



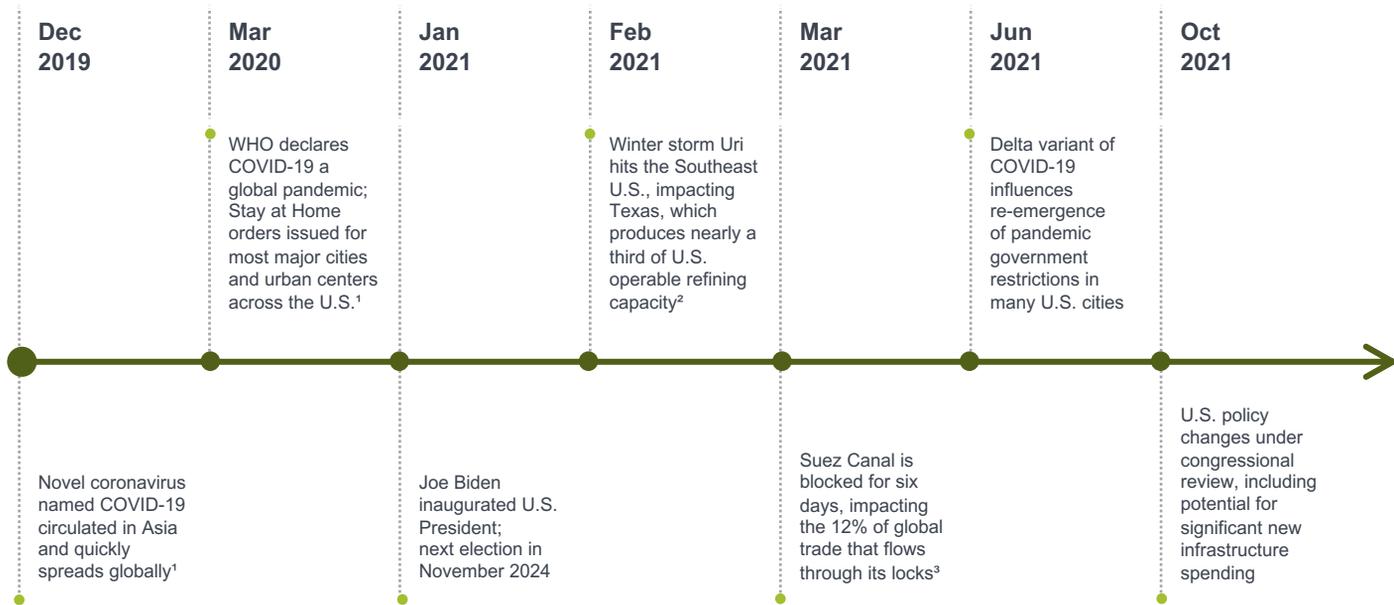
CRE Forecast
SUPPLY CHAIN DISRUPTIONS

October 2021



IMPACTS FROM RECENT WORLD EVENTS ARE PROVING MORE THAN TEMPORARY

Over the past 18 months, U.S. domestic and global events disrupted nearly all aspects of corporate real estate planning and execution. What began in March 2020 with a pandemic response resulting in temporary halts to construction and planning has evolved through world events into a permanent shift impacting the ways CRE organizations view budgets, schedules, priorities, and the role of the workplace itself.



DISRUPTION SLICES THROUGH ALL PARTS OF OUR INDUSTRY

The cause and effect of global and U.S. domestic events have resulted in shifts that are forecasted to remain constant for at least the next 12 to 18 months.

Micro Effects (Trees)

What Just Happened

Consumer demand shifted, creating an imbalance across markets, goods, and services

Service provisions and production of goods shifted to embrace new demands, perpetuating the imbalance

Climate and transportation events slowed or halted production and delivery of raw goods across industries

Labor dynamics — including worker pay, employment opportunities, and preferences — spurred shifts in work

What Will Happen

Temporary changes to working styles will become permanent via hybrid work, enabling more choice in location for most employees

The costs of goods will stay high, driven by increased shipping costs, full or slowed distribution channels, and material scarcity

Real estate initiatives will consider using less, due to cost, but also Environmental, Social and Governance (ESG) factors

Labor costs will continue to increase; U.S. government policies and COVID-19 employment hesitancy coincide

Macro Effects (Forest)

Threat of virus precipitated global government measures intended to limit COVID's spread

Government measures forced many workers fully remote, impacting demand and production of goods and services

U.S. government labor and environmental policies shifted with inauguration of new U.S. administration

Significant weather events and transportation issues further exacerbated supply chain disruptions

COVID pandemic shifts to become an endemic feature in certain populations

Cost of goods remain higher based on normalization of shipping rates, product, and demand

ESG goals are prioritized when considering purchasing

Industries react to shift in employment with adjustments in pay, benefits, and other HR requirements and incentives

Despite strong indicators, lingering supply-side issues and related producer price pressures might take longer to resolve than previously expected.

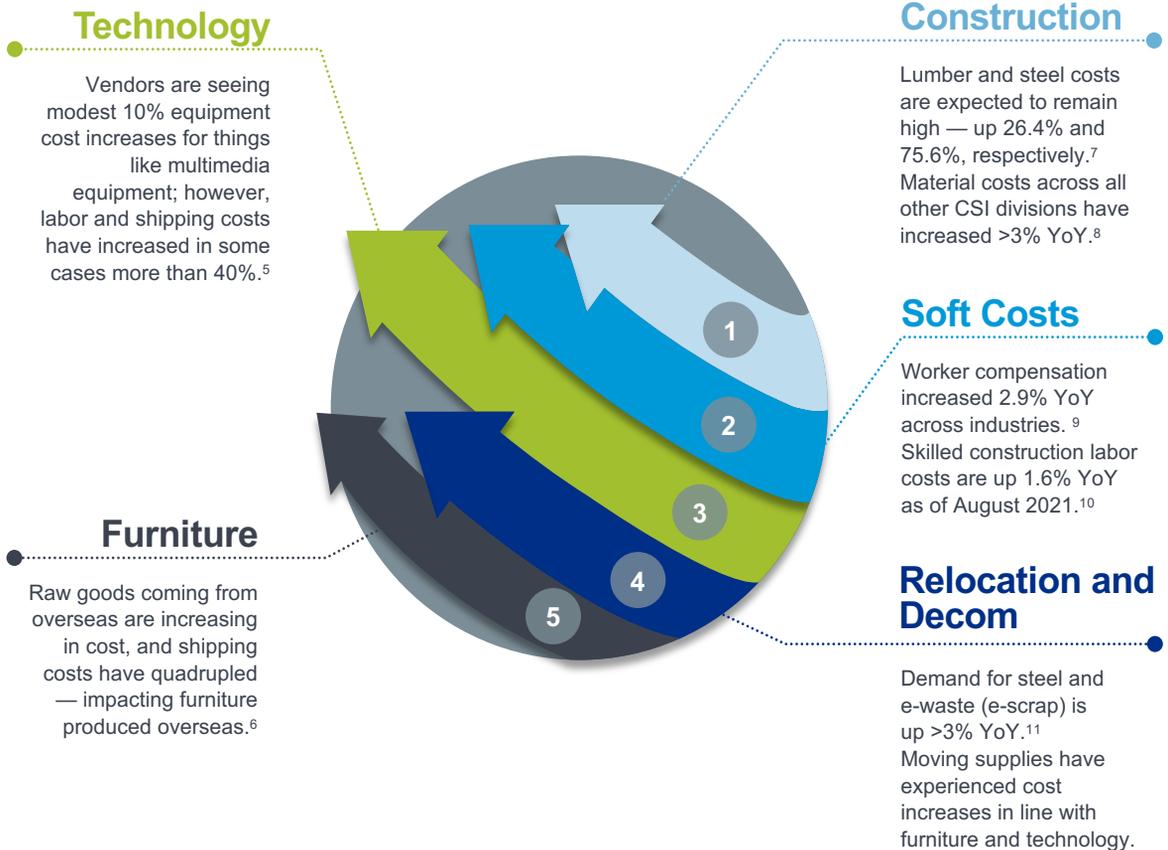
Source: Mateusz Urban at Oxford Economics, paraphrased from Reuters Macro Matters, 9/1/2021

MATERIALS COST MORE

Costs for construction materials and equipment typically specified for corporate office environments have seen marked upticks in pricing. Costs for materials are high due not just to raw material price increases, but also to shipping surcharges that will remain at current levels for the foreseeable future.

Inflation is holding at an average of >2% and according to Jerome Powell, U.S. Fed Chair, "...the bottlenecks and supply chain problems [are] not getting better ... we see that continuing into next year [2022], probably, and holding inflation up longer than we had thought." ⁴

Material Cost Considerations Across CRE Budget Categories



DETAIL SUPPLY CHAIN CONSIDERATIONS

Aligned with evolving costs across all categories of a typical CRE initiative, industry leaders are seeing permanent shifts along many points of the supply chain. Items like foam — used in upholstered seating including collaborative lounge furniture — have become scarce due to not only U.S. domestic weather events impacting raw goods,^{13, 14} but the re-tooling many factories in China underwent to address shifts in demand while workplace projects were stalled. Elevated shipping costs exacerbated by macroeconomic factors such as labor availability, market demand, and subsequent port backlogs, are expected to remain high for the foreseeable future.



Manufacturers for finishes like carpet have experienced two to three price increases over the past 18 months due to a combination of shipping costs, demand and material costs¹⁵

Backlogs — especially at the Port of Long Beach, but extending to all major U.S. ports — are anticipated to remain for the next 24 months¹²

Raw and finished good production delays coming from China expected to last into 2023; foam shortages expected to last^{13, 23}

LABOR POLICIES AND MARKET CONDITIONS CONTINUE TO DRIVE CHANGE

Two primary components of the labor force directly impact CRE initiatives: labor required to produce and deliver the physical components installed on a project, and labor required to install systems and complete construction on-site, including construction, technology, furniture, specialty equipment and finishes, and relocation and decommissioning activities.

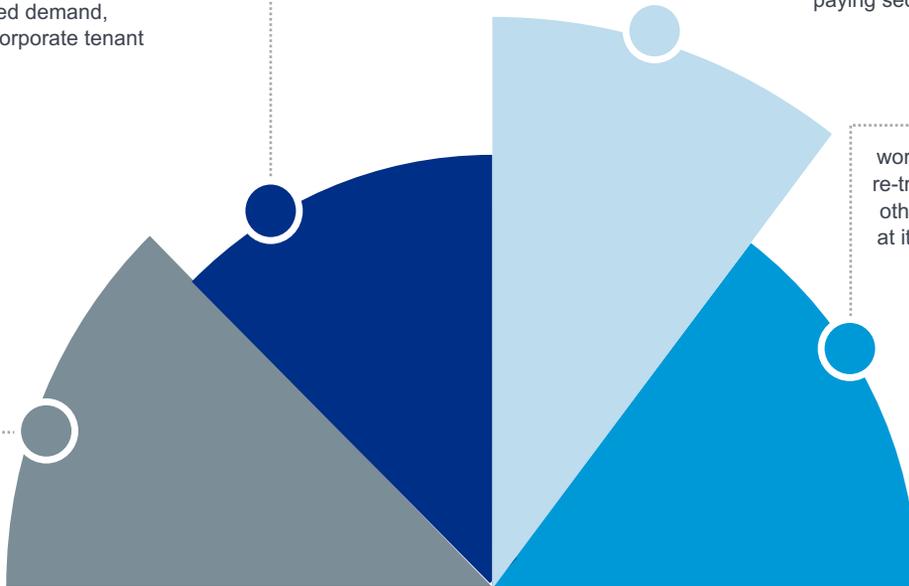
Both sets have seen shifts and pressures unique to the events of the past 18 months.

Through the Supply Chain Disruptions Task Force, the current administration has placed emphasis on buying American, enticing workers to produce goods for key industries and impacting labor availability in current areas of suppressed demand, such as corporate tenant fit-outs¹⁶

Workers needed to transport goods between manufacturers and distributors, and on to job sites, are being enticed by higher wages in other sectors, especially technology and e-commerce, with staff shortages impacting costs and lead times

While a major employer, Commercial Building Construction is not the top paying industry for construction workers¹⁷; Attrition has been heightened by a shift of workers from commercial building construction to other higher paying sectors within the industry

The rate of workers retiring or re-training to enter other industries is at its highest level in decades¹⁸



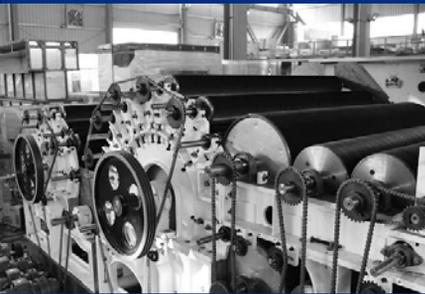
CRE SUPPLY CHAIN CONSIDERATIONS

Supply chains in any industry are increasingly complex. While volatility remains high for the foreseeable future, process improvements across all categories will support cost and lead-time stabilization in the longer term.



Shipping

While backlogs at major U.S. ports will clear, costs for freight will remain high.¹⁹ Absorbing container costs that have more than quadrupled²⁰ will be difficult for manufacturers; they are passing those along to CRE end users. In the case of MSA agreements, some vendors are requesting modifications to contracts.



Manufacturing

Expect increasing costs for foreign sourcing and longer lead times on finished goods.²¹ Multimedia essentials like display mounts for wall-mount screens are taking three to four times longer to receive.⁵ Foam for any upholstered goods continues to be significantly delayed.²³



Installation

Labor costs will continue to rise for CRE initiatives. In categories like technology, vendors have seen labor cost increases of up to 30% for projects regardless of location.⁵ While COVID PPE requirement costs have generally tapered, contracts should be reviewed for force majeure clause and implications in the event of another pandemic response.

OPPORTUNITIES FOR IMPROVEMENT

CRE organizations can take steps now to integrate supply chain and workplace factors into ongoing and future initiatives.

←----- **DESIGN**
Review construction methods and products for efficiency and availability

PLAN -----→
Administer risk mitigation strategy for all initiatives

←----- **IMPLEMENT**
Set aside more time in Procurement:

- Develop strategic procurement plan to address anticipated long-lead items
- Review vendor contracts — COVID is no longer a force majeure event!
- Permits are no longer the critical path — procurement is!

FINAL THOUGHTS

While U.S. domestic and global events over the past 18 months have disrupted nearly all aspects of traditional corporate real estate project supply chains, proper planning can ensure CRE initiatives are positioned to proactively anticipate conditions and navigate uncertainty.

Looking forward, workers across most industries still want access to a workplace that offers the opportunity to collaborate, and organizations still desire physical space to foster a sense of culture and promote brand values. In some sectors, heads-down tasks that require use of unique and specific tools and platforms mean that working in an office never really went away.

With the proper tools and guidance, CRE organizations can stay on top of current and future shifts and ensure initiatives exceed expectations across the stakeholder landscape.

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