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Research Article

Regional Distribution of Foreign Direct Investment in India

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Abstract: The tremendous rise in Foreign Direct Investment (FDI) inflows following the economic reforms in 1991, has been one of the most prominent features shaping the behavior of the Indian economy in the past three decades. The present study is based on secondary data and the objective is to examine the trends in FDI inflows to India following the global financial crisis, for the period 2009-2010 to 2021-2022. Additionally, the distributional pattern of FDI among the regions and states of India is also analyzed, using the data for 30 states/territories. The results reveal that total FDI inflows have increased in substantial amounts over the period from US$ 37,745 million in 2009-2010 to US$ 84,835 million in 2021-2022. Maharashtra and Karnataka have surpassed all other states in FDI equity inflows over the period from October 2019 to September 2022. These two states have commanded 50 percent of the total FDI, whereas the regions in central, eastern, and northeast India have received less than 3 percent of the total FDI equity inflows. Thus, the regional disparities in the distribution of FDI are quite visible post-analysis. It is suggested that government should focus on making investor-friendly policies to tap the potential of regions neglected by foreign investors.

***Keywords*:** Foreign Direct Investment, globalization, regional distribution, India, location choice

JEL Codes: F21, F23, R12

1. Introduction

"FDI is one of the most relevant aspects of the recent wave of globalization." - Bajo-Rubio et al. (2010, p. 374).

The beginning of the 20th century was marked by global market integration, however, the process of globalization faced obstruction in the form of two world wars and the Great Depression. The later phase of liberalization, openness, and international integration has unfolded gradually since the mid-1950s, fueled by structural adjustment programs implemented in many developing countries. Such programs had a common feature of reduction in the role of government in the economy and economic management. In the 1980s, to liberalize trade, many developing countries eliminated controls imposed on capital inflows, reduced quantitative restrictions, and eliminated tariffs in phases. Since then, the flows of foreign direct investment to these countries have increased manifold, which has worked in favor of developing and less-developed countries. FDI is regarded as one of the essential tools for economic development and is often preferred over other forms of private investment due to its less volatile and stable form. It assists a country to get out of balance of payment deficit as well as is a major source of non-debt creating external financial resources.

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According to the Planning Commission, FDI is "usually preferred over other forms of external finance because they are non-debt creating, non-volatile and their returns depend on the performance of the projects financed by the investors. FDI also facilitates international trade and transfer of knowledge, skills, and technology". Moreover, it also supplements domestic investment to bridge the gap between the desired and actual level of capital stock (Noorbakhsh et al., 2001). The advantages of foreign firms lie in their skilled organizational team, significant market power, superior knowledge, and advanced technology (Hymer, 1976). Besides seeking the domestic markets of the host economy, foreign firms also provide access to external markets by selling the former's products and services in international markets. In the present scenario, developing economies and in particular, South Asian countries have emerged as potential destinations for investment. The host countries of this region have many advantages that they can offer to foreign investors such as a large domestic market, skilled personnel, lower wage rates, quality infrastructure in form of a well-established financial system, transportation, and communication networks.

In India, the growth of FDI inflows was not significant until 1991 due to the regulatory policy framework. In the 1990s, India suffered from a huge economic crisis and the then government was unable to sustain the economy without immediate assistance from International Monetary Fund (IMF). Therefore, the government introduced a drastic economic reform program in the form of a Liberalisation, Privatisation, and Globalisation (LPG) policy as a pre-condition to receiving assistance from IMF. As a result, the limits of foreign investment increased in high-priority industries and some industries got eligible for the automatic route of FDI. Thereafter FDI inflows in India have undergone a significant improvement as compared with FDI inflows in all developing countries. The nation received US$ 64 billion in Foreign Direct Investments (FDI) in 2020 and has emerged as the fifth largest recipient of FDI inflows across the world (UNCTAD, 2021). FDI inflows within India are quite uneven and are heavily concentrated around the relatively fast-moving reformers, with already advanced industrialization. The skewed distribution of FDI inflows towards some specific sectors and states has increased the imbalance in regional development, which is likely to have serious consequences on the socio-economic-political stability of the country. Thus, this study explores the regional distribution of FDI and the sources of asymmetrical concentration of FDI inflows in the context of an emerging economy, India.

The rest of the paper is organized as follows: Section 2 discusses past studies relating to FDI in India, Section 3 describes the objectives of the study and Section 4 includes the methodology adopted. In Section 5, the results are presented along with a detailed discussion of the findings. Section 6 discusses the conclusion and policy implications and the final sections describe the limitations of the study and directions for future research.

2. Literature review

The concentration of FDI in a few advanced economies and specific regions within the countries has intrigued the researchers to concentrate on the determinants of location choice by foreign investors. The review of literature can be grouped as works that focus on the distribution of FDI within a set of economies (developing countries or Low Developing Countries (LDCs)) or a geographical region (e.g., South Asia or Latin America), those that investigate a particular country (India) and ones that concentrate on the interregional distribution of FDI within a country.

In the first group, one of the earliest works is of Lucas (1993), who in his study of countries in East and South Asia for the period 1960-1987 found that the cost of capital & aggregate demand for exports in the host country are the major factors that influence the inflows of FDI. Durán (1999) considers the market size, domestic savings, solvency, openness, and macroeconomic stability of a country as important variables that affect the FDI. Noorbakhsh et al. (2001) find that in addition to the traditional economic factors that influence foreign investment, the growth of human capital also has a key role to play in attracting investors in developing countries. Studies of African countries by Asiedu (2002, 2006) and Dupasquier and Osajwe (2006) reveal that the availability of natural resources attracts more FDI in such countries. Another study of the Middle East and North Africa (MENA) region by Abbas and Mosallamy (2016) suggests that along with market openness, infrastructure, and human capital, firms tend to establish in areas which have prior foreign investment presence. In the context of Latin America, Aguilar and Vallejo (2002) found that the size and development of economies, distance between domestic and foreign countries, and common language are some of the socio-economic variables that are positively linked to FDI flows. Azam and Lukman (2010) empirically analyzed the impact of various macroeconomic indicators on FDI inflows in a comparative study of three Asian nations India, Pakistan, and Indonesia for the period 1975 to 2001. The study revealed that market size, trade openness, domestic investment, and physical infrastructure are the important factors that influence the FDI inflows in these economies. Santis et al. (2001) in their study of FDI inflows within the European Union found that the Multinational Corporations (MNCs) concentrate more on the overall tax burden than on single corporate tax rates while making their location choices.

Several studies highlight the importance of institutional variables in motivating foreign investors. Gastanaga (1998) conducted a study to examine the determinants of FDI in 49 less developed countries for the period 1970-1997 and results showed that policies and institutional measures of the host country significantly influence the inward FDI. In another study of 52 countries over the period 1991-1995, Drabek and Payne (2002) found that high levels of non-transparency exerted a significant impact on FDI. In the context of developing countries, studies by Busse and Hefeker (2007) and Li and Tanna (2017) reveal that investment profile, internal-external conflict, ethnic tensions, democratic accountability, government stability, and corruption level are some of the pertinent factors that play a major role in the decision making of foreign investors.

In the Indian context, Hooda (2011) analyzed the trends, patterns, and determinants of FDI inflows in the Indian economy using time series data over the period 1991-2008 using trend analysis, compound growth rate, and regression analysis. The study revealed that India continued to be an attractive destination to foreign investors despite the world economy facing a global financial crisis. This may be attributed to liberal foreign investment regimes and investor-friendly insurance policies. Pradhan (2012) identified domestic investment, availability of power, and occurrence of profit as the major macroeconomic variables responsible for large inflows of foreign investment during the period 2001-2010. Pillai and Rao (2013) employed factor analysis to examine the factors responsible for attracting inward direct investment in India. They found that transnational attributes such as exports, imports, foreign exchange reserves, economic stability, and investor confidence are the major determinants of FDI in the country. In panel analysis using a cointegrating VAR model, Dua and Garg (2015) highlight that depreciating exchange rate, higher domestic returns, higher domestic output, better infrastructure, and creditworthiness have a significant positive impact on inward FDI. Sharma (2015) examined the determinants of FDI inflows in India in the post-liberalization period using annual data from 1991 to 2010 through the use of the econometric technique of Ordinary Least Squares. As per the results, the openness of the economy, market size, interest rate, infrastructure, and rate of inflation are the prominent factors that affect the investment decision of foreign investors. In a non-linear ARDL framework, Sharma and Kautish (2020) found that per capita income, private consumption expenditure, globalization index, and currency value have a significant effect on FDI in India. Shalini (2020) in the study viewed FDI as a means to bridge the gap between domestic savings and investment. The analysis reveals that despite substantially opening up the economy to MNCs and a vast domestic market, the amount of foreign investment in India has remained behind its neighboring countries. The major challenges faced by the economy in this regard include stringent tax regimes, political instability, lack of quality infrastructure, and corruption. In their study, Rahman and Lau (2018) investigated the determinants of inward FDI and found that market size, GDP per capita, exchange rate, infrastructure, trade openness, and inflation have a significant and positive association with FDI inflows in India.

There are some works that analyze the determinants of regional FDI in some of the largest economies of the world, that is, India, Russia, US, China, and Turkey. One of the earlier studies is by Coughlin et al. (1991) who reveals that the US States that have a high level of transport infrastructure attract large amounts of FDI in comparison to the other states. Coughlin and Segev (2000) consider the regional distribution of FDI within China using the tool of spatial econometrics and found that shock to FDI in one province positively affects the FDI in nearby provinces. In a study to identify the location determinants of FDI within Turkey for the period 1996-2003, Yavan (2010) found that regions with agglomeration economies, fast-growing markets, educated labor force, road density, milder climate, and high public investment attract substantial amounts of foreign investment.

There are several works in literature pertaining to a large and resource-rich country like Russia. According to Broadman and Recanatini (2001), market size, climate, education, local investments, cost of labor, and transportation are the most important factors influencing the geographical distribution of FDI within Russia. Iwasaki and Suganuma (2005) consider socio-economic variables such as urban population, industrial production, university enrolment rate, and infrastructure development along with the stance of local government in the form of Free Economic Zones (FEZs) as the relevant factors in foreign investment decisions. In another study, Kayam et al. (2011) assessed that the market potential of the regions and resource endowments create favorable conditions for attracting additional FDI.

In the Indian context, one of the studies by Morris (2004) examined the regional patterns of FDI in India, particularly Gujarat, over the period 1991-2003 by utilizing Stephen Hymer's location choice model. As per the results, the regions with metropolitan cities receive large amounts of FDI due to the availability of a huge workforce and large spillover effects. Gujarat has been at a disadvantage due to the absence of a metropolitan city and uncertain regulations. FDI into the state has surged since the 1991 reforms, though the growth of its industries has remained retardant since 1997-1998. Some of the sectors in Gujarat that have high potential to grow if foreign investment is made are services, high-tech, and industries employing skilled labor. Kayam et al. (2011) examine the pattern and potential social determinants of regional distribution of FDI within India for 34 states for the period 1994 to 2004. The estimation techniques used in the study include pooled regression model and the random-effects model. Results reveal that variables that have a significant positive relationship with FDI inflows are minimum wages, population, and power structure. Whereas, slum population and level of urbanization are significant anchors of states in the long run. Thus, it is suggested that states that intend to attract foreign investment should focus on the development of power infrastructure, education, healthcare, and higher standards of living. Ramaswamy et al. (2017) examined the productivity of FDI spillovers at the regional level across states for the period 1993 to 2013. Panel data analysis showed that human capital, imports of technology, research & development, and other specifications of FDI majorly influenced the regional productivity in India.

In a recent study by Tarai et al. (2022), the pattern of FDI in India from 2000 to 2021 revealed that Maharashtra and New Delhi have attracted the maximum amount of FDI by maintaining their top positions throughout the period. In these regions, services, transportation, telecommunications, and energy were the prominent sectors that received more FDI due to their huge growth potential. The results point out the regional inequalities in the distribution of FDI within India. Similarly, Ramachandran and Sasidharan (2022) point out the high concentration in the spatial distribution of FDI in India. With regard to greenfield investments, prior investment acts as a key factor for foreign investors in deciding the location of new investments. The regional characteristics are the main drivers in the location choice of new investors and, thus result in the clustering of FDI in the country.

In brief, past studies have been confined to determinants and the impact of FDI on the Indian economy. Apart from this, some literature is available on the effects of foreign investment across major industries in India. Whereas the regional destinations of FDI within India and the location choice of investors have received the least attention from the researchers. So, the present study attempts to analyze the flows of FDI to various states in India along with the description of factors responsible for the location choice of foreign investors.

3. Objectives of the study

The specific objectives of the study are as follows:

(1) To study the trends in the distribution of global FDI flows across major regions.

(2) To study the trends of FDI inflows in India in the post-financial crisis period.

(3) To examine the distribution of FDI inflows among the states in India.

(4) To identify the factors that influence foreign investors to undertake FDI in a particular state.

4. Research methodology

The study is based on 'secondary data', which is compiled from various World Investment Reports published by United Nations Conference on Trade and Development (UNCTAD), Handbook of Statistics on the Indian economy, various Reserve Bank of India (RBI) bulletins, and the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry. The descriptive analysis in this paper is based on FDI data for the world and India over the period 2009-2010 to 2021-2022. In order to examine the regional trends in FDI flows to India, the overall flows are segregated into six regions that include 30 states for the period 2019 to 2022. The data is analyzed using annual growth rates, bar graphs, line graphs, and pie charts, presented in an organized manner.

5. Findings and discussion

5.1 *Trends in global FDI inflows*

The last two decades have witnessed a huge surge in the FDI flows worldwide with a gradual change in the foreign policies of the economies. The beginning of the 21st century was marked by a sharp fall in global FDI inflows between 2001 and 2003; however, they started recovering in 2004 and kept on rising to reach the highest peak ever achieved in 2007, amounting to $ 1,905 billion (WIR, UNCTAD). As the global financial crisis set in by 2008, led to a drastic disruption in the global economy. Given the linkages in trade and private capital flows between the US, UK, Europe, and Asia, such kind of upheaval was inevitable. Table 1 depicts FDI inflows worldwide, developed economies, and developing economies in the post-financial crisis period (2009-2010 to 2021-2022). The latter is further segregated as inflows in three regions, that is, Africa, Asia, and Latin America and the Caribbean (LAC). It is evident from the table that the share of developing countries in global FDI inflows has increased from 39 percent in 2009 to 53 percent in 2021, which reached its peak in 2020 (67 percent) when the world economy faced the brunt of the COVID-19 pandemic. As the restrictions eased throughout 2021, the investor-friendly environment gave the much-needed boost to FDI inflows as they escalated to $ 1,582 billion in 2021. This strong recovery is the result of a huge jump in FDI flows to developed economies that is attributable to cross-border Mergers & Acquisitions (M & As) and international project finance deals, whereas greenfield investments continue to remain weak (UNCTAD, 2022).

Table 1. Global FDI inflows by region (2009-2021) US$ billion

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)	Value (%)
World total	1,186	1,389	1,591	1,574	1,431	1,404	2,032	2,045	1,632	1,448	1,481	963	1,582
Developed economies	652 (55)	700 (50)	824 (52)	858 (54)	694 (48)	670 (48)	1,267 (62)	1,384 (67)	937 (57)	753 (52)	746 (50)	319 (33)	746 (47)
Developing economies	463 (39)	625 (45)	687 (43)	651 (41)	652 (45)	677 (48)	730 (36)	660 (32)	694 (42)	694 (48)	716 (48)	645 (67)	837 (53)
Africa	54	43	66	52	50	54	58	46	40	45	46	39	83
Asia	323	412	425	405	415	460	514	478	501	496	511	518	618
LAC	84	167	194	190	184	161	157	136	153	152	158	86	134
South Asia	42.4 (3.5)	35.0 (2.5)	44.3 (2.7)	32.3 (2.0)	35.6 (2.4)	41.4 (2.9)	51.2 (2.5)	54.2 (2.6)	51.6 (3.1)	52.2 (3.6)	59.0 (3.9)	70.9 (7.3)	52.4 (3.3)
Bangladesh	0.7	0.9	1.1	1.3	1.6	1.5	2.2	2.3	2.1	3.6	2.8	2.5	2.8
Iran	2.9	3.6	4.3	4.6	3.1	2.1	2.1	3.3	5.0	2.3	1.5	1.3	1.4
Pakistan	2.3	2.0	1.2	0.9	1.3	1.8	1.6	2.5	2.4	1.7	2.2	2.1	2.1
India	35.6 (3)	27.4 (1.9)	36.1 (2.2)	24.1 (1.5)	28.1 (1.9)	34.5 (2.4)	44 (2.1)	44.4 (2.1)	39.9 (2.4)	42.1 (2.9)	50.5 (3.4)	64.0 (6.6)	44.7 (2.8)

Source: Various issues of UNCTAD world investment reports

Amongst the developing economies, Asia has received the maximum FDI, whereas minimal FDI has gone to Africa over the concerned period. After following a restrictive policy regime towards foreign investment and trade, South Asian economies, following in the footsteps of Southeast Asian countries, shifted their emphasis towards the market economy and liberalized policy of foreign investment in the past two-three decades. As a result, the FDI inflows to the region of South Asia augmented by US$ 10 billion over the period 2009-2021, though their share in world FDI has remained almost stable, with an exception of 7.3 percent in 2020. Among the major economies of South Asia, Bangladesh has attracted the least amount of FDI, whereas India is the highest receiver as inflows to the country surged from US$ 35.6 billion in 2009 to US$ 44.7 billion in 2021.

A fundamental shift occurred in the development strategy of India after the balance of payment crisis in 1991 as it eased the restrictions on foreign investment as a part of the economic reforms. In order to attract a greater share of world FDI inflows, over the years, India has allowed foreign investment in numerous sectors of the economy and amended laws to provide the same status to foreign firms as that of domestic firms. India's share in the World FDI increased from 3 percent in 2009 to 6.6 percent in 2021 (Figure 1).

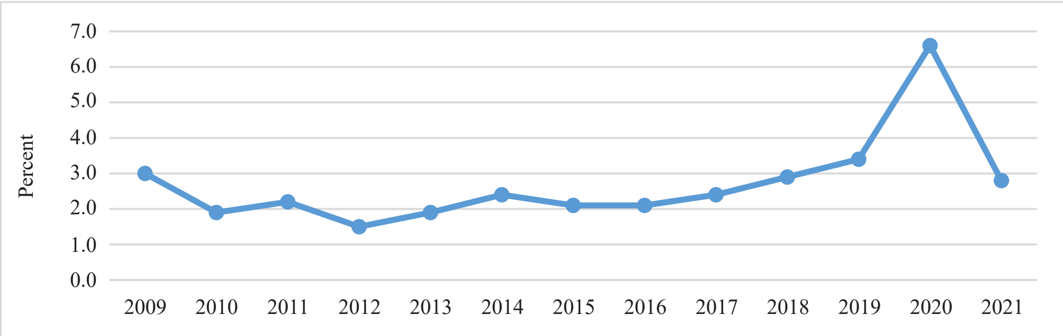


Figure 1. India's share in World FDI

5.2 *Trends in foreign direct investment to India*

The latest publication by UNCTAD places India at 7th rank in terms of FDI inflows as it was amongst the six economies in developing Asia (China, Hong Kong, Singapore, India, the United Arab Emirates, and Indonesia, in that order) that together accounted for more than 80 percent of FDI to the region (UNCTAD, 2022). Such a position in the world economy is a result of continued efforts by the Indian state towards liberalization and globalization since the 1990s. As a result of these efforts, FDI emerged, for the first time in the 1990s, as a preferred route for financial resource mobilization over loans and other forms of foreign resources. The measures towards relaxation of investment norms and pro-liberalization decisions were continued in the 2000s as well. In 1999, the central government formulated and introduced Foreign Exchange Management Act (FEMA) in an attempt to de-regularize the economy and relax the controls on foreign exchange in India. In the mid-2000s, some major policy initiatives were undertaken by the government, which include, a rise in equity cap to 100 percent through automatic route, expansion in the list of activities or industries eligible for the automatic route, and relaxation of bureaucratic controls. In the subsequent periods, several other measures for the promotion of foreign investment have been announced. In recent years, the central government has increased the FDI limit to 74 percent through the automatic route in the defensce and insurance sectors. Additionally, the government announced 'PM Gati Shakti' in 2021 - a national master plan, which is expected to enhance industrial productivity via enhanced interconnectivity between the major modes of transportation in India. Since then, the flows of FDI to India have risen substantially, making it one of the highest recipients of FDI in the world. By now, most of the foreign investment is under the 'automatic approval' route, where the bulk of the sectors is open for 100 percent FDI, except for a few high-priority sectors.

The information on foreign direct investment inflows to India from 2009-2010 to 2021-2022 is presented in Table 2 and Figure 2. Owing to the global recession triggered by the United States subprime crisis in 2008-2009, there was a large withdrawal of foreign institutional investment from the economy and a decline in the growth rate of FDI, which further diminished by 10 percent in 2009-2010 and 8 percent in 2010-2011. The global financial instability and Euro crisis in 2012-2013 resulted in the contraction of FDI inflows by 10 percent in 2009-2010, and further by 26 percent in 2012-2013 due to a decline in the confidence of investors worldwide. The revival signs started surfacing in 2014 with a growth of 25 percent in the FDI inflows in India, which has been the highest growth rate before 2021-2022. Since 2014, the government has dropped its rigid approach towards policymaking and created a liberal and investor-friendly environment to encourage increased inflows of foreign investment that is commensurate with India's capital requirements. With the launch of the 'Make in India' initiative in 2014, the Government of India has facilitated a positive investment climate to further stimulate innovation and build best-in-class manufacturing infrastructure. This has resulted in strong investment in the top three industry recipients, that is manufacturing, communication, and financial services. Moreover, the government has allowed up to 100 percent FDI through the 'automatic route' in most sectors, such as pharmaceuticals, medical devices, single-brand retail trading, rail infrastructure, brownfield airport projects, and broadcasting. These reforms have catalyzed the rising trend of FDI inflows during 2014-2015 to 2019-2020, as they recorded an enormous amount of US$ 74,390 million (2019-2020) before the pandemic. In the wake of the COVID-19 pandemic, the government gave an emphatic call for self-reliance with the launch of 'Atmanirbhar Bharat Abhiyaan' (Self-reliant India) and even opened up traditionally conservative sectors like the defense sector by allowing up to 74 percent FDI through the automatic route. Although, the growth rate of inward FDI came down from 20 percent in 2019-2020 to 10 percent (2020-2021) and further to 3 percent (2021-2022), the amount of FDI inflows to the economy continued to display an upward trend by finally reaching US$ 84,835 million in the financial year 2021-2022.

Table 2. FDI inflows in India from April 2009 to March 2022 (Amount in US$ million)

Year	Amount of FDI inflow (US$ million)	AIIP (%)
2009-2010	37,745	-10
2010-2011	34,847	-8
2011-2012	46,556	34
2012-2013	34,298	-26
2013-2014	36,046	5
2014-2015	45,148	25
2015-2016	55,559	23
2016-2017	60,220	8
2017-2018	60,974	1
2018-2019	62,001	2
2019-2020	74,390	20
2020-2021	81,973	10
2021-2022	84,835	3
Cumulative total	848,663	

Source: Various issues of RBI Bulletin http://www.rbi.org.in

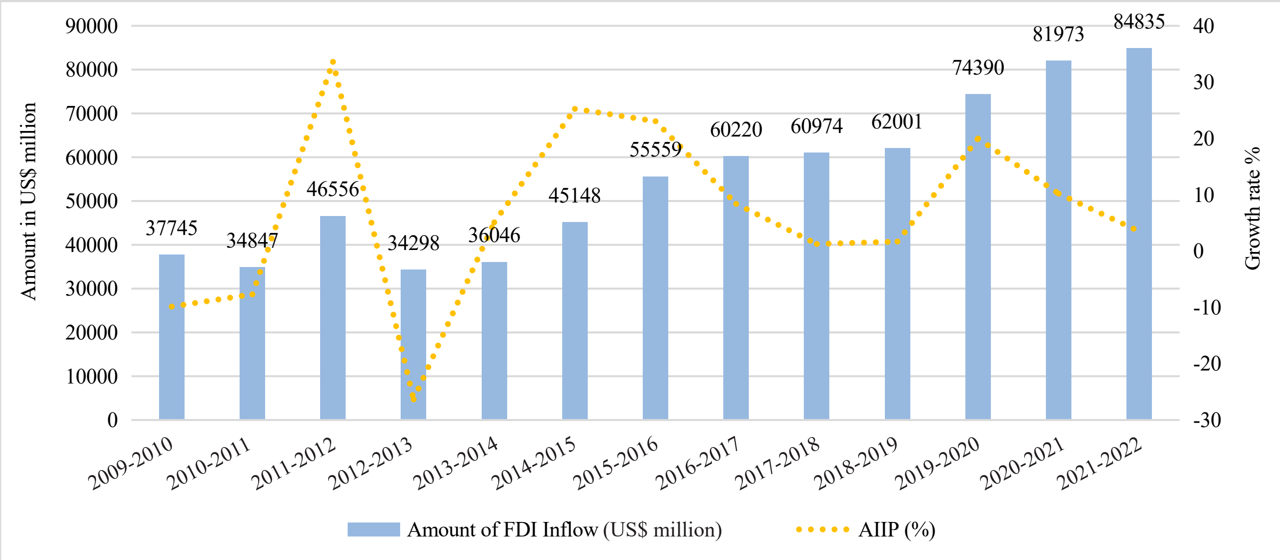


Figure 2. FDI: Financial year-wise total inflows (April 2009 to March 2022)

5.3 *Geographical distribution of FDI in India*

The geographical distribution of FDI equity inflows within India depicts wide variations among the six major regions. Over the period October 2019 to September 2022, the Western region has attracted the highest FDI inflows to the amount of US$ 78,094 million, accommodating about half (46 percent) of the total FDI. As we move further down toward the South, the region has managed to attract the second highest inflows to the amount of US$ 53,074 million (31 percent share). Karnataka is a leader in the region and a favorite destination of foreign investors as it has received US$ 39,360 million of the total FDI equity. Tamil Nadu has managed to attract US$ 7,896 million in foreign direct investment with a share of 4.6 percent, whereas, Kerala, Andhra Pradesh, and Puducherry cities - all have a share of less than 1 percent in total FDI. The third largest region in India in terms of foreign investment is the North, which accounts for 19 percent share (US$ 32,171 million) in cumulative total FDI equity inflows. Delhi and Haryana are the two cities that are major contributors in FDI to the Northern region with a share of 13 percent and 4 percent respectively in the total inflows of FDI equity. On the other hand, Punjab, despite being the third-largest producer of wheat and rice in India and home to major food processing and agro-based industries has attracted a meager US$ 885 million FDI equity over the concerned period. The Eastern region contributes 2.4 percent to the total FDI equity with prime contributions of Jharkhand (US$ 2,655.98 million) and West Bengal (US$ 1,107.30 million). These two states are also amongst the top ten states in terms of cumulative FDI equity inflows. The Central and North-Eastern regions are the least favorable destinations for foreign investors as they have managed to receive a negligible amount of FDI with a share of 1.02 percent and 0.02 percent respectively.

The cumulative data in Figure 3 reveals that the states of Maharashtra (28 percent) and Karnataka (23 percent) have received about one-half of the total FDI in India from October 2019 to September 2022. The Western state of Maharashtra topped the list with a cumulative FDI inflow of US$ 47,165 million. Gujarat has attracted the third-highest FDI inflows of US$ 30,660 million (18%) over the period. Delhi region with an FDI inflow of US$ 109,471 million is next in place. The other important states at fifth and sixth rank include Tamil Nadu and Haryana with 4.6 percent and 4.1 percent shares in total inflows respectively.

5.4 *State-wise FDI in India: Socio-economic factors*

The states that received the highest FDI during this period were Maharashtra (US$ 47.16 billion), followed by Karnataka (US$ 39.36 billion), Gujarat (US$ 30.65 billion), Tamil Nadu (US$ 7.89 billion), Delhi (US$ 22.19 billion) and Haryana (US$ 6.95 billion). A common feature of the four former states is that they are all coastal states, which works as one of their biggest strengths in terms of resources, productive habitats, and rich biodiversity. All these states or territories have metropolitan cities that include, Mumbai, Pune, Bangalore, Ahmedabad, Chennai, and National Capital Region (NCR). The distinct advantages of such cities are the mass transportation system, varied skilled workforce, and access to vast resources, which makes them a major hub of foreign direct investment in India. Maharashtra has emerged as a favorable destination for foreign investment as it has the advantage over other regions in the form of two metropolitan cities, that is, Mumbai and Pune. It locates at the headquarters of major financial institutions, Asia's oldest stock exchange, and is one of the most industrialized states in India. Apart from this, the state offers a business-friendly environment and fiscal concessions for the development of particular regions. The second favorable destination of foreign equity, Karnataka is the research and innovation hub of Asia and a leader, both in investment and exports in India. The state is home to a large number of multinational companies and Research and Development (R & D) centers. The availability of world-class infrastructure facilities along with a diverse and highly skilled workforce makes the state conducive to foreign investors. Gujarat has emerged as one of the 'Best Performers' in the state startup ranking and the status of "Achiever" among the coastal states in the survey by logistics division of DPIIT (LEADS, 2022). Currently, the state has 21 operational Special Economic Zones (SEZs) and 8 Special Investment Regions (SIR), a large number of operational ports, and commercial cargo ports making it an attractive investment hub. Delhi enjoys precedence over other states/ territories due to its organized industrial sector and high-quality infrastructure. Tamil Nadu, a state with the second-highest GDP in India and a large number of operational Special Economic Zones (SEZs) has secured an FDI of US$ 7,896 million. The availability of a skilled workforce due to a high literacy rate, the liberal attitude of the state government, and the provision of single window clearance above a certain level of investment are some factors that ensure a high level of foreign investment in the state. The investor-friendly policies and an efficient administration in Haryana have benefitted the state to secure US$ 6,959 million of foreign equity. The geographical proximity of Delhi and Haryana makes them an ideal region for substantial foreign investments in the north.

The introduction of reforms and improvement in infrastructure facilities have rendered many states successful in receiving FDIs. They include Gujarat, Maharashtra, Andhra Pradesh, Karnataka, Odisha, Madhya Pradesh, Punjab, Rajasthan, and West Bengal. Despite such measures, Punjab, Andhra Pradesh, Odisha, and Madhya Pradesh have remained far behind in comparison to the top FDI receivers. In the eastern region, states like Jharkhand and Bihar have not attracted enough FDI when compared with other states. Over the decades, North East has failed to follow the course of India's resurgent growth story when a majority of Indian states/territories have trodden the path of economic development. There is a dearth of investment in North East as the region has managed to receive a cumulative FDI equity of only US$ 27.5 million with a majority of it concentrated in one state, that is, Assam (US$ 20.3 million). This has worsened the regional divide within the country and led to further divergence between the states across indicators that are influenced by FDI, such as labor productivity and employment generation. Several factors determine the FDI inflows into a particular state such as the availability of quality infrastructure (good roads, adequate ports, telecommunications, power supply, etc.), skilled labor force at lower wage rates, the proportion of subsidies provided by the government, tax holidays or tax incentives, geographical location, level of urbanization, political stability and macroeconomic stability. The market size of a regional economy captured by Gross State Domestic Product (GSDP) is a decisive factor in foreign investment decisions. As Figure 4 shows, there is a positive correlation between the Gross State Domestic Product (GSDP) of the Indian states and FDI inflow into those states. Simultaneously, a stark contrast is visible between the states with high FDI inflows and those with low or negligible numbers. Maharashtra, Gujarat, Karnataka, Tamil Nadu, and Haryana are the top states in terms of Gross Domestic Product, which simultaneously reflects in their FDI Inflows as well. In contrast, the high GDP values of Andhra Pradesh, Kerala, Madhya Pradesh, Rajasthan, UP, and West Bengal have not attracted much foreign investment. On the other hand, Bihar, Himachal Pradesh, Jharkhand, Odisha, Punjab, and Uttarakhand are the states with comparatively low levels of domestic product.

Apart from GSDP, other social and economic indicators reflect the business attractiveness of a region for investors. Some of the major parameters that have direct and indirect effects on FDI are innovation, health, education, financial inclusion, digitization, and human development. This section analyses the indices that capture the relative performance of the Indian states in these parameters. By identifying the gap between the states, it is possible to determine the factors that may be responsible for differences in FDI inflows.

Table 3. State-wise FDI equity inflows (Oct 2019-Sep 2022)

S. No.	State	Amount of FDI inflow (in USD million)	Percentage with inflow (in terms of USD)
	Northern Region	32,171.34	19.01
1	Delhi	22,197.41	13.12
2	Haryana	6,959.07	4.11
3	Rajasthan	1,880.81	1.11
4	Punjab	885.36	0.52
5	Himachal Pradesh	180.28	0.11
6	Chandigarh	67.35	0.04
7	Jammu and Kashmir	1.05	0.00
	Western Region	78,093.97	46.15
8	Maharashtra	47,164.63	27.88
9	Gujarat	30,659.88	18.12
10	Dadra and Nagar Haveli and Daman and Diu	150.04	0.09
11	Goa	119.42	0.07
	Southern Region	53,074.34	31.37
12	Karnataka	39,360.68	23.26
13	Tamil Nadu	7,896.36	4.67
14	Telangana	4,411.45	2.61
15	Kerala	678.87	0.40
16	Andhra Pradesh	663.71	0.39
17	Puducherry	63.27	0.04
	Central Region	1,723.04	1.02
18	Uttar Pradesh	1,075.37	0.64
19	Madhya Pradesh	518.73	0.31
20	Uttarakhand	126.81	0.07
21	Chhattisgarh	2.13	0.00
	Eastern Region	4,081.66	2.41
22	Jharkhand	2,655.98	1.57
23	West Bengal	1,107.30	0.65
24	Bihar	169.71	0.10
25	Odisha	148.67	0.09
	North-Eastern Region	27.53	0.02
26	Assam	20.30	0.01
27	Arunachal Pradesh	5.55	0.00
28	Meghalaya	1.10	0.00
29	Tripura	0.56	0.00
30	Nagaland	0.01	0.00
	State Not Indicated	28.46	0.02
	Gross-total	169,200.34	

Source: Various issues of FDI factsheets, Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of commerce and industry, Government of India

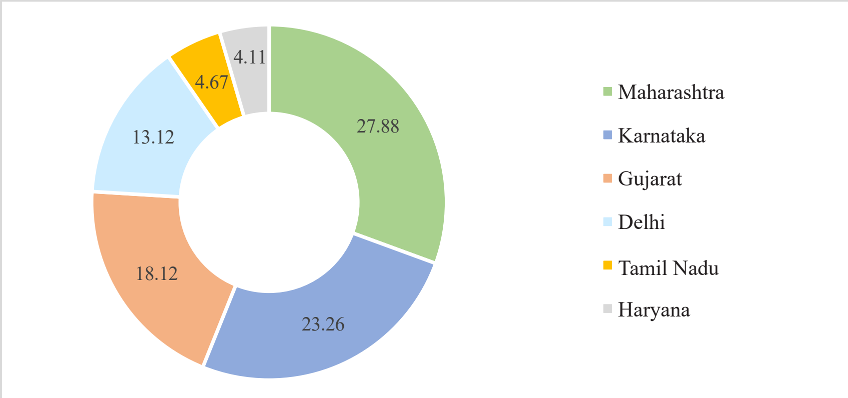
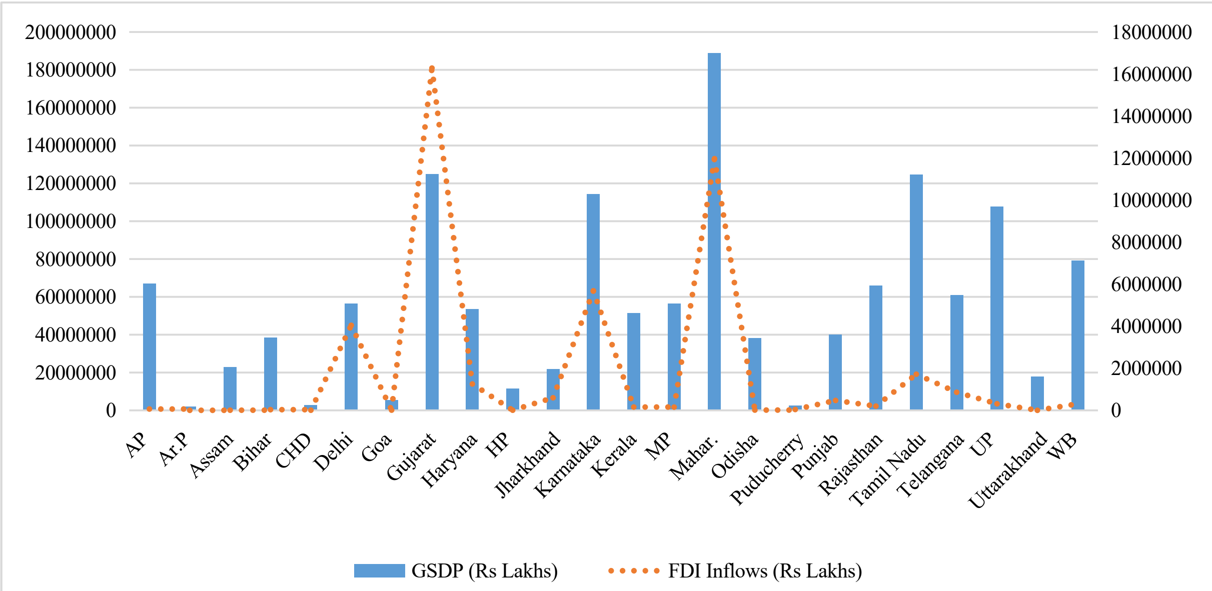


Figure 3. States attracting highest cumulative FDI equity inflows (Oct 2019 to Sep 2022)

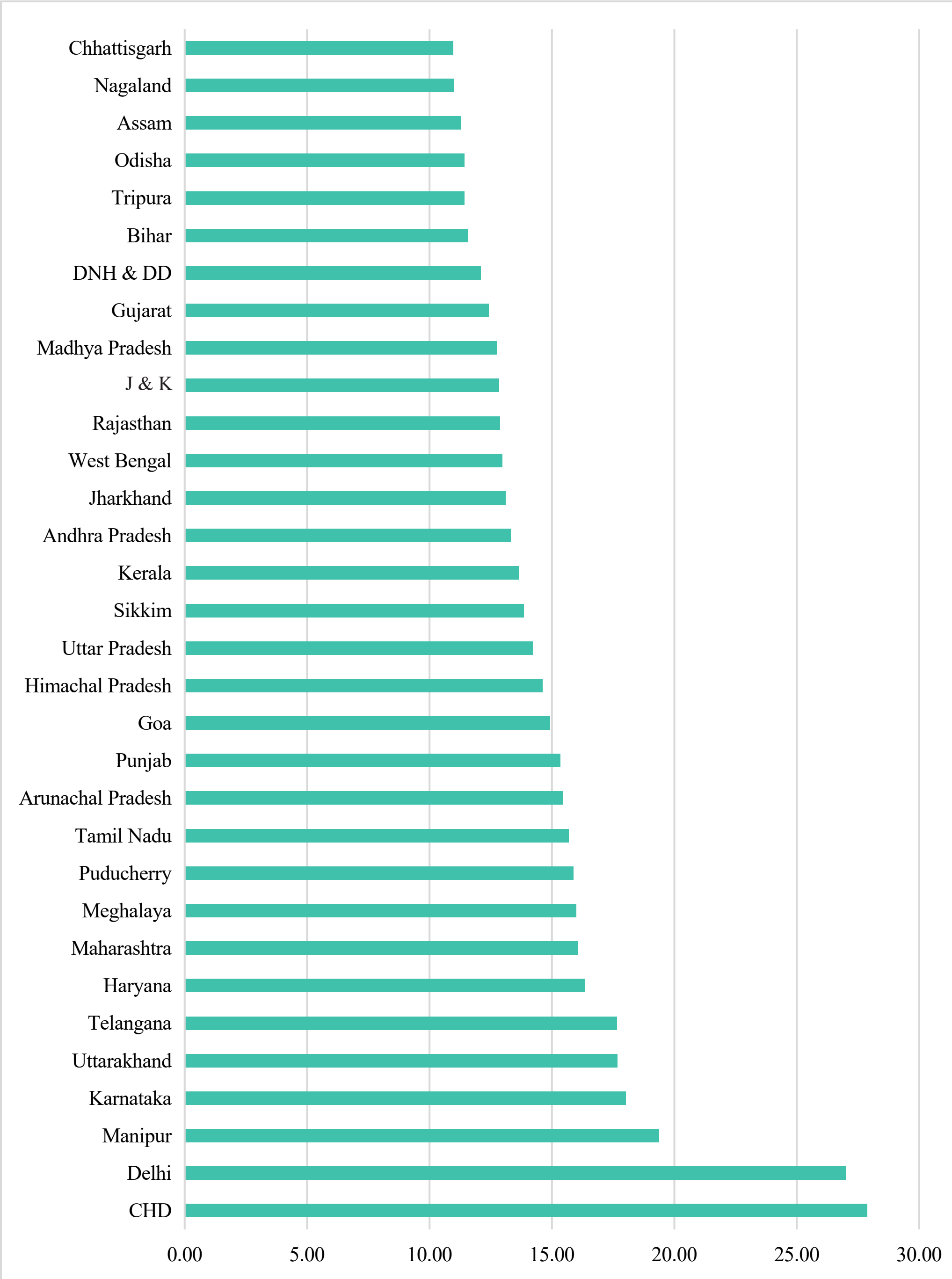


Source: Author's calculation

Figure 4. Disparities in FDI and GDSP across Indian States

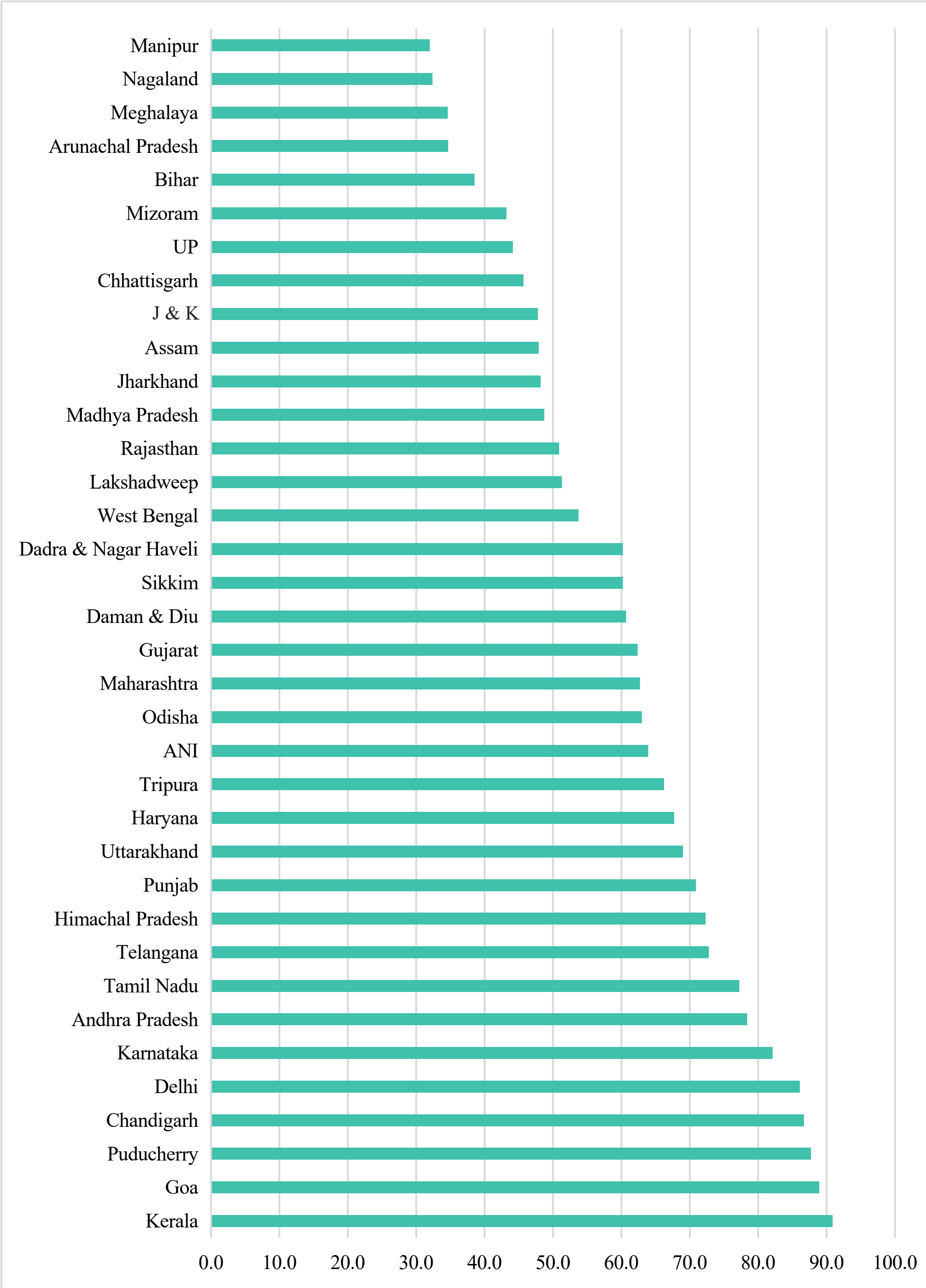
The India Innovation Index examines the innovation capacities and ecosystems in the states and Union Territories. The 2021 Index has broadened in scope with the expansion of the number of indicators from 36 to 66 across seven key pillars, that are, human capital, investment, business environment, knowledge workers, legal environment, knowledge output, and knowledge diffusion. As shown in Figure 5, Karnataka has topped the Major States' category with a score of 18.01, followed by Telangana and Haryana. Among the North-Eastern and Hilly States, Manipur is the best performer with a score of 19.37, followed by Uttarakhand and Meghalaya. For the UTs, Chandigarh is the top performer with a score of 27.8, followed by Delhi with a score of 27. At the other end of the spectrum are states like Chhattisgarh, Nagaland, Assam, Odisha, Tripura, and Bihar. As innovation is imperative to establish competitiveness, states performing well in the Innovation Index are expected to be more competitive and attractive to investors than those that lag.

Another instrumental variable in attracting investment and achieving equitable growth is an inclusive financial system. It is pertinent that the residents of an economy can understand and access basic financial services such as credit, deposit, insurance, and pension services. Credit Rating Information Services of India Limited (CRISIL) Inclusix is a composite index that measures the extent of financial inclusion at a geographical level across four dimensions of branch, credit, deposit, and insurance penetration. Along with ease of access to financial services, financial inclusion increases the efficiency of financial markets in attracting capital inflows. Figure 6 shows that states like Kerala, Delhi, Chandigarh, Karnataka, Andhra Pradesh, Tamil Nadu, Himachal Pradesh, and Punjab have scores greater than 70 on the financial inclusion index. Though the same does not get reflected in foreign investment to Kerala, Himachal Pradesh, Punjab, and Andhra Pradesh as FDI to these states has remained dismal. On the contrary, Bihar, Uttar Pradesh, Chhattisgarh, and the Northeast states are at the bottom of the financial index along with a similar pattern in the case of FDI inflows.



Source: NITI aayog

Figure 5. Innovation index (2021)

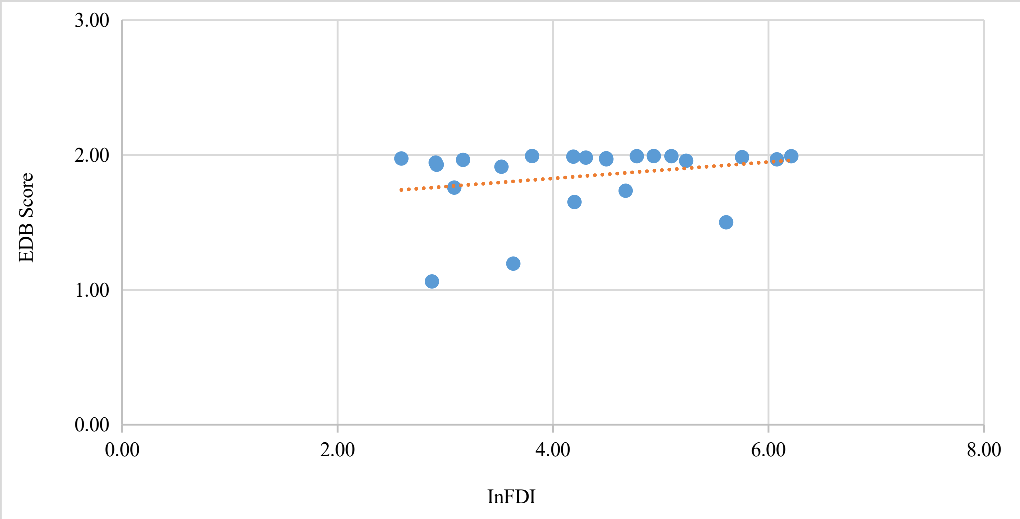


Source: CRISIL inclusive

Figure 6. Financial inclusion index (2016)

The various rankings of Indian states on the Ease of Doing Business (EDB) Index reflect their attractiveness as an investment destination. The index scores of 2017 reveal that Andhra Pradesh, Haryana, Gujarat, Maharashtra, and Karnataka are again the top scorers as in other indices. Surprisingly, states like Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, and West Bengal remained far behind in the rankings on earlier indices have claimed high scores on the EDB index. Jammu & Kashmir triumphed over other UTs with a score of 32.76, followed by Daman & Diu.

Consequently, improvements in doing business parameters will provide investors with a positive signal regarding the potential of the region in generating high returns for their investments, thereby leading to more FDI inflows. Figure 7 shows a positive relation between FDI inflows and EDB index scores at the state level.



Source: Author's calculation

Figure 7. Correlation between FDI inflows and EDB index scores

The comparative study of various indices shows that states like Maharashtra, Gujarat, Karnataka, Andhra Pradesh, Tamil Nadu, Chandigarh, and Delhi - which perform well in terms of FDI inflows register strong performance values in most of the indices. However, states such as Goa, Kerala, Madhya Pradesh, Jharkhand, Rajasthan, and Uttar Pradesh outperform them in other indicators. This accentuates the fact that FDI inflows are also influenced by factors that are not entirely captured by these indicators. Therefore, understanding the factors responsible for attracting FDI inflows requires analysis of diverse variables that affect the investment decisions of foreign investors within an econometric framework.

6. Conclusion and policy implications

The central government has transitioned towards a 'liberal and transparent' foreign investment policy in the past two decades, whereby almost all the sectors of the economy are open for 100 percent FDI under the automatic route, except for a few strategic and core sectors. The investor-friendly environment has aided the nation to attract a substantial amount of FDI and surpass the share of all other South-Asian countries in global FDI in the past decade. Further, it is depicted that the Western region in India excels in attracting the highest FDI in equity inflows, followed by the regions of the South and North. Among these regions, Maharashtra, Karnataka, Gujarat, Delhi, and Tamil Nadu are the conventional winners as these top five states have accumulated 90 percent of the total inflows of FDI equity over the 2019-2022 period. The states of Jharkhand, West Bengal, and Uttar Pradesh have managed to receive some foreign investment over the years, though in a minor proportion in comparison to the richer states. Thus, the share of central, northern, and northeastern regions in total FDI equity is merely over 3 percent. It is imperative for the central government and concerned state governments aside from adopting an open-door policy, they must provide the necessary infrastructure and create a favorable investor-friendly environment for a more equitable spatial distribution of FDI. The efforts should be directed towards business-friendly policies, improvements in education, health, diffusion of knowledge, and access to better financial infrastructure are critical in attracting foreign investors.

Limitations

This research is limited to a few variables incorporated based on the empirical literature and the time is taken from 2019 to 2022 due to the unavailability of data on state-wise FDI inflows.

Future research directions

It opens avenues for future research to undertake econometric analysis of the relevant macroeconomic variables as per the theoretical and empirical literature to study the determinants of FDI inflows in India.

Conflict of interest

The author declares no potential conflict of interest for the research, authorship, or publication of this article.

References

Abbas, S., & Mosallamy, D. E. (2016). Determinants of FDI flows to developing countries: An empirical study on the MENA region. *Journal of Finance and Economics, 4*(1), 30-38.

Asiedu, E. (2002). On the determinants of Foreign Direct Investment to developing countries: Is Africa different? *World Development, 30*, 107-119. http://dx.doi.org/10.1016/S0305-750X(01)00100-0

Asiedu, E. (2006). Foreign Direct Investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. *World Development, 29*(1), 63-77.

Aguilar, C., & Vallejo, H. (2002). *Regional Integration and Foreign Direct Investment: The Case of Latin America*. CEDE Working Paper No. 2002-13.

Azam, M., & Lukman, L. (2010). Determinants of Foreign Direct Investment in India, Indonesia, and Pakistan: A quantitative approach. *Journal of Managerial Sciences, 4*(1), 31-44.

Bajo-Rubio, O., Diaz-Mora, C., & Diaz-Roldan, C. (2010). Foreign Direct Investment and regional growth: An analysis of the spanish case. *Regional Studies, 44*(3), 373-382. https://doi.org/10.1080/00343400802508844

Broadman, H., & Recanatini, F. (2001). *Where has all the foreign investment gone in Russia?* World Bank Policy and Research Working Paper No. 2640. Washington DC: The World Bank. https://doi.org/10.1596/1813-9450-2640

Busse, M., & Hefeker, C. (2007). Political risk, institutions and Foreign Direct Investment. *European Journal of Political Economy, 23*(2), 397-415.

Coughlin, C. C., Terza, J., & Arromdee, V. (1991). State characteristics and the location of Foreign Direct Investment within United States. *Review of Economics and Statistics, 73*, 675-683. https://doi.org/10.2307/2109406

Coughlin, C. C., & Segev, E. (2000). Foreign Direct Investment in China: A spatial econometric study. *World Economy, 23*(1), 1-23.

Dua, P., & Garg, D. (2015). Macroeconomic determinants of Foreign Direct Investment: Evidence from India. *The Journal of Developing Areas, 49*(1), 133-155.

Dupasquier, C., & Osajwe, P. (2006). Foreign Direct Investment in Africa: Performance, challenges, and responsibilities. *Journal of Asian Economics, 17*(2), 241-260.

Durán, J. E. (1999). *The determinants of foreign direct investment in Latin America and the Caribbean: Its impact on regional trade and integration*. ECLAC, Mimeo.

Drabek, Z., & Payne, W. (2002). The impact of transparency on Foreign Direct Investments. *Journal of Economic Integration, 17*(4), 377-395.

Gastanaga, V. M., Jeffrey, B. N., & Pashamova, B. (1998). Host country reforms and FDI inflows: How much difference do they make? *World Development, 26*(7), 1299-1314.

Hooda, S. (2011). *A study on FDI and Indian Economy*. Doctoral thesis. National Institute of Technology, Kurukshetra, Haryana.

Hymer, S. H. (1976). *The International Operations of National Firms: A Study of Foreign Direct Investment*. MIT Press, Cambridge, MA.

Iwasaki, I., & Suganuma, K. (2005). Regional distribution of Foreign Direct Investment in Russia. *Post-Communist Economies, 17*(2), 153-172. https://doi.org/10.1080/14631370500104828

Kayam, S. S., Ecer, S., & Gupta, R. (2011). *Social determinants of intra-regional dispersion of FDI in India*. MPRA Paper No. 39153.

LEADS. (2022). *Logistics Ease Across Different States.* India Logistics. Department of Commerce, Ministry of Commerce and Industry, Government of India.

Li, C., & Tanna, S. (2017). The impact of Foreign Direct Investment on productivity: New evidence for developing countries. *Economic Modelling, 80*, 453-466.

Lucas, R. (1993). On the determinants of direct foreign investment: Evidence from East and Southeast Asia. *World Development, 21*(3), 391-406.

Morris, S. (2004, July). *A Study of the Regional Determinants of Foreign Direct Investments in India, and the Case of Gujarat*. Indian Institute of Management, Ahmedabad Working Paper No. 2004/03/07. http://dx.doi.org/10.2139/ssrn.651741

Noorbakhsh, F., Poloni, A., & Youssef, A. (2001). Human capital and FDI flows to developing countries: New empirical evidence. *World Development, 29*(9), 1593-1610.

Pillai, K. R., & Rao, M. S. (2013). Determinants of inward FDI to India: A factor analysis of panel data. *Journal of Contemporary Management Research, 7*(1), 1-16.

Pradhan, R. P. (2012). Dynamic panel data model and FDI determinants in India. *The IUP Journal of Financial Economics, 10*(1), 33-41.

Rahman, M. M., & Lau, E. (2018). Determinants of Foreign Direct Investment in Bangladesh and India: An empirical analysis. *Journal of International Business and Management, 1*(1), 1-10.

Ramachandran, R., & Sasidharan, S. (2022). Country of origin and industry FDI agglomeration of MNEs: Evidence from India. *Transnational Corporations Review*. https://doi.org/10.1080/19186444.2022.2082226

Ramaswamy, M., Dhanapal, D., & Murugesan, P. (2017). Effects of FDI spillover on regional productivity: Evidence from panel data analysis using stochastic frontier analysis. *International Journal of Emerging Markets, 12*(3), 427-446. https://www.emerald.com/insight/content/doi/10.1108/IJoEM-11-2015-0246/full/html

Santis, R. D., Mercuri, M. C., & Vicarelli, C. (2001). *Taxes and Location of Foreign Direct Investment: An Empirical Analysis for the European Union Countries*. ISAE Working Paper No. 24. http://dx.doi.org/10.2139/ssrn.1004255

Shalini, S. (2020). The role of Foreign Direct Investment (FDI) in India - An overview. *International Journal of Research and Analytical Reviews (IJRAR), 7*(1), 91-100.

Sharma, A. K. (2015). Trends and determinants of Foreign Direct Investment in India: A study of the post-liberalization period. *South Asian Journal of Management, 22*(3), 96.

Sharma, R., & Kautish, P. (2020). Examining the nonlinear impact of selected macroeconomic determinants on FDI inflows in India. *Journal of Asia Business Studies, 14*(5), 711-733. https://doi.org/10.1108/JABS-10-2019-0316

Tarai, S. K., Sahu, K. K., & Patra, S. (2022). A study on destinations of FDI and pattern of utilization in India. *Vidyabharati International Interdisciplinary Research Journal, 13*(2), 32-40.

UNCTAD. (2021). *Investing in Sustainable Recovery*. World Investment Report. New York, US: United Nations.

United Nations Conference on Trade and Development (UNCTAD). (2022). *World investment report: International Tax Reforms and Sustainable Investment*. New York and Geneva: United Nations Press.

Yavan, N. (2010). The location choice of Foreign Direct Investment within Turkey: An empirical analysis. *European Planning Studies, 18*(10), 1675-1705. https://doi.org/10.1080/09654313.2010.504350