

Material Price Escalation- Bulletin

Q4 2021

Dynamic price trends in the past 2 years has been a matter of concern for all especially the construction industry. Cement, Steel, Aluminium, Copper, Crude Oil, Diesel and PVC have been climbing high, ever since the closure of the lockdown that was forced in 2020, following the outbreak of the COVID-19.

% Increase in the last year (Oct 2020 to Oct 2021)

16% — increase in cement rates

38% — increase in steel rate

65% — increase in aluminium

45% — increase in copper

95% — increase in PVC

35% — increase in diesel

25% — increase in labour cost after migrant labour left due to second wave

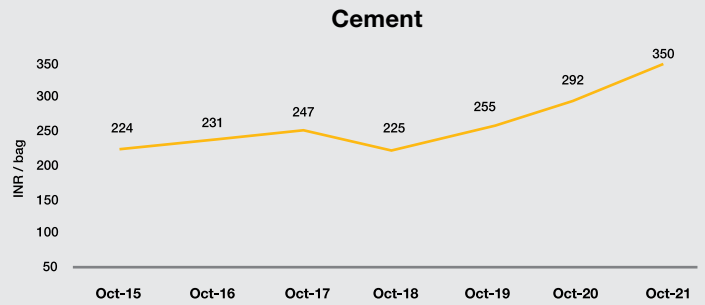
Cause of increase

- Steel production plant closure in China, high demand in USA, China and India
- Reduction in oil production
- Uncertain and varied demand across supply chains
- Raw material shortage
- Coal crisis resulting in power shortages
- Rise in fuel prices
- Global commodity price increase.

The epidemic of COVID-19, along with rising prices, has dealt a severe blow to India's construction material business. Due to growing input costs such as freight and petrol, the price of building materials has risen across the value chain. An increase in essential input material, like steel and cement, will directly have a bearing on the cost of development. Rising input costs directly increase cost of construction in all verticals of real estate such as residential, commercial, industrial warehousing amongst others. As a result of rising input costs, the industry will have to look at innovating and realigning by using alternate means of construction.

Cement

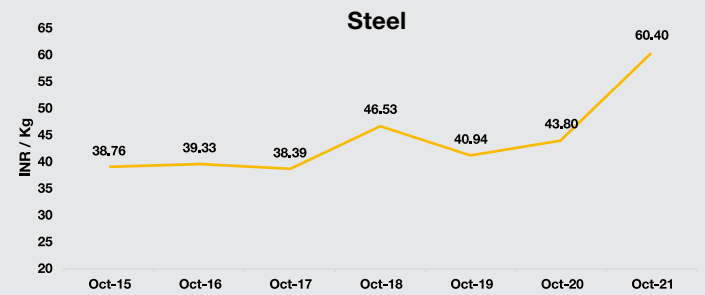
The price of cement has gone up by around Rs 350 per bag in October 2021, Cement being a key construction material has showcased a 16% increase since last year at the same time. Cement prices had spiked last year following the lockdown, however, this has further increased as India is on the brink of an unprecedented power crisis as its coal stocks, which power more than half of the country's 135 coal-fired power plants, are running critically low.



Source: Gleeds' database

Steel

The steel has gone up to Rs. 61,000 per tonne a 38% increase from last year. The steel prices are going up because of a steep increase in the prices of iron ore, resulting in drastic increase in raw material prices and this is a global phenomenon because of high demand from China, US, Europe, and India. Due to China's decision to cut steel production and exports, India is also experiencing a price increase. High domestic demand had led China to remove rebates and impose export taxes on certain steel products this year to discourage exports. Shortage of coal has led to an increase in steel prices at present and in the coming months.

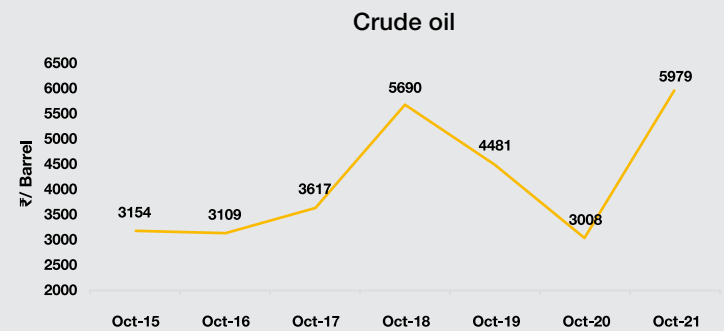


Source: SAIL

Fuel

Crude Oil

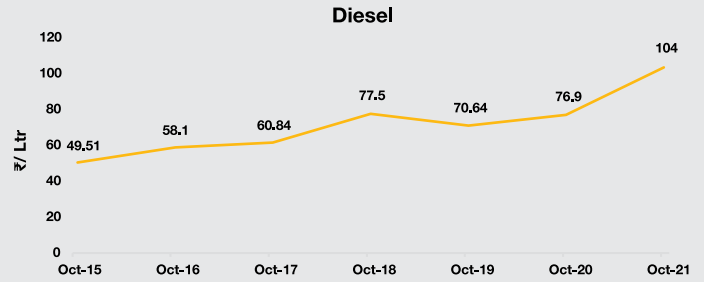
The global commodity prices, including those used as fuel for power generation such as coal and gas, have surged. In India, some states are experiencing electricity blackouts because of coal shortages. China's government, meanwhile, has ordered miners to ramp up coal production as power prices surge. This makes oil an attractive commodity for generating power and keep the economic activity steady, and thus the higher demand is pushing crude markets higher. For India, the rising crude oil prices are a worry for the Indian economy. High taxes by the central and state governments are contributing to retail prices being far higher. Being a net importer of oil, India prices petrol and diesel at rates equivalent to international prices.



Source: Country Economy

Diesel

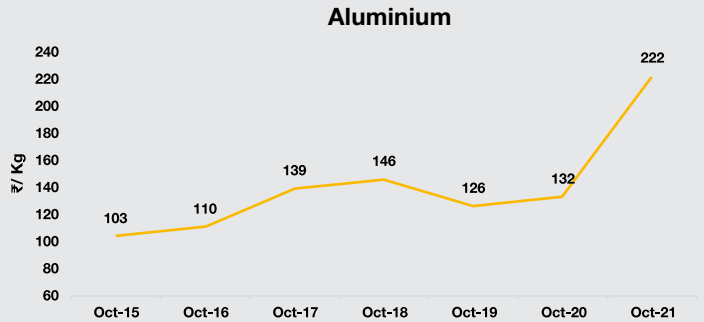
While construction is dependent on fuel for all its logistics for the supply of materials, this component is now holding a significant value in the total cost of construction. The rise in prices, is forcing supply chains to reroute and look for closer options compromising design.



Source: My petrol price

Aluminium

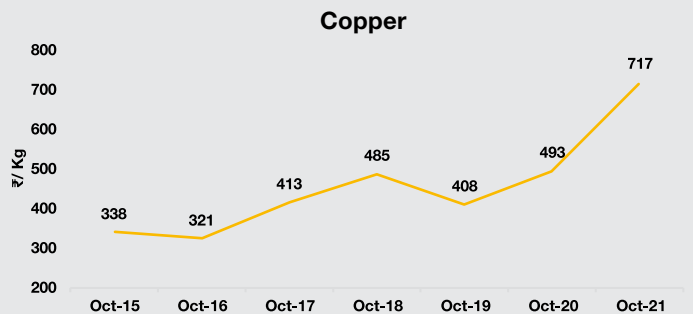
Economic recovery, helped by stimulus packages in various countries, has helped increase the demand for various metals, including aluminium. Economic activity has increased significantly in Asia, the biggest consuming region for the metal, led by China's increasing appetite. Demand is rising from various sectors such as packaging, construction, electrical equipment. The bullish trend in aluminium prices to continue as economic recovery accelerates in many parts of the world, while supply is not likely grow at the same pace.



Source: LME

Copper

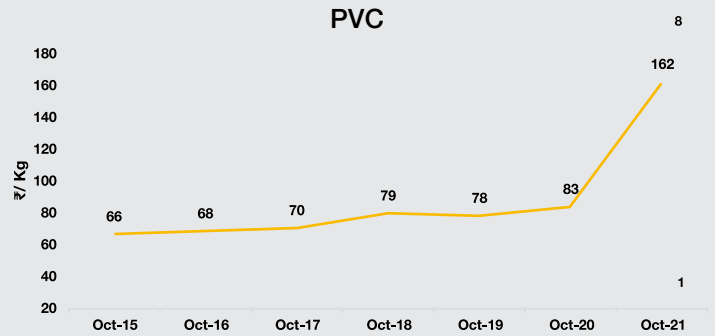
Copper prices are set to rule firm around \$10,000 a tonne in the short-term as inventories have hit a record low following production cuts in the wake of power crunch in Europe and China despite a drop in manufacturing activities. A rebound in global economic activities after a COVID-19 pandemic induced slump, massive stimulus packages in the US, and increasing usage of green mobility (electric vehicles) have helped propel the demand for the industrial metal copper.



Source: LME

Poly Vinyl Chloride

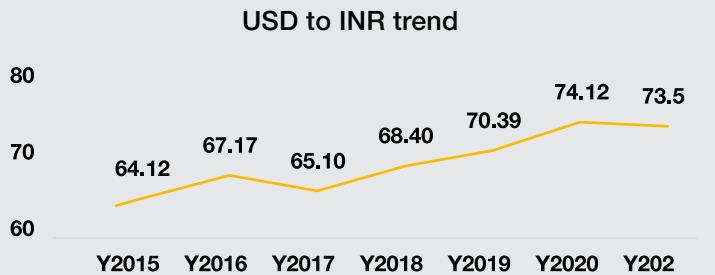
PVC prices are at an all time high, following the increase in prices of raw materials that are imported from other countries mainly China and USA. Closures of many industries following the COVID-19 has also brought in a shortage of PVC production, resulting in exponential increase in price of PVC.



Source: Reliance

USD to INR trend

The rise in crude oil prices is slowly weakening the Rupee, Withdrawal of some foreign investors could also be another reason for this contribution. Government debts, loose the interest of investors which among other issues, pull down the Rupee value.



Source: XE Currency



Cost indices 2021

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

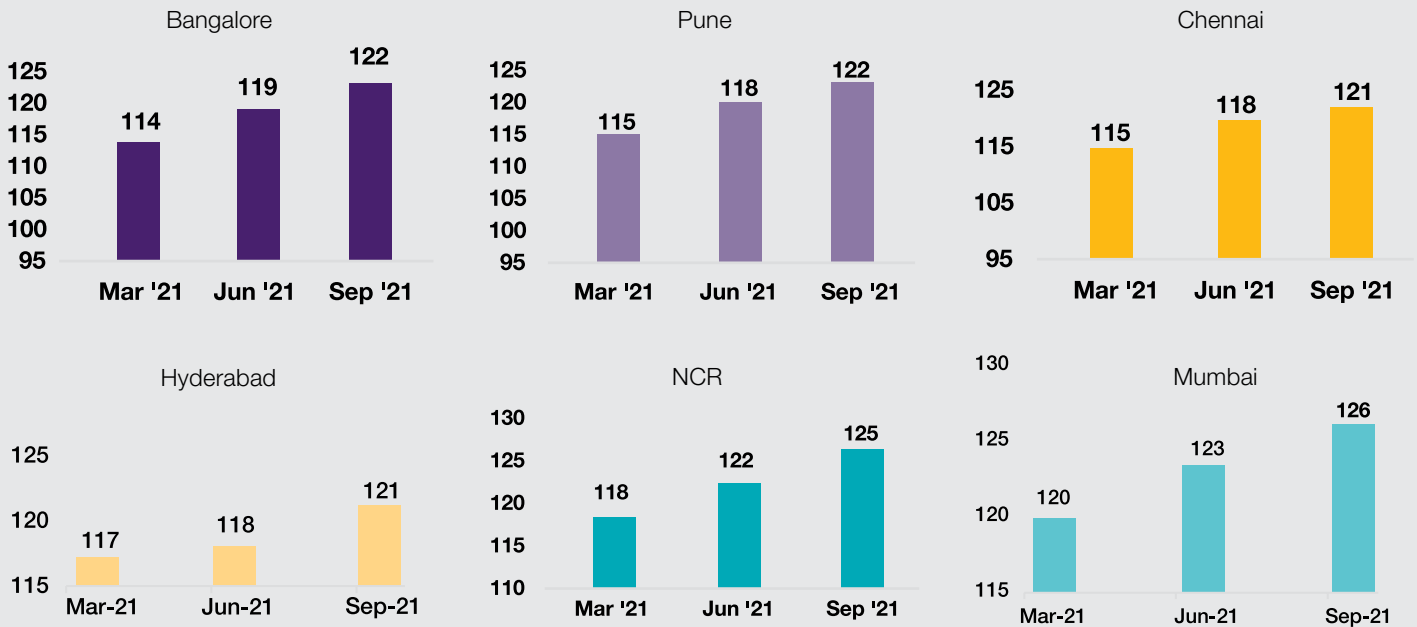
The following methodology was adopted to derive the indices.

- 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 Bangalore.
- Cost movement for the different cities across similar timelines has been mapped and the indices were thus derived.

The graph below indicates the construction costs indices for the six major cities for the last three months starting December 2019, with Bengaluru as the base.



October data is still being analysed and will be published in the next paper. The indicative increase noted at present is moving up by another 2 points.

Import Price Trends

Border restrictions due to pandemic along with geopolitics, climate catastrophes and trade wars have disrupted the global supply chains. Trade, both export and import, has been severely impacted, with sea freight costs from China shooting up 200% from pre-pandemic levels. The sky-rocketing sea freight cost (from the US, Europe, and China), along with shortage of containers, is hurting the supply chain. Imports might continue to show an increasing trend as the economy opens and due to the spill over from elevated international commodity prices. A large part of the upside surprise in imports was fuelled by an increase in oil imports, reflecting the surge in global oil prices. However,, the underlying pattern of increasing trade and current account deficits is anticipated to continue, owing to increased oil and other global commodity prices, an upcycle in domestic growth, and an overhang on exports due to global supply bottlenecks in the short term, and weakening demand in the long run.

The impact of commodity price increase

Projects in various stages are seen to be impacted differently. Projects in procurement will be influenced by:

- Present available supply chain
- Procurement strategy
- Material chosen for design (more imports may lead to higher costs and long lead times)
- Dynamic material rates, resulting in high priced bid returns
- Market risks will be passed onto client.

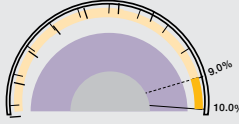
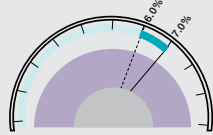
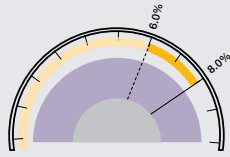
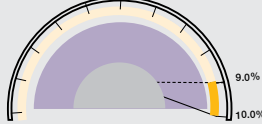
Projects in construction will be influenced by:

- Delays in programme due to material unavailability
- Pressurised supply chain
- Budget overshoots.

Cost Impact on construction costs – Sector wise

The impact of short and long-term costs on construction is illustrated for each project category on the base cost. The impact of market volatility is dependent on a number of factors, however a range is provided. While there are numerous cost drivers that may impact the project, to note that the data being referred to is an average cost range based on the Gleeds' database. The costs are only

for hard construction expenditures and do not include any taxes or soft costs. The cost ranges are normalized in second quarter 2021. Any site abnormalities, force majeure situations, FF&E charges for hotels, and client-supplied data centre equipment are not included in the costs.

Project category	Short term impact	Long term impact
Residential – Premium base price ₹3,500 – 4,500 / Sqft		
Commercial - A Grade base price ₹3,200 – 4,200 / Sqft		
Fitout - Standard base price ₹2,500 – 3,600 / Sqft		
Fitout - Premium base price ₹4,000 – 6,500 / Sqft		
Data center - Coreshell & fitout base price ₹9,500 – 13,500 / Sqft		
Hospitality base price ₹3,500 – 8,000 / Sqft		
Educational - Campus base price ₹4,500 – 6,500 / Sqft		

Short term cost influencers:

- Material price escalation (due to supply chain distortion, conservative production)
- Inflated labour rate based on un-availability.
- Higher transportation and logistics costs
- Market uncertainty (global impact)
- COVID-19 measures (productivity)

Long term cost influencers:

- Material prices subsidised (reduced upon market stability)

- COVID-19 Measures (productivity)
- Higher labour rates (reduced upon market stability)
- More stable supply chain
- Forex (Foreign exchange)

Whilst the surge in prices continue pressurising the continuity of construction work progress, companies are now to rethink on strategies, look at alternative supply chains and investigate to gain a better insight on market dynamics, in the aim to mitigate price risks as far as possible.

Conclusion

The construction market has been in turmoil for the past few months. The push towards the national infrastructure pipeline and public sector spending along with the re-emergence of the private sector projects has led to the unprecedented market price volatility. The equity market is showing a turbulence and there are many investors who are looking to invest in the real estate market. The present hurdles of price escalation are forcing stakeholders to rethink, as the return of investment is not likely to match the expended costs. While most clients have sought to cut costs and value engineer, the market dynamics seem to be moving in the opposite direction. Collaboration in the supply chain, careful planning and re-strategizing is important in the present to continue construction, a large contributor to the country's economy. Gleeds would recommend sufficient provision for the market price volatility in the business plan.

Talk to an expert



VISHAL SHAH
EXECUTIVE DIRECTOR

M: +91 9820260169
E: vishal.shah@gleeds.in



PADMINI G
COST MANAGER

M: +91 8042623000
E: padmini.g@gleeds.in