

gleeds

Gleeds' Quarterly Report

A Barometer for Indian Construction Costs

April 2021



CONTENTS

Economic outlook overview.....	3
Gross Domestic Product (GDP).....	5
Unemployment	6
Inflation.....	7
WPI and CPI.....	8
Manufacturer's purchasing managers' index.....	9
USD to INR.....	9
Key price trends.....	10
Steel prices in major cities	10
Diesel prices in major cities.....	10
Price trend indices for cement	11
Aluminium and copper.....	11
Crude oil	12
Labour.....	12
Material rates.....	13
Cost indices.....	15
Sector spotlight	16
Infrastructure:.....	16
Conclusion.....	18

Economic outlook overview

The world stepped into 2021 with much optimism. Businesses were running as usual, and the vaccine rollout had commenced successfully. Relaxations of the COVID-19 related restrictions, large gatherings, festivities and more use of public spaces have contributed to the onset of the second wave. In India the states that are most affected are Maharashtra, Punjab and Rajasthan along with the country capital Delhi. Goa and some parts of Telangana and Karnataka are also experiencing spike in infection.

Currently a small portion of migrant labour have returned to their hometown, some to participate in elections and some for the upcoming festivals. With the onset of the second wave, many more are leaving the cities and heading back to their hometowns. Their return is unpredictable and is likely to create scarcity in the availability of labour, in turn affecting productivity and pushing the costs upwards. The sharp rise in daily cases has already led to localised lockdowns across several states, aiming to prevent a rapid surge. However, if cases continue to increase, the government must impose stricter restrictions despite the ongoing vaccination efforts, and this could severely disrupt India's economic recovery in the near term.

The geopolitical issues such as restrictions on oil production, shutting down of steel plants in China, changes in the excise duties on metals, have played their role in the price hikes the country is now experiencing more so for crude oil, fuel, metals and plastics. The Suez Canal incident has brought to light the global dependency of the trade route. Any change in trade routes will only result in high fuel costs or air freight resulting in inflated import costs.

The market is dynamic and still quite unpredictable but seems more promising now than in the last quarter. The economy of the country is seen to be gradually recovering, and the optimism continues.



GLOBAL

- Circa 139+ million cases worldwide as on 16th April 2021 with a recovery rate of 85%
- IMF has predicted that the global economy is projected to grow 5.5 percent in 2021 from -4.9% in 2020.
- The success of the vaccine rollout has been different for each country.
- The economic recovery is likely to be slow and dependant on continued monetary and fiscal policy support.

INDIA

- Active cases pan India are 14 million plus with the recovery rate of 87.79% as on 16th April 2021.
- During the first wave, cases rose from 8,000 on June 2, 2020 to 97,000 on September 17, 2020 over 108 days. The second wave comes stronger, with cases rising from 8,000 on February 2, 2021 to 1,03,558 on April 5, 2021 just over 63 days.
- India shows gradual recovery, with GDP stepping into the positive zone at the end of the 4th quarter of 2020 as reported by the IMF.
- In the Union Budget 2021-2022, a growth of 11 percent was projected for the Indian Economy, up from an estimated historic decline of 7.7% in 2020-2021.
- Unemployment rate is 6.52% as on March 31, 2021 an improvement from 9% in December 2020.
- With the Union Budget 2020 – 2021 supporting infrastructure, Global data, a leading analyst has predicted the growth by 14.5% in 2021 as the capital expenditure has increased to 34.5% from last year's budget.

Gross Domestic Product (GDP)

The present GDP growth predictions are quite impressive for India after the vaccine rollouts and the Indian Union Budget 2021- 2022. Many global economists have updated their GDP forecasts with positive predictions. Recently, the Organization for Economic Co-operation and Development (OECD) has pegged India's GDP growth to rebound to 12.6% in FY22 which will be the fastest in the world, followed by China at 7.8% growth. Though India's economic recovery has been termed as impressive by a few rating agencies, several experts have mentioned that a second wave of COVID-19 could disrupt India's economy in the near term. In the first quarter 2021 India exits the contraction and moved towards a positive economic growth. The predictions noted below are for FY22. However, if the cases continue to surge in the second wave, and the current restrictions are prolonged till the end of May 2021, it will cost the economy \$10.5 billion in losses (as estimated by Barclays) and the impact on growth will be felt in the April 2021 to June 2021 quarter.

Graph 1:



Source: Media reports, various



Unemployment

The year 2021 started on a positive note for India as it recorded a significant fall in the unemployment rate to 6.5% in January 2021 from 9.1% in December 2020 according to CMIE data.

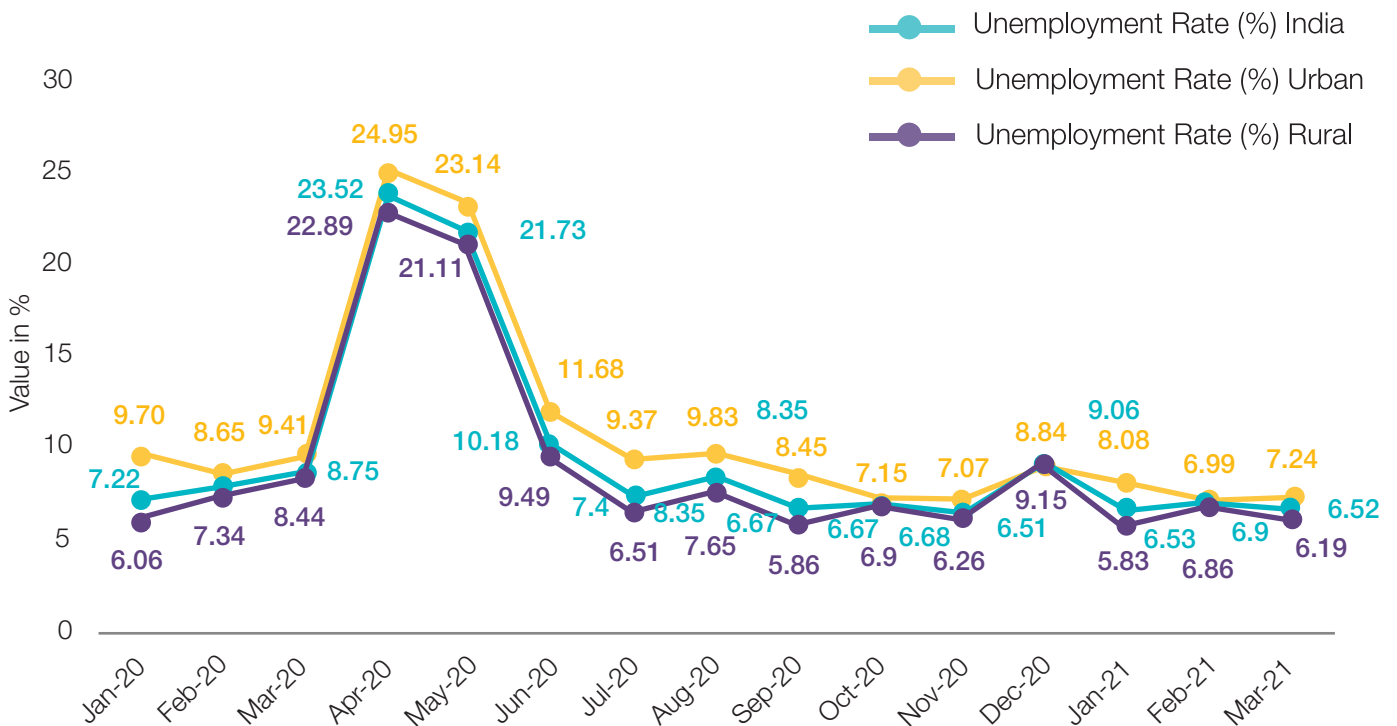
Nearly 12 million additional people were employed during January 2021 at 400.7 million as compared to 388.8 million in December 2020, which was the highest since lockdown began in March 2020. The surge in employment in January also compensated for the loss in the past three months.

While the employment has risen slowly over the past few months, the overall unemployed are still 11 million more than the average of 2019-2020 and are spread across business persons, salaried employees and daily

wagers as per the CMIE. This influx of unemployment in the market is to be addressed. Specialized construction work, food and beverage service operations, and the education sector are among the sectors that saw steep job losses. Due to second wave job losses have started hitting the gig economy with a sharp rise in COVID-19 cases with concerns on the rise in unemployment rate to 7.1% in the second week of April 2021.

The Indian Union Budget with its support for infrastructure plans, hopes to create job opportunities and is looking to bring the unorganised working class into the mainstream economic fold. If executed well, this could bring employment back to pre COVID-19 times.

Graph 2:

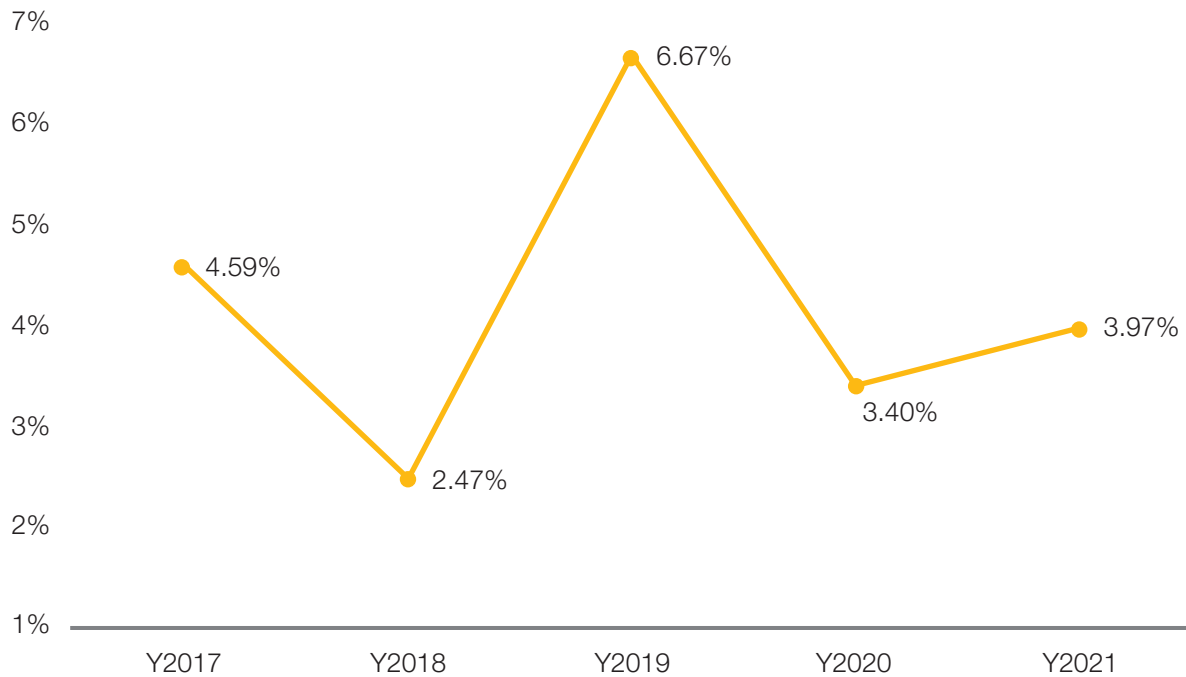


Source: CMIE data

Inflation

India's Central Bank has sought to maintain its current inflation target of 4%, with a two-percentage-point margin of error on either side, to boost trust in the broader economy, which is still vulnerable to supply shocks and sudden demand contraction. Inflation for the year 2021 is projected to be 3.97% and 3.94% in 2024 by the global economy data.

Graph 3:



Source: Global Economy

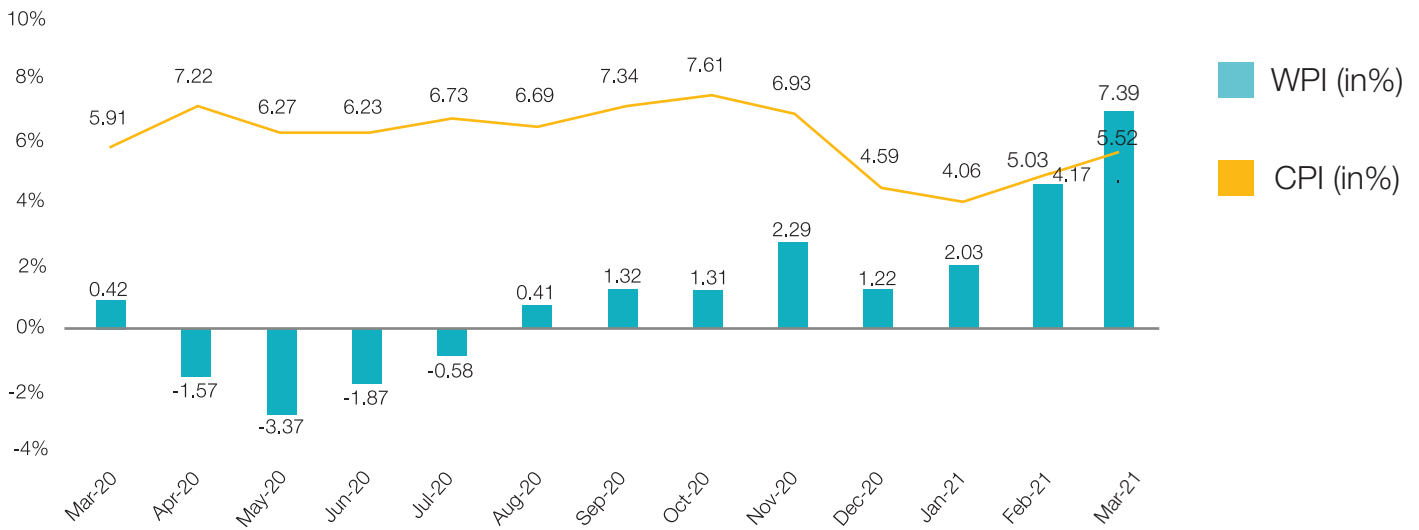


WPI and CPI

Inflation in the Wholesale Price Index (WPI) spikes to over 8-year high of 7.39 percent in March 2021, up from 4.17 percent in February 2021, and was driven by increases in fuel and food prices. The previous high of 7.4 percent was seen in October 2012.

After dropping for three months in a row, consumer price index (CPI) inflation increased in February 2021, owing to a moderate rebound in food prices. According to data released in March 2021 by the Ministry of Statistics and Programme Implementation, consumer price index (CPI) inflation was 5.52 percent in March 2021, up from 5.03 percent in February 2021.

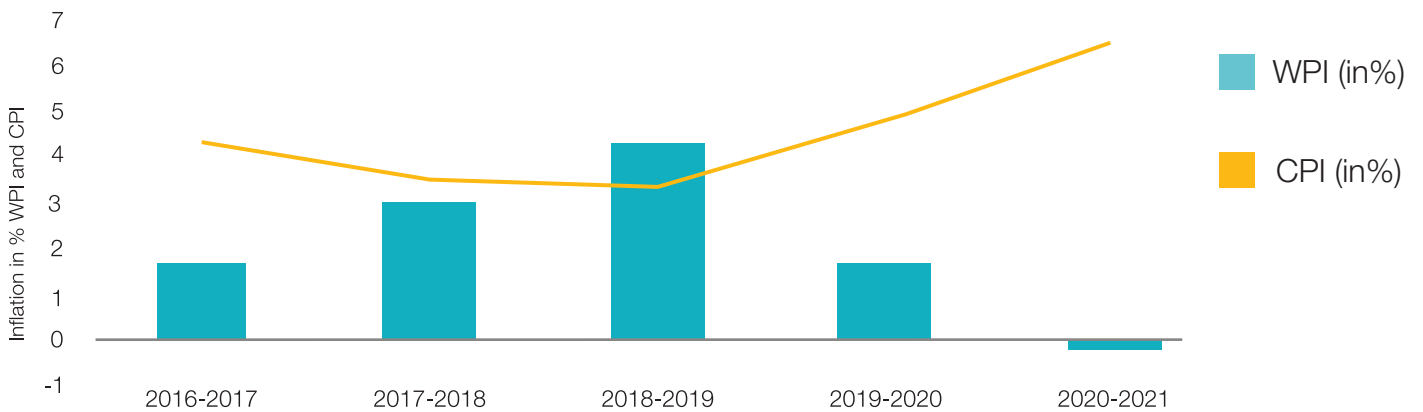
Graph 4:



Source: The Ministry of Statistics and Programme Implementation. Last released data March 2021.

Historic WPI and CPI % from the Government data, with 2020-2021 noted as provisional.

Graph 5:

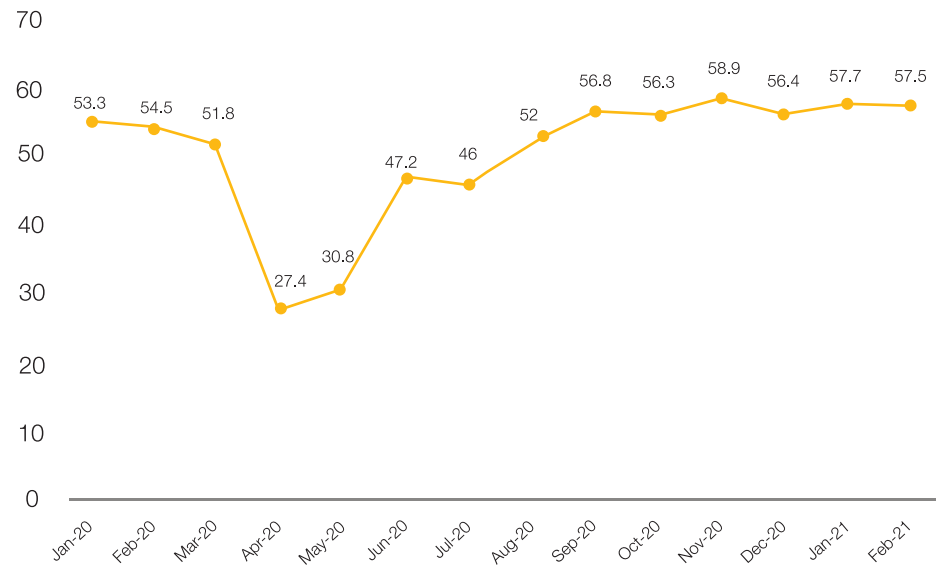


Source: India Budget Economic Survey Report, The Government of India, Ministry of Finance

Manufacturer's purchasing managers' index

India's manufacturing purchasing manager's index (PMI) remains steady despite cost inflation pressures. The IHS Markit India manufacturing purchasing manager's index fell marginally to 57.5 in February 2021 from 57.7 in January 2021 and matching market consensus, still signalling a strong month of expansion in the manufacturing sector. A reading above 50 indicates economic expansion. Although production and new orders grew at a steady pace, jobs continued to fall. Input cost inflation accelerated to a 32-month high, owing to faster rise in chemical, metal, plastic, and textile prices. As a result, output charges rose modestly.

Graph 6:



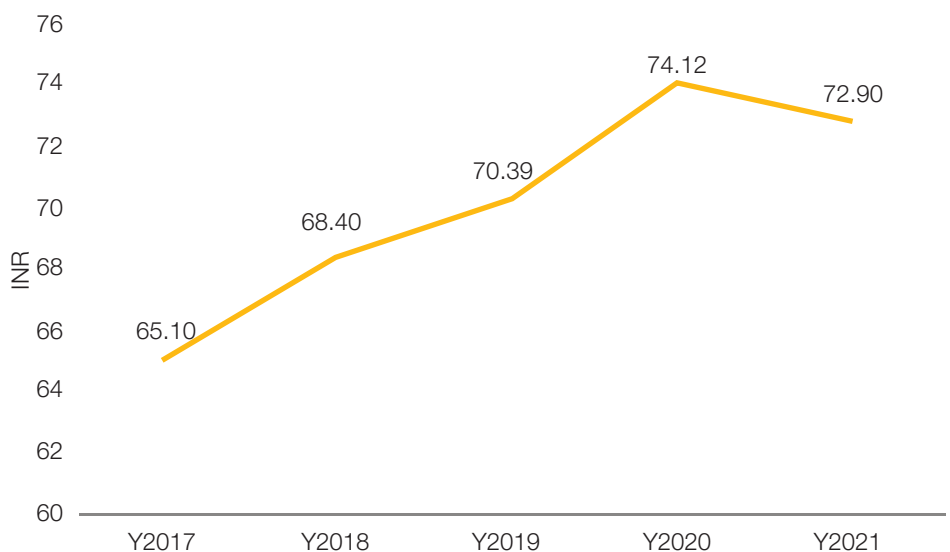
Source: The Global Economy.com, IHS Markit

USD to INR

The trends graph of the rupee against the US Dollar. Historically, the Indian Rupee reached an all-time high of 77.01 in April 2020. On an average the Rupee traded around 72.97 per USD in 2021 compared to 74.12 per USD in 2020. In terms of the monetary policy, the Reserve Bank of India announced last month that it would continue to help the economy in the face of the pandemic crisis, citing the fact that retail inflation in India remained within the central bank's target range for the second month in a row in January 2021.

The Indian Rupee has done very well in the month of March 2021, however, experts believe that this is short-lived and the rupee is likely to slide back to the pandemic levels of year 2020. The commodity prices, the increasing inflations, exports normalization and Central Bank intervention are likely to be the reason.

Graph 7:

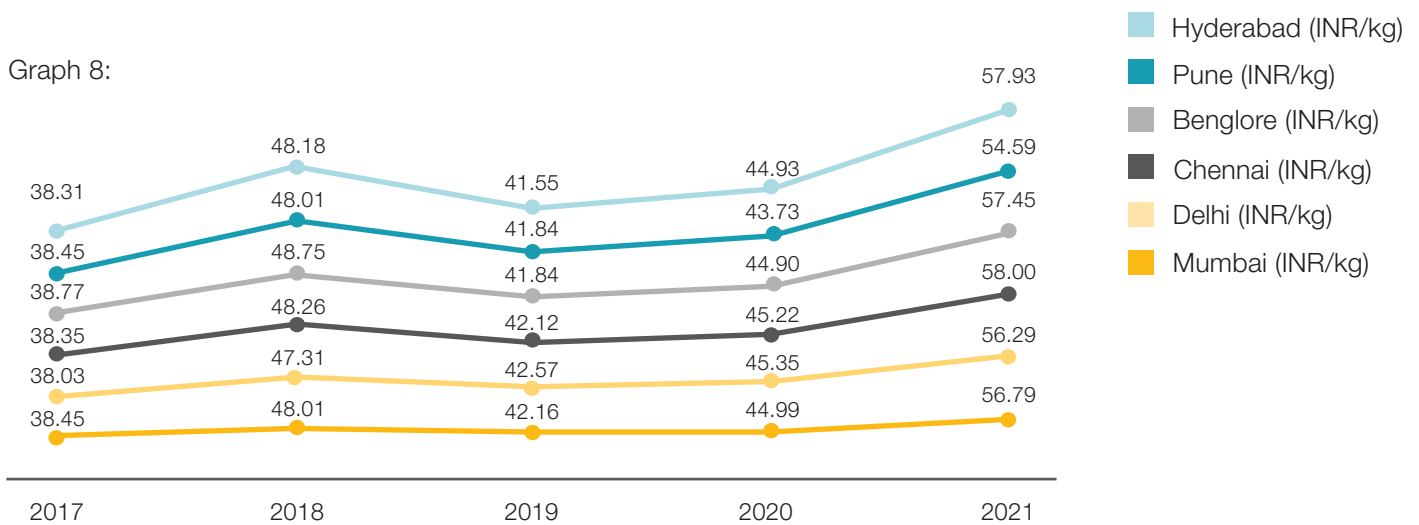


Source: XE Currency Charts as on 31st March 2021

Key price trends

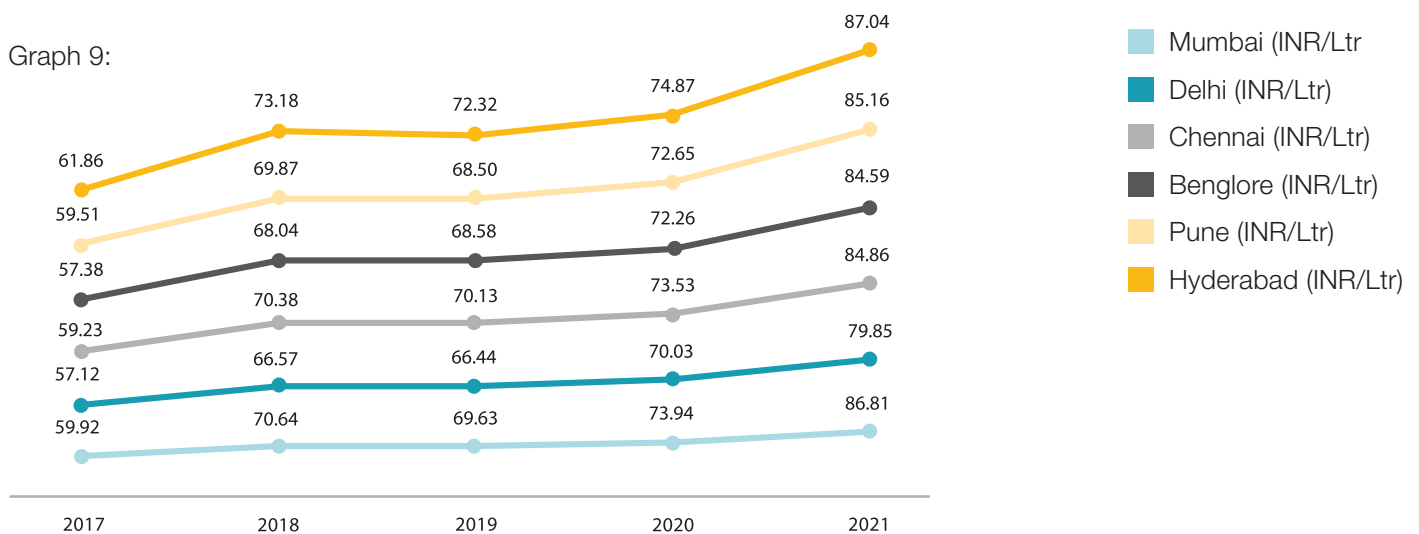
Commonly used material price trends for are demonstrated below:

Steel prices in major cities



Sources: Sail. Note: All year prices are averaged and in INR, and Sail's last updated rates are as on 31st March 2021
All prices exclude GST.

Diesel prices in major cities

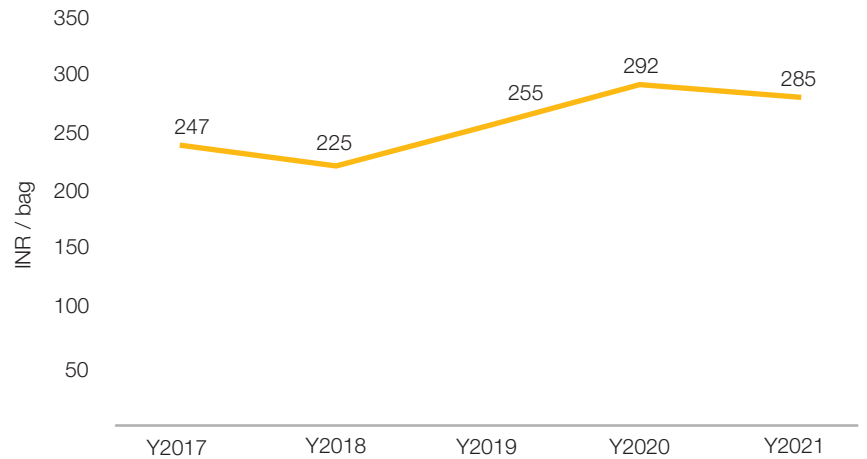


Source: Source: My petrol price. Average price in INR per year and the year 2021 average price up until the 31st of March 2021 considered.

Price trend indices for cement

While the present cement rates are moderate, due to increased demand from infrastructural and affordable housing projects, the domestic cement industry is expected to rise at a rate of over 10% in 2021. Prices climbed around 18% in the south and 11% in the west. Some of the Indian cement makers are witnessing a sharp recovery in demand, however a few companies are more concerned about incremental volumes. According to crisil ratings the cement industry is set to hit a decadal high-volume growth of 13percent in FY22. As per the report by Morgan Stanley the cement demand is to increase at a CAGR of 9% over F21-23. The price of cement averaged to about 285 per bag as of 31st March 2021, from Gleeds internal data.

Graph 10:



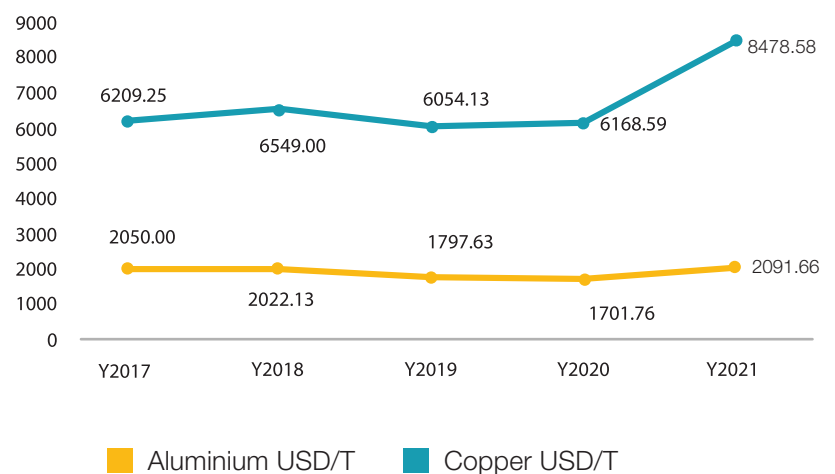
Source: Gleeds Internal Data (Mumbai).
Prices are in INR/ 50Kg bag and excludes GST.

Aluminium and copper

According to an EEPC (Engineering Export Promotion Council) India report, a sharp increase in global demand for non-ferrous metals like copper and aluminium, as well as their products, has greatly aided Indian engineering exports in surviving the COVID-19 pandemic hit world trade. They are in great demand in the international market for their usage in electric vehicles and their batteries as the world move towards cleaner energy.

The Union Budget has revoked anti-dumping duty for aluminium import scrap and custom duty for copper is reduced from 5 to 2.5%. Considering the growing demand for aluminium and copper in the future the centre has issued a framework for scrap recycling of the metals, in a bid to cut down the scrap imports. In March 2021, Aluminium prices rose by 0.55% as the demand increases from the consumer industries and copper prices fall by 0.77% as the demand is muted in the spot market.

Graph 11:



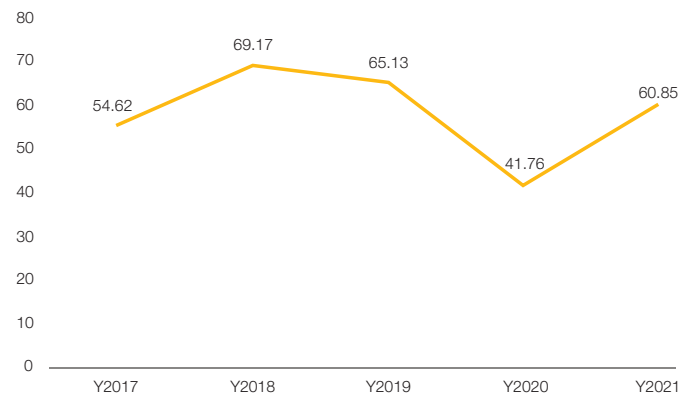
Source: London metal exchange
Prices noted are in USD and are averaged for the year.
Averaged price until 31st of March 2021 considered.

Crude oil

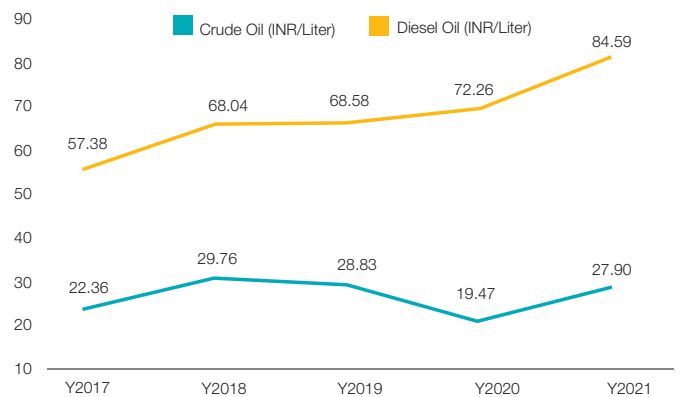
Brent crude oil prices is \$67.3 per barrel in March 2021, compared to \$62.28 per barrel in February of 2021. The price has increased by 110.25 percent since last year. Another impact of the rising crude oil prices is on domestic inflation, which leads to the increase of retail prices of all the commodities manufactured using crude. The key factors behind the sharp rise in crude oil are Middle East tensions, US stimulus, Organisation of Oil Exporting Countries and Major Producers (OPEC+) supply cuts and strong demand outlook across the globe as the countries are recovering from the pandemic and the opening of industries. The third wave in Europe and rising infections in India and Brazil is likely to cap off the rising prices of Crude oil. India's market demand is quite high and the OPEC's decision on maintaining the cut of oil production may affect the recovering economy of the company.

Crude and in turn diesel are on a constant rise and has peaked in the last three months. Even with the rupee doing well, the price of crude and fuel have not benefitted propelling prices in the last three months. The cut in production and the rise in supply is inflating the prices to an all time high now compared to the past four years. This will both directly and indirectly impact the cost of construction with costs of logistics, raw material and production rising amongst other supply chain and resources factors.

Graph 12



Graph 13:



Source: Country economy data as on 31st March 2021

Labour

The pandemic induced labour exodus in the year 2020 has brought to light the critical role of the migrant labour workforce in the construction industry. The Government is promoting affordable housing, minimum wages to all categories of workers and Coverage by the Employees state insurance corporation (ESIC) to encourage the labour workforce. The labour moved to cities seeking work within their skillset, with lack of jobs in the rural areas and unstable incomes. However, with the onset of another wave of infection the workforce is now seen to be slowly returning to their hometowns.

During the financial year 2020-21 - the first time since its inception in 2006-07, the Mahatma Gandhi National Rural Employment Guarantee Act 2005 (MGNREGS) numbers crossed the 110 million mark in a year. While employment

has still not reached the pre COVID-19 mark, the lack of jobs in both the organised and unorganised sector are a cause of concern.

The productivity on jobs sites is reducing following on from the change in operations on sites and the limits set on the number of workers allowed on job sites. While this is the new normal, the timelines for completion and the requirement to complete works on site has prolonged with companies now reassessing the completion timelines. With the increase in infections in Maharashtra and other states up north, the migrant labour numbers are reducing. Companies are also now looking to hire workforce closer to the location of work, to avoid any disruption of works should another Migration of labour Arise.

Material rates

Material prices (noted in INR) in various cities:

Table 1

Description	UoM	Mumbai	Delhi	Bengaluru
Cement				
Grade 53	INR/ Bag	285	280	255
Steel				
Reinforcement	INR/MT	49,152	51,000	52,269
Structural Steel	INR/MT	57,500	54,000	55,000
Clear Glass				
6mm	INR /Sqft	65-70	65-70	80-90
8mm	INR /Sqft	80-90	80-90	90-125
Stone				
Granite	INR/ Sqft	150-250	120-250	90-250
Marble	INR/ Sqft	220-500	220-500	180-500
Makrana	INR/ Sqft	250-1000	250-1000	250-1000
Kota	INR/ Sqft	40-50	30-40	40-50
Cuddappa	INR/ Sqft	20-25	20-25	15-25
Wood				
Salwood	INR/ cuft	1,750	1,650	1,400
Plywood 12mm thick	INR/ sqft	65-80	65-80	65-70
Paints				
Emulsion	INR /20 ltr	3,200-3,500	3000 - 3300	3100 - 3500
Metals				
Aluminium	INR/ Kg	180	190	190
Stainless steel	INR/ Kg	220	220	200
Plumbing				
GI pipes- 50mm to 100mm C class heavy	INR/mtr	416 to 958	395 to 910	438 to 1008
uPVC- 32- 110 mm	INR/mtr	76 to 509	79 to 529	82 to 548
cPVC- 50 to 100 mm SDR 11	INR/mtr	497 to 2417	517 to 2514	507 to 2466
CI- 100 to 150 mm Single Socket	INR/mtr	727 to 1241	800 to 1951	872 to 2128

Source: As per Gleeds' database in the month of 31st March 2021 unless noted otherwise. All prices exclude GST. All prices are supply prices and a guidance only. Transportation, and any other abnormalities are not included. All prices are a bulk wholesale price and might vary from site to site.

Material prices (noted in INR) in various cities:

Description	UoM	Hyderabad	Chennai	Pune
Cement				
Grade 53	INR/ Bag	278	293	273
Steel				
Reinforcement	INR/MT	52,500	52,800	48,500
Structural Steel	INR/MT	57,000	55,000	53,500
Clear Glass				
6mm	INR /Sqft	60-70	65-75	65-70
8mm	INR /Sqft	80-90	85-95	80-90
Stone				
Granite	INR/ Sqft	90-250	115-250	115-250
Marble	INR/ Sqft	175-500	150-500	180-500
Makrana	INR/ Sqft	250-1000	250-1000	250-1000
Kota	INR/ Sqft	40-50	40-50	30-40
Cuddappa	INR/ Sqft	15-25	20-25	15-25
Wood				
Salwood	INR/ cuft	1,600	1,400	1,400
Plywood 12mm thick	INR/ sqft	65-70	60-65	60-70
Paints				
Emulsion	INR /20 ltr	3200-3400	3300-3500	3200-3400
Metals				
Aluminium	INR/ Kg	190	195	195
Stainless steel	INR/ Kg	210	210	200
Plumbing				
GI pipes- 50mm to 100mm C class heavy	INR/mtr	438 to 1008	438 to 1008	416 to 958
uPVC- 32- 110 mm	INR/mtr	82 to 548	82 to 548	76 to 509
cPVC- 50 to 100 mm SDR 11	INR/mtr	507 to 2466	507 to 2466	497 to 2417
CI- 100 to 150 mm Single Socket	INR/mtr	872 to 2128	872 to 2128	727 to 1241

Source: As per Gleeds' database in the month of 31st March 2021 unless noted otherwise. All prices exclude GST. All prices are supply prices and a guidance only. Transportation, and any other abnormals are not included.

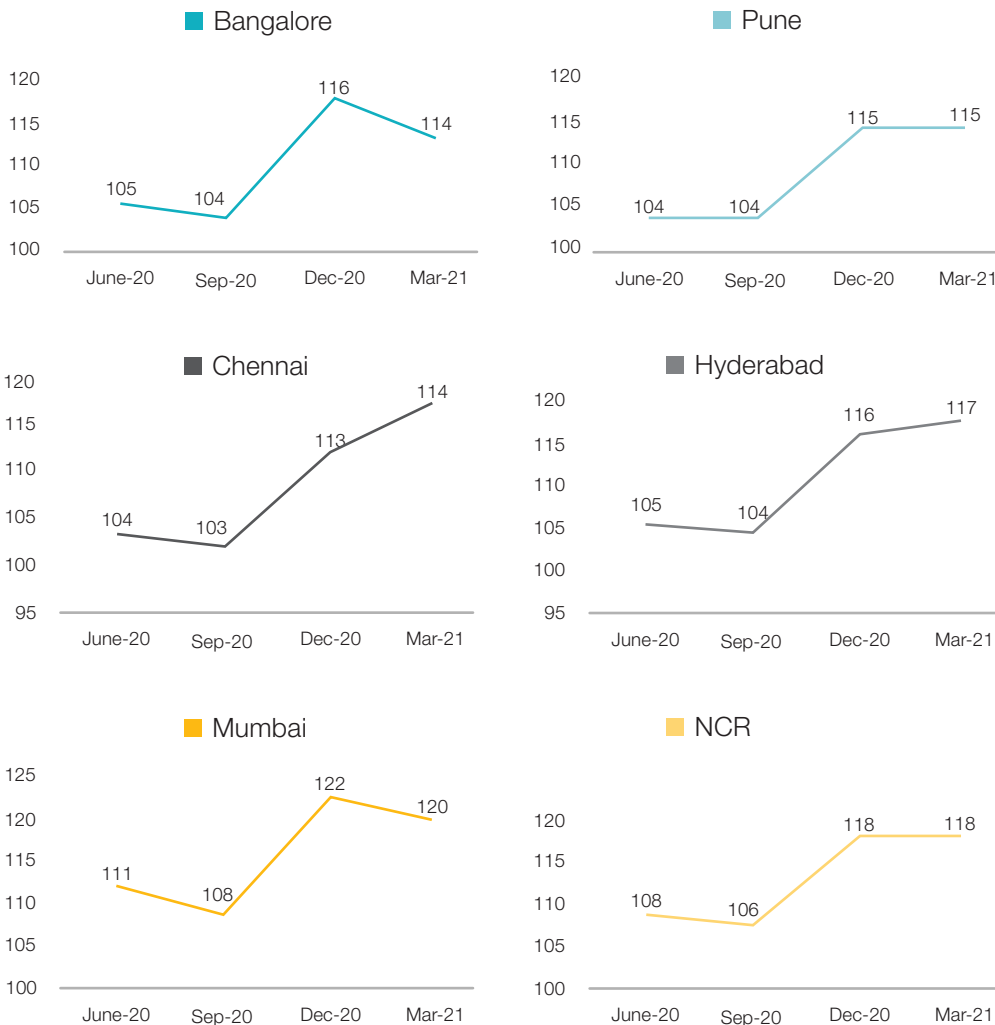
Cost indices

Gleeds carried out an extensive exercise to map the costs across the various Indian cities.

The following methodology was adopted to derive the indices.

- A basket of items comprising of most commonly used materials in construction, labour and consumables was established. These goods have been identified and known to demonstrate the inflation and dynamic nature of the goods typically used in the construction sector. Approximate individual quantities within the items were taken to represent standard type of commercial building. Appropriate weightage was given to each of the items and based on weighted average method, a base Index was calculated.
- December has been considered as this is the best representation of costs before the uncertainty of the pandemic. The base city taken for calculation of Index is Bengaluru.
- Cost movement for the different cities across similar timelines has been mapped and the indices were thus

Graph 14: Cost indices city-wise



The graph below indicates the construction costs indices for the six major cities for the last four quarters, with Bengaluru as the base. Index for Bengaluru is 100 in December 2019.

Sector spotlight

Infrastructure:

Despite a slowdown caused by the COVID-19 pandemic, the country's construction sector is set to thrive in FY2021-2022, due to a strong pipeline of projects and various initiatives to boost development in various sectors. Few sectors however, are still affected due to the strain of a second wave. The rating agency ICRA has forecasted a 'stable' outlook for the construction industry, noting that after weakening in FY2020 - 2021, the credit profile of players is expected to improve in the coming fiscal. The National Infrastructure Pipeline (NIP) projects would be the main growth drivers for the construction industry. It is expected that from a slump of nearly 14.9 %, the construction sector will register a formidable growth of 11.6% in 2021; however there will be challenges for the construction sector to tackle. One of them is bracing itself to face the frequent price fluctuations of raw materials due to supply chain challenges and the second is, the centre has bought in some additional cess on taxes to strengthen their finances.

Infrastructure was clearly the focus area in the Indian budget 2021- 2022. Compared to last year the allocation of funds was 34.5% more on the infrastructure development and given equal emphasis to all physical infrastructure including roads and highways, railways, Urban infrastructure, power, port, shipping and airways, and petroleum and natural gas. The Budget has provided much-needed impetus to infrastructure development, which has the potential to lower trade and transaction costs while also increasing factor productivity. Furthermore, focusing on roads and railways would result in a unified market in India, allowing for seamless movement of goods and people. The budget enhances the support of rural infrastructure as well. The budget proposes Zero Coupon Bonds issued by notified IDFs be eligible for tax benefits in order to allow infrastructure funding.

The budget provided flexibility to the REITs and InvITs models. That foreign institutional investors seem to show interest in InvITs and REITs there is a likely investment of \$500 million each by Public Investment Fund (PIF), Abu Dhabi Investment Authority (ADIA), to acquire a total of 51% in the InvITs formed by RIL to monetize its fibre optic network assets.



There are now several infrastructure projects currently running in India:

Yamuna Expressway Industrial Development Authority (Yeida) has decided to connect the upcoming Jewar International Airport at Noida with the Blue Line. The Noida and Greater Noida authorities and UP government will jointly spend about \$275 million on the mega project.

The construction work on the nine-km long multi-level Mithapur-Mahuli stretch in Patna has begun. The project involves an investment of \$141 million with a completion deadline of March 2024. Out of the targeted cost, a sum of \$92 million is likely to be spent on the civil work of the project.

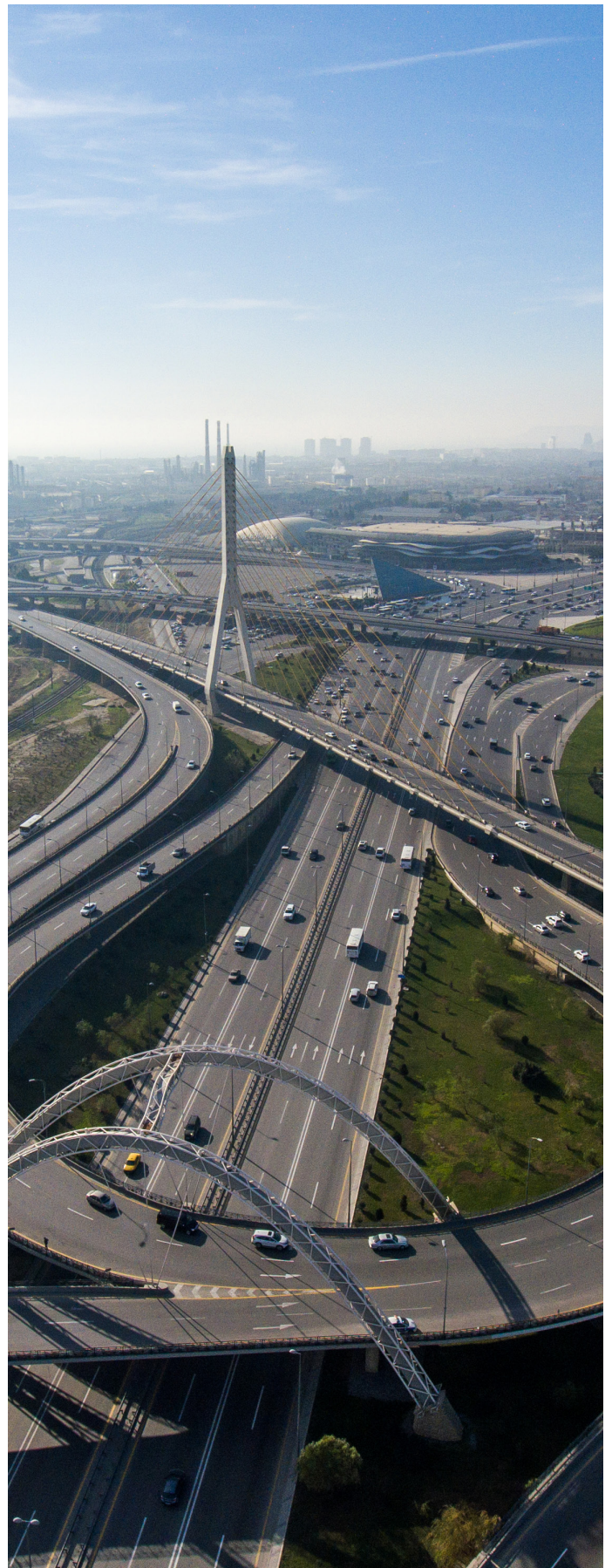
The planning body of Delhi Development Authority has approved significant projects to improve connectivity and reduce congestion in the national capital. The projects include the construction of an Integrated Transit Corridor Development from Delhi Airport to Sarai Kale Khan and the multi-modal integration plan of the Delhi Metro's Karkardooma station.

The joint venture of Tata Consulting Engineers, Consulting Engineers Group, Aarvee Associates Architects Engineers & Consultants and PADECO Company has emerged as the lowest bidder for \$152 million project involving the construction of civil works packages of the Mumbai - Ahmedabad High-Speed Rail (MAHSR) project.

Japan International Cooperation Agency (JICA) has signed an agreement with the Government of India, to provide Japanese (ODA) loan amounting to Japanese Yen 52,036 million (approximately \$ 509 million) for the development of Phase 2 of 'R6, 2A and 2B' of Bangalore Metro Rail Corporation (BMRCL) in Bengaluru.

Bharatmala Pariyojana is a new program for the highways sector that focuses on optimizing efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International connectivity roads, Coastal and Port connectivity roads and Green-field expressways.

With the many projects in progress and in the pipeline the infrastructure sector is making a significant contribution to the Indian economic growth.



Conclusion

With the vaccine rollout since January 2021 there seems to be a positive impact on the various sectors in the real estate. This programme is likely to be nearly complete only towards the end of the year 2021, but the present rise in infection and the possibility of a second wave is alarming. COVID-19 restrictions are being brought back, and sharp rise in daily cases has already led to localised lockdowns across several states raising concerns on its impact on the Indian economy. This impact may last for a whole quarter.

Adapting to living with the virus as well as the newfound hope of vaccination, other businesses are slowly settling in with a better certainty of the future. There are foreseen challenges for construction companies to tackle with respect to employee safety with the oncoming second wave and fluctuation of raw material prices such as metals and steel. The companies would need to assess the risks, upgrade the health and safety protocols and review the project budgets and timelines.

The opportunity in 2021 is to use technology so that projects can be remotely managed through online monitoring. The digital transformation of the Indian construction sector could become the cornerstone of the sector's revival plans for 2021, enforced by the pandemic. Hence spending on construction will be more cautious and considered. Customer behaviour has changed, and they may now value new financing options, better proximity to healthcare centres, different features, and much more.

There seemed to be a more certainty of the future and how to handle situations associated with the pandemic, this may be short-lived following on from the onset of the second wave that is seen across the country. On the positive side however, firms will be more equipped to face a short lockdown or other restrictions. The construction industry is progressing well in the infrastructure sector and others sectors like datacentres, healthcare and warehousing are slowly picking up. Other sectors such as hospitality, tourism, retail may now be more pressurised with the state restrictions. The industry has survived through the worst of the pandemic and has adapted well to the change in working methods predicting a quick recovery by the next quarter.

Abbreviations:

MRICS:	Member of the Royal Institution of Chartered Surveyors.	Mtr:	Linear metre
USD:	United States Dollar	MT:	Metric tonne
INR:	Indian National Rupee	GI:	Galvanised iron
GST:	Goods and Services Tax	uPVC:	Unplasticised Polyvinyl Chloride
MEP:	Mechanical, Electrical and Plumbing	cPVC:	Chlorinated Polyvinyl Chloride
BUA:	Built-up area	CI:	Cast iron
CA:	Carpet area	NCR:	National Capital Region
Sqft:	Square foot	MW:	Mega Watt
Cuft:	Cubic feet	REIT:	Real Estate Investment Trust
Ltr:	Litre	InvTs:	Infrastructure Investment Fund

References:

- COVID-19 stats [\[worldometers\]](#)
- World economic outlook [\[www.imf.org\]](#)
- Other statistics [\[staista\]](#)
- Construction week [\[constructionweek online\]](#)
- Indian Construction rebound [\[global data\]](#)
- Ministry of Statistics and Programme Implementation [\[MoSPi\]](#)
- India budget speech [\[Budget\]](#)
- India Government [\[India gov\]](#)
- Media reports: Economic Times, NDTV, Business Standard, The Hindu Business Line, Moneycontrol, India today, LiveMint and Zee business.

Register with Gleeds- our cloud based integrated registration database for design professionals, contractors, suppliers and product manufacturers, recently launched to allow us to reach out to you quicker for our upcoming project opportunities.

Click on <https://tinyurl.com/gleedsregister> to complete the registration.

For queries regarding the registration, please write to us at register@gleeds.in



For any further queries, please contact **Gleeds India Insight and Analytics** at insights@gleeds.in or:

Vishal Shah, MRICS

Director
Email: vishal.shah@gleeds.in

Sushma Wilson, MRICS

Executive Cost Manager
Email: sushma.wilson@gleeds.in

This issue was compiled by Gleeds India I&A with contributions from Ashish Pimpalkhare, Bharat H, Bhagyshree Parikh, Kiran Pawar, Padmini G, Shefali A and Raghav

© April 2021 by Gleeds Consulting (I) Pvt. Ltd.

Legal Disclaimer: This paper was prepared by Gleeds India Consulting (I) Pvt. Ltd. and is for general information only. Neither Gleeds nor any of their partners, directors, employees or other persons acting on their behalf makes any warranty, express or implied and assumes any liability with respect to the information or methods contained in this paper to any person or party. This document is subject to copyright and must not be reproduced.