossman & Helpman (1989) has found that the cost negatively depends on the ratio of the number of new firms operating in the host economy to the total number of firms (n1/N). The findings capture the idea that foreign firms bring advance technology and knowledge required for the production of new capital goods. The acquisition of technology and knowledge are quintessential for accumulation of new capital and capital deepening.

**Empirical Estimation**

The relationship that we wish to examine here is the causal relationship between economic growth and Foreign Direct Investment flows. We have two variables: Real GDP growth rate and Foreign Direct Investment inflows as percentage of GDP. The dependent variable here is the Net FDI inflows as percentage of GDP and the independent variable is the Real GDP growth rate.

The hypothesis that we are going to test is:
\[ H_0: \text{Economic growth measured by Real GDP growth has no effect on FDI inflows} \]
\[ H_1: \text{Economic growth measured by Real GDP growth has an effect on FDI inflows} \]

We use the “Granger Causality Test” for the same. The model for the relationship would be

\[ FDIInflow_t = C1 \times RealGDGPgrowth_{t-1} + C2 \times FDIInflow_{t-j} + u1_t \]

(2)

\[ RealGDGPgrowth_t = C3 \times FDIInflow_{t-1} + C4 \times RealGDGPgrowth_{t-j} + u2_t \]

(3)

The dependent variable in the first equation is the Net FDI inflow in time period ‘t’. The variable is a function of Real GDP growth in lag time period ‘t-1’, FDI inflows with lag ‘t-j’ and the error term U in time period ‘t’.

In order to test for causality both the variables should be stationary. To test for stationarity we use the ‘Augmented Dickey Fuller Test (ADF)’ to see if the variables are stationary and free of unit root.

Hypothesis for ADF test is:
\[ H_0: \text{Variable ‘Y’ is not stationary and has unit root} \]
\[ H_1: \text{Variable ‘Y’ is stationary} \]
The ADF test shows that the variables are non-stationary because the absolute value of test statistic is lower than the critical value at 1%, 5% and 10%\(^{12}\). Hence, the first difference approach is used to make the variables stationary. In order to test for Granger Causality we first go through the Vector Auto-regression model. The VAR model is as follows

\[
\Delta \text{FDI}^{\text{inflow}}_t = B1 + \Delta \text{FDI}^{\text{inflow}}_{t-1} + a1 + \epsilon_t
\]  

(4)

**Data Source:** The data is derived from the United Nation Council on Trade and Development (UNCTAD) data base. Variables that have been used to see the causal relationship are Net FDI inflows as percentage of GDP and Real GDP growth rate. For China, the data is available from 1979-2015 and for India the data is available from 1971-2015\(^{13}\).

**RESULTS**

**TABLE 1**

RESULT FOR CAUSALITY BETWEEN FDI AS % OF GDP AND REAL GDP GROWTH RATE IN CHINA

<table>
<thead>
<tr>
<th>Sample</th>
<th>1981-2015</th>
<th>No. of Observations</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Likelihood</td>
<td>-95.316</td>
<td>AIC</td>
<td>6.07524</td>
</tr>
<tr>
<td>FPE</td>
<td>1.4969</td>
<td>HQIC</td>
<td>6.2286</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.9393</td>
<td>SBIC</td>
<td>6.519</td>
</tr>
</tbody>
</table>

| Net FDI inflows as % of GDP | Coefficient | Standard Error | t  | P>|t| | 95% C.I. |
|-----------------------------|-------------|----------------|----|-------|---------|
| First Difference Real GDP growth |             |                |    |       |         |
| Lag 1                       | 0.3231      | 0.0300         | 2.41| 0.022 | 0.0110 – 0.1336 |
| Lag 2                       | 0.0410      | 0.0326         | 1.26| 0.218 | -0.0256 – 0.1080 |
| Constant                    | 0.2202      | 0.1270         | 1.73| 0.093 | -0.0390 – 0.4794 |

**Granger Causality Test:**

<table>
<thead>
<tr>
<th>Equation</th>
<th>Excluded</th>
<th>F</th>
<th>df</th>
<th>df_r</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI as % of GDP</td>
<td>FD GDP growth</td>
<td>3.8839</td>
<td>2</td>
<td>30</td>
<td>0.0316</td>
</tr>
<tr>
<td>FDI as % of GDP</td>
<td>All</td>
<td>3.8839</td>
<td>2</td>
<td>30</td>
<td>0.0316</td>
</tr>
<tr>
<td>FD GDP growth</td>
<td>FDI as % of GDP</td>
<td>0.4802</td>
<td>2</td>
<td>30</td>
<td>0.6233</td>
</tr>
<tr>
<td>FD GDP growth</td>
<td>All</td>
<td>0.4802</td>
<td>2</td>
<td>30</td>
<td>0.6233</td>
</tr>
</tbody>
</table>
TABLE 2
RESULT FOR CAUSALITY BETWEEN FDI AS % OF GDP AND REAL GDP GROWTH RATE IN INDIA

In case of India the variables are stationary, hence we do not need to find the first difference of the variables

<table>
<thead>
<tr>
<th>Sample</th>
<th>1973-2015</th>
<th>No. of Observations</th>
<th>43</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Likelihood</td>
<td>-121.2809</td>
<td>AIC</td>
<td>6.106086</td>
</tr>
<tr>
<td>FPE</td>
<td>1.541021</td>
<td>HQIC</td>
<td>6.257127</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.8173</td>
<td>SBIC</td>
<td>6.515668</td>
</tr>
</tbody>
</table>

FDI inflows as % of GDP

| Real GDP growth rate | Coefficient | Standard Error | t     | P>|t|      | [95% C.I.]|        |
|----------------------|-------------|----------------|-------|----------|----------|---------|
| Lag 1                | 0.462517    | 0.0219186      | 2.11  | 0.041    | 0.0019-0.9062 |
| Lag 2                | 0.0309436   | 0.0223737      | 1.38  | 0.175    | -0.0143-0.0762 |
| Constant             | 0.2597428   | 0.165363       | -1.57 | 0.125    | -0.5945-0.0750 |

Granger Causality Test:

<table>
<thead>
<tr>
<th>Equation</th>
<th>Excluded</th>
<th>F</th>
<th>df</th>
<th>df_r</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI as % of GDP</td>
<td>Real GDP growth</td>
<td>3.2654</td>
<td>2</td>
<td>38</td>
<td>0.0491</td>
</tr>
<tr>
<td>FDI as % of GDP</td>
<td>All</td>
<td>3.2654</td>
<td>2</td>
<td>38</td>
<td>0.0491</td>
</tr>
<tr>
<td>Real GDP growth</td>
<td>FDI as % of GDP</td>
<td>2.6489</td>
<td>2</td>
<td>38</td>
<td>0.0838</td>
</tr>
<tr>
<td>Real GDP growth</td>
<td>All</td>
<td>2.6489</td>
<td>2</td>
<td>38</td>
<td>0.0838</td>
</tr>
</tbody>
</table>

The tables report causality between net FDI inflows as percentage of real GDP growth for India and China. A glance at the tables reveals that the variables have a strong causal relationship given by the ‘p’ value. Important point to be noted here is that economic growth is positively related to FDI inflows as given by coefficients (0.46) for India and (0.32) for China. The standard error of estimates are considerably low, and the R square values are significant (0.93) for China and (0.81) for India.

The results also point to interesting insights: China tends to attract more FDI with economic growth than India, however the difference is low. This could be true due to the large number of observations taken for the case of India than China. It could also be true because the data taken for the study in case of China is immediately after their economic reforms in 1978, whereas, for India the data used is from 1971 when India was comparatively a protected economy, undergoing the ‘Hindu rate of growth’ till 1984 (Rodrik & Subramanian, 2004). The results could be different if we study the relationship after the New Economic reforms of India in 1991, but that could weaken the test due to lower number of observations.

CONCLUSION

Economic growth is central to attracting FDI, however, a sense of clarity, certainty and predictability in the host nation is a must for Investors to make significant sums of investments. It depends on how a host nation interprets its FDI laws and whether it respects the property and contractual rights inherent to the investments. An absence of investor confidence, integrity and stable investment regimes exaggerates the perils of investment in host nations and results in lower investments than would otherwise be provided.

The State’s rule of law, the Judiciary and stability of laws are predictors of clarity, certainty and predictability for investors (Kaufmann, Kraay, & Mastruzzi, 2006). It is also possible for a state to
disregard certain social laws and still be the beneficiary for FDI provided the state provides clarity and transparency and observes the rule for law where foreign investments are concerned (Sweeney, 2010). This is strikingly true in case of India where the corruption perception index (79/179) and social progress index (93/180) are weak (Rajan & Gopalan, 2015).

In the light of the above, investors might prefer a long term communist leadership to a democratic and complex democratic leadership in India. Investors have more confidence in a single party regime as commitment of the state is of tremendous importance to investor confidence. The Chinese promulgation of the EJV law following the “open door” policy and the opening up different types of economic cooperation in terms of M&A, joint ventures and direct acquisitions are some useful lessons for India to learn as it goes forward in the race to attract foreign capital. The move to continually label a large number of sectors as ‘permitted’ or ‘encouraged’ may signal to investors a continued desire to attract FDI (Sweeney, 2010).

The conservative Industrial Licensing Act of 1956 could be amended further to demystify potential avenues for investment. The Act was based on a socialist economic paradigm designed to restrict investment, hence would be a hindrance in the competition of free market foreign investment.

The power structures of investments differ in China and India. China’s regime is driven primarily by statutory authorizations while India relies in government agencies to fill the details. There is simple layer and specific avenues for investment in China, whereas in India the investment regime functions by virtue of delegation of authority to federal agencies, like that of RBI. The RBI in turns enacts its own laws and rules, thus creating an additional layer of bureaucratic confusion and uncertainty. The result is that the approval takes longer time in India as compared to China. Thus a vertically integrated approval mechanism could leverage the flow of FDI in India.

India’s approval process includes various nominally separate procedures at the national and regional levels while China maintains a vertically integrated process of approval fostering simplicity and clarity (Frieden & Lake, 2000). The case for opposing FDI in retail through Wal-Mart is a case in point (Chari & Raghavan, 2011). Their paper argues that the opposition to liberalizing FDI in retail comes from concerns about employment losses, unfair competition resulting in large scale exit of incumbent domestic retailers, and infant industry arguments to protect the organized domestic retail sector that is at the nascent stage. However entry of FDI in retail could lower inflation in food prices and could provide the much needed technical knowhow such as warehousing technologies and distribution systems that can improve supply chain efficiency in India, in particular for agricultural produce.

The success of India and China in courting large volumes of FDI presents an encouragement to global economic growth. However, both nations have not performed to their full potential in maximising the attraction of FDI. There are several steps that each nation could take to improve the situation, some reforms to restructure the investment regimes and some to directly affect the flow of FDI.

India could benefit by emulating the vertical approval mechanism of China. In recent times, especially since 2014, the vast majority led government has been signalling hassle free entry to investors, stability of investment regimes, and a liberal rule of law, as indicated by the recent initiatives of ‘Make in India’, the implementation of Goods and Services Tax the rising number of business conclaves among others. India should provide a clear guidance to investors about relevant decision making and the authorities that should be approached for hassle free investing.

In 2013, the government allowed 100% FDI in telecommunications from 74% which has seen a rise in competition and shared prosperity between consumers and producers (Press Trust of India, 2013). With the implementation of Goods and Services Tax (GST) in July, and the new bankruptcy code, the situation is getting ripe for Investments. Implementation of GST would lead to increased tax compliance and attract more FDI across sectors due to tax transparency and ease of doing business (ET, 2016). A survey by Feedback Services Consulting covering 67 listed NSE companies in India suggests that a significant portion of FDI in 2016-17 will come in the heavy engineering and automotive sectors. Interestingly these are the sectors which have underperformed in terms of FDI inflows in the past decade. GST implementation will reduce logistics cost, supply chain efficiency would improve, markets would be penetrated better and export effectiveness will increase.
ENDNOTES

1. License Raj: A term used to describe the regulation of the private sector between 1947 and the early 1990. In this period, one needed the approval of numerous government and non-governmental agencies in order to set up a business legally and for expansion in order to curtail monopoly and profit maximization objectives. License Raj was the result of a mixed economy; it was successful in the 1950s and after, but eventually led to slowdown of economic growth and investment.

2. 1991: New Economic Reforms: Main highlights

<table>
<thead>
<tr>
<th>Liberalization</th>
<th>Privatization</th>
<th>Globalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abolition of Licenses except for a few</td>
<td>Disinvestment of public sector</td>
<td>Import Liberalisation</td>
</tr>
<tr>
<td>No restriction on expansion or contraction of business activities</td>
<td>Setting up of Board of Industrial and Financial Reconstruction (BIFR). This board was set up to revive sick units in public sector enterprises suffering loss.</td>
<td>Foreign Exchange Regulation Act (FERA) was replaced by Foreign Exchange Management Act (FEMA)</td>
</tr>
<tr>
<td>Freedom in fixing prices</td>
<td>Dilution of Stake of the Government</td>
<td>Rationalization of Tariff structure</td>
</tr>
<tr>
<td>Liberalisation in import and export</td>
<td></td>
<td>Abolition of Export and reduction in Import duty</td>
</tr>
<tr>
<td>Easy and simplifying the procedure to attract foreign capital in India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplifying the procedure to attract foreign capital in India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simplifying the procedure to attract foreign capital in India</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


4. Hot Money: Capital which is frequently transferred between financial institutions in an attempt to maximize interest or capital gain

5. See (World Economic Forum, 2016)


7. Pro Market policies Focuses on removing impediments to markets, and aims to achieve this through economic liberalization. It favours entrants and consumers. Market liberalization is an example of pro market policy

8. A pro-business orientation is one that focuses on raising the profitability of the established industrial and commercial establishments. It tends to favour incumbents and producers. Easing restrictions on capacity expansion for incumbents, removing price controls, and reducing corporate taxes (all of which took place during the 1980s)


10. See note xii

11. See xii id.

12. Augmented dickey fuller: China GDP growth rate, trend regress lags(0)

<table>
<thead>
<tr>
<th>Dickey-Fuller test for unit root</th>
<th>Number of obs = 36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpolated Dickey-Fuller Test Statistic</td>
<td>1% Critical Value</td>
</tr>
<tr>
<td>Z(t)</td>
<td>-2.980</td>
</tr>
</tbody>
</table>

MacKinnon approximate p-value for Z(t) = 0.1378
D. China GDP–e | Coef. Std. Err. t P>|t| [95% Conf. Interval]

| Model | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] |
|-------|-------|-----------|---|-------|----------------------|
| China GDP–e | -4.280429 | 0.1436431 | -2.98 | 0.005 | -7.20287 | -1.357988 |
| _trend | -0.218731 | 0.0376776 | -5.9 | 0.559 | -0.963534 | -0.0530109 |
| _cons | 4.558459 | 1.595484 | 2.86 | 0.007 | 1.312422 | 7.804496 |


14. Augmented dickey fuller FDI as % of GDP, trend regress lags(0)

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>1% Critical Value</th>
<th>5% Critical Value</th>
<th>10% Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z(t)</td>
<td>-2.895</td>
<td>-4.205</td>
<td>-3.524</td>
</tr>
</tbody>
</table>

MacKinnon approximate p-value for Z(t) = 0.1638

D.FDI as of GDP | Coef. Std. Err. t P>|t| [95% Conf. Interval]

| Model | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] |
|-------|-------|-----------|---|-------|----------------------|
| FDI as of GDP | -0.3246805 | 0.1112145 | -2.90 | 0.006 | -0.5511627 | -0.0981984 |
| _trend | 0.0195750 | 0.0075411 | 2.59 | 0.013 | 0.0042775 | 0.0347364 |
| _cons | -0.1809748 | 0.1331059 | -1.36 | 0.181 | -0.4497877 | 0.087383 |

REFERENCES


Bhattacharya, A. K. (2017, February). Discussion on huge jump in FDI in India. (D. N. Correspondent, Interviewer)


