

Building a USD 5tn Economy: The National Infrastructure Pipeline in India



Rohini Sanyal
Research Economist, India
at ISI Emerging Markets Group



Mr. Sudip Sural
Chief Executive Officer, CARE Advisory
Research and Training Ltd



Ms. Sushmita Majumdar
Director, CARE Advisory
Research and Training Ltd



Mr. Tushar Shah
Director, CARE Advisory
Research and Training Ltd

Moderator: Rohini Sanyal, Research Economist, India at ISI Emerging Markets Group

ISI EMERGING MARKETS GROUP

Our group consists of businesses that have forged a reputation for providing the highest quality of information about emerging markets through different prisms:



Macroeconomic data



Company, industry & country research



CARE Ratings Ltd



2nd

Largest credit rating
agency in India



27+

Years of experience
since 1993



85k

Rating assignments
since inception



151
tn

Rated debt as on
Mar' 21

CARE Advisory, Research and Training (CARE Advisory; 100% Subsidiary)



5+

Years of experience



50+

Industries research
coverage



1000+

Advisory assignments
undertaken



500
bn

Projects assessed
since inception

Agenda

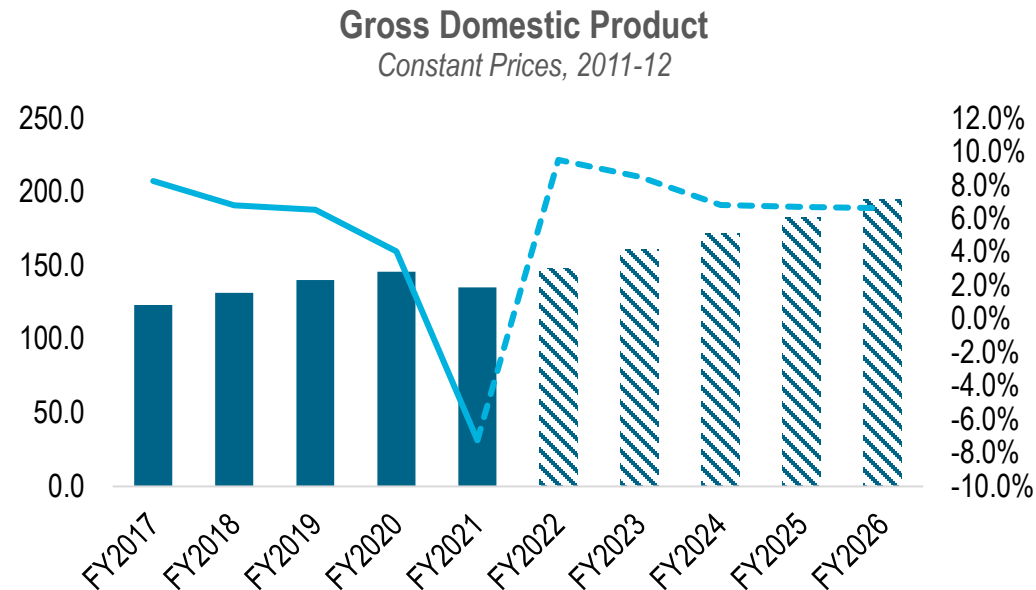
1. India's USD 5tn Economy Dream
2. The National Infrastructure Pipeline
3. Roads
4. Renewables





INDIA'S USD 5TN ECONOMY DREAM

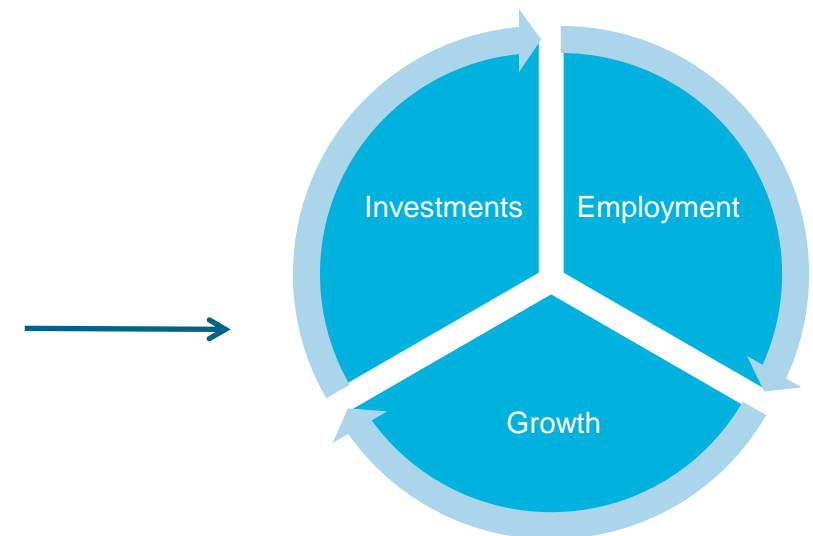
India's Growth Trajectory



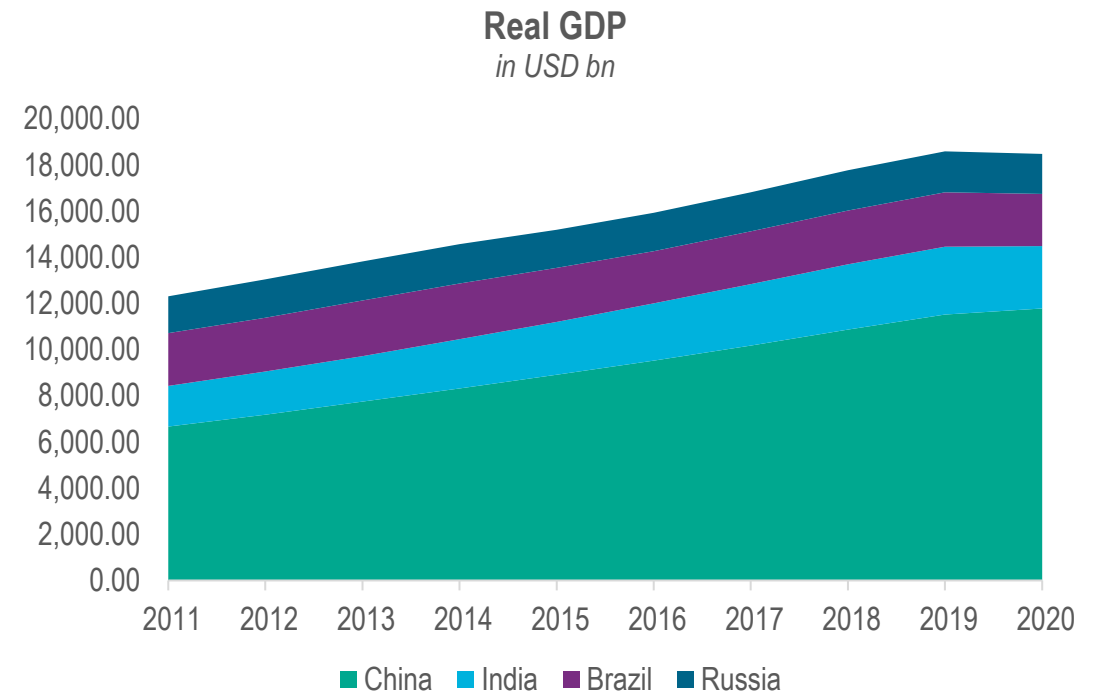
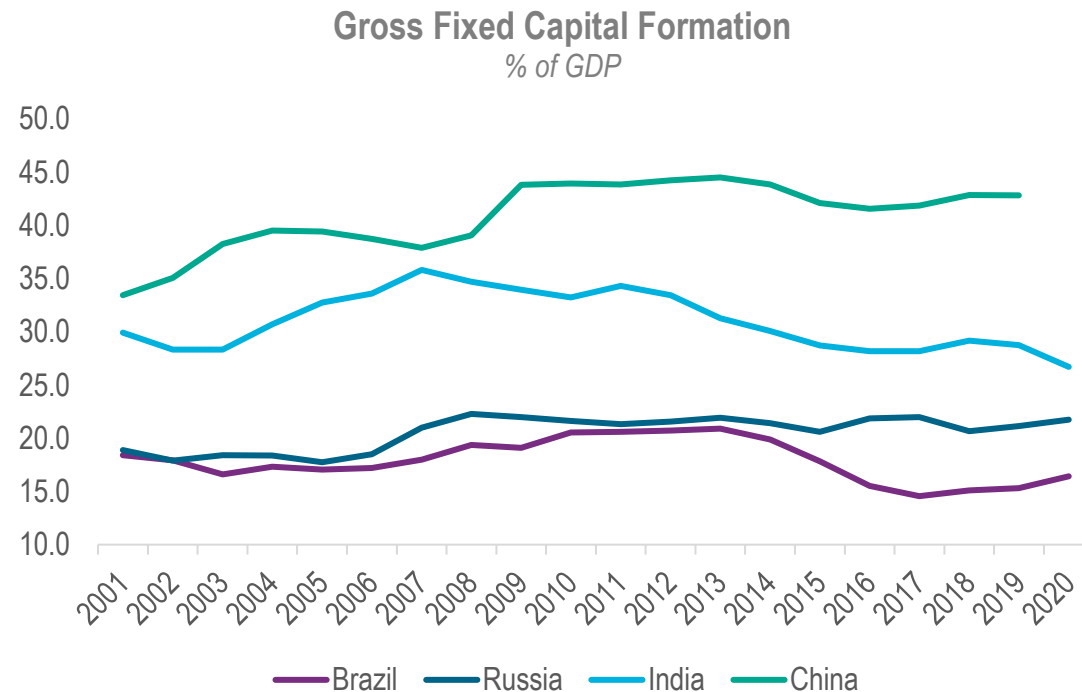
- Despite high growth projection, India's USD 5tn economy vision remains highly ambitious, especially if the INR depreciates against the USD
- Government of India is intent on achieving the target primarily through infrastructure development due to the high multiplier effect

Motivation behind the National Infrastructure Pipeline

- Rapid urbanisation and changing demographic requirements
- Strengthening supply side reforms
- Increasing global competitiveness and attracting investments
- Boost employment and income generation
- Meeting the Sustainable Development Goals by 2030



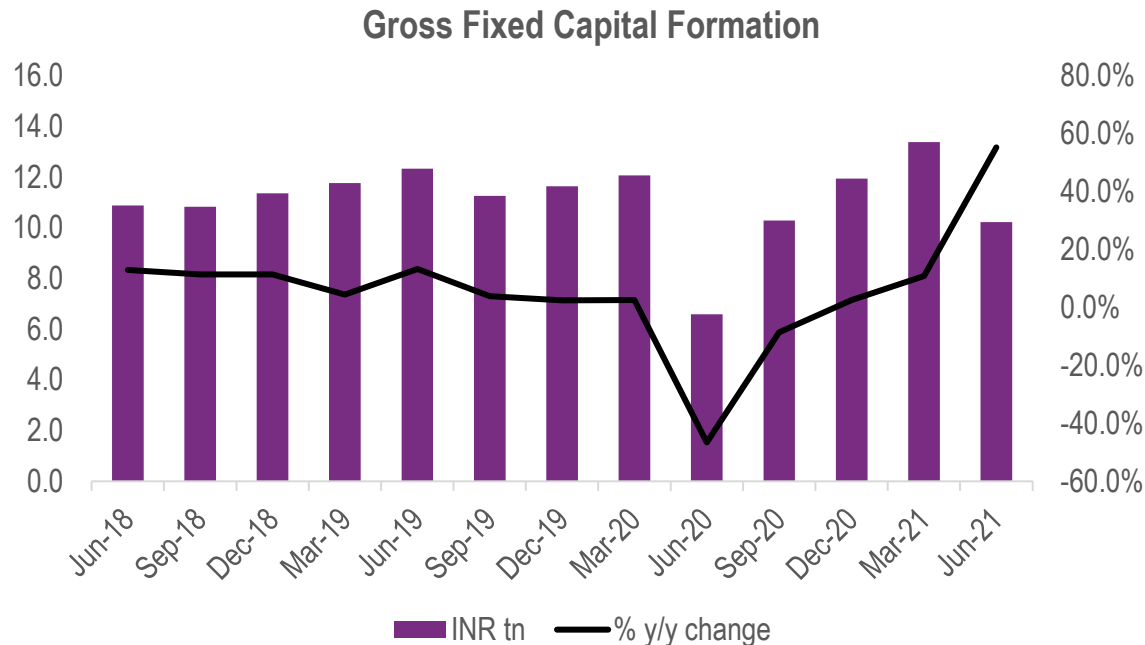
Fixed Capital and Economic Output across BRIC Nations



- China's gross fixed capital formation as a percentage of GDP far exceeds its counterpart BRIC nations, and even advanced economies such as the United States
- The Chinese economy, in 2020, was almost four times the size of the Indian or Brazilian economy

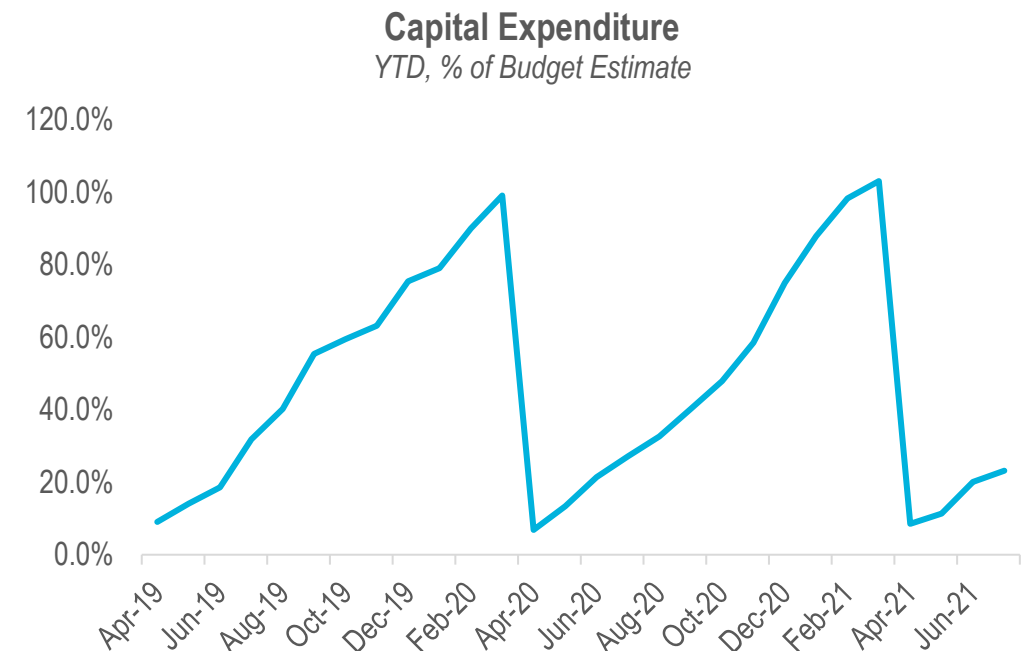
Note: For India, the year reflects the fiscal year (ending in March of following year) – for example 2020 means FY2021; adjustment made for comparison
Source: CEIC, World Bank

Pace of Capital Expenditure Requires Acceleration



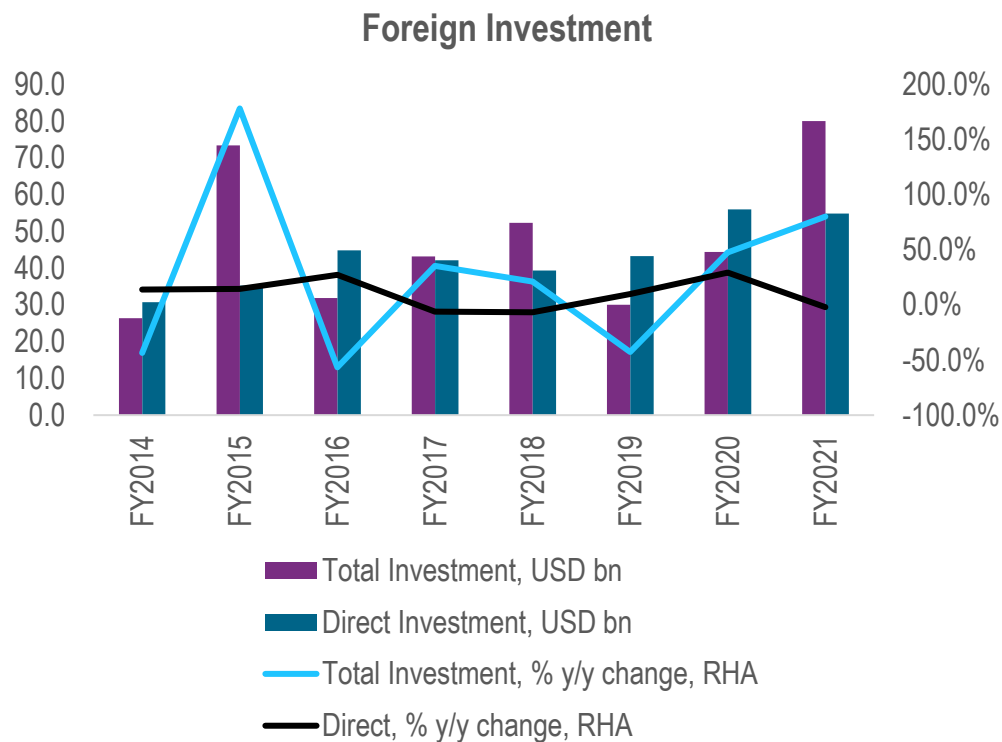
The budget for capital expenditure has registered an increase of 34.5% y/y in comparison to budget estimate for FY2021, and an increase of 26.2% y/y when compared to the revised budget.

India would need to spend USD 4.5tn on infrastructure development by 2030, to become a USD 5tn economy by 2025 (and continue that path until 2030). However, current yearly spending is less than USD 100bn.



Foreign Investments

In FY2021, India attracted total investments inflows worth USD 80.1bn, the highest on record, marking an increase of 80.3% y/y. Foreign direct investments (FDI) to India, on the other hand, declined 1.9% y/y in FY2021.



The share of foreign investment in construction and infrastructure activities increased from 5% in FY2020, to 15% in FY2021. As of Q1 FY2022, the sector has received 5% of the total investments.

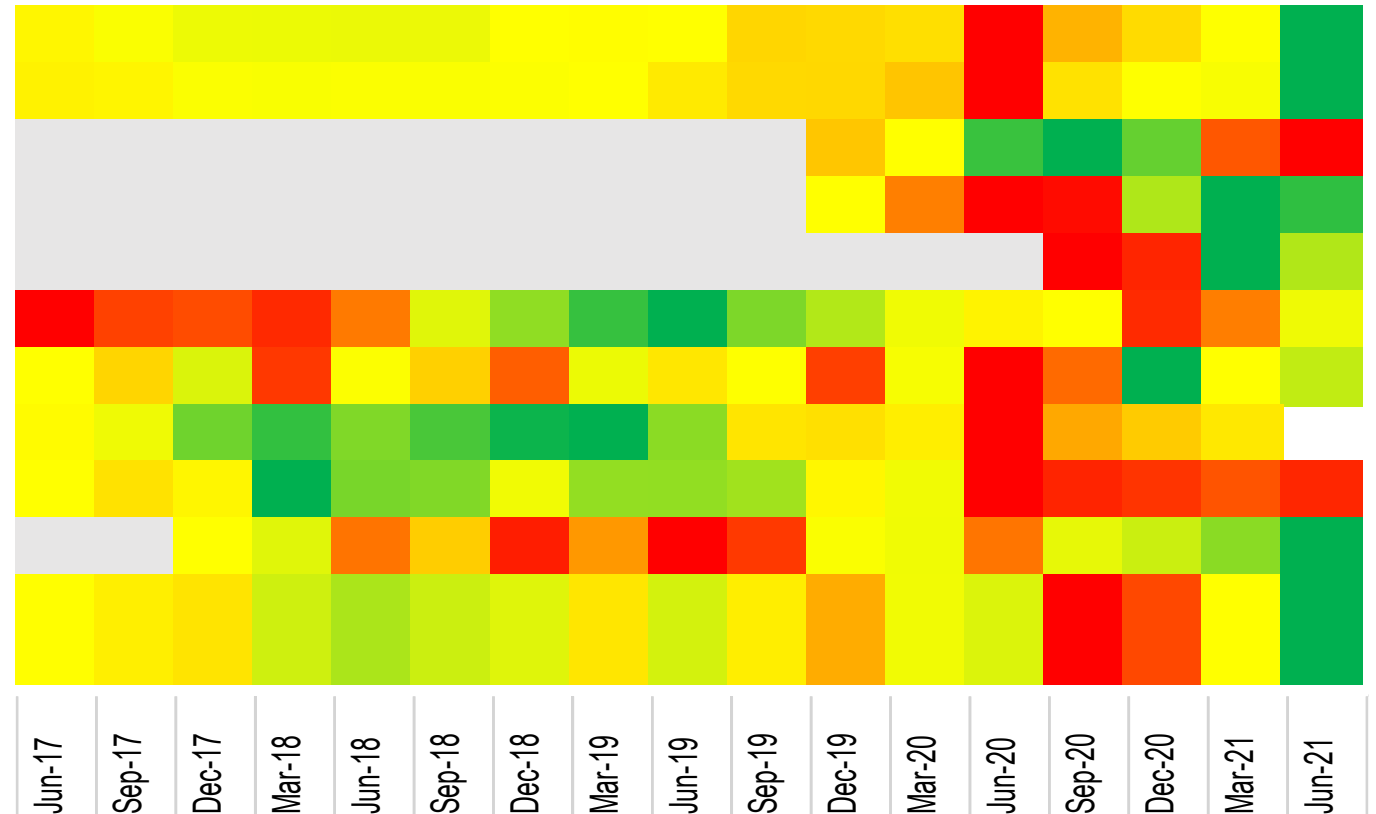
Top 10 Industries for Foreign Investments

- Automobile Industry
- Computer Software and Hardware
- Services Sector
- Metallurgical Industries
- Construction Infrastructure Activities
- Trading
- Glass
- Hotel and Tourism
- Chemicals, excl Fertilizers



The Post-Lockdown Infrastructure Activity Scorecard

Core Infrastructure Industries Index, % y/y change
 Infrastructure and Construction Goods, % y/y change
 National Highways Awarded, % y/y change
 National Highways Construction, % y/y change
 Railway Capital Expenditure, % y/y change
 Credit Outstanding to Infrastructure Sector, % y/y change
 FDI in Construction Infrastructure Activities
 Capacity Utilisation, %
 Naukri JobSpeak Index - Infrastructure
 RBI Bank Lending Survey, Loan Demand for Infrastructure, %
 RBI Services and Infrastructure Outlook Survey - Infrastructure
 Overall Business Situation, %





THE NATIONAL INFRASTRUCTURE PIPELINE

National Infrastructure Pipeline – INR. 111tn Investments by FY2025

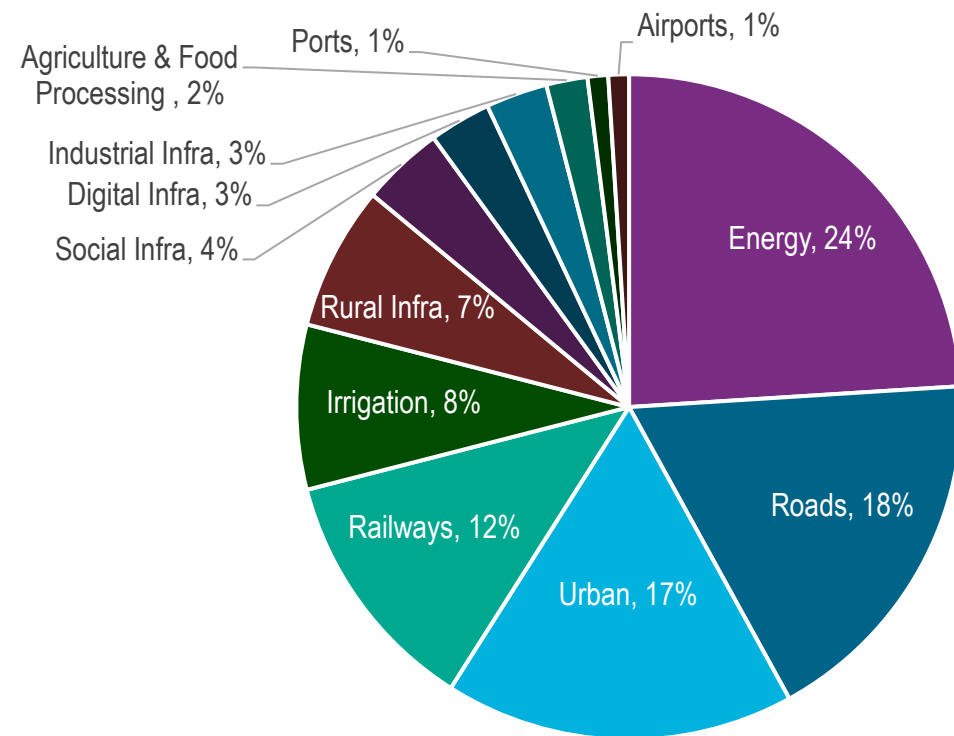
KEY HIGHLIGHTS



FINANCING THE NIP

Budgetary Sources	Private or Extra Budgetary Sources	Innovative and alternative financing sources
Central Budget (18-20%)	Financing by Banks (8-10%)	Innovative and alternative financing (15-17%)
	Bond Markets (6-8%)	
State Budget (24-26%)	Infrastructure NBFCs (15-17%)	
	PSU Accruals, Equity and Others (8-15%)	

SECTOR WISE BREAK UP UNDER NIP



REFORMS:

- PPP
- Financial Reforms
- Sector Specific Reforms



ROADS

The Road Ahead...

NIP SNAPSHOT

18%
Share of total NIP
value (INR 111tn)

1820+
NH Projects
identified

INR 20.34tn
Capex over
FY20-FY25

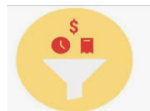
National highways



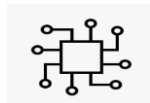
Private Sector



Innovative
Financing



Technology



CURRENT STATUS

132,000 km

15%

Limited asset
monetization

Limited
technology use

VISION 2025

219,000 km

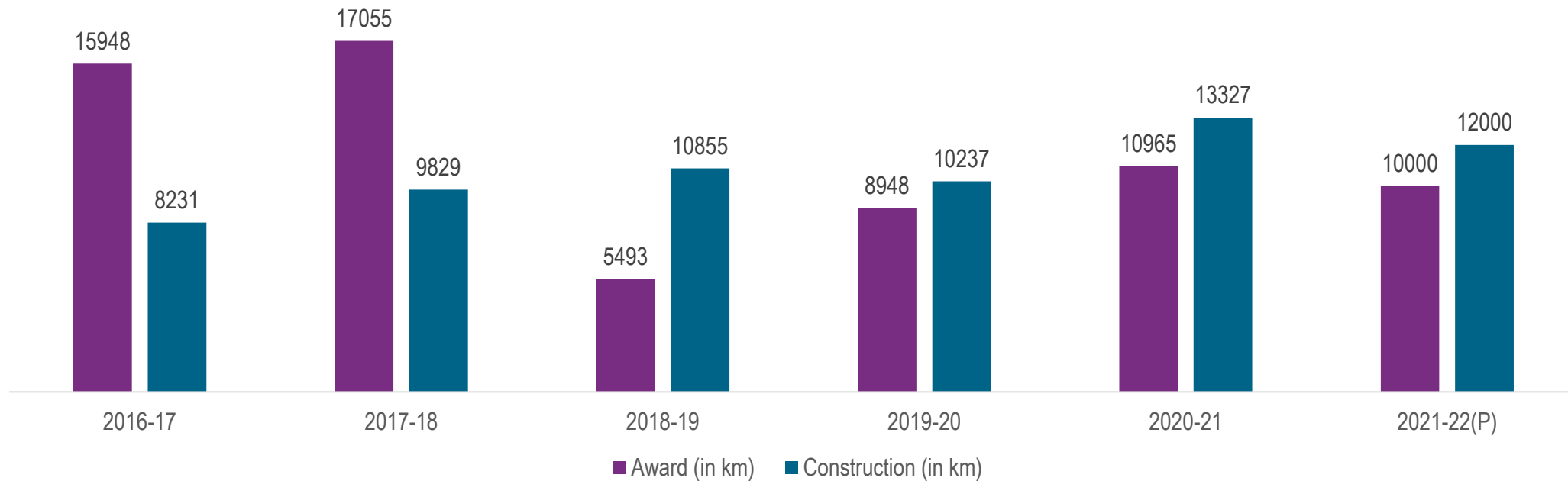
39%

INR 1.6tn

Increased use of
Fastag, RFID
devices

Strong Pace of National Highway Construction

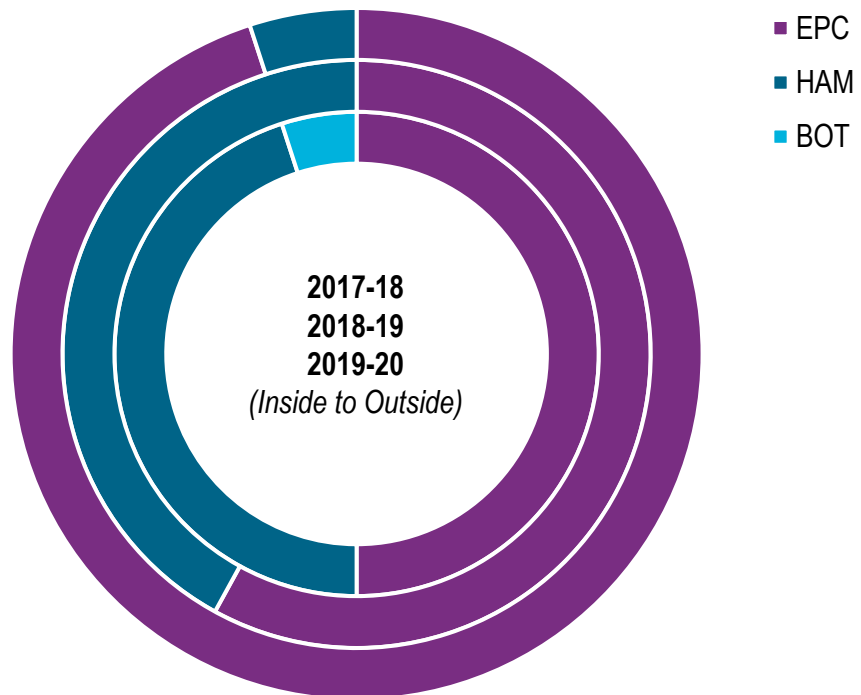
National Highways – Projects Awarded and Completed



- Initiatives such as Bharatmala Pariyojana boost connectivity
- Government support was extended to contractors and concessionaires during the pandemic.
- Pace of construction to touch 15,000 km/year to achieve the NIP vision

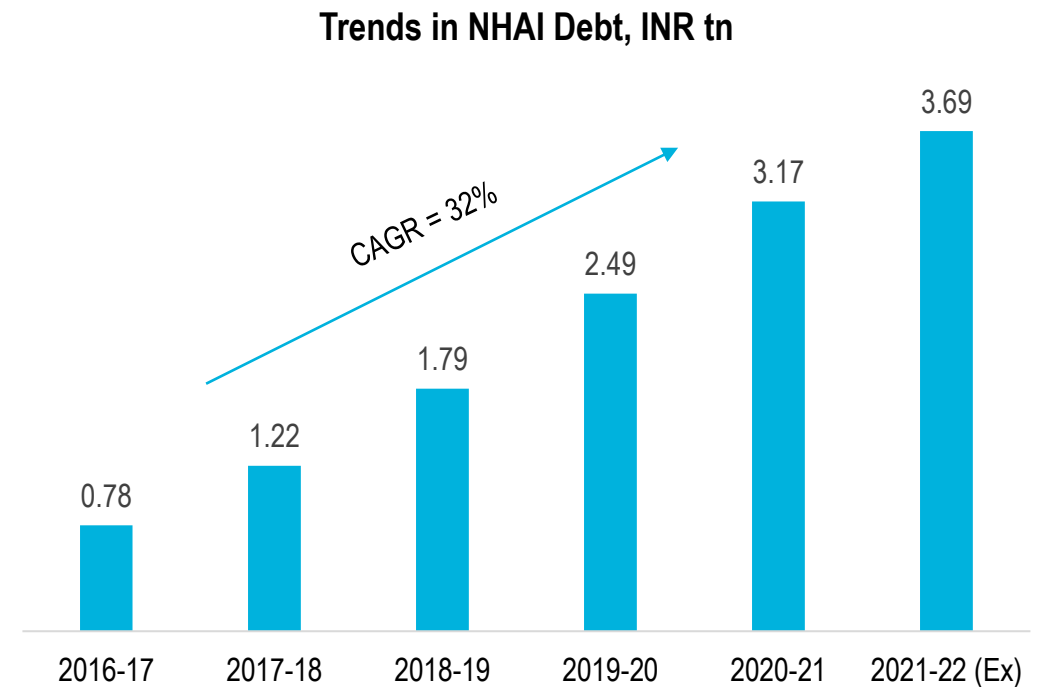
Government Funded Modes Dominate

Mode of Projects Awarded



EPC and HAM are the more preferred mode of project awards over the past few years

Increasing Debt in NHAI



Resulting in increasing debt on NHAI's balance sheet

Asset Monetization – Key for fueling growth

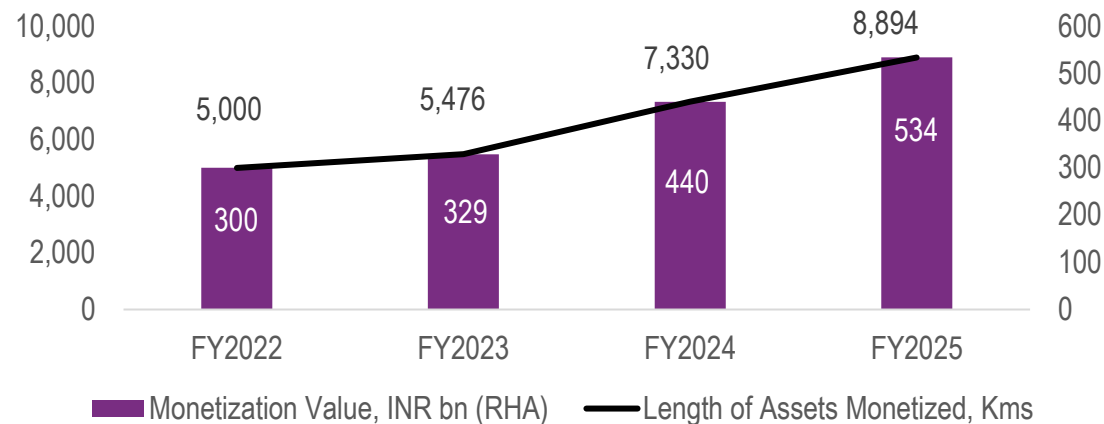
NHAI to be the flag-bearer of the government's asset monetization programme

- INR 1.6tn to be raised through the recently announced National Monetization Plan (NMP) over FY2022 to FY2025.
- Under NMP aggregate length considered for Asset monetization is 26,700 km – Approximately 22% of the total national highways.

InvITs and TOTs to be preferred monetization routes

- NHAI has already raised Rs. 170 billion through the TOT mode.
- NHAI is set to launch its maiden InvIT worth Rs, 51 billion in 2021.

Phasing under NMP

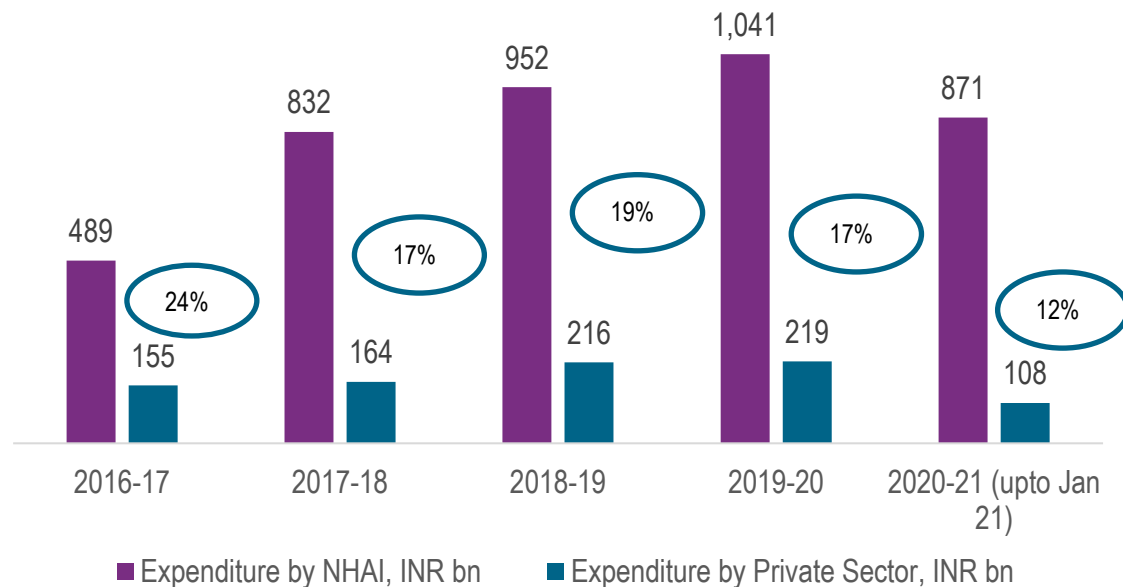


Toll – Operate – Transfer (TOTs)

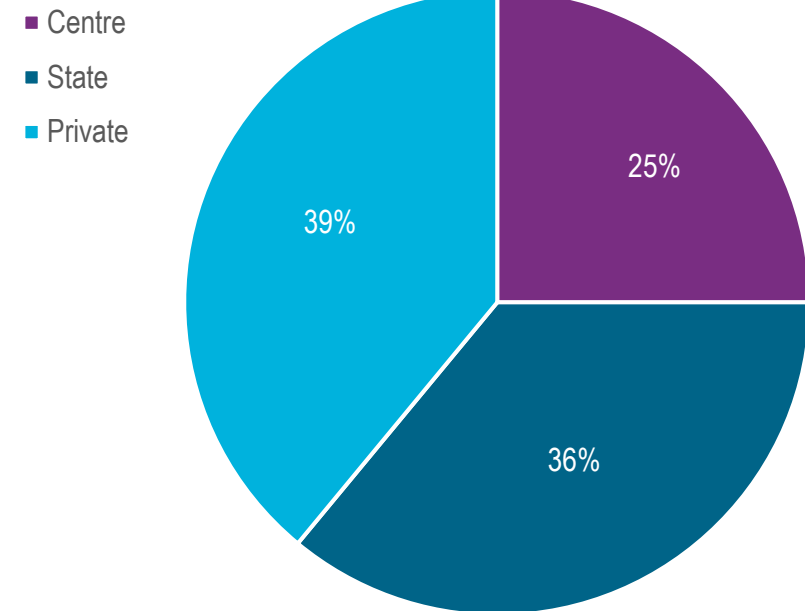
TOT Bundles	Stretches	Kms	Amount Raised (INR bn)	Year
TOT Bundle 1	9	682	97	2018
TOT Bundle 2	8	586	No takers	2018
TOT Bundle 3	9	566	50	2019
TOT Bundle 4	7	401	No takers	2019
TOT Bundle 5	2	160	22	2020
Total	35	2395	~170	

Steep uptick in private participation is vital

Private Sector Expenditure continues to be weak



39% - expected share of private sector Expenditure in NIP



Evolution of regulatory framework to encourage private participation:

- Changes in Model Concession Agreement (MCA) of BOT (Toll) Project
- Changes in MCA of TOT framework
- Changes in MCA of HAM model
- Greater transparency in operations

Return of participation in BOT mode remains to be seen

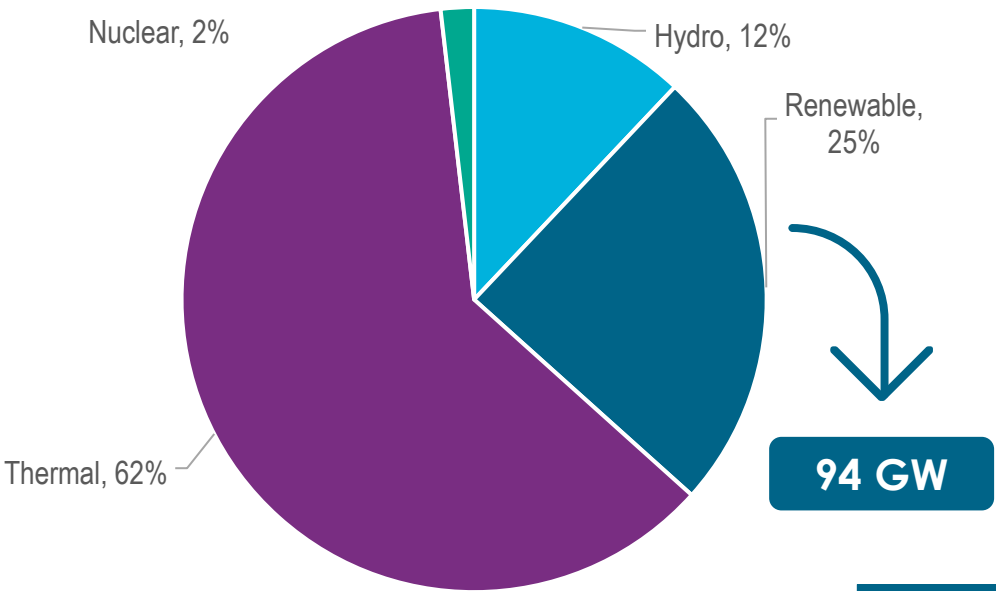


RENEWABLE ENERGY

Renewable to Lead Growth in Power Installations Through 2025 (NIP)

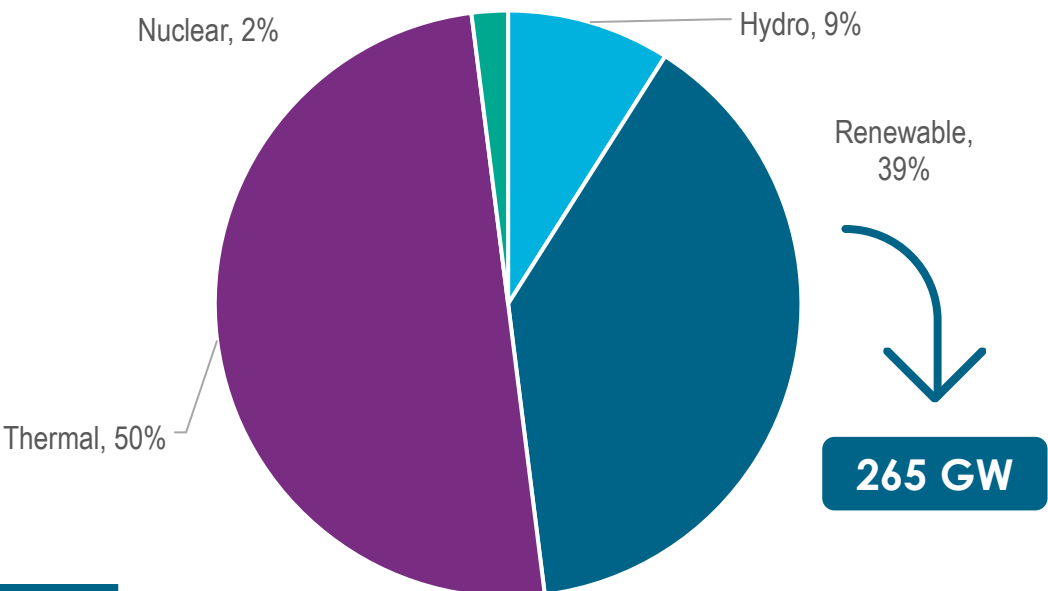
Current Snapshot

Generation Category wise Installed Capacities (GW)-
March'21



Vision 2025

Generation Category wise Installed Capacities (GW)-
March'25



Addition of
~171 GW

Requires Capital
Expenditure of ~USD 120
Billion / Rs. 8,730 Billion

SOLAR – 109 GW

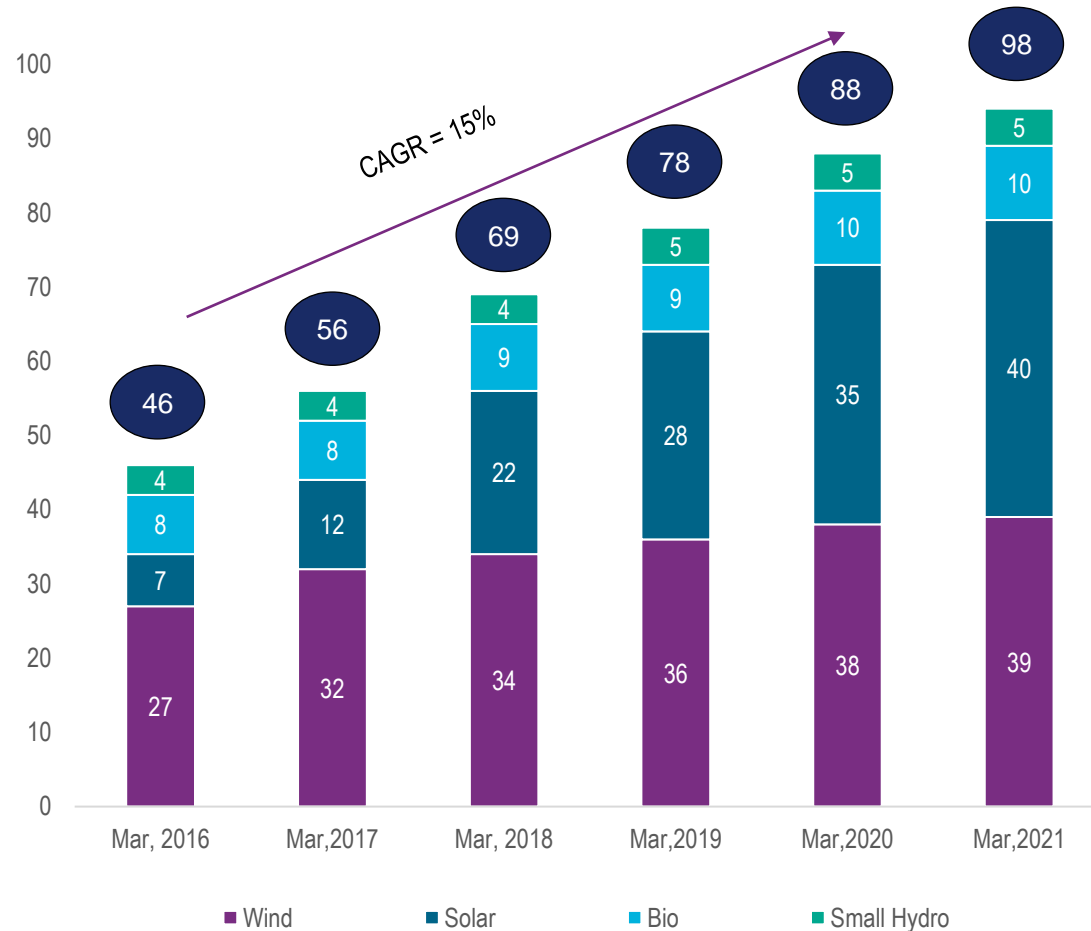
WIND – 58 GW

OTHERS – 4 GW

*The original capital expenditure for renewables under NIP is estimated at INR 9,295 billion. The revised capital expenditure of INR 8,730 billion is capex estimated from FY22 onwards

India's Renewable Capacities More Than Doubled In Last 5 Years

All India RE Installed Capacity (GW)- Mar'2021

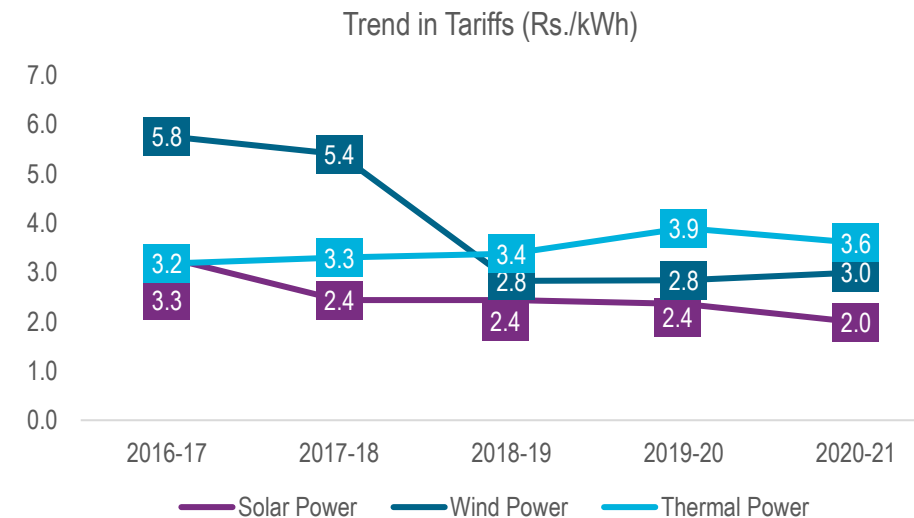


Driven by

Government Initiatives

- National Solar- Wind Hybrid Policy
- National Solar Mission
- Offshore Wind Policy
- Green Energy Corridor

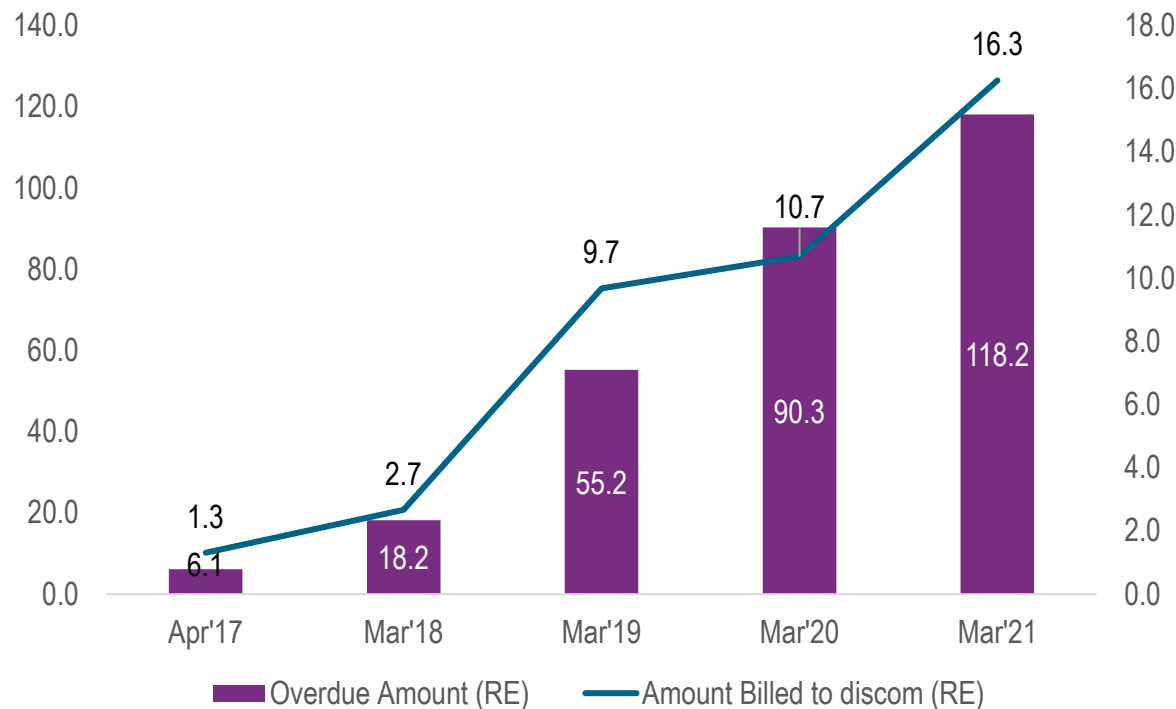
Tariff Competitiveness



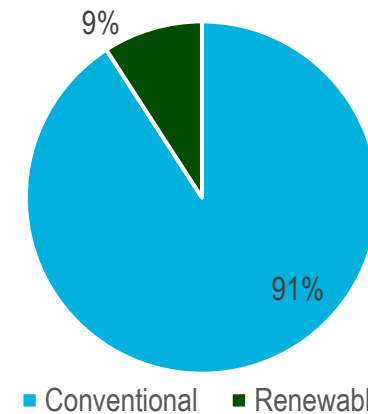
Counterparty Risk is one of the biggest challenges for renewable generators

Discoms continue to be the weakest link, and payment delays by discoms continue to be on an increasing trend for renewable generators

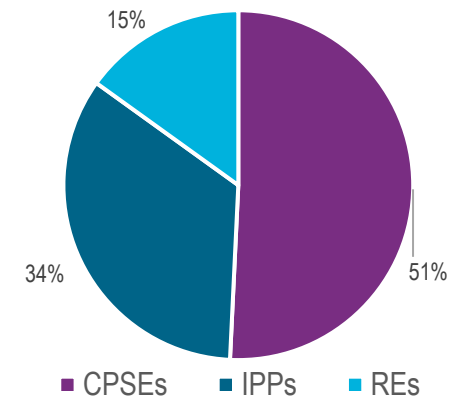
Overdue Position to Discoms for REs (INR bn) & Monthly Billing Amount to Discoms for REs (INR bn)



Electricity Generation (BU), March'21



Summary of Overdue Amount, March'21



Note: CPSEs – Central Public Sector Enterprises, IPPs – Independent Power Producers, REs – Renewable Generators

Source: PRAAPTI

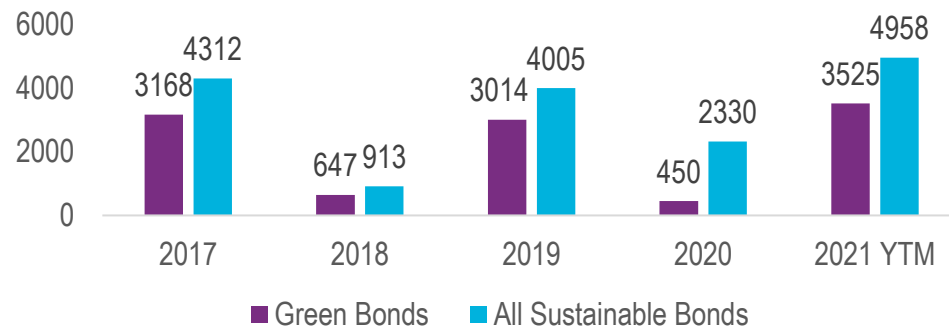
Financing of the Growth in Renewable Generation

Total Capital Requirement - ~ INR 8,730bn / USD 120bn

Debt ~ 70% i.e. INR 6,111bn (USD 84bn)

- Tapping capital markets (both international & domestic) through issuances of
 - Green Bonds, Sustainable Bonds
 - Innovative obligor/ co-obligor structure which benefit from diversified geography, counterparty and tariff with structural features and protection

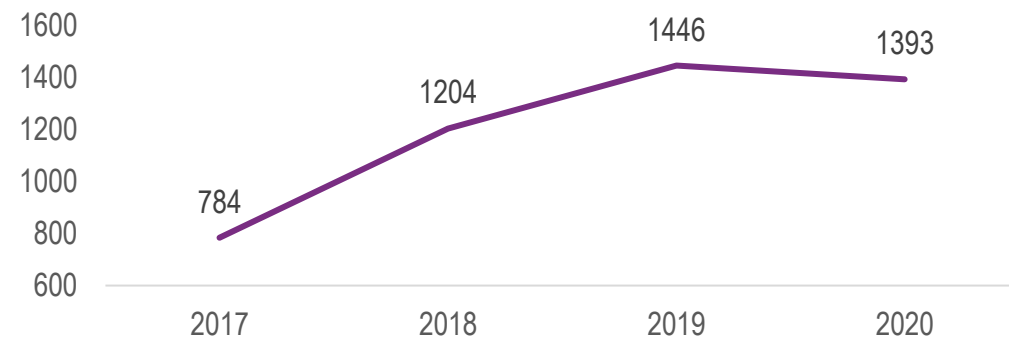
Bond Issuance Proceeds (USD million)



Equity ~ 30% i.e. INR 2,619bn (USD 36bn)

- Tapping long term institutional / endowment and pension funds for equity financing (both international and domestic)
- Ongoing asset recycling / monetization including sale of stakes operation portfolios to fund growth

Foreign Direct Investments, in USD mn



High international investor interest - driven by 'Green' credentials / ESG readiness of the renewable sector

Other Measures that are critical to Achieve the Vision 2025 under NIP

Operational Initiatives

1. Discoms –
 - Sustainable improvement in balance sheet and fiscal position of utilities
 - 'Must Run' Status for Renewable Generation
2. Boosting of Solar PV modules manufacturing in India
3. Regulatory Certainty
 - Sanctity of PPA Contracts
 - Unilateral Bid / Tender Cancellations

CARE Advisory- Key Offerings

Advisory Services

- Investment Advisory
- Detailed Project Reports
- Stressed Assets Advisory
- TEV Studies & Feasibility Studies
- Corporate Due Diligence
- Vetting of Resolution Plans

Research Services

- Customized Sectoral Research
- Credit & Investment Research for Global Fund Houses



Customised ESG Solutions

- ESG Assessments
- ESG Gap Analysis
- Policy Advisory
- ESG Strategy and Roadmaps
- ESG Portfolio Mapping and Monitoring

Grading Services

- ESG Grading
- MFI (& COCA) Grading
- AIF Grading
- NGO Grading
- ESCO, LPG, Solar Grading



ISI Emerging
Markets Group

EMIS CEIC



Advisory
Research
Training

Delivering Excellence

Q & A

ISI Emerging Markets Group Flagship Publications

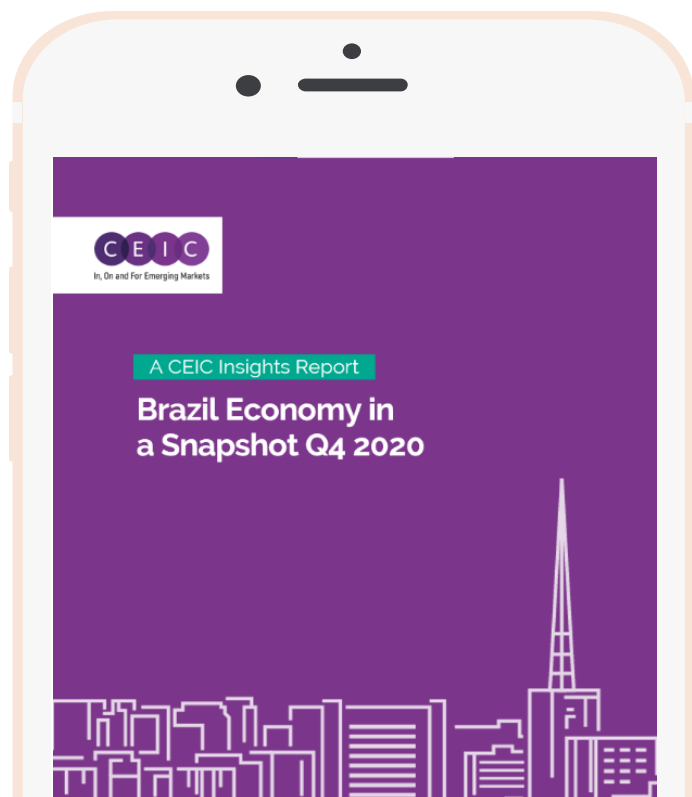
EMIS Insights Industry Reports

A comprehensive analysis on 14+ industries in 20 countries in Asia, EMEA and the Americas



CEIC Insights Macroeconomic Reports

Research led reports on macroeconomic topics across emerging markets and advanced economies

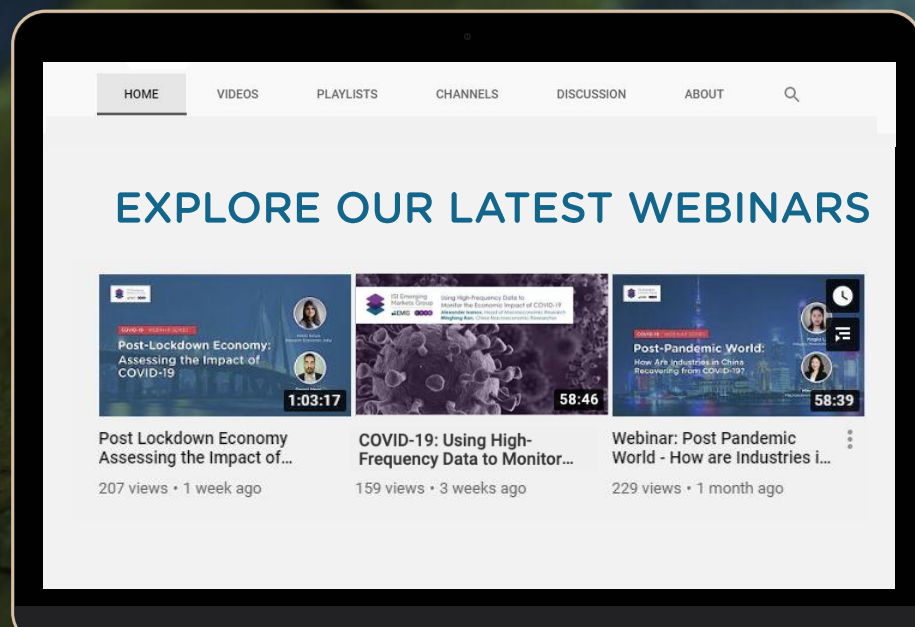


EMIS Insights Half-Annual Updates

A half-year analysis on 9 key industries in India



Thank you



Access our latest webinars here:
<https://www.emis.com/webinar>

