gleeds



Fuelling progress in the construction sector

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In India, amidst the votewinning announcements, the anticipation for strategic spending commitments and policies to bolster national economic stability is palpable.



The financial year 2024–2025 (FY2025) is a crucial year for the Indian construction industry as it fully embraces the potential of digital transformation that will lead to tangible impacts on project timelines and financial outcomes. With the adoption of diverse streams of technology, we anticipate significant transformation across the sector.

This year will not only witness groundbreaking advancements in construction but also extraordinary global political activity. As reported by Bloomberg and The Economist, 2024 will be the largest election year in history, with countries spreading from Taiwan to Tuvalu participating in the democratic process. However, instead of bringing about stability after a series of somewhat chaotic years in the wake of the pandemic, the polling rallies are likely to fan the flames of uncertainty.

In India, amidst the vote-winning announcements, the anticipation for strategic spending commitments and policies to bolster national economic stability is palpable. With global supply chains disrupted due to geopolitical tensions and investors adopting a wait-and-watch approach until the conclusion of elections, we anticipate a slowdown in the initial quarter of the fiscal year, with hopes for short-to-long-term stabilisation after election results are declared.

On the sustainability front, the construction industry is actively transitioning toward a greener and more eco-friendly future, with Declaration de Chaillot — an international cooperation by 70 worldwide countries to adopt and enable the green progression of the construction sector through the Intergovernmental Council for Buildings and Climate.

The focus is shifting towards minimising embodied carbon, with the aim of achieving net zero status. The rapid development of innovative technologies, materials and construction methodologies, in addition to reducing operational carbon, promises to enhance overall industry efficiency and stay compliant with COP agreements. From previous performance, India's economic outlook looks gradual but promising. Forecasts indicate growth in gross domestic product (GDP) with reductions in the gross value added (GVA) gap, a falling inflation rate, higher goods and services tax (GST) collections and interest rates suwstained as a precautionary measure. However, the outlook is subject to the geopolitical dynamics restoring its status quo. The ongoing war in the Middle East, having escalated to directly involve other countries, along with the likely re-intensification of the Russia-Ukraine conflict, can cause severe supply chain disruptions and negatively influence the global economy, with China's economic performance also serving as a significant factor.

Considering these national and international developments, we are pleased to present our biannual publication, offering a comprehensive review of current market trends and detailed cost dynamics analysis supported by a market survey providing insights into the realities of the construction industry.

We believe this publication will instil confidence and enthusiasm regarding India's growth trajectory and serve as a valuable resource for stakeholders seeking up-todate information and insights on market trends within the built environment.



Siva SenathipathyChief Executive Officer,
India



Vishal Shah Senior Advisor India

Wider context

The Indian economy exhibited macro-economic resilience despite slow and uneven global economic performance. The nation recorded a growth rate of 8% for two consecutive quarters, 2Q/3Q FY2024, while recording 5.9% growth in 4Q FY2024.

This performance showcased the steady year-on-year growth of 7.6% for FY2024, setting the stage for similarly strong performance in FY2025, pegged at 6.7% by the Reserve Bank of India (RBI).

The gross goods and services tax (GST) collections hit a record high in April 2024 at ₹2.10 lakh crore. This represents a significant 12.4% year-on-year growth, driven by a strong increase in domestic transactions (up 13.4%) and imports (up 8.3%).

Despite disrupted global supply networks, the manufacturing and construction industries contributed significantly to growth, accounting for 14.3% and 8.8% of gross value added (GVA). The service sector saw a 7% year-on-year rise. Recent agreements with non-European Union countries and ongoing negotiations with the United Kingdom for free trade will likely boost GDP growth.

Amidst elevated uncertainties stemming from adverse geopolitical developments, inflationary pressures show signs of decline. Consumer price inflation in most advanced economies has moderated significantly. The emerging market dynamics are more regionally dependent; India's headline inflation rate is 4.5%.

Footprints of robust construction activity are visible in rising cement production (approximately 4.5 million metric tons per annum) and increased steel consumption (15% year-on-year between February 2023 and February 2024), triggered by increased government spending on infrastructure and rising household demand for real estate.

Despite increasing home prices and higher interest rates on home loans, housing sales and launches were higher in 4Q of FY2024 (17%) than the previous year, accompanied by a decline in inventory overhang.

The rising Services PMI indicates the robust performance of the services sector, which has been in an expanding zone for the last 30 months, spurred by demand buoyancy, productivity gains and rising intake of new work. With the rapid adoption rate of Generative AI, Machine Learning across all sectors, and favourable forex settings for secondment to India, the overall sentiment in the services sector remains upbeat.

On the commodity front, input costs have decreased due to reduced global raw material prices, yet these reductions are compensated for by increasing labour costs of about 2% on project value.

With the outbreak of the Israel-Hamas war and the Red Sea crisis, commodities prices, including precious metals and crude oil, started to increase as the transportation costs almost doubled (\$980 versus \$2030 per twenty-foot equivalent container in 3Q and 4Q FY2024), leading to elevated procurement costs in construction projects where imports are major cost drivers such as data centres and high-end industrial plants.

The construction economic landscape in India for 2024 is poised to unfold in two distinct chapters, with the upcoming General Elections playing a pivotal role. The pre-election months may see a temporary slowdown due to subdued government spending. However, the post-election period is anticipated to witness a reinvigorated growth surge, fuelled by a promising uptick in private investments, instilling optimism for the future.

The Gleeds India Intelligence team conducted a comprehensive survey to inform this report. Prominent stakeholders from various construction and allied sectors have shared their invaluable insights, shaping our understanding of current market conditions and opportunities within India's ever-evolving construction landscape.

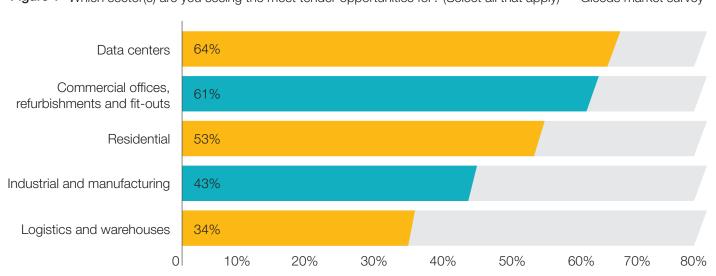


Figure 1 Which sector(s) are you seeing the most tender opportunities for? (Select all that apply) — Gleeds market survey



GDP

Building on the pace of the previous period, India's growth rate reached a six-quarter high of 8.4% in the third quarter of FY2024. This growth represents a significant increase above the 4.3% year-on-year gain achieved in the preceding fiscal year.

The National Statistics Office has estimated India's real GDP to grow at 7.3% in FY2024 in its first advance estimates released in January. The sustained emphasis on public investment appears to have constrained private investment marginally.

Yet, cumulative strong aggregate demand has boosted manufacturing and construction activity, causing RBI to revise GDP growth estimates for FY2024 from 7.3% to 7.6%, with the 4Q FY2024 growth rate projected at 5.9%.

This forecast is a modest projection considering the gap between GVA and growth figures, primarily due to the opening of the tax revenue generation window. Likewise, major global agencies have also lifted India's growth projections for FY2024 on the back of remarkable performance in 2Q.

Figure 2 Historical real GDP annual growth rates (base = 2011–12) — Ministry of Statistics and Program Implementation (MOSPI)



Source: MOSPI

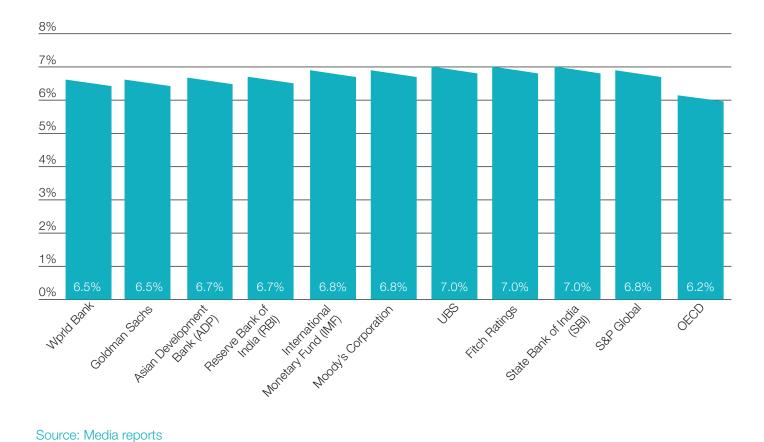


The RBI's survey of professional forecasters has upgraded India's real GDP growth from 6.4 per cent to 7.0 per cent for FY2025.

The International Monetary Fund (IMF), in its January 2024 World Economic Outlook, revised India's growth projections to 6.7% from 6.3% in its October 2023 issue. Furthermore, the IMF's medium-term growth forecasts for India remain strong, supported by improving macroeconomic fundamentals and resilient domestic demand.

According to the interim budget, the government's effective capital expenditure for FY2025 is estimated to be 4.6% of GDP, including physical infrastructure and the technology environment. This budget represents a massive 200 basis point increase from 2.6% of GDP in FY2020.

Figure 3 Projected GDP for FY2024–25



Source: Media reports

Employment



India's economy is expected to touch \$5 trillion by 2026–2027. Expanding digital infrastructure, along with increasing physical and social infrastructure, particularly educational opportunities, are likely to propel growth in the future.

The International Labour Organisation, in its publication, highlights that non-farm employment growth was largely sustained during 2019–2022 by growth in construction employment, at nearly 6.4%, just behind the agricultural sector.

The increasing effect on labour productivity, driven by the high capital intensity associated with sectoral operations, is equally dampened by the demographic divergence of the workforce and the proportion of informal workers.

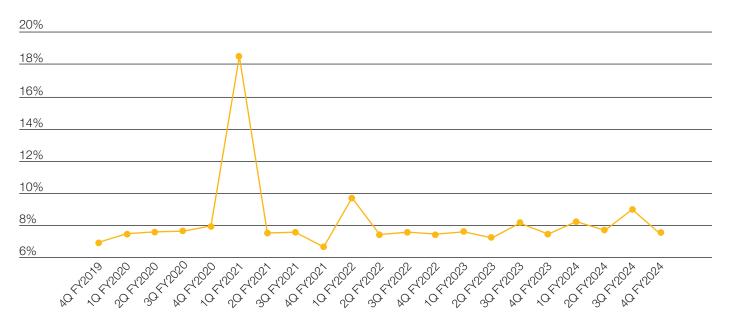
In March 2024, India's unemployment rate showed a slight decrease to 7.64% from 8.01% in the previous month, aligning with the typical yearly trends. The

urban unemployment rate also saw a decline from 8.55% in January to 7.93% in February, while the rural unemployment rate increased to 7.23% from 6.48%. These figures, shared by the Centre for Monitoring Indian Economy (CMIE), provide a crucial snapshot of the current labour market situation in the country.

In FY2024, the labour force participation rate (LFPR) for the July to September quarter remained steady at 49.9%, similar to the April to June quarter's 49.3%. Notably, the participation rate of the female working population was slightly higher than their male counterparts. However, it's important to interpret these figures with caution, considering the quality of employment generated and potential limitations in the data.

The question is whether this shift is temporary or more permanent. Nevertheless, this may be only the beginning, given recent low productivity patterns and automation trends in an artificial intelligence (Al) era.

Figure 4 Unemployment rate - CMIE



Source: CMIE

According to the IMF, global headline inflation is expected to fall from an off-late high annual average of 6.8% in 2023 to 5.9% in 2024 and 4.5% in 2025.

The fall in global inflation in 2024 reflects a broad-based decline in global core inflation. This dynamic differs from that in 2023, when global core inflation fell a little on an annual average basis and headline inflation declined mainly on account of lower fuel and food price inflation. In 2024, core inflation is expected to fall by 1.2 percentage points after contracting by just 0.2% points in 2023.

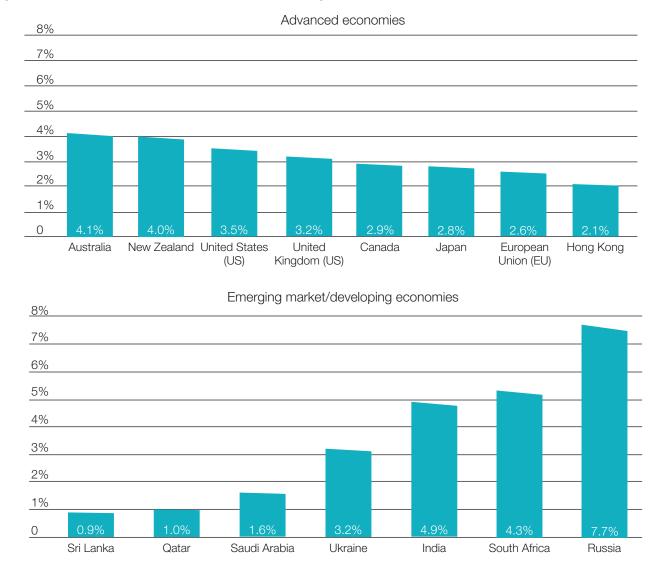
As the global economy approaches a smooth landing, the central banks are expected to remain cautious and maintain a precise balance in easing their fiscal policies to avoid potential target undershoots.

The US central bank is upholding the old rates after three shallow rate cuts in 2024 due to persisting inflation, while the European Central Bank and the Bank of England are optimistic about rate cuts by 0.7% & 0.44%, respectively.

Irrespective of the policy divergence, such rate cuts may backfire, impacting exchange rates, import costs, and overall inflation. Intensifying supply-enhancing reforms are hopeful to facilitate both inflation and debt reduction.

While the inflationary pressure is largely decreasing at variable rates in different countries, ongoing conflicts, such as those in Iran, the Gulf of Khambhat and the reescalation of the Russia-Ukraine war, or political instability caused by changing governments continue to pose risks to the projected figures.

Figure 5 Global inflation forecasts for 2024 - Trading Economics





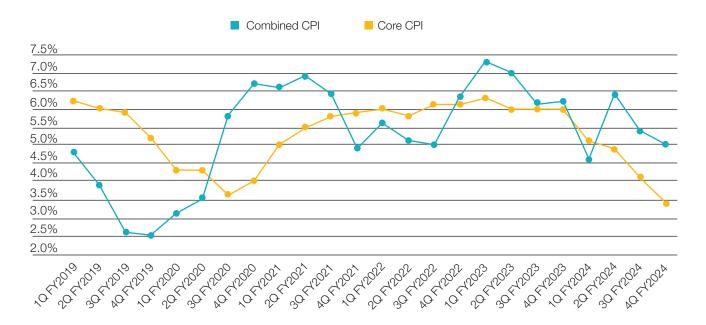
Retail inflation has extended its stay inside the RBI's 2 to 6% tolerance range for a sixth consecutive month. Headline inflation fell to 4.85% in March 2024, the lowest since May 2023, from 5.1% in February 2024. Moderation in core inflation (non-food, non-fuel) continues to keep inflation under control. Overall, in FY2024, inflation averaged 5.4%, lower than the 6.8% recorded in the corresponding period of FY2023.

Despite price volatility in certain food items, headline inflation stayed below 6% throughout the previous fiscal year except in July and August 2023. Hinging on this softening of inflation, Trading Economics projects the Indian inflation rate to trend around 4.5% for the upcoming quarters of FY2025.

At the same time, the 1Q FY2025 may see some temporary spike in consumer-led inflation owing to a higher election-instigated flow of money from the bottom of the economic pyramid.

The impact of declining international commodity prices has been reflected in a moderation in core inflation, which echoes imported inflation in India. The core inflation dropped from 6.1% in FY2023 to 4.4% in FY2024, and it continued to fall for the tenth consecutive month in March 2024 to 3.4% conditional on the supply chain remaining undisturbed and the geopolitical escalations remaining restrained; core inflation is anticipated to linger around the same levels.

Figure 6 Combined and core consumer price index (CPI) rate - MOSPI

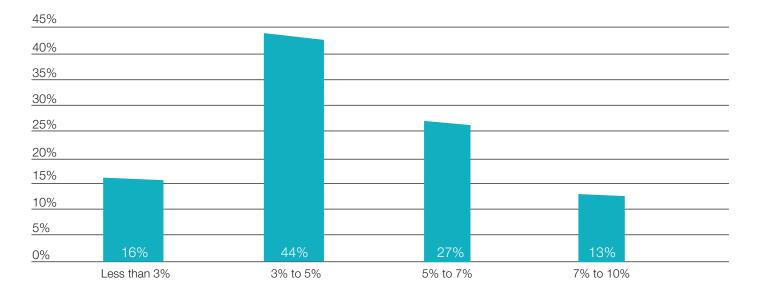


Source: MOSPI



When asked about their expectations for construction inflation for a 100 CR project for FY2025, 44% of survey respondents thought in the 3%–5% bracket, while 27% of respondents feel that the inflation may go up in the range of 5%–7%.

Figure 6
What is your construction inflation forecast for a INR 100 CR project in your predominant sector and region for financial year 2025 (April 2024 to March 2025) as a percentage? — Gleeds market survey





The WPI measures prices at the production or manufacturing level, incorporating goods traded between businesses.

India's WPI returned to positive territory at the end of 2023, following a seven-month decline. The contraction began in April 2023 and reached a negative high in June of the same year.

The reduction was due to a drop in global commodity prices, such as basic metals and chemical/chemical products, as well as the previous year's high base statistics during a significant part of 3Q FY2024.

In November 2023, the WPI showed a first positive uplift of 0.39% (year-on-year) in FY2024 but then fell to 0.2% in February 2024, followed by a rise of 0.53% in March.

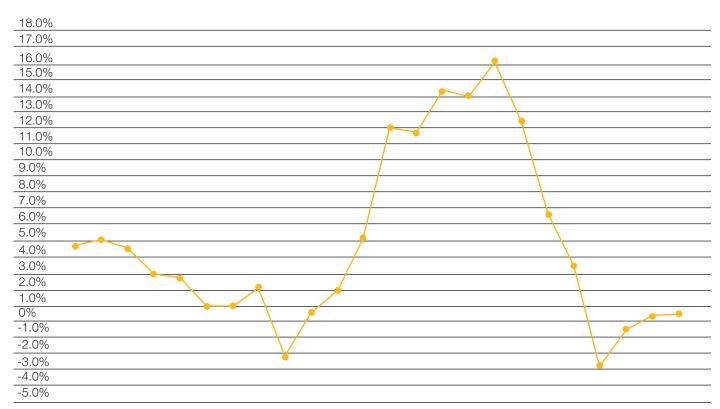
Despite this spike, WPI inflation for the full fiscal year FY2024 remained low at -0.7%. This is significantly lower than India's FY2023 WPI inflation of 6.52%, with reduced input costs being a crucial driver. Cheaper raw materials and cheaper fuel have been major drivers of this low yearly WPI inflation.

This reduction is also visible in the pricing of manufactured goods (-0.85%) and fuel (-0.77%). With the fading of a supportive base, it is expected that WPI inflation will rise in the coming months.

The recent increase in global commodity prices, driven mostly by increased Brent crude prices and industrial metal prices, is anticipated to add to upward pressures, but the RBI is confident that it will remain between 2.0 and 4.0% for the next fiscal year.

Figure 6

Combined WPI — Office of the Economic Advisor





While the GDP prognosis for FY2025 is remarkably optimistic, the weakening of the Indian rupee cannot be ignored.

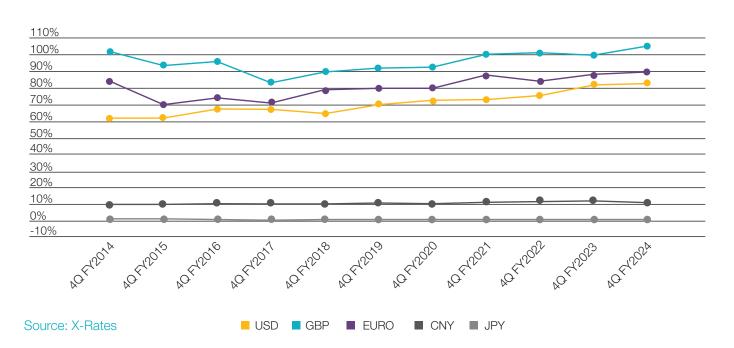
The Indian national rupee (INR) has fallen against the US dollar (USD) by 2.9% from FY2023 to INR 82.66/USD from INR 80.32/USD. Such persistent weakening would make the imports costlier, potentially pushing up domestic inflation.

Despite this, the downfall in global commodity prices in FY2024 kept the rupee constant at roughly 83 INR/USD at the end of the fiscal year, albeit maintaining an all-time high forex kitty at US \$645 billion+.

With the increase in commodity prices of about 25%-30% during the later periods of the year starting from November 2023, pressures became evident. The forex value also fell against most major currencies, including the euro, British pound, and Japanese yen, owing to haven feelings. Further progress of these commodity prices will harm the rupee.

Looking ahead, the Indian rupee exchange rates are projected to remain higher, with rates likely to stay within the 88 INR/USD range for 2025. In light of this, it is beneficial for businesses to proactively manage their currency exposure and align their business strategies accordingly.

Figure 6
Forex rates — X-Rates



The manufacturing sector grew by double digits in the 3Q FY2024. The India manufacturing PMI reached a five-month high of 56.9 in December 2023, reflecting the sector's strength, as new orders and good demand conditions sustain it.

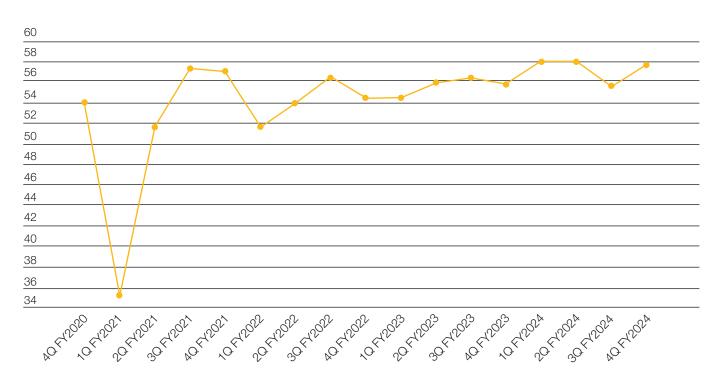
This robust performance is partly due to increased domestic demand and decreased finished product

inventory. Volume indicators such as the index of industrial production and the index of eight core industries grew by 5.8% and 8.4%, respectively, in the third quarter of FY2024.

Positive trends in investment inflows, investor confidence, robust domestic demand and efficient inventory management point to increasing overall economic activity.

Figure 10

PMI, Manufacturing — Global Economy, India

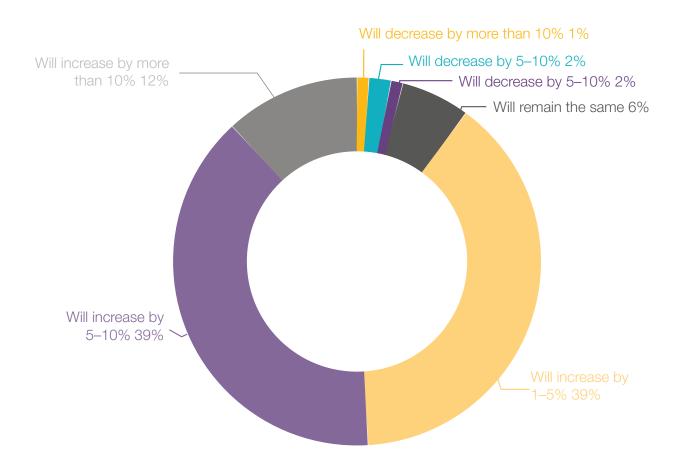


Source: Global Economy

Amidst robust demand and under the assumption of favourable supply dynamics, Gleeds has projected a construction inflation rate ranging from 4.5% to 6% for the year 2024. This estimate is contingent upon prevailing headline trends and global geopolitical factors, with fluctuations in commodity prices, notably basic metals and crude oil, serving as key drivers.

From the Gleeds market survey, nearly 80% of respondents anticipate price increases. These findings underscore a prevailing sentiment among industry stakeholders regarding the likelihood of inflationary pressures within the construction sector.

Figure 11
What is your forecast for construction costs for the current financial year (FY2025)?
Gleeds market survey





India is a bright spot in the global steel sector, with demand expanding by 7.7% in 2024, compared to a worldwide growth of 1.9%, according to The World Steel Association's short-range outlook.

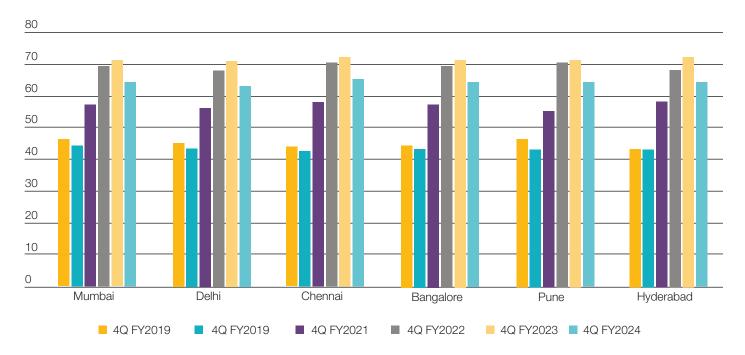
Government infrastructure spending and investment in schemes like PM Gati Shakti and UDAN, as well as the promotion of urban transformation via metro rail and NaMo Bharat, will create sustainable demand for the sector. Adequate market demand is also expected in the automobile sector.

Rebar/steel prices have started exhibiting early signs of a hike from their dropping pattern since the start of FY2025. In August and September 2023, prices plummeted to INR 63/kg due to seasonal considerations and planned annual maintenance of steel mills.

From October 2023, the prices went back to half yearly average of INR INR 65/kg with a slight downward bias on a month-on-month basis, although recording a marginal upward trend in contrast to the other global steel markets. This increase is attributed to raised offer levels from secondary producers despite the largely sluggish market demand due to the country's upcoming general elections. For the past three months, structural steel rates have hovered around INR 67000/MT.

The rise in raw material prices and coking coal prices globally poses an upward risk to input costs. Except for the election season slowdown in demand, the flourishing domestic market from the infrastructure push is expected to increase domestic prices further in the upcoming quarter.

Figure 12 Rebar steel (16mm dia), INR/kg



Source: SAIL

Note: The above rates represent basic rates (excluding taxes, transportation, and any abnormal costs) for a Fe 550D 16 mm diameter rebar as published on the manufacturer's monthly price list.

As per Gleeds observation, typically, as part of the final buyout, Grade A steel products are generally procured with a discount of 10 to 12% from the listed price.



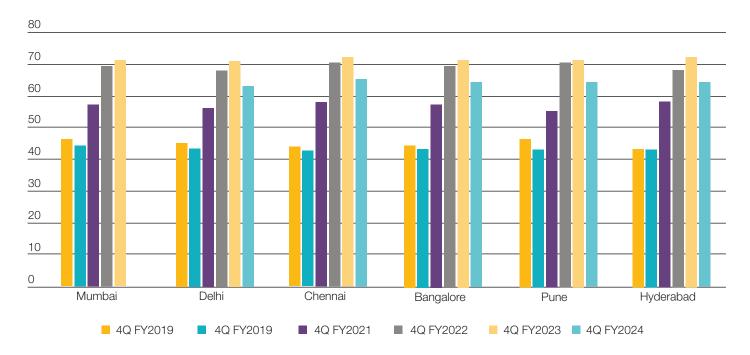
When cement pricing hit a peak in October 2023 up to INR 335 per bag, the prospects for cost hikes in FY2024 seemed likely. But appreciably, the price corrected in the next five consecutive months due to heightened competition and expansion in capacity, closing at INR 295 per 50kg bag as of March 2024, thus averaging the yearly prices at INR 325/bag.

Moderated raw material and fuel prices prevailed in the market, which helped manufacturing companies maintain

profitability. These caused a dip of 8.0% in cement prices during the second half of the financial year FY2024. As of March 2024, the approximate cost of 50kg cement bags is circa 12% less than April 2023.

Starting from April 2024, a temporary decline in demand is seen due to a lack of new projects amid the model code of conduct for the upcoming elections. Cement prices are expected to increase once the demand heightens after the monsoon season.

Figure 13
Cement, INR/50kg bag, Mumbai — Gleeds database



Source: Gleeds internal database



Oil prices decreased despite tensions in the Middle East. After breaking \$95/barrel in late September, oil prices fell by 4.2% between August 2023 and February 2024 to a monthly average of \$80.70.

On the demand side, the prospects for global demand growth have been dampened, contributing to the downward pressure on prices. On the supply side, the actions of OPEC+ (the Organisation of Petroleum Exporting nations plus selected non-member nations, including Russia) have been instrumental. Despite their output limitations, the market was flooded with oil due to robust output growth in Iran and non-OPEC countries, leading to a further decrease in prices.

As Russia is India's primary oil supplier, the Red Sea tensions have had only a minor impact on oil prices. The

recent escalation of tensions between Iran and Israel sent shockwaves through global oil markets, with crude oil prices once again edging towards the \$100/barrel threshold in 20 FY2025 based on the current scenario.

However, the IMF, in its recent economic outlook update, has projected a counter view that oil prices will slide by 2.5% year-over-year to average \$78.60/barrel in 2024 and will continue to fall to \$67.50 in 2029 with hopes of de-escalation of the Middle East conflict and the possibility of a rise in OPEC+ oil supply to regain the market in case of demand growth globally. The potential increase in the renewable energy growth target of 450 MW and a 45% reduction in carbon intensity by 2030 will reduce oil demand. Whether this remains true or not is yet to be seen.

Figure 14
Brent crude oil, USD/bbl — Country Economy



Source: Country Economy

Note: All year prices are averaged for the month of March, rates excluding taxes.



India's vulnerability to fluctuations in global oil prices is evident in the direct linkage between international crude oil prices and the retail prices of petrol and diesel in the country.

Despite declining crude oil prices in the global market for most of FY2024, fuel prices remained unchanged in 2023, while the beginning of 2024 saw slight price adjustments. The last recorded change in countrywide fluctuations was in March 2024 for a reduction of INR 2/litre ahead of the Lok Sabha election schedule announcement.

Figure 15
Diesel rates (INR/Ltr) — My Petrol Price

The pricing revision capped the average price of diesel and petrol at INR 92 & 103/litre, respectively.

Forecasts indicate that oil prices could reach \$100 per barrel by September 2024, primarily guided by sustained production cuts by major oil-producing nations like Russia, coupled with geopolitical tensions in the Middle East. With potential talks regarding US sanction relief on Iran, hopes for fuel price cuts spark, but the subsequent surge in global crude oil prices has dimmed those expectations for the near future.



Source: Country Economy

Note: All year prices are averaged for the month of March, rates excluding taxes.

Aluminium and copper

Aluminium prices began an upward trend in September 2023, following a continuous decline since the beginning of the year. The average global market price for aluminium stood at \$2,190/t in 3Q FY2024 and increased marginally to \$2,215/t in 4Q FY2024, representing a net 6% and 8% decrease from the respective previous year's prices.

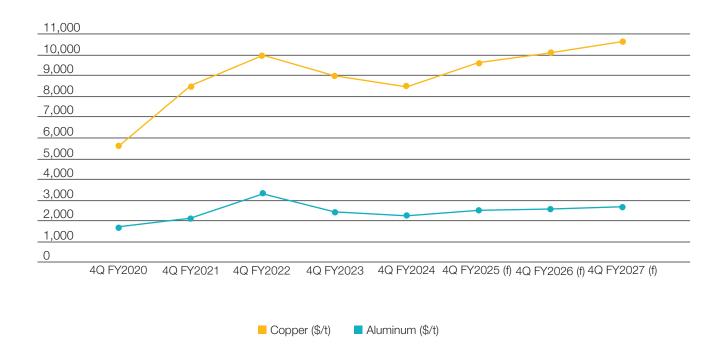
Western sanctions on Russian metals and dry conditions in China's Yunnan Province have reduced aluminium output and fuelled price increases.

The consequences of the latest announcement of the EU's Carbon Border Adjustment Mechanism (CBAM) are expected to be limited for India's primary aluminium producers to around 2-6% because the focus is on direct emissions. However, if indirect emissions are accounted for, the impact on domestic pricing might be up to 30% more.

Meanwhile, copper prices remained close to 4Q 2021 levels as supply concerns combined with evidence of strong demand. Prices rose to \$8,763 per tonne in March 2024, representing a 5.65% month-on-month hike — the highest in FY2024.

According to several market reports, supply disruptions caused by the shutdown of the Cobre Panama project, as well as the tightened availability of raw materials, are expected to drive commodity prices up to \$10,000–\$12,000 per tonne (monthly average) amid rising demand from EVs, AI power grids, and other green energy transitions.

Figure 16
Aluminium and copper, USD/t — World Bank

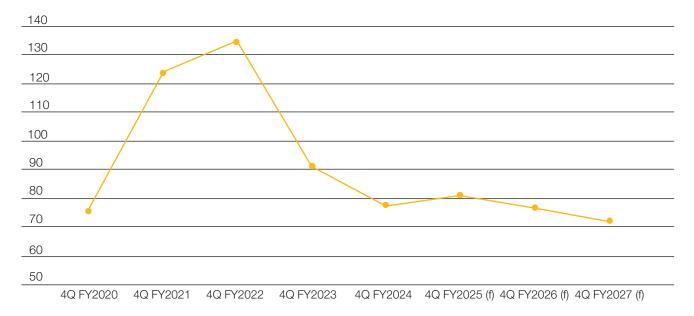


Source: World Bank

Note: All year prices are averaged for the month of March.

The PVC market in India is growing steadily, driven by strong demand from key end-use sectors such as construction, packaging and electrical and electronics. Rising urbanisation, the growth of EVs and the government's promotion of PVC as an alternative packaging material are all contributing to this demand. The annual average price of PVC was INR 84/kg in the period 1Q/2Q FY2024, while it has reduced to INR 79/kg in 3Q/4Q FY2024 primarily due to overproduction and soft demand in the retail space, causing excessive supply. Prices will continue increasing with an annual variation of 3.5% to 5% compared to 2024 for the next fiscal year based on Gleeds' forecast and supported by the Business Analytique PVC price index.

Figure 16
Aluminium and copper, USD/t — World Bank



Source: Reliance, Mumbai

Note: All year prices are averaged for the month of March, rates excluding taxes.

Contractor overheads and profits

What was the overall cost impact from 2Q FY2024 to 4Q FY2024 for contractor overheads and profits? — Gleeds market survey

When asked what the overall cost impact from 2Q FY2024 to 4Q FY2024 on contractor's overheads and profit percentages, 34% witnessed an increase of 1–5%, while 26% of respondents stated that there was no change in the period.

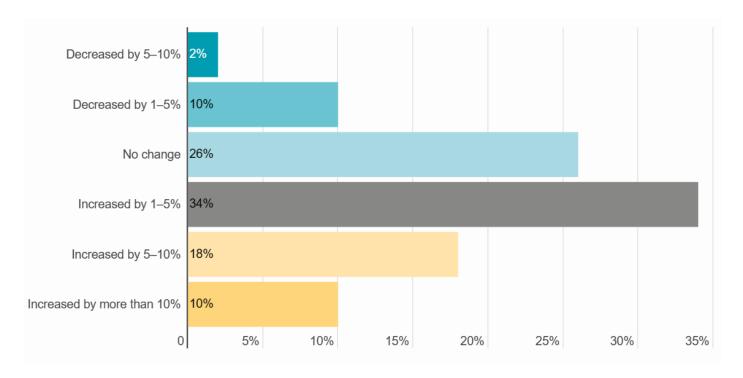


Table 01: Typical material costs

Description	UoM	Mumbai	Delhi	Bengaluru	Hyderabad	Chennai	Pune
Cement							
Grade 53	INR/Bag	295	290	295	290	300	295
Steel							
Reinforcement	INR/MT	63,280	62,570	63,150	63,420	64,220	63,280
Structural Steel	INR/MT	68,000	67,000	67,000	67,500	66,500	66,500
Clear Glass							
6mm	INR /Sqft	100 - 130	100 - 130	90 - 120	90 - 120	90 - 120	90 - 120
8mm	INR /Sqft	150 - 170	150 - 170	140 - 160	140 - 160	140 - 160	140 - 160
Stone							
Granite	INR/ Sqft	150-250	150-250	150-250	150-250	150-250	150-250
Marble	INR/ Sqft	220-500	200-500	180-500	175-500	175-500	180-500
Makrana	INR/ Sqft	250-1000	250-1000	250-1000	250-1000	250-1000	250-1000
Kota	INR/ Sqft	60 - 70	50 - 60	60 - 70	60 - 70	60 - 70	60 - 70
Cuddappa	INR/ Sqft	25 - 30	25 - 30	20 - 30	20 - 30	25 - 30	25-30
Wood							
Salwood	INR/ cuft	1,850	1,800	1,800	1,750	1,800	1,800
Plywood 12mm thick	INR/ sqft	70 - 80	70 - 80	65 - 75	60 - 70	60 - 70	65 - 75
Paints							
Emulsion	INR /20 ltr	3,800 - 4,200	3,800 - 4,200	3,500 - 4,000	3,500 - 4,000	3,500 - 4,000	3,800 - 4,200
Metals							
Aluminium	INR/Kg	189	189	189	189	189	189
Stainless Steel	INR/Kg	270	270	270	270	270	270
Plumbing							
GI Pipes - 50mm to 100mm C class heavy	INR/mtr	865 - 1,950	865 - 1,950	870 - 2,000	820 - 1,850	820 - 1,850	820 - 1,850
upvc - 32 - 100mm	INR/mtr	50 - 325	50 - 325	45 - 295	45 - 295	45 - 295	45 - 265
CPVC - 50 to 100mm SDR 11	INR/mtr	600 - 2,765	600 - 2,765	525 - 2,545	525 - 2,545	525 - 2,545	525 - 2,545
CI - 100 to 150 mm single socket	INR/mtr	925 - 2,250	925 - 2,250	1,000 - 2,450	840 - 1,435	840 - 1,435	840 - 1,435

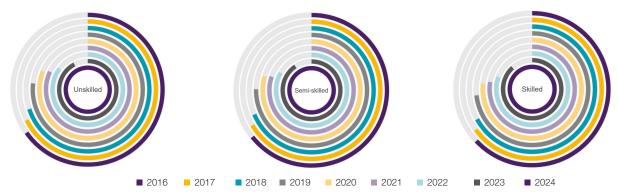
Source: As per Gleeds' research and the prices are for March 2024. All figures mentioned are indicative supply only prices excluding GST, transportation and any other abnormal costs.

Labour rate trends

The upward trajectory of labour rates persists, propelled by escalating demand, mounting inflation, and an impending shortage of skilled workers. The year-on-year labour costs across all cities are averaging a 7% increase during the 3Q/4Q FY2024 period.

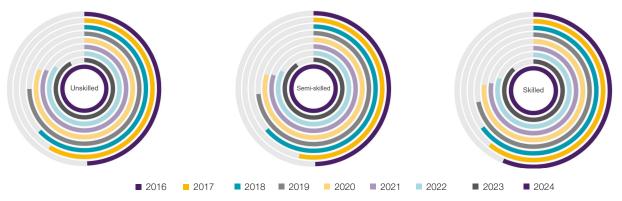
Among the six cities discussed in this report, Mumbai and Pune have recorded the most substantial surge, a 15% average across the labour categories, with skilled labour rates escalating by up to 19% during the past two quarters. Meanwhile, Chennai and Hyderabad have experienced a more moderate 5% increase, and Bangalore's rates remained the same.

Labour rate trends INR/day: Mumbai



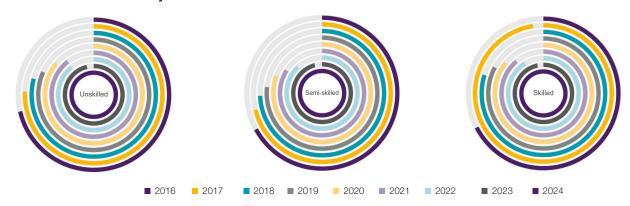
Note: All the rates represent basic rates in INR/day and don't include any dearness allowances, uplifts for abnormal working conditions, contractor margins or taxes. Rates have been collated by Gleeds.

Labour rate trends INR/day: Pune



Note: All the rates represent basic rates in INR/day and don't include any dearness allowances, uplifts for abnormal working conditions, contractor margins or taxes. Rates have been collated by Gleeds.

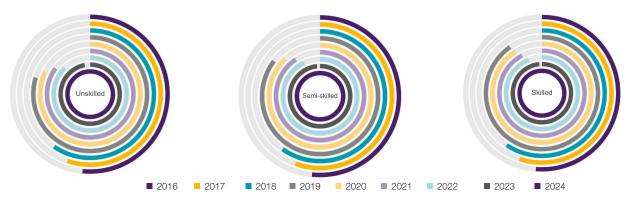
Labour rate trends INR/day: NCR



Note: All the rates represent basic rates in INR/day and don't include any dearness allowances, uplifts for abnormal working conditions, contractor margins or taxes. Rates have been collated by Gleeds.

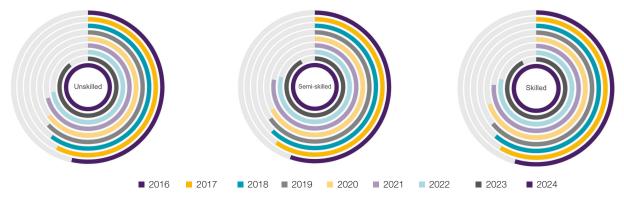
Labour rate trends

Labour rate trends INR/day: Bangalore



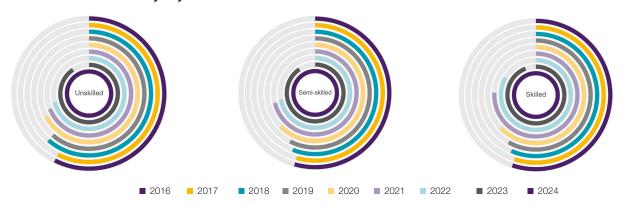
Note: All the rates represent basic rates in INR/day and don't include any dearness allowances, uplifts for abnormal working conditions, contractor margins or taxes. Rates have been collated by Gleeds.

Labour rate trends INR/day: Chennai



Note: All the rates represent basic rates in INR/day and don't include any dearness allowances, uplifts for abnormal working conditions, contractor margins or taxes. Rates have been collated by Gleeds.

Labour rate trends INR/day: Hyderabad



Note: All the rates represent basic rates in INR/day and don't include any dearness allowances, uplifts for abnormal working conditions, contractor margins or taxes. Rates have been collated by Gleeds.

Figure 25

How would you rate the impact of labour shortages on your organisation? — Gleeds market survey

The construction sector is pivotal in India's economic landscape, with its workforce as its cornerstone. It employs approximately 13% of the country's labour pool and is the second-largest employer after agriculture. However, akin to global trends, significant shortages persist, particularly in specialised trades such as carpentry, electrical work, welding and masonry.

Over 90% of survey respondents said their organisation is impacted by the labour shortages, with nearly 40% facing severe issues that limit their operations.

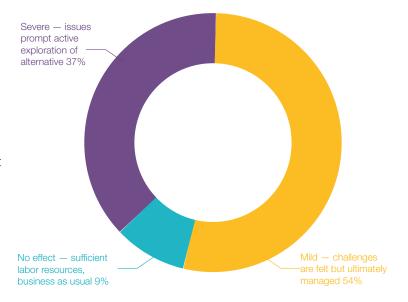


Figure 26

Are the following types of labour easy to source? Percentage of respondents who answered no — Gleeds market survey

Between 2000 and 2019, the compound annual growth rate (CAGR) for site preparation in construction surged by 17.58%, while building construction grew at a slower pace of 8.79%, creating workforce demand with a defined skill gap.

Although rural participation in informal occupations has somewhat bridged the gap between the labour force and workforce, migration patterns lead to fluctuations in availability, creating disparities in wages and job quality for skilled and semi-skilled workers. Notably, our recent Gleeds market survey highlighted that 86% of respondents faced difficulty sourcing skilled labourers, similar to findings from our last report, indicating no change in labour market dynamics.

The burgeoning demand for residential properties in Tier 2 and 3 cities underscores the need for a revitalised construction workforce. To address this, the government has launched various skill development programmes to cultivate a competent labour force aligned with industry requirements.

Moreover, the government has adopted a multifaceted approach to bolster the construction labour market, including subsidies for raw materials, improved access to credit,

and incentivising private sector investment in infrastructure projects. These efforts aim to sustain industry growth while tackling labour force challenges.

Another pressing challenge in the labour market is the rapid evolution of technologies, particularly post-COVID-19. The increased demand, connectivity and adoption of emerging technologies have led to a gradual transition of skilled workers to the gig economy, creating skill gaps yet to be filled by generative/automation technologies in emerging markets like India.

In terms of remuneration and welfare, the Mumbai and Pune regions experienced a 15% average wage increase between FY2023 and FY2024 due to heightened construction activity. Similarly, other major hubs like NCR, Hyderabad, Bengaluru and Chennai saw a 5% annual wage rise across skill levels. Wages are expected to increase due to severe shortages, as reported through the Gleeds' market survey.

The push towards mechanical and automated construction, lean construction methods, modular construction, robotics, and 3D printing in the short to long term will help reduce labour cost pressures.

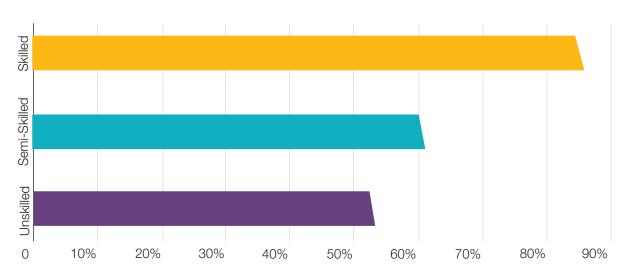


Table 2: Construction cost ranges by building type

Assumption Mumbai Chennai Hvderabad Bengaluru Pune Delhi **Building Type** for costs INR/sq ft INR/sq ft INR/sq ft INR/sq ft INR/sq ft INR/sq ft Residential BUA: 300,000 Affordable 2,450 - 3,050 2,450 - 3,050 2,550 - 3,100 2,650 - 3,550 2,700 - 3,750 2,450 - 3,050 sq ft BUA: 600,000 Premium 3,250 - 4,100 3,300 4,300 3,350 - 4,550 3,350 - 4,560 3,250-4,250 3,250 4,300 sq ft Commercial building BUA: 1,000,000 Commercial A 3,350 - 3,750 3,100 - 3,800 3,050 - 3,850 3,250 - 4,500 2,850 - 3,750 2,850 -3,750 grade sa ft Office fit-out Note: Costs based on carpet area for office fit-outs only. 2,550 -2,750 2,550 - 2,800 2,550 - 2,750 2,550 - 2,950 2,550 -2,750 2,550 - 2,750 Basic CA: 15,000 sq ft Standard CA: 30,000 sq ft 3,300 - 4,500 3,500 - 4,800 3,400 - 4,800 3,400-4,800 3,300-4,600 3,300 4,600 Premium CA: 50,000 sq ft 4,650 - 7,200 4,900 - 6,800 4,900 - 6,700 4,900 - 6,750 4,550 - 6,600 4,650 - 6,650 Retail 2,850 - 3450 Malls with retail stores 2,850 - 3,450 2,750 - 3,250 2,850 - 4,250 2,950 - 3,650 2,800 - 3,400 Store fit-out costs on carpet area Quick service CA: 2,500 sq ft 2,650-3,200 2,950 - 3,450 3,150 - 3,500 3,250 - 3,650 2,950 - 3,350 3,000 - 3,450 restaurants Apparel stores CA: 25,000 sq ft 2,550-2,750 2,950 -3,450 2,500 - 2,700 2,450 - 2,750 2,500 - 2,800 2,550 - 2,750 Discount sports CA: 25,000 sq ft 1,800 - 2,050 1,750 - 2,000 1,750 - 2,150 1,750 - 2,250 1,400 - 1,950 1,500 - 2,050 store Jewelry CA: 8,000 sq ft 5,300 - 6,800 5,650-7,300 5,750 - 7,250 5,800 - 7,350 5,250 -6,750 5,230 - 6,800 Hospitality 3-star hotel 100-key 6,600 - 8,700 6,650 - 8,700 6,550-8,850 6,600 - 8,400 6,550-7,600 6,600-7,700 4-star hotel 150-key 7,200-8,700 7,250-8,700 7,150-8,650 7,150-8,650 7,150-8,650 7,150-8,650 5-star hotel 150-key 8,200-11,600 8,200-11,600 8,200-11,600 8,200-11,600 8,100-11,500 8,200-11,600 Healthcare 500-bed Hospitals 4,800-5,500 4,850-5,650 5,800-6,900 5,800-7,150 4,500-5,300 4,700-5,500 capacity University Campus 4,400-4,700 4,400 - 4,700 4,450 - 4,750 4,500 - 4,900 4,350 - 4,650 4,400 - 4,700 Education 500-pupil, School* 3,250-3,750 3,400-3,800 3,350-3,750 3.450-3.850 3,050-3,650 3.250-3.750 high school Industrial Pharmaceutical 3,350-4,300 3,600 - 4,600 3,750 -4,550 3,850 -4,700 3,350-4,250 3,450-4,400 **Others** 1100-1,300 Multi-level car park 1,300-1,500 1,300-1,425 1,500-1,900 1,550-1,900 1,150-1,450 Data centres Shell only Multi-tenant 4,650-6,600 4,950-6,050 4,350-6,150 4,550-6,400 4,500-6,500 4,500-6,350 Shell only Hyperscale 5,550-7,500 5,450 - 7,400 5,350-7,250 8,150 - 8,650 6,400 7,250 6,400-7,550 Fit-out (MW) Multi-tenant 231,650,000-286,500,000 231,650,000-286,500,000 Fit-out (MW) Hyperscale 229,600,000-264,150,000 229,600,000-264,150,000

Source: Gleeds India database

Note: The costs mentioned are as observed until March 2024. The costs do not include any soft or non-construction costs associated with the project.

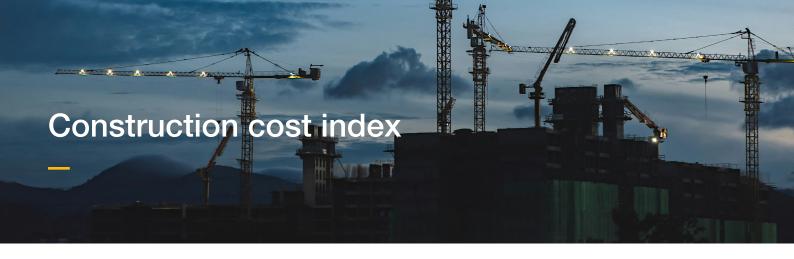


Inclusions

- The cost/sq ft represents the average of costs procured through competitive tendering as of March 2024.
- All projects are considered to include basements built on normal soil conditions.
- Multipackage contractor procurement through standard forms of contract with non-significant amendments.
- All costs include contractor's overheads, profits and insurances.
- The shell cost for commercial and retail includes common area finishes.
- The commercial grade A costs include amenities like a food court, kitchen and external amenities.
- Office fitout costs are based on carpet area (CA), while residential costs are based on built-up area (BUA).
- School costs are based on 500 high school pupils, including basic indoor and outdoor facilities.
- University costs include learning rooms with required amenities.
- The costs are for guidance only, and changes should be made according to project-specific factors and market conditions.

Exclusions

- The warm shell cost is exclusive of land prices, demolition of existing buildings, tenant improvement works, FF&E (furniture, fittings and equipment), cost escalation and contingencies, professional tax, finance cost, forex fluctuation, statutory and approval costs, developers overhead, consultant fees, GST and labour cess.
- Data centre costs exclude long lead items and client-direct items.
- Project aspirational costs are excluded.
- Project-specific abnormals are excluded.

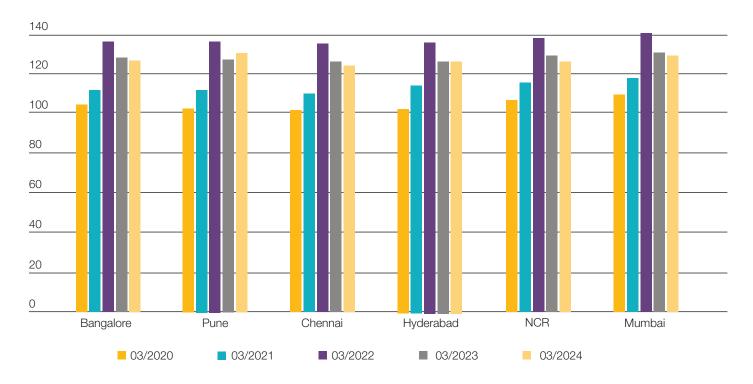


The Gleeds cost indices have been derived from an extensive exercise of mapping costs across various Indian cities.

The following methodology was adopted to derive the indices:`

 A basket of items comprising of most 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 the standard type of commercial buildings. Appropriate weightage was given to each of the items and based on the weighted average method, a base index was calculated.

- December 2019 has been considered as the best representation of costs before the uncertainty of the pandemic. The base city taken for calculation of the index is Bangalore.
- Cost movement for different cities across similar timelines has been mapped.



The Gleeds construction cost index showcases the variations in the overall costs of building projects in the construction hotspots of the country to understand their unique pattern of resource consumption.

Factoring in the commodity price movements discussed earlier in the report; the cost indices decreased until September 2023, after which slight pick-ups are visible.

Polling perspectives

In 2024, the world is all set to witness a monumental political exercise involving 64 countries and nearly half the global population. This extensive electoral process, which involves 4.2 billion people and accounts for more than 60% of global economic production, requires attention and strategic study.

What are the effects of elections on economies? To begin with, new administrations often make swift changes in fiscal and monetary policies in the near term. Over a more extended period, new governments can reshape

global trade dynamics, disrupting the established importexport flows and supply chains and injecting volatility into commodity markets, thus altering investor sentiments.

Of all financial assets, currencies are typically the first to respond to election outcomes and evolving economic policies they represent. Therefore, it is crucial to stay attentive and monitor these election-related developments. Vigilance is vital not just for assessing potential opportunities and risks in currency markets but also for gaining insights into broader economic trends.

Global geopolitical implications

The upcoming international elections in 2024, particularly those in the US, United Kingdom, Russia and EU countries, are of significant interest to the Indian construction market.

While immediate price fluctuations from these elections may be modest, the 2024 political landscape, marked by numerous elections, holds the potential for substantial changes in the commodity demand and supply dynamics that are currently in play. This information is crucial for stakeholders to stay informed and prepared for any potential shifts.

Elections in Russia and India, both key members of the BRICS trading bloc, could see trade within the bloc boosted at the expense of external partnerships, thus driving up the prices for commodities exported to non-BRICS members.

The outcome of Russian elections bolsters stability within the BRICS bloc, intensifying geopolitical tensions in an attempt to create a stronger alternative to the west. This could impact market sentiment accordingly.

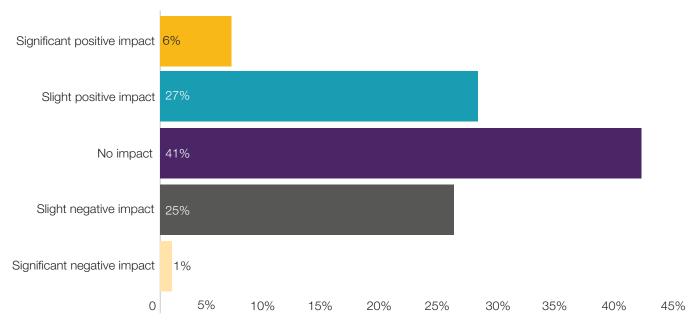
Changes in the political landscape of the European Parliament could steer the EU's policy agenda and legislative direction towards key initiatives such as the Green Deal, 2040 climate targets for 90% emissions reduction, net zero aspirations and decarbonisation of buildings. These changes could ripple through the construction sector, impacting regulations and investment priorities.

Looking at the US elections in November 2024, the resultant ramifications have the potential to affect nearly all asset classes worldwide through significant shifts in trade relations and economic policies, such as continued support for renewable energy stocks and/or efforts towards expansion of oil and gas extraction.

In addition, these electoral cycles can change the sequencing of expected rate cuts and other monetary policies rather than the direction per se. The anticipated volatility in dollar pricing could further complicate global market dynamics and project financing.

Figure 28

How will the general elections in the US and UK and other geopolitical issues affect Indian construction and real estate? — Gleeds market survey



Approximately half of survey respondents believe that the current geopolitical dynamics will exert a minor influence on the Indian real estate and construction industry. Among these respondents, roughly equal numbers anticipate positive and negative effects.

Meanwhile, 41% of respondents consider there will be no significant impact, reasoning that any potential effects will likely offset each other.

The great Indian elections

Figure 29 India Equity Performance: 90 days around election dates 1996 - 2019



Sources: Indian National Stock Exchange, Macrobond. Analysis by Franklin Templeton Institute.

The heat is on. Amidst the scorching Indian summer, voters in India have started casting ballots, unfolding the world's largest election process, which spans from 19 April to 1 June in seven phases.

This electoral spectacle is not just a political event but a seismic shift that reverberates across various sectors and outcomes and holds immense sway over policies, investor sentiment and economic stability, intricately shaping the landscape of future national growth prospects.

Taking a cue from past patterns, a stable government coupled with a positive economic outlook historically triggers a surge in investor confidence, igniting demand in the commercial real estate sector. Drawing from the trends observed during the 2014 and 2019 Lok Sabha elections, it's anticipated that this election year will witness a similar uptick in commercial property sales and new project launches.

Elections signify an end to a phase of uncertainty for potential buyers by alleviating concerns about potential policy shifts and structural reforms. A decisive election outcome is known to fuel buyer sentiment, which boosts purchasing activities in the market.

Besides, the sustained demand growth in domestic residential and commercial markets in Tier 2 and 3 cities positively influences the Indian real estate sector. The recent announcement in the interim budget regarding the expansion of the PM Awas Yojna, aiming to add two crore houses for the middle-income group over the next five years, exemplifies this positive trend.

However, the prospect of new administrations ushering in fresh agendas and priorities introduces an element of unpredictability, thereby influencing investor confidence. The convergence of such advantageous policy measures, trust in the economy and political stability augment the prospects of the residential real estate industry.

Elections also serve as a catalyst for infrastructure development, with political parties often leveraging promises of

projects like highways, airports, metro rail networks and smart cities to garner support.

Forecasts by rating agencies like ICRA project a 5–8% increase in road construction for FY2025, with the ministry's project award pipeline surpassing 45000 km as of March 2024.

Moreover, the interim budget signalling a gradual transition towards a more investment-driven economy by incentivising increased foreign direct investments, hope for the enactment of new labour law and prospects of an additional \$130 billion in infrastructure funding reinforce optimism for investors.

Given the potential for unfavourable outcomes postelection, a significant portion of these investments are made in the pre-election period, explaining the heightened investment activity in the 90 days surrounding election dates.

Considering the current investment landscape, the uptick in investments temporarily boosts the accommodation and retail sectors. Post elections, the incoming government is expected to sustain this momentum by adhering to the allocation of INR 2450 crores for the FY2025 against INR 1690 crores in FY2024 for the travel and tourism sector.

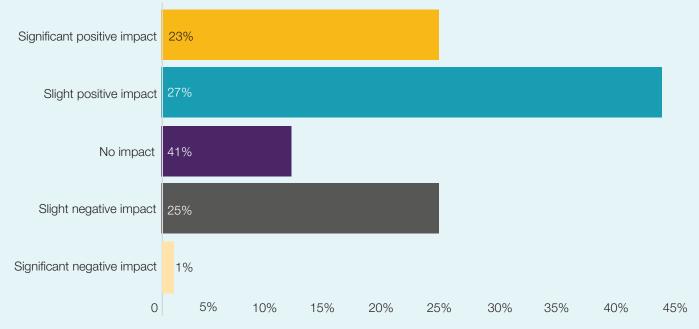
On a different front, the construction equipment industry is experiencing bullish sentiments attributed to the elections on model code of conduct lines. However, efforts to prepare for the transition towards Stage 5 emission norms, effective 1 January 2025, temper this enthusiasm. This counterbalance has prompted a trend of advanced purchasing or upgrading equipment to mitigate potential cost escalations and stay within future budgets.

Furthermore, these elections are poised to define the nation's strategic direction across three critical dimensions: digitisation, decarbonisation, and deglobalisation. With the certainty of a stable government at the centre, the overall national development sentiments will remain consistent with a sustained focus on the semiconductor plants and renewable energy sectors.

Depending on global relationships, decrees in supply chain diversification and/or a protectionist attitude will determine investment decisions even as economic trends will continue without any significant effects on the overall situation.

With a series of high-value, complex projects recently launched in burgeoning sectors like semiconductors (\$10 billion outlay), green hydrogen (\$2.4 billion outlay), and hyperscale/edge data centres (0.9GW in 2023 to 2GW by 2026), a combined play of international and national geopolitics will determine the implications for input costs, margins and prices across various sectors, including construction. Thus, construction industry participants must navigate the evolving political and economic landscape with prudence.

Figure 30



Our survey respondents are optimistic about the influence of the elections on the Indian construction and real estate sector, with about 65% saying they will generate slight or significant positive impacts.

Summing up

The construction industry undeniably serves as a barometer for a nation's economic health and developmental stage, influencing various sectors and contributing significantly to the broader economy. The Indian construction industry is anticipated to sustain its growth trajectory, supported by ongoing momentum and the upcoming budget announcement of the new government.

The demand for real estate and commercial office space is rising, especially in Tier 2 cities, driven by businesses' expansion plans and a growing emphasis on creating healthier and sustainable environments.

Technological advancements, particularly in areas such as smart office technology and data centres, present both opportunities and challenges, especially with global market uncertainties (in the case of long lead equipment), environmental sustainability, labour mobility and skilled labour availability.

This surge in demand and the exponential growth of data centres, fuelled by the rise of generative artificial intelligence, is expected to lead to increased rack density, necessitating reliable infrastructure backups such as land

and power. Additionally, the rollout of 5G is driving impetus for edge data centres, with early deployments on the horizon.

It is to be noted that these developments also bring environmental concerns, as the conventional construction of any building contributes to greenhouse gas emissions, which is 21% of global emissions. Given that a substantial portion of India's future buildings that will remain operational for the next 30 years are yet to be constructed, striking a balance between developmental aspirations and environmental commitments becomes imperative.

Amid ongoing geopolitical uncertainties, robust domestic demand and prudent policy measures offer stability and promising potential for profit margins. Firms that adapt to the industry's evolving landscape stand to benefit from these attractive opportunities, instilling a sense of optimism.

Overall, the outlook for the near future appears mixed, with demand and infrastructure development voting up for a favourable outcome and optimism regarding stable geopolitical relations serving as a beacon of hope amidst ongoing uncertainties.

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