



constructsteel

Monthly update for the construction industry

October 2021

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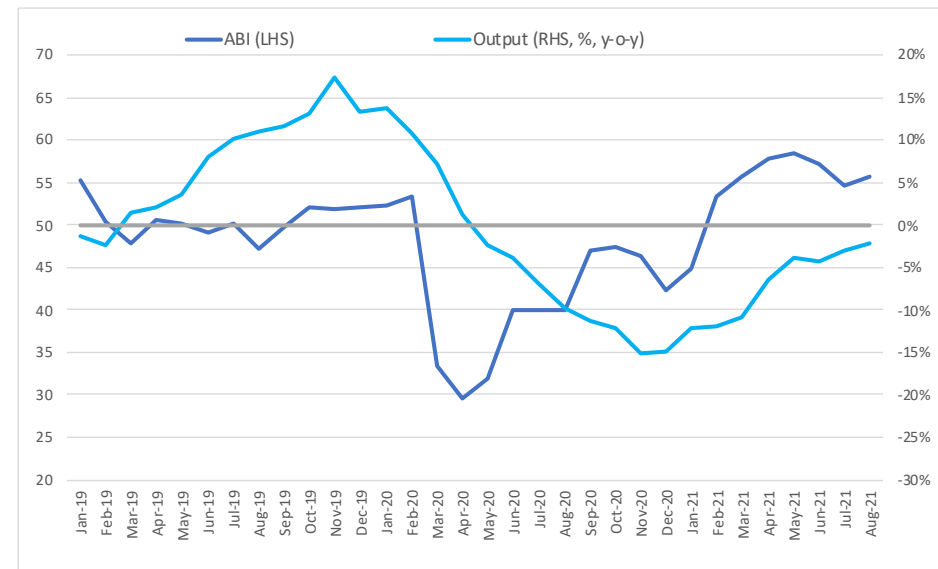
Construction market trends

United States Residential construction impacted by shortages of building materials and labour; Private non-residential construction improvement continues.

Private residential output up 0.4% m-o-m in August (24% y-o-y). Building permits up 5.6% m-o-m (13% y-o-y). Private non-residential output down -1% m-o-m in August (-2.3% y-o-y). Architecture Billings Index (ABI) reaches 55.6 in August from 54.6 in July (> 50, expansion).

Private non-residential output vs ABI

Source: US Census, American Institute of Architects

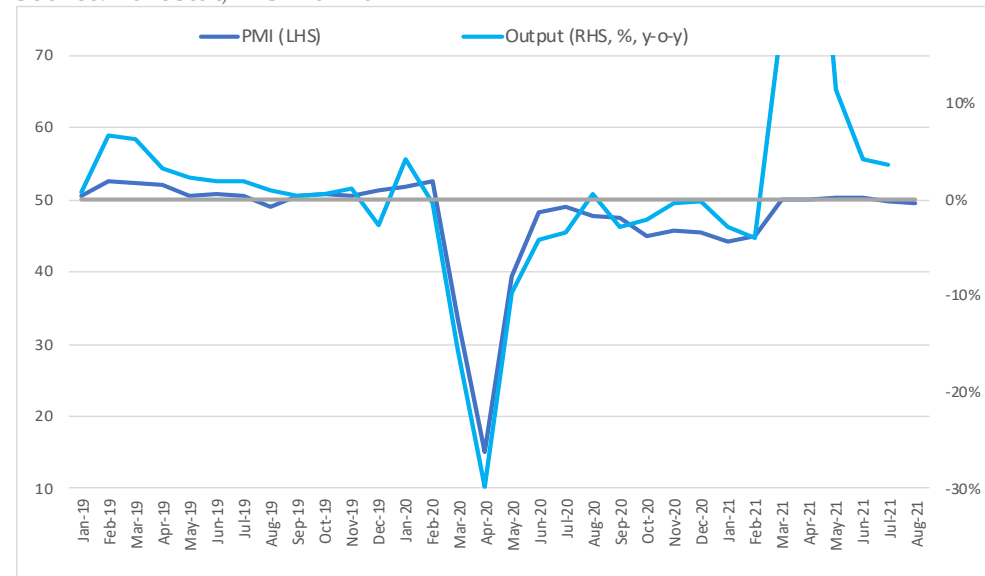


Europe Continued stabilising activity in construction. Buildings supported by demand while infrastructure lags behind.

Eurozone construction up marginally and by 0.1% m-o-m in July (3.7% y-o-y). IHS Markit Eurozone Construction PMI increased to 50 in September from 49.5 in August (< 50, contraction).

Eurozone construction output vs PMI

Source: Eurostat, IHS Markit



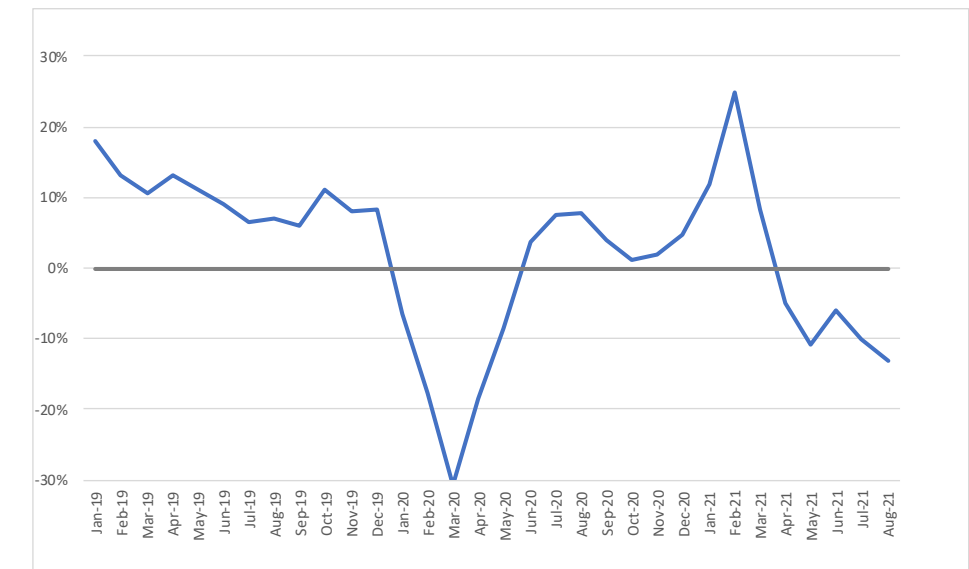
Knowledge partner:
**McKinsey
& Company**

China Adjustment in residential real estate sector continues but infrastructure output supportive.

The 3 month moving average y-o-y growth in floor space started down -13% in August; floor space sold down -4% during same period.

Floor space started (3 month moving average, %, y-o-y)

Source: National Bureau of Statistics of China

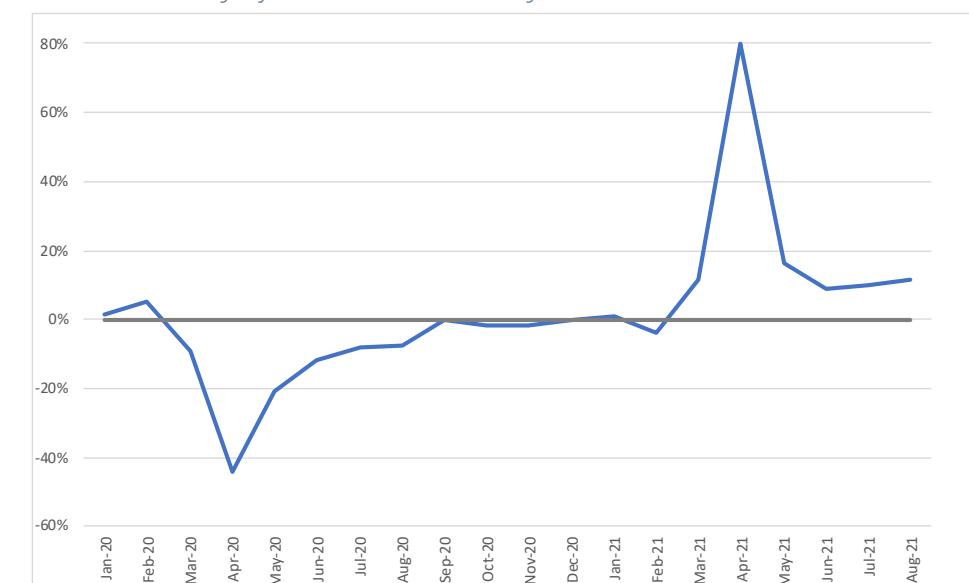


India Gradual pickup in economic activity continues.

Weighted average of eight core industries output up 11.6% y-o-y in August and led by coal, natural gas, refinery products and steel. Cement production up 36%.

Weighted average of eight core industries industrial production (%, y-o-y)

Source: Ministry of Commerce & Industry, India



Technical trends: The workplace will never be the same Imperatives for real-estate owners and operators

Engineering, Construction & Building Materials, McKinsey & Co

For investors and owners of office properties, 2020 was a roller-coaster year that left an unprecedented amount of office space empty for many months. Although working from home is a challenge for many knowledge workers, in a recent survey 72 percent said they love it. Many employees wonder if the typical office might become a thing of the past. At the same time, rents were paid at approximately 95 percent of normal levels during the year, and delinquencies of more than 30 days were consistently below 3 percent. All of this added up: office real-estate investment trusts lost 20 percent of the pre-pandemic peak of their unlevered value.

The unexpected experiment in remote working surpassed expectations because of the mass adoption of collaboration technologies. It reset expectations for the future because it opened up new possibilities for how much flexibility employees can have in choosing how and where to work. In fact, more than half of employees say that they would like their organisations to adopt more flexible models. Remote working has not been an overwhelming success, however, as issues of burnout and isolation have continued. A recent global study by the Harvard Business Review notes that 56 percent of workers surveyed said that job demands have increased. And the work-from-home experiment has helped certain populations more than others.

As occupiers reflect on the past year, they are trying to merge the best of the old ways of doing business with the best of what was learned during the pandemic. Many questions are swirling in the minds of office occupiers about how work should be done in the next normal, how to think about talent, what the role of the workplace should be, and how much real estate companies need.

Despite the experience of working from home for almost a year, the vast majority of organisations believe that the physical presence of workers is critical at some regular frequency. For example, recent Microsoft research on 122 billion email exchanges and 2.3 billion meeting interactions shows that although their number increased within

employees' immediate teams and close networks during remote work, interactions with secondary networks are shrinking. Moments of innovation and cross-pollination may not be happening. As evidence suggests that physical space is still needed, some of the companies that have announced permanent work-from-home options are simultaneously signing major leases or building new headquarters.

The future will be hybrid, but the proportions of work-from-home and in-office time are far from settled. This reflection is already leading many to focus on the in-person, face-to-face "moments that matter" for collaboration, alignment, community, and so on. Office investors are eager to see what these moments are and how frequently they occur—daily, weekly, monthly—to determine both the amount of space office tenants need and the designs and configurations that will promote the types of interactions tenants seek. Much of today's office space won't meet the needs of tenants and workers in a hybrid world. There will be an oversupply of space and a scarcity of offices purpose-built for hybrid work. Spaces, designs, experiences, amenities, leases, food-and-beverage options, and the like will have to be reimaged. According to McKinsey, owner/operators should adapt in five significant ways.

Become a solution partner, not a negotiating foe

Most tenants do not yet know how to navigate hybrid work. Many risk drifting into a hybrid model in which they get neither the benefit of having everyone in person nor the benefit of full flexibility. Tenants need owner/operators to come forward with solutions rather than sit as foes across the negotiation table. Owner/operators will have to evolve their leasing approach to become more consultative. Leading owner/operators are already taking steps; for example, many are considering sensor technologies or analytics that use badge data to track occupancy and space usage for their tenants.

The most proactive owner/operators are going even further, building (or partnering with digital companies to build) tools that directly address their tenants' needs for physical space—for example, understanding desk and conference-room usage patterns. Their aim is to deliver compelling value propositions that go beyond a mere "four walls" to solutions that create convenient experiences, measure in-space factors, and generate insights about what happens within those spaces. These owner/operators offer a digitally powered experience within a set of walls, fundamentally transforming the tenant relationship and the factors that drive leasing and renewal decisions.

Make the workplace magical

Occupiers will increasingly focus on making the workplace an exciting place to be, recognising that the next-best alternative for most employees—their homes—has turned out to be better than they had imagined. Workers need a reason to get up, get dressed, and commute. Space should be purpose-built for hybrid work. A food-and-beverage ecosystem of restaurants, lounges, cafeterias, pantries, all digitally accessible, has to emerge. The experience of the workday will become more digital: ordering food and concierge services, showing that you've complied with a building's health and safety protocols, booking rooms and workspaces, and so on will need to be as easy as a tap on a smartphone. But the need for a digital experience is about more than just apps that help owner/operators communicate with users of space; it's about services and experiences contextually embedded within the workplace through the digital layer of office buildings.

Cube farms have to go. The traditional allocation of 70 percent of space to desks and offices needs to be fundamentally challenged. People are going to return to the workplace only if the space is safe, comfortable, easy to navigate, invites collaboration, and offers a “wow” factor. Smart conference spaces, collaboration areas, and lounges (among other models) that inspire the collision of ideas and creativity will come to define the floor plate, depending on the nature of work taking place. Leading owner/operators are providing their tenants with the means to generate this magic.

Expand flexibility

The new leasing models of recent years were just a start—flexibility will expand even more. On lease structures, owner/operators could begin to experiment with innovations as retailers have. When lessors help a hybrid workforce adapt to new ways of working, they will want greater variability both in the amount and type of space they rent and in the timing of their requirements in a given week or month. As organisations experiment with new models and rediscover their corporate identities after the pandemic, they will seek space that can expand, contract, and evolve with their new image. Niche work models once associated solely with coworking players will probably become more common and will come directly from owner/operators as they take on collaborative postures with their tenants.

Emphasise tenant selection

Not all commercial office tenants are created equal. Owner/operators will need to think about the mix of tenants and the importance of physical space to their business models and ways of working. Owner/operators that can thoughtfully lease space with these considerations in mind will ensure a “stickier” set of leases to support their business in coming years. Industries, job types, and companies are adapting to hybrid work in different ways. To ensure long-term performance and sustained occupancy levels, it will be vital to take the pulse of tenants to learn what they are thinking and what their people are doing in the office (such as collaborative tasks that require in-person work or sales calls that could be done from home). Just as mixed-use spaces can help hedge the risk of real-estate assets, mixed tenant types provide owner/operators with a hedge for long-term occupancy trends.

Reimagine operations

During the lockdowns at the height of the pandemic, owners and operators had to evolve new ways of working to service their buildings. From leasing to property management to the tenant experience, the way companies operate day-to-day can become hybrid with the right kind of digitisation. Owners and operators must both adapt to and embrace these new models of operations if they are to improve the tenant experience, gain cost advantages, and strengthen the efficiency and experience of their own people. For example, perhaps some property-management services could be delivered by technology to several buildings rather than by staff in an individual building. Leading players are using this moment to test and install new technologies that optimise operations, from energy usage to predictive staffing and maintenance. Many tenants are still not back in the office, so owner/operators are piloting new configurations of their teams and new technologies. Findings from these experiments will prove invaluable and put these owner/operators a step ahead of their peers in the coming months.



Construction steel news headlines

construction market and regulations

Approximately €7 billion is to be made available for European transport infrastructure projects by the European Union. Launched under the Connecting Europe Facility, the majority of projects funded under this will help to increase the sustainability of the overall transport network in the EU. This will help the EU to meet the European Green Deal objective of cutting transport emissions by 90% by 2050. Of the funding, €5.1 billion will be for infrastructure projects on the Trans-European Transport Network. [Link](#)

The UK Government has published its National Infrastructure and Construction Pipeline document for 2021, setting out a plan for £650 billion of investment in infrastructure projects, over the next 10 years. The largest share of the investment has been earmarked for the transport sector, which will receive some €82 billion between now and 2025, with energy projects potentially accounting for more than €60 billion over the same period. [Link](#)

Construction technology firm Autodesk has released a new study on the prevalence of data usage in construction and the losses that result from data errors. It shows that in 2020, bad data may have caused \$1.8 trillion in losses worldwide and may be responsible for 14% of avoidable rework, which amounts to \$88 billion in costs. [Link](#)

In its ongoing campaign to modernise the country's construction sector, the government of Singapore will

offer up to 80% funding for construction companies who adopt robotics and other technologies to reduce dependency on low-skilled migrant labour. The joint initiative of the Building and Construction Authority and Infocomm Media Development Authority aims to boost productivity by automating labour-intensive tasks like painting, drilling and carrying materials on-site. [Link](#)

Metal consumers in China, including the construction firms, are readying themselves to face potential supply shocks after power curbs and shortages forced several smelters to cut production in recent weeks. Output curbs tied to emissions caps over the winter are nothing new to China's steel and aluminium makers. This year, though, power constraints dragged on through summer because of low coal supplies and strong demand, leading to forced shutdowns of energy-intensive operations and worries about sufficient heating as cooler weather approaches. [Link](#)

Housing sales across the top 7 cities in India surged 113% y-o-y in Q3 2021 – from approx. 29,520 units in Q3 2020 to nearly 62,800 units in Q3 2021. Significantly improved job security and robust hiring in the IT/ITeS and financial sectors as well as record-low home loan rates and growing homeownership sentiment are the main reasons for the increase. [Link](#)

New construction contractor awards in the UAE are estimated to be worth \$24.7 billion in 2021, as the Gulf

country paves the way for a post-Covid rebound on the back of increased government expenditure and a fresh injection of foreign investment. Real estate sector holds the lion's share of new contractor awards in 2021, valued at \$12.6 billion, followed by the oil and gas sector (\$8.4 billion); power & water construction projects (\$2.2 billion). [Link](#)

According to a survey run in the US by the con tech company OpenSpace, 80% of construction companies said that they are just as productive or more productive when employees work remotely. Additionally, 52% of respondents said their field teams had never worked remotely but now, 92% say that they will allow occasional or frequent remote work. [Link](#)

Building materials & construction technologies

Building material company LafargeHolcim and subsidiary waste-management service company Geocycle are partnering with the U.S. Army Corps of Engineers to study the potential use of construction and demolition materials for energy renewal and mineral recycling, according to a press release. The research will focus on turning waste and raw debris into alternative construction materials and fuel supplies. [Link](#)

HeidelbergCement, the second-largest cement maker in the world, has announced it has acquired a 45% stake in US-based construction software firm Command Alkon, a provider of software and technology used to manage supply chains and construction materials. The partnership aims to advance digital

transformation within the heavy building materials supply chain sector. [Link](#)

Austin-based construction technology company ICON, in partnership with the Texas Military Department, has constructed a 3,800-square-foot barracks on a Texas military base. The company claims it is the largest 3D-printed structure in North America. The barracks was constructed using an in-house ICON technology known as the Vulcan construction system. [Link](#)

US-based technology company Hexagon has announced that it is now offering ultra-high-resolution 2D and 3D digital twins of major cities as an off-the-shelf product through the HxGN Content Program. the 3D digital twins will enable city administrations and infrastructure providers to manage and monitor critical assets, assess and model risks, and support the visualisation of new infrastructure projects with the goal to create smarter, more sustainable cities. [Link](#)

A UK cement kiln has successfully been operated using a net zero fuel as part of a world first demonstration using hydrogen technology. Led by the Mineral Products Association, Hanson UK and made possible by Department for Business, Energy and Industrial Strategy funding, the trial used a mix of 100% net zero fuels including hydrogen for commercial scale cement manufacture for the very first time. [Link](#)

construction sector players

The hugely indebted Chinese property giant Evergrande has missed interest payments to overseas investors for the second time at the end of September. Once China's top-selling developer, the company

is now facing debts of more than \$300bn. Beijing is unlikely to intervene directly to resolve Evergrande's crisis in the form of a bailout, but analysts say it is wary of a messy collapse that could fuel unrest. [Link](#)

Dutch construction company BAM has agreed the sale of its German building company BAM Deutschland to Zech Group and Gustav Zech Foundation. The company plans to focus on growth markets where it has "scale and competitive advantage" – this means the Netherlands, the UK and Ireland, but not Germany. [Link](#) In the meantime, Swiss construction company Implenia intends to sell its building construction business in Austria, to Zech Bau Austria, a subsidiary of Zech Group, in order to focus on its defined core portfolio in accordance with its strategy. [Link](#)

Global building solutions company Holcim has signed an agreement with CSN (Companhia Siderúrgica Nacional) for the divestment of its business in Brazil for an enterprise value of US\$1.025 billion. This deal includes Holcim's five integrated cement plants, four grinding stations, six aggregates sites and 19 ready-mix concrete facilities. Holcim has said that it will use the proceeds to invest in its Solutions & Products business, building on the Firestone acquisition. [Link](#)

Swedish construction company Skanska has announced a significant ramping up of its carbon emissions target, with its sights now set on a 70% reduction by 2030. The Swedish construction giant previously set a goal of a 50% reduction, measured against its own 2015 levels. [Link](#) In the meantime, Dutch consulting engineer Arcadis has announced plans to reach net zero greenhouse gas emissions across its global operations by 2035. To meet the

target, Arcadis has introduced a range of goals, including plans to counterbalance 100% of emissions through "high quality offsets" and the use of renewable electricity at all its sites before 2022. [Link](#)

Indian construction conglomerate Larsen & Toubro plans to double its US\$21 billion revenue in the next 5 years, benefitting from government infrastructure spend as well as the pick up in the private sector. International ordering outlook remains strong which currently contributes 20% of the total order book for the company. Middle East has been one of its key growth regions constituting almost 61 per cent of the international order book worth \$9.3 billion. [Link](#)

UK-based building materials supplier SIG said its annual earnings would top expectations but joined other British companies in warning that severe supply constraints will likely persist for several months. SIG, which sells roofing and insulation materials in Britain and a handful of European countries, said trading was "solid" during July-August despite the supply disruptions, which are being worsened by a shortage of truck drivers. [Link](#)

French construction and concessions giant Vinci, along with two other Paris-headquartered companies – gas technology firm Air Liquide and energy firm TotalEnergies – has launched a huge investment fund, dedicated to the development of clean hydrogen infrastructure solutions. With major businesses in Europe, the Americas and Asia participating, the alliance says it plans to build a fund totalling €1.5 billion, which will be invested across the value chain of renewable and low carbon hydrogen. [Link](#)

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