Financing of the National Infrastructure Pipeline FY20-25

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The government's ambitious infrastructure building target over the next 5 years unveiled in end Dec'19 covering various sectors and regions indicates that it is relying on an 'infrastructure creation' led economic revival.

The government has rightly appreciated that this planned infrastructure building detailed in the 'National Investment Pipeline (NIP)' would essentially have to be government led given the persistent lull in private investment. A large part (78%) of this infrastructure building is proposed to be financed by the central and state governments.

While the importance of infrastructure development for improving India's competitiveness (India is currently ranked 70 out of 140 countries for infrastructure quality in the global competitive index) and for sustainable economic growth is well understood and acknowledged; the ability to do so effectively and in a financially prudent manner is an area of challenge as well as concern.

The ability of the central and state government to finance these projects whilst adhering to the fiscal consolidation roadmap (of gross fiscal deficit to GDP ratio of 3% for state governments and for central government 3% in FY21) appears to be an uphill task given the weakness in economic activity and the resultant lower revenue collections which has strained the financial position of the central and state governments. Government revenues are likely to remain pressured in the coming years too with domestic economic growth expected to witness only a gradual recovery in the next few years. Lower revenue generation could result in rationalization of expenditure if the government is to stay on the path of fiscal consolidation as is likely in the current financial year. For the last quarter of 2019-20, the central government has cut the amount various ministries can spend – from 33% of budget estimate to a maximum of 25%.

Although the government has to its credit in recent times embarked on a series of measures to stimulate the investment cycle, there exist myriad issues (such as land acquisition, environmental clearance, delays in project implementation, procedural delays, enforcement of contracts and availability of funds among others) that comes in the way of infrastructure building. Ironing out of these would be necessary for the achievement of the set targets for infrastructure creation.

It is against this backdrop that the 'National Infrastructure Pipeline' has been examined. In this analysis we attempt to throw light on the proposed national infrastructure building plan for the next 5 years and the probable funding of the same.

National Infrastructure Pipeline (NIP) 2025 – In Brief

The NIP covers a gamut of sectors, as well as rural and urban infrastructure and entails investments to the tune of Rs.102 lakh crs during the six years' period FY20-25 to be undertaken by the central government, state governments and the private sector.

There is a notable increase in the proposed infrastructure investments under the NIP when compared with the investments undertaken in the last few years. The total infrastructure investments envisaged for the 6 year period FY20-25 (excluding the 'no phasing' projects) at Rs. 89.8 lakh crs is 75% more than the investment undertaken in the preceding 6 years i.e. FY14-19 (Rs. 51.2 lakh crs)

Exhibit 1: India's Infrastructure Investment during FY13-19

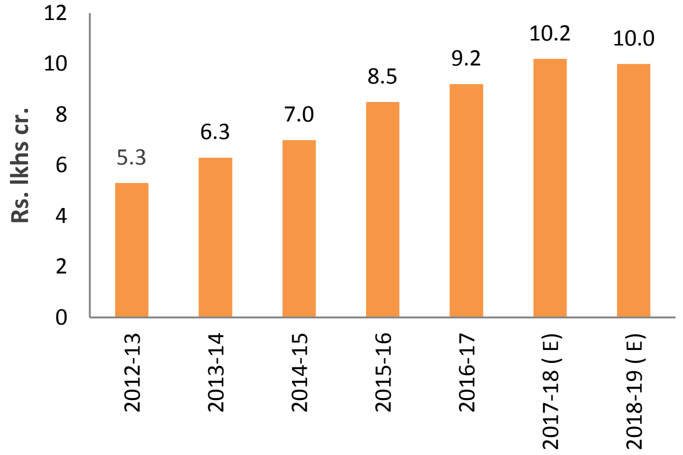
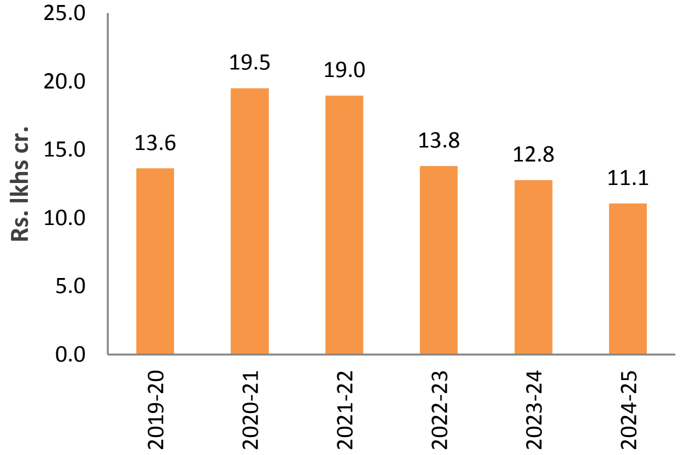


Exhibit 2: Proposed Annual Infrastructure Investments under NIP during FY20-25



Source: PIB

** excludes Rs. 12.2 lkh crs. Of projects under 'no phasing'*

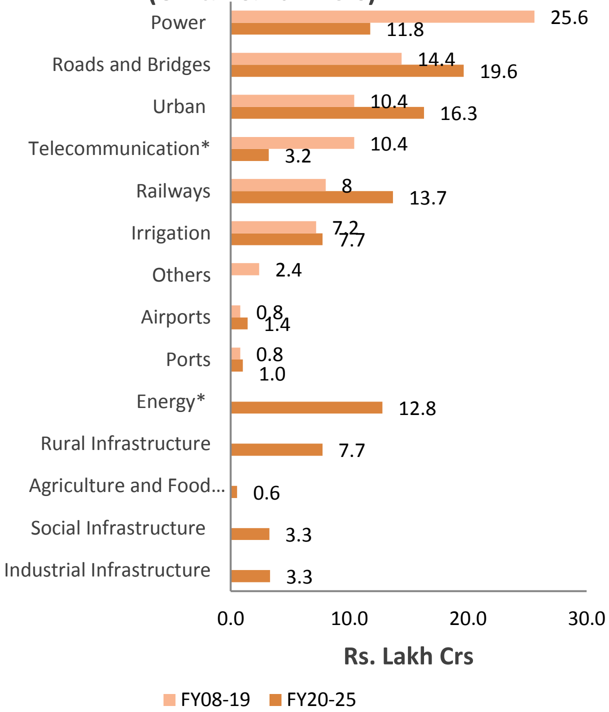
Of the total projects of the NIP, 42% are under implementation while 19% are under development, 31% are at the conceptual stage and 8% are yet to be classified.

The sectors that are the focus area of infrastructure building continue to be roads, railways, power (renewable and conventional), irrigation and urban infrastructure. These sectors together are to account for 79% of the proposed investments in the 6 years period to 2025, largely in line with the last decade's infrastructure spending (82% share during FY08-19).

FY21 and FY22 have the highest allocations of annual infrastructure investments at 42% of the total proposed investments (excluding the 'no phasing' projects). This is significant because the economy has already moved to a lower economic path with GDP expected to increase by only 5% in FY20. Hence in the next two years, a significant infrastructure push is envisaged by the government.

Proposed investments in the telecom or digital infrastructure sector as a percentage of total investments for the period FY20-25 are substantially lower (3%) when compared with the investments made in the previous decade (13%). This could be attributed to the growth and spread of telecom infrastructure in the country in the past few years. The share of investments towards development of urban infrastructure and railways in the 6 year period of FY20-25 is higher than during FY08-19 while it is stable for the roads, airports and ports sector. The NIP has also made provisions towards the development of the rural, social and industrial infrastructure. Proposed investments towards development of the energy infrastructure during FY20-25 is around 24%; 11% power, 9% renewable energy, 2% atomic energy and 2% oil and gas; a perceptible decline from the 32% invested in the last decade.

Exhibit 3: Sector-wise Infrastructure Investments (Unit: Rs. Lakh Crs)



Source: PIB, CARE Ratings Calculations
*classified as digital infrastructure in NIP (FY20-25)

Table 1: Sector-wise share of Infrastructure Investments

	% share FY08-19	% share FY20-25
Power	32%	11%
Roads and Bridges	18%	19%
Urban	13%	16%
Telecommunication#	13%	3%
Railways	10%	13%
Irrigation	9%	8%
Airports	1%	1%
Ports	1%	1%
Others	3%	
Energy*		12%
Rural Infrastructure		8%
Agriculture and Food Processing Infrastructure		1%
Social Infrastructure		3%
Industrial Infrastructure		3%

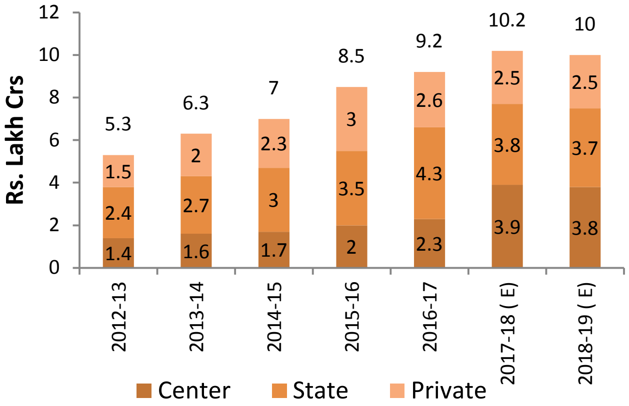
Source: PIB, CARE Ratings Calculations
*includes Petroleum and Natural Gas, Renewable Energy and Atomic Energy
#Telecommunication has been classified as digital infrastructure in NIP

Past Trends in Infrastructure Investment – Government and Private Sector

Infrastructure investments in the country have been government led in the past and is expected to be so in the future too. During FY13-19, 70% of the infrastructure investments in the country were by the government (centre and state). In terms of government investments, the state governments had a higher contribution of 42% compared with the 29% investment undertaken by the central government.

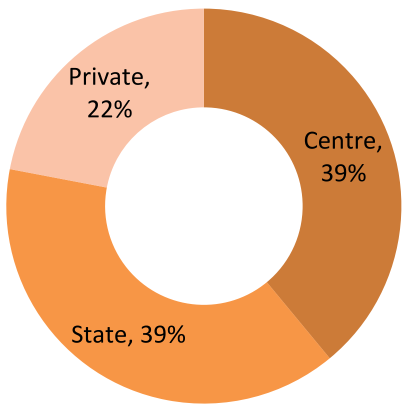
The infrastructure investments would continue to be driven by the government during FY20-25 with 78% of total planned investment being provided. However, in a marked shift from earlier period, the central and state governments are to have an equal contribution of 39% each. Private sector investments are expected to be lower at 22% (30% during the 7 years to FY19). Various issues associated with infrastructure investments have been dissuading the private sector from undertaking investments. Issues such as lack of environmental and non-environmental clearances, land acquisition problems, issues related to procurement of fuel, feedstock or raw materials, lack of funds, unfavorable market conditions etc. have propelled the private sector to abandoned or stall investment projects.

Exhibit 4: Infrastructure investment by centre, state and private sector during FY13-19



Source: PIB

Exhibit 5: Share of centre, states and the private sector in proposed infrastructure investment: FY20-25



Source: PIB

The Centre and states have been the major funding sources for sectors such as power and roads and bridges, with moderate participation from the private sector. Digital sector investments were mainly driven by the private sector, while investments in the irrigation sector were predominantly made by the state governments.

Table 2: Sectoral Investments: Centre, states and Private:FY20-25

	Centre	State	Private
Roads	25%	36%	39%
Conventional Power	37%	57%	6%
Petroleum and Natural	74%	11%	15%
Renewable Energy	0%	0%	100%
Atomic Energy	100%	0%	0%
Railways	87%	1%	12%
Ports	50%	39%	11%
Airports	23%	38%	39%
Urban	31%	68%	1%
Digital Infrastructure	24%	5%	71%
Irrigation	22%	78%	0%
Rural Infrastructure	76%	24%	0%
Agriculture	54%	46%	0%
Health Infrastructure	29%	71%	0%
Higher Education	38%	62%	0%

For the infrastructure projects in the oil and gas, atomic energy, railways and rural infrastructure sectors, the central government is to implement 74-100% of the proposed projects.

The development of the conventional power, urban and housing, irrigation, health and higher education infrastructure is the primary responsibility of the states (share of 57-78% of total sectoral investment)

Renewable energy infrastructure building is to be entirely spearheaded by the private sector. The private sector is also to have an active participation in the creation of the roads (39%), airports (39%) and digital infrastructure (71%).

Under the NIP, the centre and state continue to be the major implementing agencies for the conventional power sector. The introduction of the Hybrid Annuity Model (HAM) which aims to revive PPP (Public Private Partnership) in highway construction has led to higher participation of the private sector in the segment.

How is the proposed infrastructure building to be financed?

While only the overall quantum and share of the government and private investment has been outlined, the specifics of how it would be financed or the share of each state government has not elaborated in the NIP.

Given the constrained finances of the government and the private sector in the backdrop of prevailing economic weakness (GDP growth in 2019-20 is estimated to be lowest in 11 years) which is unlikely to see a noteworthy improvement over the next 2-3 years, the ability of the implementing agencies to finance these investments would be a challenge. Moreover, a sizeable portion of the investments (42% or Rs.38.5 lakh crs) is to be borne in FY21 and FY21.

With the central and state government unable to significantly deviate from the fiscal consolidation road map i.e. of maintaining fiscal deficit to GDP ratio as outlined by the FRBM (fiscal responsibility and budget management act), their ability to increase spending on infrastructure development through market borrowings in the event of low revenue generation is limited and this could come in the way of realization of the infrastructure building target. A significant portion of the infrastructure investment would thus have to be undertaken by the public sector undertakings (centre and state level). This has been enumerated in the financing of NIP by the centre. Of the total capital outlay by the centre, the allocation to be made in the Union budget (i.e. budgetary support) is projected to be around 40%. This indicates that the balance would have to be met by the central public sector undertakings (CPSU). It could be similar even in case of states.

Table 3: Financing the NIP by the Centre (Unit: Rs/lkh cr)

	FY19 (RE)	FY20 (BE)	FY21 (P)	FY22 (P)	FY23 (P)	FY24 (P)	FY25 (P)
Total capital outlay by Centre (infra)	3.5	3.8	4.6	5.6	6.8	8.2	10
Budgetary support (infra)	1.4	1.5	1.9	2.3	2.7	3.3	4.0

Source: PIB

What has been the pattern in the past?

In the last 5 year period FY16-20, the central government expenditure towards capital asset creation has grown at a CAGR of 7.6%. Expenditure towards asset creation, on an average as against the total expenditure of the government, has a share of 12-13%. Within the capital expenditure incurred by the government, provision towards the asset creation towards defense is always going to be the highest (around 31%-36%) regardless of the immediate requirement of the country. Hence keeping aside the allocation towards defense, total capital outlay on an average as against the total expenditure of the government, has always been around 7%-8%.

Table 4: Capital Expenditure by the Central Government (Unit: Rs/lkh cr)

	2015-16(A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)
Capital Expenditure	2.5	2.8	2.6	3.1	3.4
Capital Expenditure excl. defence	1.7	1.9	1.7	2.2	2.3

Source: Budget Documents

Central government allocations towards the railways and roads and transportation have always been the highest ranging from around 21%-29% for the former and 15%-31% for the latter of the total capital expenditure (excl. defence). The aforementioned sectors are also included in the NIP where the central government's outlay towards railways and roads is going to be around 87% and 25% respectively. Allocations made towards housing and urban affairs, atomic energy and communications has been around 6%-9%, 3%-4% and 1%-3% of the total capital expenditure (excl. defence) respectively.

Consequently for the NIP, the centre will be financing 38% towards urban housing, 100% towards atomic energy infrastructure creation and 24% towards communications/digital infrastructure formation.

Table 5: Central Government Capital Expenditure: By Ministry/Departments (Unit: Rs/Crore)

	2014-15(A)	2015-16(A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)
Road transport and highways	16,572	27,533	41,193	50,752	68,564	72,059
Railways	30,121	35,008	45,232	43,418	53,060	65,837
Ministry of finance	22,703	60,219	50,171	15,969	24,717	23,162
Housing and urban affairs	7,392	10,589	16,511	15,346	17,010	19,544
Ministry of home affairs	6,093	9,148	9,050	10,818	10,772	11,102
Atomic energy	3,673	4,978	4,261	5,603	8,663	8,107
Civil aviation	5,815	3,361	2,709	1,837	4,000	25
Ministry of communications	1,112	2,657	3,832	4,969	4,281	5,942

Source: Budget Documents

Central PSUs

Internal resources of PSU comprise a major portion of the resources of Public Enterprises (32%-41%). It has been seen that in recent years these entities have been increasingly seeking external sources of funds viz. bonds and ECBs. In the last 5 year period, issuances from Bonds and ECBs have increased at a CAGR of 8.2% and 14.9% during FY16-20.

Table 6: Chief Resources of Public Enterprises (Unit: Rs/ lkh cr)

	2015-16(RE)	2016-17 (RE)	2017-18 (RE)	2018-19 (RE)	2019-20 (BE)
Internal Resources	1.2	1.7	1.7	2.0	2.2
Bonds	1.3	1.7	1.9	1.8	1.7
External Commercial Borrowing	0.23	0.35	0.23	0.45	0.4

Source: Budget Documents

State governments

In the last 5 year period FY16-20, the state government expenditure towards capital outlay has grown at a CAGR of 14.9%. Expenditure towards asset creation, on an average as against the total capital disbursement of the government, is around 4%-8%.

Table 7: Capital Outlay by the State Government (Unit: Rs/lkh cr)

	2015-16(A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)
Capital Outlay	3.3	3.9	3.9	5.4	5.8

Source: RBI

State government allocations towards Economics services has always been the highest ranging from around 68%-74% of the total capital outlay. Economic services include allocations towards, irrigation, rural development, agriculture, energy transport etc.

The aforementioned sectors within economic services are also included in the NIP where the state government's outlay towards is going to be around 78% towards irrigation, 24% towards rural development, 46% towards agriculture, 57% towards conventional power and 11% oil and gas (energy) and 36% towards development of roads and bridges (transport).

Table 8: State Government Capital Outlay (Unit: Rs/Crore)

	2014-15(A)	2015-16(A)	2016-17 (A)	2017-18 (A)	2018-19 (RE)	2019-20 (BE)
Economic Services	1,93,464	2,43,745	2,89,535	2,81,658	3,76,967	3,92,637
Social Service	63,066	69,555	83,782	92,819	1,34,223	1,46,913
Transport	66,314	78,854	94,803	93,374	1,23,409	1,22,000
Irrigation and Flood Ctl	55,583	68,517	83,260	82,597	1,09,958	1,01,467
Energy	33,873	46,632	53,130	46,472	53,565	55,158
Rural Development	18,366	26,256	23,899	26,174	40,526	48,786

Source: RBI

Financing options beyond the government

Bank financing has in the past been a key source of funding infrastructure. Banks have now grown increasingly risk averse and have been lowering their lending for infrastructure projects given the long gestation period of these projects and the stress on their balance sheet on account of past lending to long term infrastructure projects that have turned into non-performing assets. In addition, some banks[1] which are currently under PCA (prompt corrective action) are unable to undertake lending. Bank credit growth to infrastructure contracted by 3.4% during Apr- Oct'19 against growth of 14.5% during the same 7 months period last year.

The private sector would find it increasingly challenging to raise funds from banks given the challenges of NPAs and willingness of banks to lend for such projects. Bank credit growth is unlikely to see a significant sharp increase in the next 3 years.

We estimate bank credit growth to industry and services to grow by an average 9% in the next 3 fiscal years. The incremental bank credit to industry and services is thus estimated to increase from Rs.3.8 lakh crs in FY21 to Rs.7.64 lakh crs in FY23.

The central and state public sector undertakings as well as the private sector entities would essentially have to rely on domestic corporate bond markets, foreign direct investments as well as resort to external commercial borrowings to fund their infrastructure investments.

Corporate bond issuances have averaged Rs.6.40 lakh crores during FY17-19. Among sectoral issuances, the infrastructure sector identified in the NIP accounted for 22% of the fresh issuances in the first 9 months of 2019-20. The corporate bond market can be a viable financing option for public sector undertaking and the private sector and could boost and deepen the country's corporate bond markets.

Based on the past trends and future economic growth projections, we estimate corporate bond issuances to increase progressively in the next 5 years from (proj) Rs.6.5 lakh crs in FY20 to Rs.9.6 lakh crs in FY25. NBFCs will remain the main borrowers accounting for 70-80% of these issuances. For infra projects to borrow effectively in the market credit enhancements will be required to ensure that the credit rating is acceptable for potential investors.

[1] Central Bank of India, UCO Bank, IOB,IDBI and Lakshmi Vilas Bank

As per data from the RBI, loans and advances of the NBFC-infrastructure finance companies accounted for 45% (Sept'18) of the total loans and advances of the NBFC segments. Revival of this sector would be essential to ensure that they are able to channel funds for private sector projects.

External commercial borrowing registrations have been witnessing a notable increase in the current financial year (an increase of 53% to $ 30 bn in the first 8 months of the fiscal) aided by both domestic and external factors (constrained and high cost domestic finance and low interest rate regime and supportive liquidity conditions in the international markets). The ECB borrowings are predominantly by the financial services sector (44%) a large part of which is towards 'on-lending' a part of which could be towards for the infrastructure sector (as per RBI data 45% of total lending as of Sep'18) . The sector under NIP accounted for around 5% of the ECB registrations in the current financial year. Also a significant amount of ECBs registered are for meeting working capital requirements or refinance.

FDI inflows (fresh equity inflows) into the country have been robust in recent years with average annual investments of $44 bn in the last 4 years. FDI equity inflows in H1 FY20 at $26 bn are 15% higher (y-o-y). Among sectoral issuances, the infrastructure sector identified in the NIP accounted for 22% of FDI equity inflows in H1 FY20. Further easing of FDI norms for sectors where investments are to undertaken could make this a feasible financing option for infrastructure financing.

Concluding points

- Overall this is a positive move that would go a long way in making the country competitive and bring along with it higher economic activity in the coming years.
- The highest allocations for the proposed infrastructure investments are in the next two years i.e. FY21 and FY22 i.e. around Rs.38.5 lakh crs.
- A lot of this investment would depend on by how much the central and state government would be able to increase expenditure on infrastructure creation given uncertain revenues and subdued economic conditions. The markets will keenly watch for the extra stimulus in the budgets this year. In the absence of such a push it would be difficult for the central and state governments to increase allocation for capital expenditure significantly beyond the trend growth from the current levels of Rs. 3.4 lakh crs and Rs. 5.8 lakh crs respectively.

Therefore we believe that while the proposed infrastructure investment amount is noteworthy and timely frontloading in the next two years will be a challenge given the low GDP growth in FY20 and the accompanying prospects as well as the challenges of finance at both the government and corporate sector levels. All three segments (centre, state and private sector) will find garnering resources challenging. The state and centre's public sector undertakings would have to fund this investment via corporate bonds, external commercial borrowings and FDIs. We could expect to see more ECBs in coming years. This could be an area of concerns as outstanding ECBs currently account for around 40% of the country's external debt and over 4% of GDP. This has to also be kept in mind when accessing the market as the forex risk in the next five years may be difficult to conjecture today.

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