

# PRIVATE INVESTMENTS IN INFRASTRUCTURE SECTOR IN INDIA

– A MAPPING REPORT

Shivani Dwivedi

**CFA**  
Centre for Financial Accountability

Centre for Financial Accountability

# PRIVATE INVESTMENTS IN INFRASTRUCTURE SECTOR IN INDIA

## - A MAPPING REPORT

Author: **Shivani Dwivedi**

Published by:

**Centre for Financial Accountability**

R21, South Extension Part 2, New Delhi-110049

info@cenfa.org | [www.cenfa.org](http://www.cenfa.org)

**December, 2021**

② Copyleft: Free to use any part of this document for non-commercial purpose, with acknowledgment of source.

For Private Circulation Only



## Table Of Contents

1. Acknowledgment.....	1
2. Definitions.....	2
3. Introduction.....	3
4. Trends in Private Investments in India.....	6
5. Mapping Private Investments in India.....	9
6. Private Investments in India.....	20
7. Policies Promoting Private Investments in India - A Brief Chronology .....	21
8. Focus Sectors and Investments.....	24
9. Concluding Remarks.....	25

## Acknowledgement

The completion of this report could not have been possible without the guidance and support of several people. I would like to take this opportunity to convey my sincere gratitude and appreciation to all those who gave me the directions to complete this report. Their contributions are sincerely appreciated and greatly acknowledged.

I would like to convey my sincere gratitude to Joe Athialy, Executive Director, Centre for Financial Accountability for providing the opportunity to work on this project. Special thanks to my team lead Gaurav Dwivedi, Associate Director, Centre for Financial Accountability for providing invaluable guidance, your stimulating ideas, suggestions and encouragement helped me in all time of fabrication process and in writing this report. I am very much grateful to Sanjeev Chandorkar, Tata Institute of Social Sciences, Mumbai and Nicholas Hildyard, The Corner House, London in providing their valuable feedback. I also sincerely thank my colleagues Om Prakash Singh and Nishank for the time spent in adding comments, suggestions, proofreading and correcting many mistakes.

This is a preliminary mapping report on private investments in infrastructure sector. We look forward to continue working on some of the larger issues around private investments in India with a focus on infrastructure projects.

## Definitions:

**Different types of financial instruments have been explained for the reference**

“**Private Investment** from a macroeconomic standpoint, is the purchase of a capital asset that is expected to produce income, appreciate in value, or both generate income and appreciate in value.”<sup>1</sup> Money is invested by companies, financial organisations, or other investors, rather than by a government.

“**Private equity** is an alternative investment class that composed of funds and investors that directly invest in private companies, or that engage in buyouts of public companies, resulting in the delisting of public equity. Institutional and retail investors provide the capital for private equity, and the capital can be utilised to fund new technology, make acquisitions, expand working capital, and to bolster and solidify a balance sheet. The money which is pooled in for the purpose of fund investment is not traded in the stock market and is not open to every individual for subscription.”<sup>2</sup>

“**Mutual fund** is a financial instrument that pools money from different investors. The pooled money is then invested in securities like stocks of listed companies, government bonds, corporate bonds, and money market instruments.”<sup>3</sup>

“**Infrastructure funds** are a kind of sector funds that invest in infrastructure stocks or companies engaged in infrastructure. Unlike other sectors such as banking, pharmaceuticals, technology, infrastructure is a much broader sector with many sub-sectors. These funds invest into stocks listed in these sub-sectors.”<sup>4</sup>

“**Pension fund** is a fund that accumulates capital to be paid out as a pension for employees when they retire at the end of their careers.”<sup>5</sup>

---

<sup>1</sup> <https://study.com/academy/lesson/what-is-a-private-investment-definition-lesson-quiz.html>

<sup>2</sup> <https://www.investopedia.com/terms/p/privateequity.asp>

<sup>3</sup> <https://scripbox.com/mf/what-is-mutual-fund/>

<sup>4</sup> <https://www.wishfin.com/mutual-fund/infrastructure-funds-definition-and-should-you-invest-in-them/>

<sup>5</sup> <https://corporatefinanceinstitute.com/resources/knowledge/other/pension-fund/>

“A **Sovereign Wealth Fund (SWF)** is an investment pool of foreign currency reserves that the government owns. It invests in financial securities like stocks, bonds, real estate and gold. Some SWFs invest a surplus such as foreign currency reserves. While some SWFs invest the revenue earned by the government. Some other sources include budgeting surplus and bank reserves.”<sup>6</sup>

“An **Infrastructure Investment Trust (InvITs)** is like a mutual fund, which enables direct investment of small amounts of money from possible individual/institutional investors in infrastructure to earn a small portion of the income as return. InvITs work like mutual funds or real estate investment trusts (REITs) in features.”<sup>7</sup>

“**Real Estate Fund** is a type of mutual fund that invests in securities offered by public real estate companies, including REITs.”<sup>8</sup>

“**Currency Exchange Traded Funds (ETFs)** are those ETFs that are intended at offering an exposure to investors on overseas currencies. Currency ETFs are generally managed passively and track an underlying currency and its holding in a particular nation or group of nations.”<sup>9</sup>

## Introduction

Infrastructure continues to be a focus sector in the Indian economy and is seen as a catalyst to boost overall economic growth. It continues to attract attention not only from the government for creating suitable policies and programs but also from the International Financial Institutions (IFIs) and private investors. Infrastructure sector includes power generation and transmission, highways, ports, bridges, dams, industrial zones, railway freight corridors, inland waterways, mega solar parks, port

---

<sup>6</sup> <https://scripbox.com/mf/sovereign-wealth-fund/>

<sup>7</sup> <https://economictimes.indiatimes.com/definition/infrastructure-investment-trusts>

<sup>8</sup> <https://www.investopedia.com/ask/answers/012015/what-difference-between-reit-and-real-estate-fund.asp#:~:text=like%20a%20stock,-A%20real%20estate%20fund%20is%20a%20type%20of%20mutual%20fund,funds%20provide%20value%20through%20appreciation>

<sup>9</sup> <https://cleartax.in/g/terms/currency-etf>

modernisation and urban infrastructure development, which includes smart cities, metro rail projects, housing, water supply and sanitation, and solid waste management.

Several national and international agencies have been releasing regular estimates of the investments required for infrastructure development in India. For instance, as per the estimates by Economic Survey for 2017-18<sup>10</sup>, the country would need around USD 4.5 trillion for its infrastructure by 2040. Global Infrastructure Outlook observes that cumulative figure for India's infrastructure investment gap would be around USD 526 billion by 2040.<sup>11</sup> The International Finance Corporation (IFC), climate-smart investment opportunities in infrastructure sectors estimates that between 2018 to 2030 India needs USD 2.2 trillion.<sup>12</sup> ADB estimated that the cost to address India's infrastructure deficit is around USD 230 billion per year, which when climate-adjusted, would grow to USD 261 billion between 2016-20.<sup>13</sup>

In the financial year 2018-19, the Government of India announcements promised to provide a boost to the sector by allocating Rs 5.97 lakh crore (USD 92.22 billion) for the sector.<sup>14</sup> In the financial year 2019-20, two similar announcements were made – the Government of India continued to push the infrastructure sector by allocating Rs 4.56 lakh crore (USD 63.20 billion) for the sector.<sup>15</sup> In FY 2020-21 budget proposal, capital expenditure is proposed at Rs 5.54 lakh crore (USD 72.59 billion).<sup>16</sup> This included allocations to railways, household level electrification scheme, green energy corridor, telecom infrastructure, metro rail systems, and highway projects among others.

In December 2019, the government announced the implementation of infrastructure projects under the National Infrastructure Pipeline (NIP) across the country. Major sectors include – transport, water and sanitation, social infrastructure, commercial infrastructure, energy, logistics, real estate, tourism, and information technology. The total number of projects in the infrastructure sector are 11,174, of which the National

---

<sup>10</sup> <https://mofapp.nic.in/economicsurvey/economicsurvey/index.html>

<sup>11</sup> <https://auto.economictimes.indiatimes.com/news/industry/india-needs-4-5-trillion-by-2040-to-develop-infra-eco-survey/62697515>

<sup>12</sup> [https://www.ifc.org/wps/wcm/connect/59260145-ec2e-40de-97e6-3aa78b82b3c9/3503-IFC-Climate\\_Investment\\_Opportunity-Report-Dec-FINAL.pdf?MOD=AJPERES&CVID=IBLd6Xq#page=59](https://www.ifc.org/wps/wcm/connect/59260145-ec2e-40de-97e6-3aa78b82b3c9/3503-IFC-Climate_Investment_Opportunity-Report-Dec-FINAL.pdf?MOD=AJPERES&CVID=IBLd6Xq#page=59)

<sup>13</sup> <https://www.adb.org/sites/default/files/publication/227496/special-report-infrastructure.pdf>

<sup>14</sup> <https://www.ibef.org/download/Infrastructure-Report-June-2018.pdf>

<sup>15</sup> <https://www.ibef.org/download/infrastructure-april-2019.pdf>

<sup>16</sup> <https://www.investindia.gov.in/team-india-blogs/back-growth-union-budget-2021-22-announcement-infrastructure-outlay>

Infrastructure Pipeline (NIP) projects are 6,749. Out of these Engineering, Procurement and Construction (EPC) are 6,679; Public Private Partnership (PPPs) are 1,122; and Hybrid Annuity Model (HAM) are 546 projects. The total investment estimated under NIP is amounting to Rs 111 lakh crore (USD 1.45 trillion). The share of the union government and the states in the projects would be 39 percent and 40 percent respectively, while the private sector would contribute 21 percent.<sup>17</sup>

The general reforms that have been recommended under NIP are improving project preparation processes, enhancing execution capacity of private sector participants, robust enabling environment, institutionalisation and efficiency of dispute resolution, improving capacity development of project execution agencies, and strengthening infrastructure quality.

NIP has also recommended financial sector reforms like revitalising the bond and credit markets, strengthening the municipal bond market in India, revitalising asset monetisation, enabling user charges to finance infrastructure as well as overall transformations of the long-term financing landscape.

The government plans to focus on NIP over the next four years as a part of its ongoing emphasis on infrastructure projects. There is indication that a large chunk of funding for these projects will come from the public sector, and the formation of a new Development Financial Institution (DFI) and the National Asset Monetisation (NMP) plan of the government are major steps in this direction. It also seeks to revitalise PPPs by strengthening PPP institutions, promoting improved contractual modalities, pursuing fair allocation of risks and strengthening progress monitoring.

Further, there have been increased efforts by the government to attract private sector players to invest in the infrastructure sector in previous years under various schemes like the Viability Gap Funding (VGF) scheme. The private sector financing has been given a high priority to build infrastructure in the country. This report is an attempt to capture the efforts put in this direction and the resultant trends in private investments in India in various sub-sectors within the infrastructure sector. It strives to put together data from the past few years to empirically analyse private investments in India

---

<sup>17</sup><https://indiainvestmentgrid.gov.in/>

sectorally, company wise, fund wise, year-on-year as well as based on the originating country. This report makes an effort to put together data related to private investments available in the public domain to understand the trends and developments in the past few years in the private investment space for the common person, though the availability of such data is relatively limited. It also probes the policies that have been formulated in this period to promote private investments in the country.

## **Trends In Private Investments In India**

Over the years, India has emerged as one of the fastest growing economies in the world and an attractive investment destination driven by huge economic and policy reforms. This has resulted in an acceleration of private investment in India which has played a crucial role in overall growth of the economy since the last three decades.

The fast growth of the Indian economy has also placed an increasing stress on physical infrastructure such as roads, railways, airports, irrigation, electricity and others as they continue to experience the pressure of rising demand for services. This has led to a strong push for infrastructure investment requirements and therefore many policy initiatives have taken place at the Union and State level to address the growing investment needs. As a result of these efforts, India has been able to draw significant attention from private players for investing in the infrastructure sector.

The Prime Minister in 2019 envisioned making India a USD 5 trillion economy and a global economic powerhouse by 2024-25. Private investment is expected to build a robust physical and social infrastructure, key to putting India in a high growth trajectory that will achieve this USD 5 trillion goal. The finance ministry's Economic Survey 2018-19, which captures key economic developments and also projects medium term objectives, stated that private sector participation in the infrastructure space is crucial as funding cannot depend on public investment alone.<sup>18</sup>

---

<sup>18</sup><https://www.livemint.com/budget/economic-survey/private-sector-infra-investment-is-key-to-achieving-a-high-growth-trajectory-1562268697922.html>

As per the data of Economic Survey 2012–13, Ministry of Finance, Government of India, there is a substantial variation in the private and public investment rates. The public investment rate fluctuated between 5.80 and 12.30 percent and averaged 8.49 percent during 1970–2013, whereas the rate of private investment fluctuated between 7.40 and 24.90 percent and averaged 14.04 percent in the same period.<sup>19</sup>

Unlike public investment, the major purpose of private investment is profit maximisation and the money is invested by private companies, financial organisations, or other investors, rather than by a government. As per the paper *Reviving Private Investments in India: Determinants and Policy Levers* published in March 2017 - “key determinants of private investment are the size of the public sector capital stock, the real effective exchange rate, the output gap and the availability of credit to the private sector. Private Investment is categorised into two parts, corporate investments and non-corporate investments. Private corporate investment is significantly explained by the real exchange rate and the availability of credit to the private sector whereas for non-corporate investment, public capital stock is the most significant variable - as it crowds in private investment.”<sup>20</sup>

During the period 2009-17, India accounted for around 3% of global private investment. Between 2012 and 2017, private investment in India grew at a CAGR of almost 11%. PE/VC investments in India grew at a CAGR of 44% from 2019 to 2020. From 2009-17, India attracted USD 137 billion worth of capital in total private investments from various sources. Private equity contributed for over 2.5 times the second-largest segment, public equity, in terms of total investments.<sup>21</sup>

In 2019, the total value of private equity surpassed USD 48 billion. Between 2009 and 2019, India received USD 198 billion in PE/VC investments, accounting for 56 percent of all PE/VC investments of the last three years, i.e. from 2017 to 2019. PE/VC fund

---

<sup>19</sup> <https://journals.sagepub.com/doi/pdf/10.1177/0256090916676439>

<sup>20</sup> <https://www2.gwu.edu/~iiep/assets/docs/papers/2017WP/ChhibberIIEPWP2017-5.pdf>

<sup>21</sup> <https://sidbi.in/files/announcements/Private-Investing-in-India---Venture-Capital-Focus.pdf>

raising also grew significantly, rising by 45 percent to USD 11.7 billion in 2019 from USD 8.1 billion in 2018.<sup>22</sup>

Due to large investments in companies such as Reliance Industries enterprises – Jio Platforms and Reliance Retail – private investments in India have surged by 38% to a record \$62.2 billion in 2020. According to the India Private Equity Report 2021, RIL subsidiaries received a \$26.5 billion investment, accounting for around 40% of the entire deal value. Institutional investor PIF made the biggest aggregate investments worth \$3.3 billion in three deals in 2020, according to a report published by the Indian Private Equity & Venture Capital Association and Bain & Company. KKR, world's largest private equity firm, made six investments totaling \$3 billion. Apart from Jio and Reliance Retail, Silverlake invested \$2.7 billion, including \$500 million in Byju's. GIC, Mubadala, and ADIA each put in \$2.1 billion. With \$1.5 billion each, Blackstone and GIC were the top contributors, excluding Jio Platforms and Reliance Retail transactions.<sup>23</sup>

According to data from RBI annual reports, Foreign Direct Investments (FDI) inflows into the infrastructure sector increased from Rs 0.2 lakh crore in fiscal 2011 to Rs 0.8 lakh crore in fiscal 2019, representing a healthy CAGR of 19 percent. However, growth in FDI inflows into the infrastructure sector was almost flat from 2011 to 2015, but picked up in fiscal 2016, mirroring a trend observed in overall FDI inflows into India.<sup>24</sup>

Foreign direct investment (FDI) refers to investments made by foreign investors in order to get a significant stake in a company based in another country. It implies investment by foreign investors directly in the productive assets of another nation. Foreign Portfolio Investments (FPI) refers to investing in a foreign country's financial assets, such as stocks or bonds traded on a stock exchange.<sup>25</sup>

---

<sup>22</sup>[https://www.ey.com/en\\_in/private-equity/how-india-is-emerging-as-one-of-the-leading-destinations-for-global-pe-vc-capital](https://www.ey.com/en_in/private-equity/how-india-is-emerging-as-one-of-the-leading-destinations-for-global-pe-vc-capital)

<sup>23</sup><https://www.businessstoday.in/latest/economy-politics/story/private-investments-increase-38-percent-to-usd-62-billion-pif-kkr-top-investors-297755-2021-06-09>

<sup>24</sup>[https://dea.gov.in/sites/default/files/Report%20of%20the%20Task%20Force%20National%20Infrastructure%20Pipeline%20%28NIP%29%20-%20volume-ii\\_0.pdf](https://dea.gov.in/sites/default/files/Report%20of%20the%20Task%20Force%20National%20Infrastructure%20Pipeline%20%28NIP%29%20-%20volume-ii_0.pdf)

<sup>25</sup> <https://groww.in/blog/what-is-the-difference-between-fpi-and-fdi/#:~:text=FDI%20refers%20to%20the%20investment,bonds%20available%20on%20an%20exchange.>

### Gold imports, FPI, FDI and VC investments



Source: NSDL | RBI | Bain & Venture Intelligence | Spark Capital • Created with Datawrapper

## Mapping Of Private Investments In India

Although it appears that the larger part of the infrastructure financing would come from the public sources, the government and the IFIs have continued to highlight the importance of private investors and companies as an important component for infrastructure projects. Policies and programs are being proposed to attract the private investors to these projects.

A mapping of private investments in some of the infrastructure projects in India over a period of past five years has shown some interesting trends. The data is collected from the public sources for the period 2016-2020, like news reports, press releases, annual reports, company statements, etc. As per this data, Foreign Portfolio Investments (FPI) rank the first highest among the emerging markets of private investments in India followed by Foreign Direct Investment (FDI) in the last 5 years.

As part of infrastructure sector, it covers Real Estate (this includes residential and affordable housing projects, office space, shopping malls, business park, office park, hotels), Financial Intermediaries (which includes National Investment and Infrastructure Fund- NIIF, Non-Banking Financial Companies- NBFCs),<sup>26</sup>

<sup>26</sup> “A financial intermediary is an institution or individual that serves as a middleman among diverse parties in order to facilitate financial transactions. Common types include commercial banks, investment banks, stockbrokers, pooled investment funds, and stock exchanges.”

Logistics/Transport (warehousing, transportation & shipping), Roads and Highways, Digital Infrastructure (telecom towers, fiber optic networks, data service provider), Oil & Gas (which majorly includes investment in gas pipeline, refinery, petroleum, crude oil and natural gas), Renewable Energy (solar), Transmission Infrastructure (includes power transmission lines) and Environment (includes bio medical waste, waste management, recycling). The type of private investments covered under this are: private equity fund, sovereign wealth fund, mutual fund, pension fund, real estate fund, real estate investment trust fund, infrastructure fund and infrastructure investment trust fund.

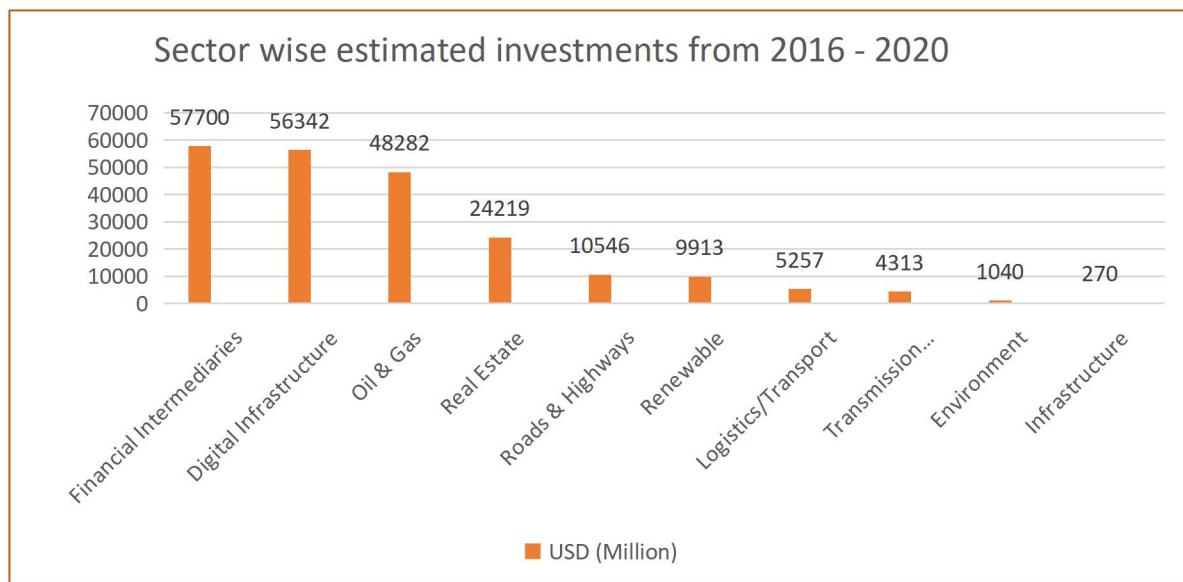
Due to limited scope of study, the currency exchange rate on the basis of which USD is converted into INR has been taken as Rs 74.1 per USD, which is the average dollar rate of the year 2020.

**Table 1 – Sector-wise estimated private investments in infrastructure sector in India (2016 – 2020).**

Looking at different sectors of infrastructure investment, the data implies that Financial Intermediaries have received more investment by the private investors recording the highest investment of USD 57,700 million (Rs 4, 27,564 crore) over the past five years, followed by Digital Infrastructure with a total investment of USD 56,342 million (Rs 417,498 crore), Oil & Gas USD 48,282 million (Rs 3, 57,772 crore) and Real Estate USD 24,219 million (Rs 1, 79,486 crore).

**Table 1 – Sector-wise estimated private investments in infrastructure sector in India (2016 – 2020).**

S.No.	Name of Sector	USD (Million)	Rs. (Crore)
1	Financial Intermediaries	57,700	4,27,564
2	Digital Infrastructure	56,342	4,17,498
3	Oil & Gas	48,282	3,57,772
4	Real Estate	24,219	1,79,486
5	Roads & Highways	10,546	78,142
6	Renewable	9,913	73,464
7	Logistics/Transport	5,257	38,953
8	Transmission Infrastructure	4,313	31,963
9	Environment	1,040	7,706
10	Infrastructure - Multiple sub-sectors <sup>27</sup>	270	2,000
	<b>Total</b>	<b>2,17,882</b>	<b>16,14,548</b>



<sup>27</sup> In the infrastructure sector, the companies which have invested in sub sectors of infrastructure are taken here.

**Table 2 – Fund-wise estimated private investments in infrastructure in India (2016 – 2020)**

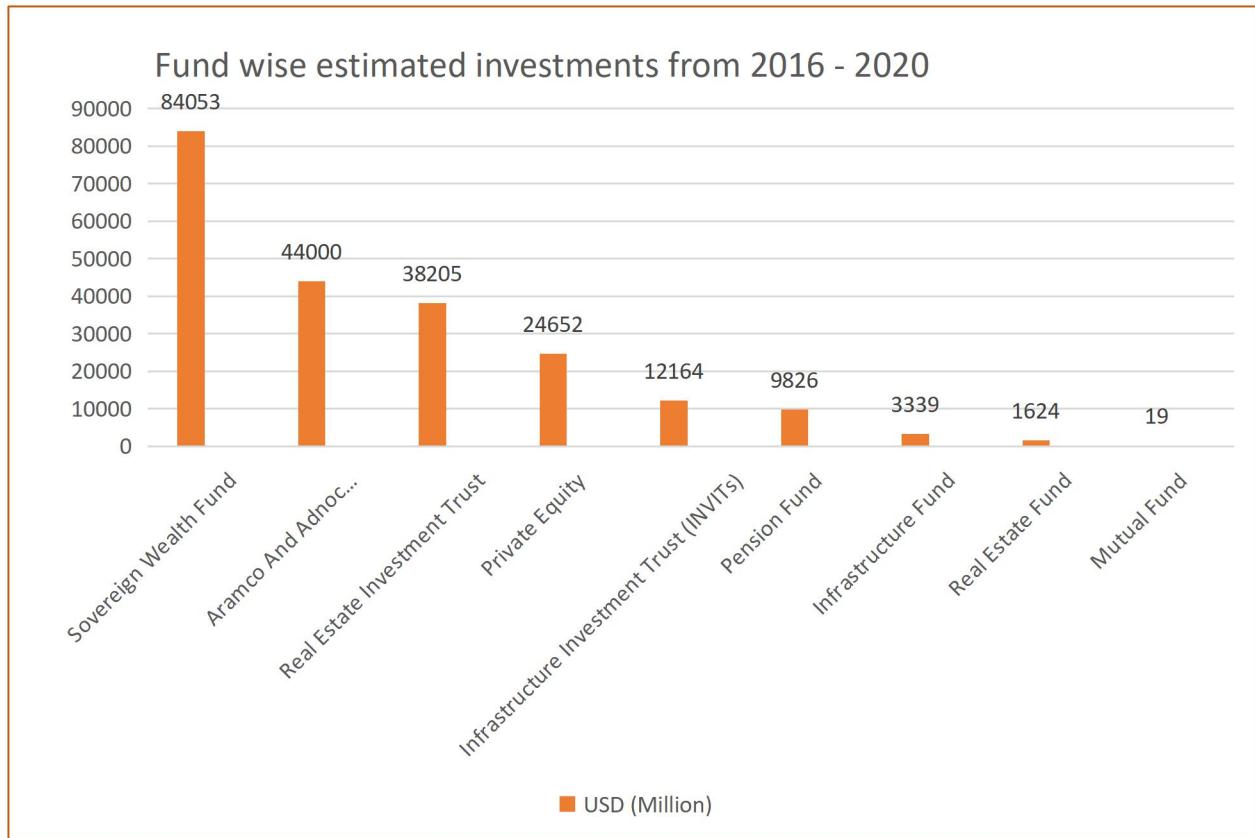
Based on the available data, the analysis of investments across various types of funds shows that the highest investment in last five years has been made by Sovereign Wealth Funds which recorded total USD 84,053 million (Rs. 6, 22,842 crore), followed by Real Estate Investment Trusts with USD 38,205 million (Rs 2, 83,104 crore) and Private Equity Funds with USD 24,652 million (Rs 1, 82,689 crore).

**Table 2 – Fund-wise estimated private investments in infrastructure in India (2016 – 2020)**

S.No.	Name of Fund/ Company	USD (Million)	Rs. (Crore)
1	Sovereign Wealth Funds	84,053	6,22,842
2	Aramco and Adnoc <sup>28</sup>	44,000	3,26,040
3	Real Estate Investment trusts	38,205	2,83,104
4	Private Equity Funds	24,652	1,82,689
5	Infrastructure Investment Trusts (InvITs)	12,164	90,137
6	Pension Funds	9,826	72,816
7	Infrastructure Funds	3,339	24,739
8	Real Estate Funds	1,624	12,041
9	Mutual Fund <sup>29</sup>	19	140
	<b>Total</b>	<b>2,17,882</b>	<b>16,14,548</b>

<sup>28</sup> Aramco is officially Saudi Arabian Oil Company and Adnoc is Abu Dhabi National Oil Company

<sup>29</sup> In the category of mutual funds, despite our best efforts, we were unable to locate much information/data related to it, but it appears that mutual funds will expand and have broader scope in emerging areas of private investment in the coming days.

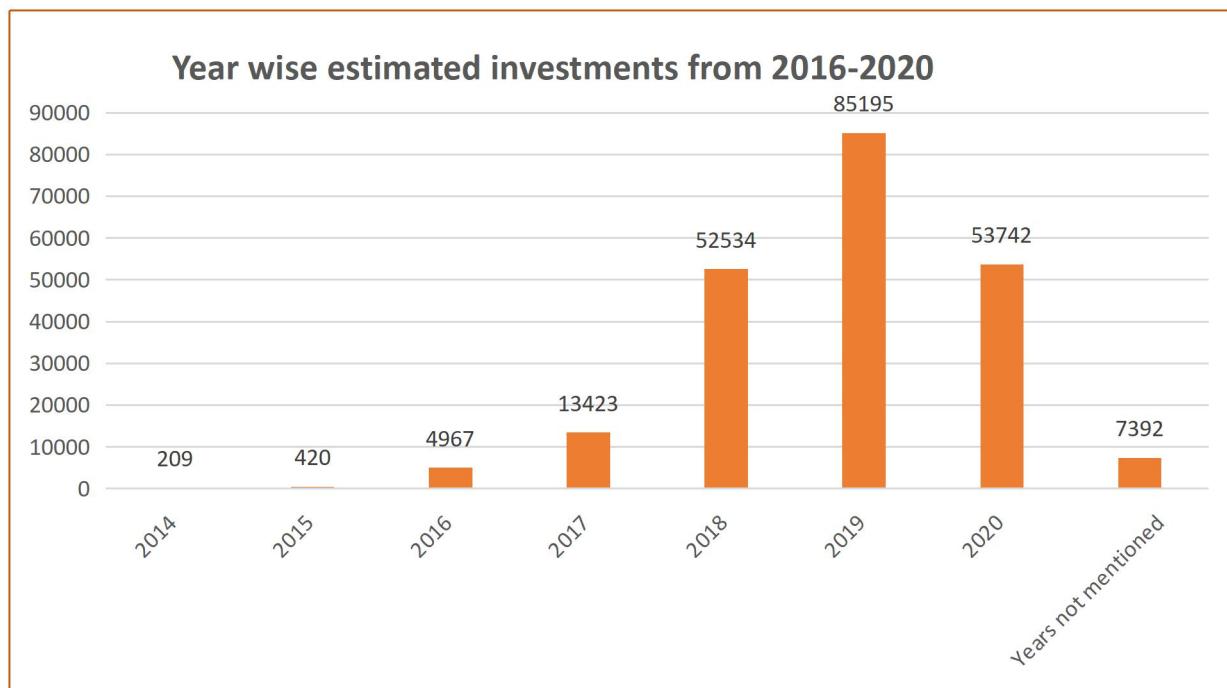


**Table 3 – Year-wise estimated private investments in infrastructure in India (2016 – 2020)**

Following the yearly investment trends, it shows that the private investment is increasing on a year on year basis from 2014 to 2020 onwards. However there was a dip in 2018 compared to the increasing trend but 2019 and 2020 have seen a many fold increase in investments compared to the previous years. There is a need to further explore the precise reasons behind such a high jump in investments in these years. Post that there is likely to be a dip due to the pandemic beginning to spread in early 2020.

**Table 3 – Year-wise estimated private investments in infrastructure in India (2016 – 2020).**

S.No.	Year	USD (Million)	Rs. (Crore)
1	2014 <sup>30</sup>	209	1,550
2	2015	420	3,114
3	2016	4,967	36,806
4	2017	13,423	99,477
5	2018	82,534	3,89,275
6	2019	85,195	6,31,312
7	2020	53,742	3,98,232
8	Year not known	7,392	54,782
	<b>Total</b>	<b>2,17,882</b>	<b>16,14,548</b>



<sup>30</sup> Our primary goal in this report was to collect data over a period of five-years, from 2016 to 2020, but we also got some data from 2014 and 2015, which is being displayed above.

**Table 4 – Country-wise estimated private investments in infrastructure in India (2016 – 2020)**

If we look at the country-wise investment data, it shows that the highest amount of investment is made by Saudi Arabia with USD 47,008 million (Rs. 348,329 crore), followed by Canada with USD 44,892 million (Rs. 332,661 crore), Saudi Arabia and Abu Dhabi collaboratively invested total USD 44,500 million (Rs. 3,29,745 crore). Other countries that feature in the list of top five are USA with USD 21,575 million (Rs.1, 59,887 crore) and Singapore USD 18,784 million (Rs. 1, 39,195 crore).<sup>31</sup>

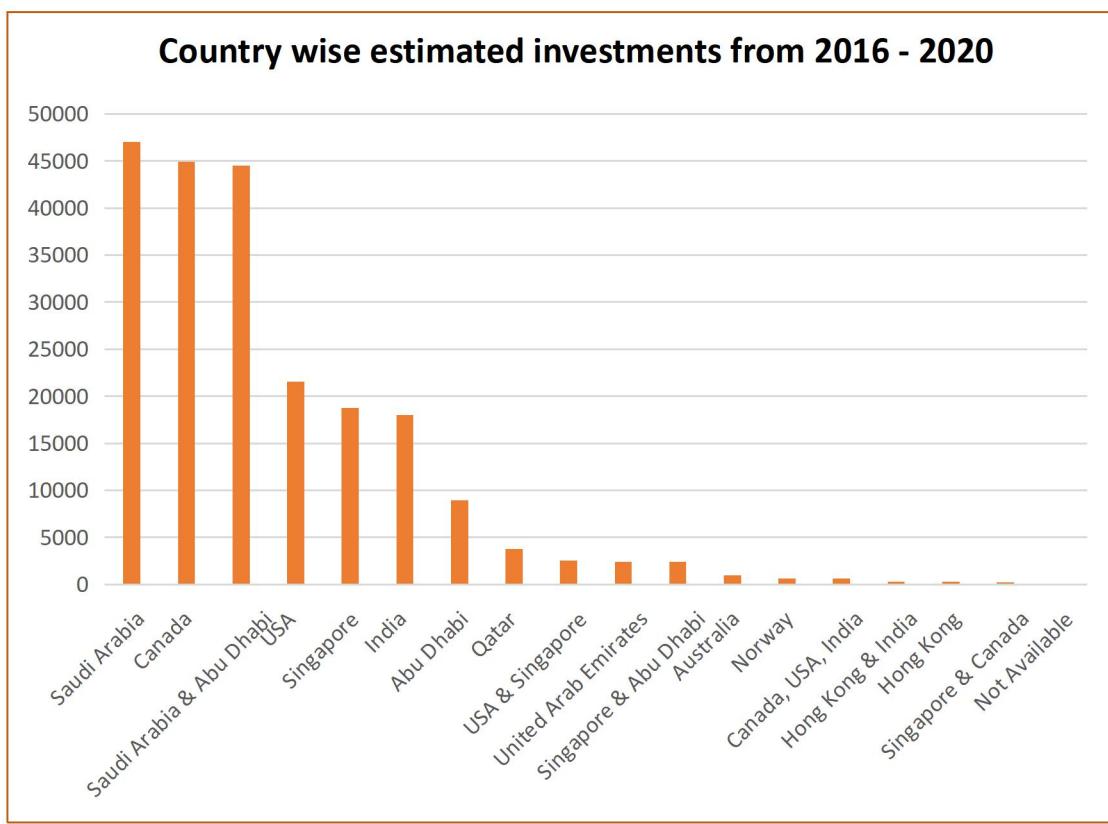
**Table 4 – Country-wise estimated private investments in infrastructure in India (2016 – 2020)**

S.No.	Countries Invested	USD (Million)	Rs. (Crore)
1	Saudi Arabia	47,008	3,48,329
2	Canada	44,892	3,32,661
3	Saudi Arabia & Abu Dhabi	44,500	3,29,745
4	USA	21,575	1,59,889
5	Singapore	18,784	1,39,195
6	India <sup>32</sup>	17,993	1,33,334
7	Abu Dhabi	8,920	66,098
8	Qatar	3,792	28,098

<sup>31</sup> Note: In county wise data, the name of two or three countries together indicates that two/three companies from different countries have invested together in some projects, like the data of USA & Singapore shows that KKR from USA and GIC Private Limited from Singapore have jointly invested total USD 2,520 million (Rs.18, 673 crore) over the period of five years in different projects of infrastructure and renewable energy in India.

<sup>32</sup>In terms of country-specific investments, India's investment implies that numerous domestic Indian enterprises have invested in infrastructure and energy-related projects in India.

9	USA & Singapore	2,520	18,673
10	United Arab Emirates	2,427	17,986
11	Singapore & Abu Dhabi	2,379	17,630
12	Australia	1,000	7,410
13	Norway	658	4,876
14	Canada, USA, India	600	4,446
15	Hong Kong & India	310	2,300
16	Hong Kong	294	2,177
17	Singapore & Canada	196	1,450
18	Not Available	34	250
	<b>Total</b>	<b>2,17,882</b>	<b>16,14,547</b>



**Table 5 – Company-wise estimated private investments in infrastructure in India (2016 – 2020)**

As per the company wise data, it is observed that that Saudi Arabia's Public Investment Fund (PIF), Saudi Arabia Oil and Company (Aramco), Brookfield Asset Management, GIC Private Limited (GIC), Blackstone Group, Abu Dhabi Investment Authority (ADIA), KKR & Company, Canada Pension Plan Investment Board (CPPIB), Reliance Industries Ltd (RIL), Qatar Investment Authority (QIA), India Grid Trust (IndiGrid) remain the top funds which lead the way in infrastructure and energy investment in India during 2016-2020.<sup>33</sup>

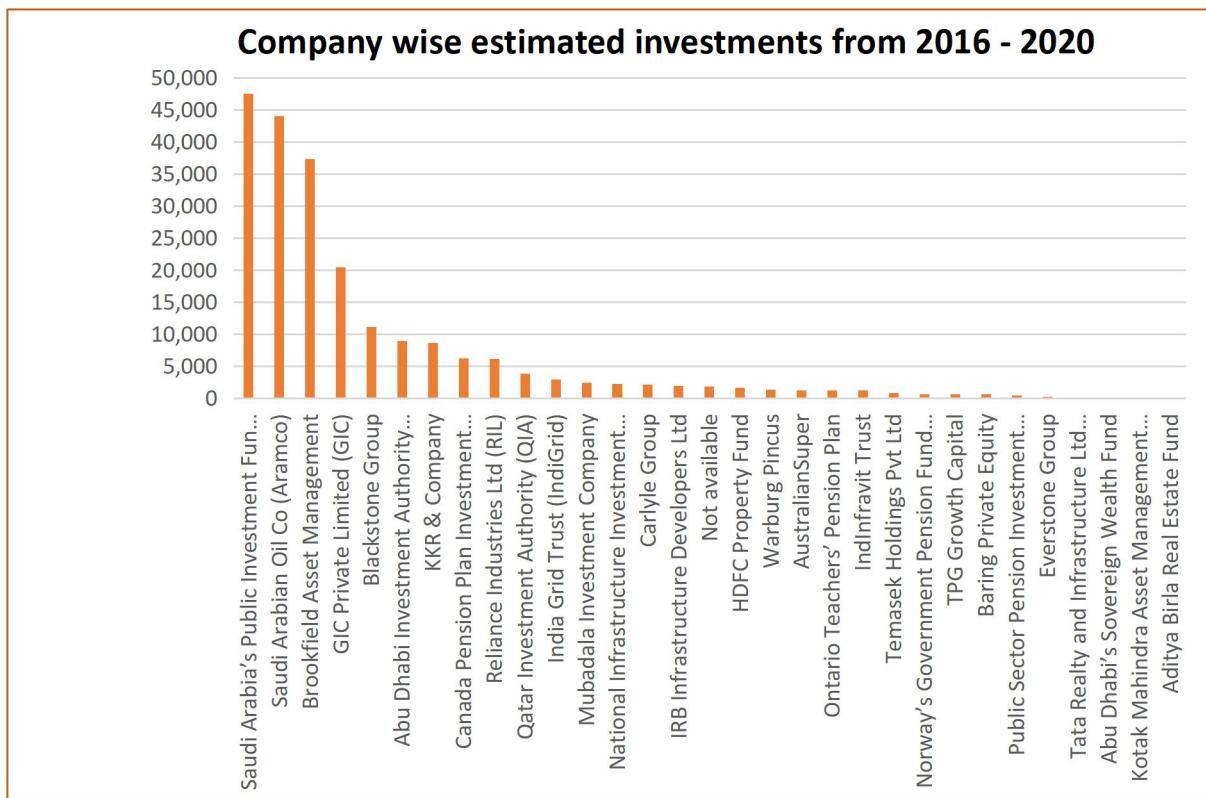
**Table 5 – Company-wise estimated private investments in infrastructure in India (2016 – 2020)**

S.No.	Name of Company	USD (Million)	Rs. (Crore)
1	Saudi Arabia's Public Investment Fund (PIF)	47,508	3,52,034
2	Saudi Arabian Oil Co (Aramco)	44,000	3,26,040
3	Brookfield Asset Management	37,324	2,76,577
4	GIC Private Limited (GIC)	20,447	1,51,519
5	Blackstone Group	11,087	82,163
6	Abu Dhabi Investment	8,975	66,505

<sup>33</sup> Note: In company-wise data, there are few investments which are done in collaboration of two or three companies together but because the individual amount of investment made by each one of them is not mentioned, that is why we have included the entire amount of investment in just one company. For example in Table No. 5 - GIC Private Limited (GIC) & KKR have together invested USD 269.91 million (Rs.2,000 crore) in India Grid Trust, renewable sector in 2019, but we have not got the specific figure invested by each one of them so we have included this entire amount in the total investment made by GIC Private Limited.

	Authority (ADIA)		
7	KKR & COMPANY	8,629	63,949
8	Canada Pension Plan Investment Board (CPPIB)	6,196	45,914
9	Reliance Industries Ltd (RIL)	6,102	45,215
10	Qatar Investment Authority (QIA)	3,792	28,098
11	India Grid Trust (IndiGrid)	2,945	21,826
12	Mubadala Investment Company	2,427	17,986
13	National Infrastructure Investment Fund (NIIF)	2,270	16,820
14	Carlyle Group	2,105	15,597
15	IRB Infrastructure Developers Ltd	1,901	14,086
16	Not available	1,815	13,446
17	HDFC Property Fund	1,612	11,951
18	Warburg Pincus	1,390	10,306
19	Australian Super	1,250	9,263
20	Ontario Teachers' Pension Plan	1,250	9,263
21	Indinfravit Trust	1,216	9,010
22	Temasek Holdings Pvt Ltd	804	5,957
23	Norway's Government Pension Fund Global (GPFG)	658	4,876
24	TPG Growth Capital	614	4,547

25	Baring Private Equity	604	4,477
26	Public Sector Pension Investment Board	472	3,500
27	Everstone Group	223	1,650
28	Tata Realty and Infrastructure Ltd (TRIL)	135	1,000
29	Abu Dhabi's Sovereign Wealth Fund	100	741
30	Kotak Mahindra Asset Management Company	19	140
31	Aditya Birla Real Estate Fund	12	90
	<b>Total</b>	<b>2,17,882</b>	<b>16,14,546</b>



## Private Investments In India

The rate of private investment soared in the late 1980s and continued to rise rapidly after economic reforms in 1991. In comparison to pre-reform state investment, private investment as a percentage of GDP is somewhat higher. Private investment increased from 9.5 percent in 1980-81 to 13.6 percent in 1990-91 and to 25.7 percent of GDP over the post-reform period. The total investment rate, on the other hand, is low. However, the total investment rate as a percentage of GDP significantly grew over time, rising from 23 percent in 1990 to 34 percent in 2007. Public investment, on the other hand, fell steadily from a high of 11.6 percent in 1986-87 to 9.8 percent in 1991 and a dismal 8.2 percent in 2007.<sup>34</sup>

It rose from less than 15 percent of GDP in 1980-81 to over 30 percent of GDP in 2011-12, but has since dropped to around 25 percent of GDP. The increase in private investment occurred in stages, with the first being from the mid-1980s to 1990, when the private investment rate increased from 10 percent to roughly 15 percent of GDP. The second increase, from 15 percent to 20 percent of GDP, occurred in the mid-1990s. The third surge occurred in 2004-05, when private investment surpassed 25 percent of GDP, propelling the economy to a period of rapid economic growth averaging more than 8 percent from 2003-04 to 2011-12, with the peak of 30 percent GDP.<sup>35</sup>

The two types of private investment, corporate and non-corporate. Corporate investment rose sharply from 5 percent of GDP to almost 10 percent of GDP after the economic reforms of 1991 but slumped again after 1996-97. From 2004-05, again there was a very sharp increase in corporate investment to 16 percent of GDP in 2007-08 and falling sharply after the global economic crisis to around 12 percent of GDP. Non-corporate investment which is a mixed bag of Small and Medium Enterprises,

<sup>34</sup>

[http://mospi.nic.in/sites/default/files/reports\\_and\\_publication/NSS\\_Journals/6\\_Investment\\_Behaviour\\_Private\\_Manufacturing\\_Sector\\_India.pdf](http://mospi.nic.in/sites/default/files/reports_and_publication/NSS_Journals/6_Investment_Behaviour_Private_Manufacturing_Sector_India.pdf)

<sup>35</sup> <https://www2.gwu.edu/~iiep/assets/docs/papers/2017WP/ChhibberIIEPWP2017-5.pdf>

household and real estate investment hovers around 10 percent of GDP from 1980-81 to 1999-2000 and then started rising to around 17 percent of GDP by 2012-13 but since then has dropped to around 14 percent of GDP.<sup>36</sup>

## **Policies Promoting Private Investments In India - A Brief Chronology**

The rising trends in private investments in the country is closely interlinked with the changes in the policy and regulatory regimes that govern such investments. With the relaxation of constraints and altering policy frameworks designed to promote private investment in the country, this became more significant in the post-liberalisation era.

“In 1991, the Indian government established a list of industries where Foreign Direct Investment (FDI) would be automatically authorised up to 51 percent (Foreign Equity). These businesses spanned from capital goods and metallurgy to entertainment, electronics, food processing, and service industries, all of which had major export potential.

To speed up the development of the power sector, 100 percent foreign equity participation in the construction of power facilities was permitted. Profits and other incentives could be freely repatriated as a result of such equity participation.

Several further initiatives were adopted in 1992-93 to attract investment flows, such as:

Except for consumer goods industries, the dividend balancing condition previously applicable to foreign investment up to 51 percent ownership was no longer to be imposed.

Existing enterprises with foreign equity could increase it to 51 percent if they follow specific rules. FDI was also permitted in oil exploration, production, and processing, as

---

<sup>36</sup> <https://www2.gwu.edu/~iiep/assets/docs/papers/2017WP/ChhibberIIEPWP2017-5.pdf>

well as gas marketing. Private investors in power might also own and operate captive coal mines.

Non-Resident Indians (NRIs) and Overseas Corporate Bodies (OCBs) primarily owned by them were allowed to invest up to 100 percent equity in high-priority industries with capital and income. NRI investment of up to 100 percent was also permitted in export houses, hospitals, and export-oriented units, sick industries, hotels, and tourism-related industries, as well as in previously prohibited areas of real estate, housing, and infrastructure.

The prohibition on using a foreign brand name or trademark for approval of foreign investment and technology agreements had been lifted.

Foreign investors' equity disinvestments no longer had to be at RBI-determined rates.

During 1991-93, the Foreign Exchange Regulations Act (FERA) of 1973 was significantly liberalised. All restrictions on FERA companies in the matter of borrowing funds or raising deposits in India as well as taking over or creating any interest in business in Indian companies were removed. Foreign joint ventures were allowed to be formed by Indian enterprises and Indian nationals.

Firms governed by FERA were also exempted from restrictions on the formation of branches, liaison offices and the acquisition of enterprises engaged in trade, commerce, or industry in India, with the exception of agriculture and plantations. Companies with more than 40 percent foreign stock are now treated the same as companies with 100 percent Indian ownership. FERA has now been replaced by the Foreign Exchange Management Act (FEMA).

In August 1999, the Ministry of Commerce and Industry established the Foreign Investment Implementation Authority (FIIA) to ensure that licenses for foreign investments (including NRI investments) are rapidly turned into actual investment inflows and that ideas become projects.

The Insurance Regulatory and Development Authority (IRDA) Act was passed by parliament in December 1999. Foreign equity interests in domestic private insurance businesses up to a maximum of 26 percent of total paid-up capital was permitted under the Act, which aims to foster private sector engagement in the insurance sector.

In 2000-2001, further steps were taken -

In E-commerce, up to 100 percent foreign direct investment (FDI) was allowed under certain conditions.

In twenty-two consumer goods industries, the dividend balancing criteria for FDI was removed.

Except for specific sectors, all manufacturing activities in Special Economic Zones (SEZs) were allowed up to 100 percent FDI under the automatic method.

In the telecommunications industry, 100 percent FDI was allowed (under certain conditions) for Internet service providers, infrastructure providers, and suppliers of dark fibre, mail, and voicemail.

Other measures taken in 2002-03 to encourage more FDI inflows included allowing 100 percent FDI in the development of integrated townships and regional urban infrastructure, as well as allowing foreign firms to pay a royalty on brand name trademarks as a percentage of net sales in the case of technology transfer.<sup>37</sup>

Some large TNCs from the United States and Europe outsourced IT and manufacturing to India after India opened its economy to private sector investment in 1991. This is due to India's relaxation in foreign investment laws, which now allow foreign corporations to hold more land and assets.

Recognition of financial institutions as eligible bidders for the infrastructure projects is another step towards encouraging private investment. Allowing FIs to bid for projects upfront, rather than passively acquiring strategic stakes in them, serves a multi-fold purpose: (a) cash-rich FIs are able to offer competitive yet bankable bids; (b) project

---

<sup>37</sup><https://www.yourarticlerepository.com/policies/government-policies-towards-foreign-capital-in-india/23564>

developers are relieved of the pressure of upfront infusion of significant equity; and (c) parties are better positioned to assume risks suite.<sup>38</sup>

Over the years fast track investment clearances, incentive programmes, land banks, and more liberalised environmental clearance requirements are among the policy modifications that promise to entice investors with faster processes and larger returns.

## **Focus Sectors And Investments**

Infrastructure projects are attractive to a variety of strategic investors, including pension funds, sovereign wealth funds, private equity funds, real estate funds and others.

The topmost investments are being made in Sovereign wealth funds which is recorded as total USD 84,053 million in the past 5 years. Recently it has been reported that “Reserve Bank of India (RBI) has also relaxed its norms on what banks can do with their excess dollars in the currency market. The RBI had already allowed banks to invest their excess dollars in foreign currency bonds, but a rule in July 2016 had stated that a bank’s investment in unlisted securities should not be over 10 per cent of their investment in non-statutory liquidity ratio (SLR) bonds, or corporate bonds. Now, the foreign currency bonds, even if issued by sovereigns, are unlisted for this purpose in India, and banks’ investment in them was to remain within this 10 per cent cap.”<sup>39</sup>

In the energy and infrastructure sectors, private placement of capital, asset consolidation, mergers and acquisitions have become commonplace. As the number of such transactions grew, so did the use of newer investment instruments (OCDs, CCDs, NCDs, Green Shoe Option, Green Bonds, and so on) and tax-efficient structure. Additional infrastructure sectors, including aviation, urban transportation, ports,

---

<sup>38</sup> <https://www.barandbench.com/view-point/changing-trends-in-infrastructure-investment-in-india>

<sup>39</sup> [https://www.business-standard.com/article/markets/rbi-relaxes-norms-on-foreign-sovereign-bond-investment-121081801381\\_1.html](https://www.business-standard.com/article/markets/rbi-relaxes-norms-on-foreign-sovereign-bond-investment-121081801381_1.html)

healthcare, hospitality, SEZs, education, urban street-lighting, battery storage and so on, were also opened up for increased private engagement.

In sector wise investment, the highest investment has been made in the financial intermediaries with USD 57,200 million and the majority of investment is done through private equity funds, followed by sovereign wealth funds and pension funds.

Investment in digital infrastructure marks the second highest over the last five years with a total amount of USD 56342 million and the majority of investment is made into Reliance Jio and Infocomm Ltd. In the energy sector, apart from major investments in solar, Oil and Gas is also gaining traction with a total investment of USD 42,282 million, reflecting the third highest in the last five years.

Real estate bagged fourth highest investment with USD 24,219 million. The Blackstone Group, GIC Private Ltd, and Brookfield Asset Management company are some of the largest investors in the real estate business. This sector is mainly funded through private equity funds, followed by real estate investment trust funds, sovereign wealth funds and real estate funds.

The fifth highest investment is being made in the sector of roads and highways with a total of USD 10,546 million during the last five years. Infrastructure Investment Trust (INVITs) funds, sovereign wealth funds and infrastructure funds are the major sources of funding in this sector.

Saudi Arabia, Canada, Abu Dhabi, USA, Singapore are some of the topmost countries investing in India in sectors like Financial Intermediaries, Digital Infrastructure, Real Estate, Oil and Gas, Renewables and Logistics.

## **Concluding Remarks**

In the last decade, the private investment market of India has grown exponentially. The number of funds in India has grown to over 300 from just 75 in 2010. These funds have

deployed almost USD 250 billion of capital.<sup>40</sup> With policies being reshaped to help India's GDP cross USD 5 trillion in the coming years, it is expected by the government that private finance will be critical for the Indian economy to achieve that objective.

In order to achieve the targets of NIP, the Finance Minister recently announced the National Monetisation Pipeline (NMP) with the aim of raising Rs. 6 trillion (USD 81 billion) by leasing out state-owned infrastructure assets over a four-year period, from FY 2022 to FY 2025. Top three sectors identified for asset monetisation include railways, airports and coal mining. Under the scheme, 15 railway stations, 25 airports, 160 coal mining projects will be put up for asset monetisation. Besides these, assets such as roads, power transmission lines and gas pipelines will also be part of the monetisation plan.

When fully implemented, projects implemented through NIP could have private corporations owning and operating infrastructure projects across the country. This national program which has thousands of projects listed under it is significant to building infrastructure in the country and also towards attracting private investments in these projects. The government expects that these programs with a focus on the private sector along with attractive conditions will pull private financing into such projects.

NMP also demonstrates the beginning of the privatisation of additional government assets in one form or another, as global players - Blackstone, Blackrock, Macquarie and others - show interest in participating in the monetisation process.<sup>41</sup>

However, serious concerns have been raised regarding the expected transfer of public assets, which could end up in the hands of a few corporate houses or private investors. Private investors owning and controlling these projects, it is suggested, would affect the interests of common citizens in the long run because there is not enough clarity on the legal, regulatory and dispute resolution mechanisms as well as checks and price limitations that the government will place on these private participants. In addition, the

---

<sup>40</sup> <https://www.entrepreneur.com/article/371129>

<sup>41</sup> [https://www.business-standard.com/article/opinion/asset-monetisation-plan-gives-a-bigger-role-to-private-operators-12108300032\\_1.html](https://www.business-standard.com/article/opinion/asset-monetisation-plan-gives-a-bigger-role-to-private-operators-12108300032_1.html)

social, environmental and labour regulations also need to be strengthened to prevent violations for profit maximisation.

Concerns have also been expressed about the valuation models, with the lack of recognizable revenue streams in various assets being seen as a barrier to attracting varied participation, raising the prospect of vested interests and corruption. Furthermore, no process for resolving disputes has been specified in the government's strategy.<sup>42</sup>

This preliminary mapping report is based on private investment in India's infrastructure and energy sector in the past 5 years (i.e. from 2016-20). The data available on private finance is fairly limited in the public domain that has been used in this research. While finalising this report, there is also a realisation that there are several aspects that remain to be addressed, though they may be beyond the scope of this report at present. The limited availability of private investment data in public domain has also lead to constraints in drawing precise observations and interpretations about private investment in the infrastructure sector in India.

This report captures a quick overview of private investments, current trends, policies proposed and sectors focused in infrastructure and energy. As part of the ongoing work, a more detailed analysis and other aspects related to private investments in terms of private capital versus public capital, the logic of attracting private capital, the issues around tariffs in private projects, defining infrastructure sector projects, the larger outcomes of public versus private investment, the kind of projects that are likely to get funded, and other such is expected to be explored and addressed in future.

---

<sup>42</sup><https://www.india-briefing.com/news/national-monetisation-pipeline-funding-infrastructure-by-leasing-assets-23013.html/>

Centre for Financial Accountability (CFA) engages and supports efforts to advance transparency and accountability in financial institutions. We use research, campaigns and trainings to help movements, organisations, activists, students and youth to engage in this fight, and we partake in campaigns that can shift policies and change public discourse on banking and economy.

We monitor the investments of national and international financial institutions, engage on policies that impact the banking sector and economy of the country, demystify the world of finance through workshops and short-term courses and help citizens make banks and government more transparent and accountable, for they use public money.

