

# constructsteel

Monthly update for the construction industry

February 2021



constructsteel

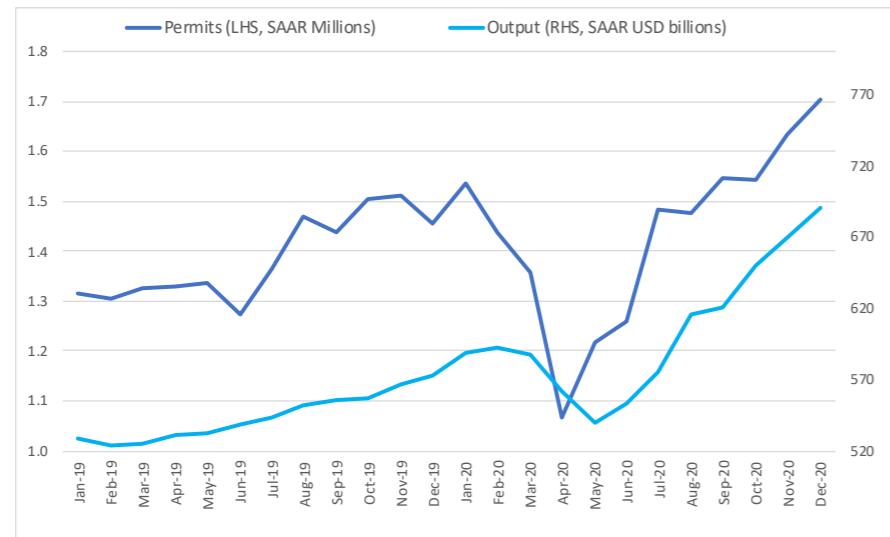
## Construction market trends

**United States** Divergence along residential vs non-residential lines continues with the former seeing strong growth while the latter remains pressured.

Private residential construction jumped 20% y-o-y in December and following months of strong growth; building permits increased 17% y-o-y. The decline in private non-residential construction continued for the ninth straight month in December and by -10% y-o-y. The Architecture Billings Index (ABI) points to weak activity at least until the first half of 2021, with the index standing at 42.6 in December (< 50 = contraction)

Private residential output vs private permits

Source: McKinsey & Company

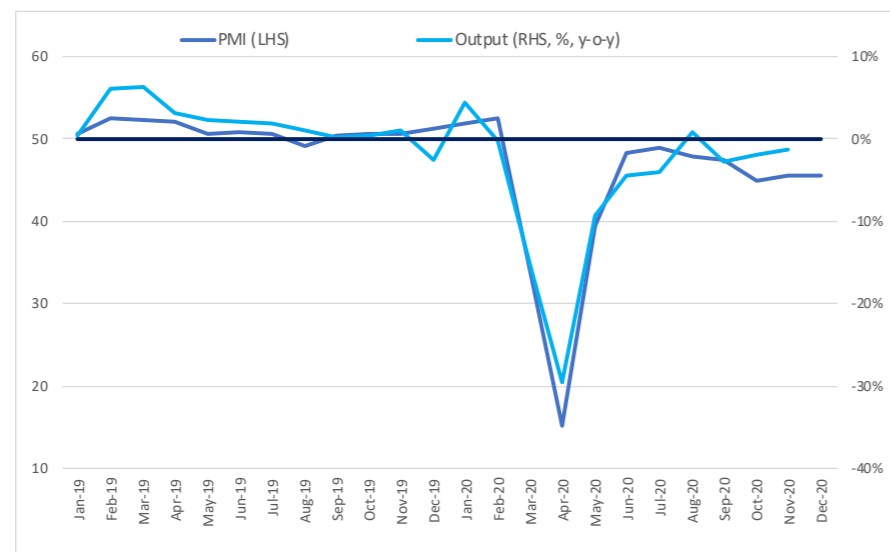


**Europe** Eurozone construction activity weak and particularly in the private non-residential sector. Leading indicators point to continued weak conditions into H1 2021.

The contraction in Eurozone construction activity continued in November and by -1% y-o-y. Prospects into H1 2021 weak with the PMI standing at 45.5 in December (<50 = contraction)

Eurozone construction output vs PMI

Source: McKinsey & Company

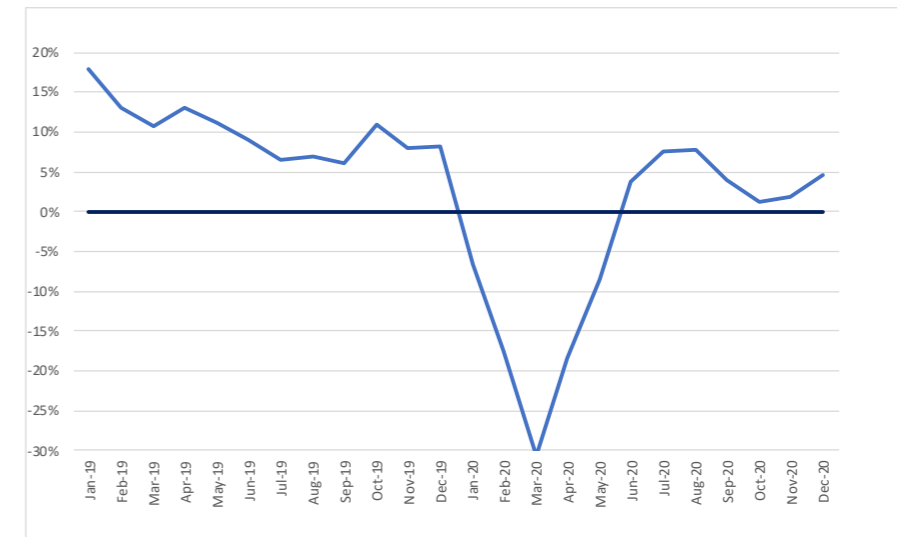


**China** Chinese economy records positive growth in 2020; construction activity to support economy during H1 2021.

Newly started y-o-y growth in Q4 2020 floor space up 4.7% in December (Q3 2020: 3.9%). Floor space sold up 12.7% during the same period (Q3 2020: 9.8%). Railway and civil aviation investment saw declines in output in 2020 while road transportation investment up 1.8%.

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

Source: McKinsey & Company

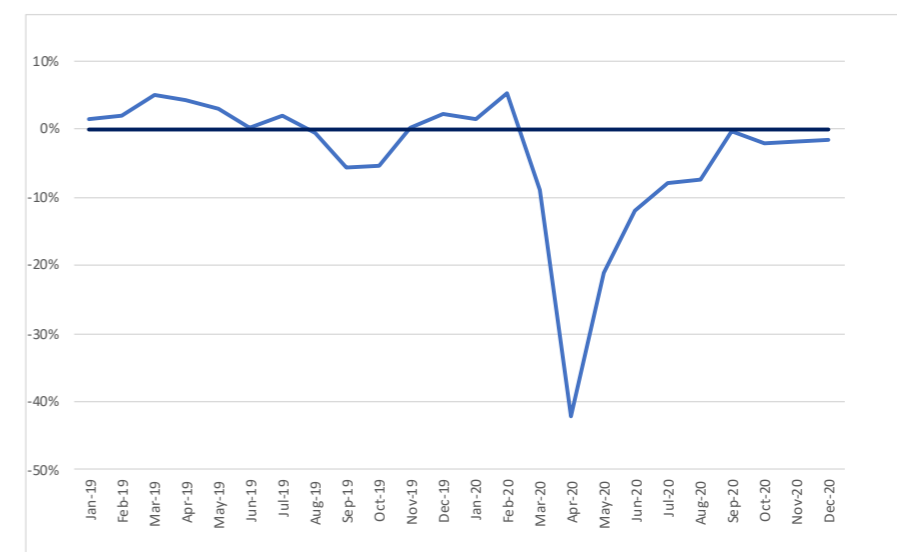


**India** Activity generally weak but pickup foreseen beginning H2 2021

The weighted average of eight core industries output declined -1.3% y-o-y in December and for the third straight month. The decline in the core index was due to falls in crude output, natural gas, refinery products, steel and cement.

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

Source: Ministry of Commerce & Industry, India





## Special topic: How can a global construction programme such as constructsteel make a difference at the country level?

**Tabitha Stine,**  
Vice-Chairwoman, constructsteel,  
Director of Construction Solutions Services, Nucor



Hello, my name is Tabitha Stine. I am the Vice Chairwoman of constructsteel. I am based in Chicago, IL, USA, and lead a new direction for Nucor as we dive into the world of developing construction solutions here in North America as an early involvement partner with our customers and the specifying community. Construction feeds over fifty percent of all the products that Nucor produces, so it's important that we are positioned to not just get the order but ensure that steel isn't precluded as a viable option at the "napkin-sketch" phase of the project. In today's market, whether an owner is building a high-rise residential project or a warehouse or data center, material choices and innovation to accelerate project timetables are paramount. Ensuring there are market growth opportunities for steel to participate can only be achieved if we all take an active role in leading the charge for more research and development and shared knowledge to replicate success in our regional and country-specific markets. Many pockets of the world are trying concepts that have been broadly accepted into practice in other areas. It's important that we look for ways to combine efforts and develop shared knowledge that we all can benefit from — while tracking emerging trends that when aligned, we can tackle strategically together.

It's important to appreciate that in today's world of globalization, many key decision makers for commercial development, architecture, and engineering take on an international footprint. These influencers are managing a global portfolio of project needs, priorities and challenges. Many of the projects vary by local building code constraints, unique loading challenges or the specialized supply chain of materials in that portion of the world. Utilizing the platform of constructsteel, we can help solve those challenges and develop tools and solutions at hand for consistent issues we all face worldwide, such as sustainability, interfacing with other materials thru composite construction and emerging trends. These are low-hanging fruit opportunities that can be approached from a global perspective, but then catered for the appropriate regional needs or experience.

Let's take for example, timber construction. There is a train coming down the tracks that tells a powerful message that the owners and construction specifiers of the world are listening to for this bio-based product. If we compare the stories of steel and timber together, there are many areas where timber falls short and steel can participate and gain substantial tonnage intensity. Strength for long spans, embodied carbon when considering end of life, local availability and skilled trades, and proven connections for fire ratings — just to name a few — are areas that when approached holistically, solutions can be explored and developed for a composite steel and timber solution. Remember the mention of those global companies who are holding the purse strings for the projects around the world? They are looking for continued innovation and improvement of ideas, that can then be translated to country-specific applications as a downstream effort.

We at Nucor are proud to part of this initiative. While we all have different challenges and drivers locally, we work in a global world. We look forward to the efforts that constructsteel can spearhead and develop globally that can then be applied to our local challenges as they impact local issues such as labor force, building codes, and standards of mill production and fabrication practices.





## Technical trends:

### Sustainable construction and the role of lightweight and flexible solutions

#### *What recent trends do you see when it comes to sustainability in construction and what are the driving forces behind them?*

There are three main trends in the construction sector globally. The first one is around energy and carbon; the second is around resources and circularity; and the third one is around health and wellbeing. They are all clearly developing worldwide, but with different pace and intensity. Civil society movements are driving energy and carbon, but impetus also comes from the financial community and investors, who have clearly realized that the lack of carbon mitigation poses a risk to investments. This has resulted in an accelerated pressure on corporations to deliver more in terms of low-carbon solutions. As a result, many companies have released targets for CO<sub>2</sub> reduction and commitments to carbon neutrality.

Circularity is a very hot topic in Europe, but less so in Asia-Pacific and other geographies, despite the scarcity of natural resources (including water, sand, and so on) that many regions are starting to face. It is clear that climate change has an impact on biodiversity and thus on valuable resources, but I don't think that people have yet made the links between those different topics. Clearly, there is not so much mobilization globally on circularity and the circular economy as there is around carbon. Still, things start to move, but as I said, mainly in Europe. I guess it will move a lot more in the coming years because of the regulations. We see that policymakers at the EU level, but also in many member states, show real concern for the topic of resource availability and thus feel motivated to switch to a more circular economy.

Clearly, COVID-19 has had a big impact. People have realized with the COVID-19 pandemic that nature has an impact on us, on people, on our health. So, preserving the planet is a priority if we want to protect humankind. Among the priorities for the planet, clearly, mitigating climate change is very high on the agenda.

Also, we see growing concern and expectations for health and wellbeing: it is not just a matter of being comfortable; it is also about our physical and mental health. COVID-19 has only accelerated this after months of being confined in apartments lacking a proper indoor environment: good indoor air quality, daylight, acoustics, and so on.

#### **Pascal Eveillard,** Director for Sustainable Business Development, Saint-Gobain



#### *What changes do you see in end-user demand across the construction value chain?*

The building sector is very special because it has a very complex value chain that also includes players and decision makers with very diverse levels of education and maturity. Looking at trends, we clearly see a high level of maturity upstream, at the level of investors and large contractors, which, for example, have developed sustainability strategies and released ambitious targets.

When it comes to SMEs (small contractors, craftsmen, distributors) sustainability topics are often far away from their top priorities. Often it is a matter of education and being knowledgeable about new building technologies as well as their benefits, but it is also a matter of being used to working in a certain way. There is often not much innovation and desire to do things differently, but this is changing now due to pressure from the end consumer.

This population of end-users is not a homogeneous one. There are people who care a lot about the environment; they are very much willing to avoid buying products containing hazardous chemicals and substances and to opt for biobased products, for example. They typically would turn to professionals who are already installing these kinds of claimed sustainable products. Then you have the opposite: the end-users for whom price becomes the top priority, along with comfort.

And then in the middle, you have quite a large group of customers who take account of the different options: they may start to pay more and more attention to ecological and health aspects, but price is still a key decision-making criterion when selecting a product. If it's not too expensive, they will make the switch. If it's too expensive, they will stick to traditional solutions. This is quite a large group of customers, and this is probably the most interesting one for materials manufacturers because this is a group you can educate and bring information to in order to help them make a reasonable choice for more sustainable solutions.

Distributors used to be the followers; at least when looking at professional distributors. But this is also starting to change as they are realising they have a role to play in educating and training the small-scale contractors and that sustainability is more and more becoming a growth and a differentiation driver.

DIYs, or the distribution for the more general public, are slightly more advanced. Most of these big chains have started to develop a more ambitious approach to sustainability. While this might not always be based on a sound scientific approach, they clearly show their willingness to move forward.

Such a diverse population of stakeholders and their level of maturity poses challenges to materials manufacturers and steel companies, but also creates opportunities to educate, train, and through that, raise the level of maturity across the value chain. We should consider this our responsibility, as a sustainable built environment will not happen unless large stakeholders play an active role in the transformation.



## What are some interesting examples of innovations you see in the area of sustainability?

When it comes to product innovation, there is definitely a common interest that we have with the steel industry. We believe that, in order to meet the expectations in terms of carbon on the one hand and circularity on the other, there is a need to switch to new kinds of construction components and systems.

We need to move towards modular construction, light-weight and flexible construction systems that will be easy to dismantle at the end of life, reuse, or recycle — but also systems that will give flexibility over the lifetime of the building. Today it's still difficult to change the use of a building (for example, from an office to a residential building) but lightweight systems, which typically combine metal and plasterboard, are flexible enough to allow for such a redesign of space in a building. I very much believe that, together with the steel industry, we have this common interest of moving forward and promoting lightweight construction systems.

I think it is interesting to see how new business models are developing in the sector. For example, the reuse model (reuse of construction products) is something that is more and more being asked for on the market. You see various initiatives and examples of construction sites where a building has been deconstructed and a proportion of the materials has been reused in the new build. Probably in terms of new business models, this is one that will accelerate quite a lot in the near future.

Also, I'm quite convinced that product as a service — expanding from offering products to offering services — will develop, but it is not an easy one for many companies as it requires diversification and also the mental shift and cultural change in the organization.

What I would also see happening is the development of intermediation and platforms: some kind of “Uberization” of the construction sector, which is normal for an industry characterized by low productivity levels and high levels of dissatisfaction. The idea behind this would be to make sure that a customer is not left alone in the complex market but receives objective and reliable advice from a trusted partner on the best products, technical solutions, industry players, as well as financing options for every distinct construction project. This is for instance what Saint-Gobain has started to do in France with “la maison Saint-Gobain”, an intermediation platform that help people to renovate their homes.

## How can collaboration among players in the building-materials sector support the provision of sustainable solutions to the market?

As for collaboration, I think first of all, we will move more and more from a product to a system approach. A company may not have all the products to build a system within its own organization, so there will be a need to partner and to co-develop with complementary players in order to expand the portfolio and create more efficient systems in terms of performance and sustainability. Then I think there is collaboration in terms of setting the trend: that is, showing the markets what are the available solutions and best-in-class practices. At Saint-Gobain, for example, we are used to saying that you have a push and a pull effect on the market.

The pull effect comes through advocacy with coalitions of trendsetters, and a push effect through regulation; together they help the market move to better standards and practices. The pull comes only from voluntary initiatives of different kinds of stakeholders: it can be a nudge by one player

for a new innovative product, or it can also be a broader coalition of stakeholders advocating and demonstrating the technical and economic feasibility of a sustainable solution that has not yet been taken up by a broader market. For example, at Saint-Gobain, we firmly believe in those coalitions and associations: for instance, we are very much engaged with the World Green Building Council movement. Given how diverse and fragmented the construction value chain is, the transformation will not happen unless different stakeholders embark on working, thinking, and acting together. As for the push effect which comes through policy and regulation, there is also room for collaboration. Lobbying is a necessary activity, but you have even more credibility to lobby for something if you are not just coming as a standalone company. Once you collaborate and create a broad coalition of stakeholders, you are no longer defending a single set of interests only; you are bringing relevant industry ideas and defending something that comes closer to the general interest.

I would say the bulk of coalitions are very much centered on energy efficiency in the built environment, but I'm sure that these coalitions will expand their scope towards carbon as a logical next step. And I'm sure that we will see also coalitions push for more circularity, especially in the coming months as the European Commission will have several developments in the area of circularity in the building sector.





## Construction steel news headlines

### construction market and regulations

US President Joe Biden has unveiled numerous policies that will impact the construction sector in the US. One of his first actions was to revoke the presidential permit granted to the Keystone XL pipeline. The President has also terminated the national emergency declaration cited by the Trump administration to divert money to the building of the wall at the US-Mexico border and stopped all wall construction projects. [Link](#). Joe Biden also signed an executive order aimed at increasing government purchases of American-made products, a move that could affect construction firms that do business with the federal government. Most notably for contractors, Biden indicated the Buy American policies will apply to his massive plans for infrastructure and new energy projects. [Link](#)

State of New York plans to spend \$306 billion on infrastructure to help revive the state's economy. Governor Cuomo announced plans that includes a US\$51 billion plan to redevelop Manhattan's Midtown West neighbourhood. The state's airports, railways and roads will receive considerable investment, with US\$16 billion to be spent on a renewal and expansion of Penn Station to add 40% more train capacity. The state will continue with its US\$8 billion refurbishment of LaGuardia Airport and on the US\$13 billion refurb of JFK Airport. [Link](#)

UK construction industry associations have described their relief, following the UK-EU trade agreement reached by the

European Commission's president Ursula von der Leyen and UK prime minister Boris Johnson. National Federation of Builders said that the agreement would "enable construction companies to continue to reliably forecast the cost and availability of products and materials imported from the EU or comprising components made in the EU. [Link](#)

The number of completions of buildings 200m and taller declined 20% in 2020 compared to 2019 with the impact of the Covid-19 pandemic being cited as a major reason, according to the latest report from the Council on Tall Buildings and Urban Habitat. In total, 106 buildings of 200m or above were completed in 2020 compared to 2019's 133. [Link](#)

Danish energy group Ørsted has been given permission by the UK government to develop a third offshore wind farm as part of the Hornsea project, off the east coast of England. The proposal for the new offshore wind farm – set to be the largest of its type in the world – includes 300 wind turbine generators, each with a rotor diameter of up to 265m and an overall height of 325m. [Link](#)

India's annual budget has given a boost to the country's construction industry, with overall infrastructure spending set to increase by over 30% and the establishment of a new Development Finance Institution. The new institution has a starting capital of approximately US\$2.7 billion and will be used to help fund large-scale infrastructure projects. [Link](#)

Four of China's costliest cities scramble to knock a real estate

bull run off its pace amid fear of risk and bubbling debt. Shanghai, the country's commercial hub, kicked off the market-cooling policies with several policies to limit the amount of money homebuyers can borrow for buying real estate. That was followed within days by Shenzhen, Hangzhou and Guangzhou, some of the biggest and most affluent population centres besides Beijing. [Link](#)

### construction materials

First carbon neutral roadworks has been completed in UK by the Contracting Services division of Aggregates Industries (AI). AI removed the top 32cm of the existing pavement surface and used it to produce an ex situ cold recycled asphalt. This was then mixed with the company's SuperLow asphalt to make a carbon neutral paving surface. [Link](#)

New bio-mimicking research set to enhance 3D printing possibilities in large-scale construction – researchers in Australia have taken inspiration from the shell patterning on lobsters to enhance the strength of 3D-printed concrete. By using a twisting pattern, similar to the internal structure of a lobster's shell, combined with a special concrete mix enhanced with steel fibres, the resultant 3D-printed structures were stronger, more efficient and more sustainable than traditionally produced concrete. [Link](#)

The rise in prices of steel has hit the Indian construction industry hard. Though the prices are going up constantly in recent

years, the period from June to December has seen sharp increase – the price has gone up by ₹22,000 in 6 months and almost doubled in a year. [Link](#) Construction sector has also been facing a shortage of long steel products, such as rods, bars and wire as many SMEs struggle to emerge from the effects of the pandemic on labour and capital as well as sky-high iron-ore prices. [Link](#)

The UK's government's 'Construction Playbook' will be a 'game changer' which creates an 'open digital marketplace for building parts'. The Construction Playbook is expected to be similar to the existing Outsourcing Playbook, and will provide guidance on planning, evaluation, contract selection and implementation. [Link](#)

A new global initiative called SteelZero, created by The Climate Group in partnership with ResponsibleSteel, brings together the top steel buyers across the globe — including construction companies, real estate groups and property developers — and challenges them to commit to procuring 100 percent net-zero emissions steel by 2050. [Link](#)

### construction sector players

Fluor has announced that it will be selling maintenance services division, Stork (a major business with revenues of more than US\$2 billion), and that from the first quarter of 2021, it will conduct its operations in three business segments: Energy Solutions, Urban Solutions and Mission Solutions. [Link](#). The company also expects that by 2023 70% of its revenue will be coming from non-traditional oil and gas projects – chemicals, mining and life sciences as well as energy transition projects that focus on a shift from fossil-based production and consumption. [Link](#)

Investment firm CVC Capital Partners is to acquire Stark Group, a distributor of heavy building materials in northern Europe. CVC expects the purchase of Stark to be completed by the second quarter of 2021, but has not disclosed financial details of its agreement to buy the Denmark-based firm. [Link](#)

LafargeHolcim has signed an agreement to acquire commercial roofing and building envelope solutions company Firestone Building Products (FSBP) for US\$3.4 billion. FSBP is based in the US and in 2020 had net sales of approximately US\$1.8 billion. LafargeHolcim says that the purchase will strengthen its position in the US and that it expects FSBP to continue to grow and reach US\$6 billion in annual net sales. In the future the company aims to globalise the business, leveraging its European and Latin American footprint. [Link](#)

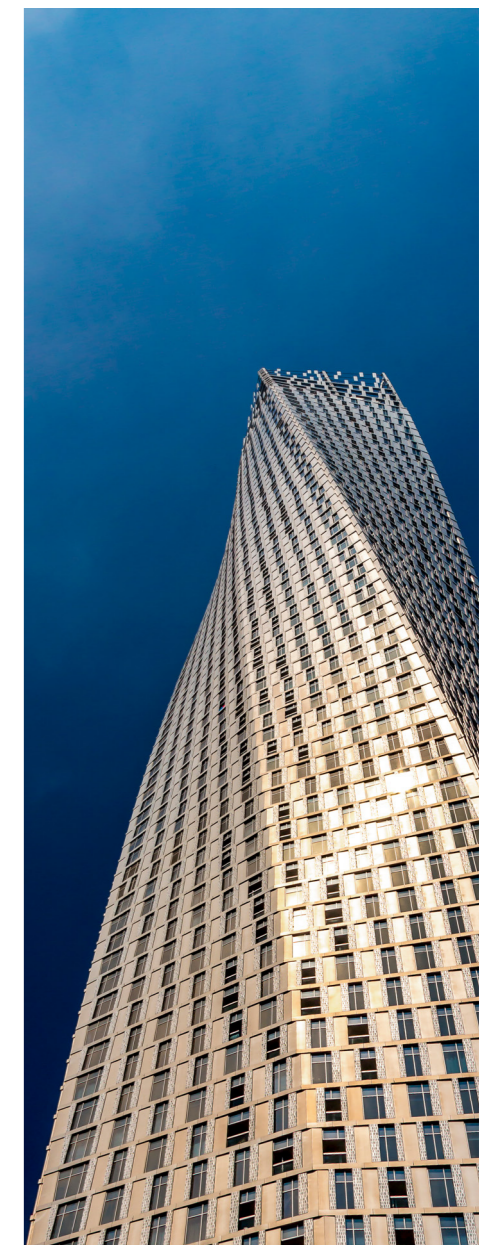
Caterpillar has published its full year financial results, which show its 2020 sales and revenues figure of US\$41.7 billion was down 22% on 2019's \$53.8 billion. The company said the lower sales were a result of lower end-user demand and the impact from changes in dealer inventories. [Link](#)

Hilti has reported a 9.6% fall in 2020 revenues, largely the result of the Covid-19 pandemic, although it said the downturn had been less severe than initially feared. The revenue fall in local currencies was 4.3%. The company, best known for its power tools and other specialist equipment, said it expected a moderate recovery in 2021, although dependent on the progress of the pandemic. [Link](#)

Dubai-based construction major Arabtec has officially filed for an insolvent liquidation following a net loss of \$216m for the first

six months of the year. Arabtec was valued at about \$8.17 billion at its peak in 2014 and is now worth \$216.5 million, with the stock down 60 percent this year alone. [Link](#)

Two major European contractors, U.K.-based Balfour Beatty and Lendlease Europe, announced this week plans to reduce carbon emissions on their construction projects. Balfour Beatty said it has developed technology to manage power usage on its jobsites and reduce carbon emissions across its construction sites by up to 80%. Lendlease Europe released its "Roadmap to Absolute Zero Carbon," a 20-year plan to reduce emissions on construction projects. [Link](#)



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