

The background features a large, semi-transparent number '2021' in a light orange color. Behind the numbers is a faded image of construction cranes and a building under construction. The overall color scheme is orange and grey.

CONSTRUCTION **SUPER**CONFERENCE **2021**

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Protect Yourself: Strategies to Mitigate the Risk of Material Price Escalation and Material Shortage Delays

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Learning Objectives

By the end of this session, participants will be able to:

1. Describe bidding strategies from both the contractor and owner's perspectives to help mitigate the risk of material price escalation and material shortages.
2. Examine various procurement methods that can be implemented by both the owner and contractors that can mitigate the risk of material price escalation and material shortages.
3. Identify various contract provisions that can be negotiated to mitigate risk of material price escalation and material shortages.
4. Recognize economic and global factors that play a role in causing these price fluctuations and material shortages and how to better predict such events.

Agenda

- Causes of material price escalation
- Examples of material price volatility
- Eliminating or reducing the risk of material price escalation
 - At the time of Bid
 - During the Procurement Phase
 - During the Construction Phase

Causes of Material Price Escalation

- Events that cause the price of materials to increase more than would be otherwise anticipated:
 - New regulations;
 - Taxes;
 - Tariffs and changes in trade policies;
 - Wars;
 - Disasters; or.....

Causes of Material Price Escalation

- GLOBAL PANDEMICS!!!

How Tariffs and Trade Policies can Cause Price Escalations

- March 2018, future tariffs of 25% on Steel and 10% on Aluminum announced.
- This announcement alone led to a 10% rise in steel prices nationwide by March 21, 2018.
 - Resulting price increase due to:
 - Uncertainty surrounding the implementation of the tariffs; and
 - Anticipated cost impacts of the tariffs.

How Tariffs and Trade Policies can Cause Price Escalations

- Tariff implementation remains unsettled as do trade agreements
 - China – Trade war
 - India – Generalized System of Preferences – end favorable treatment
 - Turkey – same
 - U.S. pulled out from Trans-Pacific Partnership
 - Tariffs on Canadian lumber imports

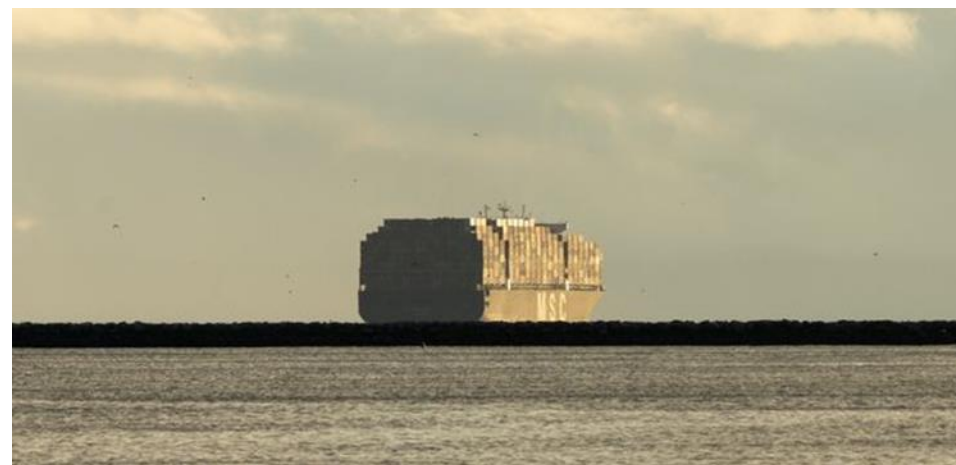
Examples of Recent Disasters Causing Price Escalations

- Wildfires in the West
 - Burned nearly 5 million acres
- Suez Canal Crisis
 - “*Ever Given*” – blocked canal for 6 days
 - 369 ships were queuing to pass through
 - Stopped \$9.6 billion of trade to pass



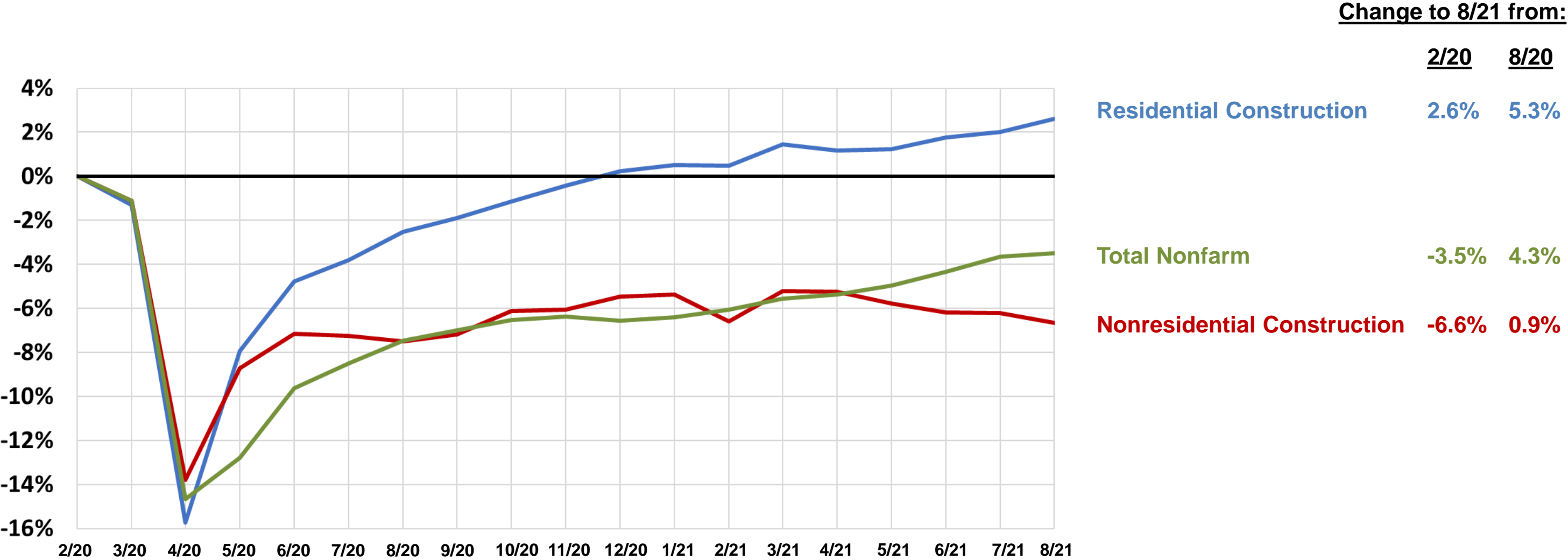
How the Pandemic can Cause Price Escalations

- Some factories that reduced production due to reduced demand in early 2020 are still not running at capacity;
- Ships not allowed in certain ports;
- Cargo handling has slowed as Covid-19 has depleted dockworker ranks;
 - 37 cargo ships from China were anchored off Southern California's coast at the beginning of February



Total Nonfarm & Construction Employment, Feb. 2020 – Aug. 2021

Cumulative Change (seasonally adjusted)



Source: BLS current employment statistics, <https://www.bls.gov/ces/>

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State construction employment change, Feb. 2020 – Aug. 2021

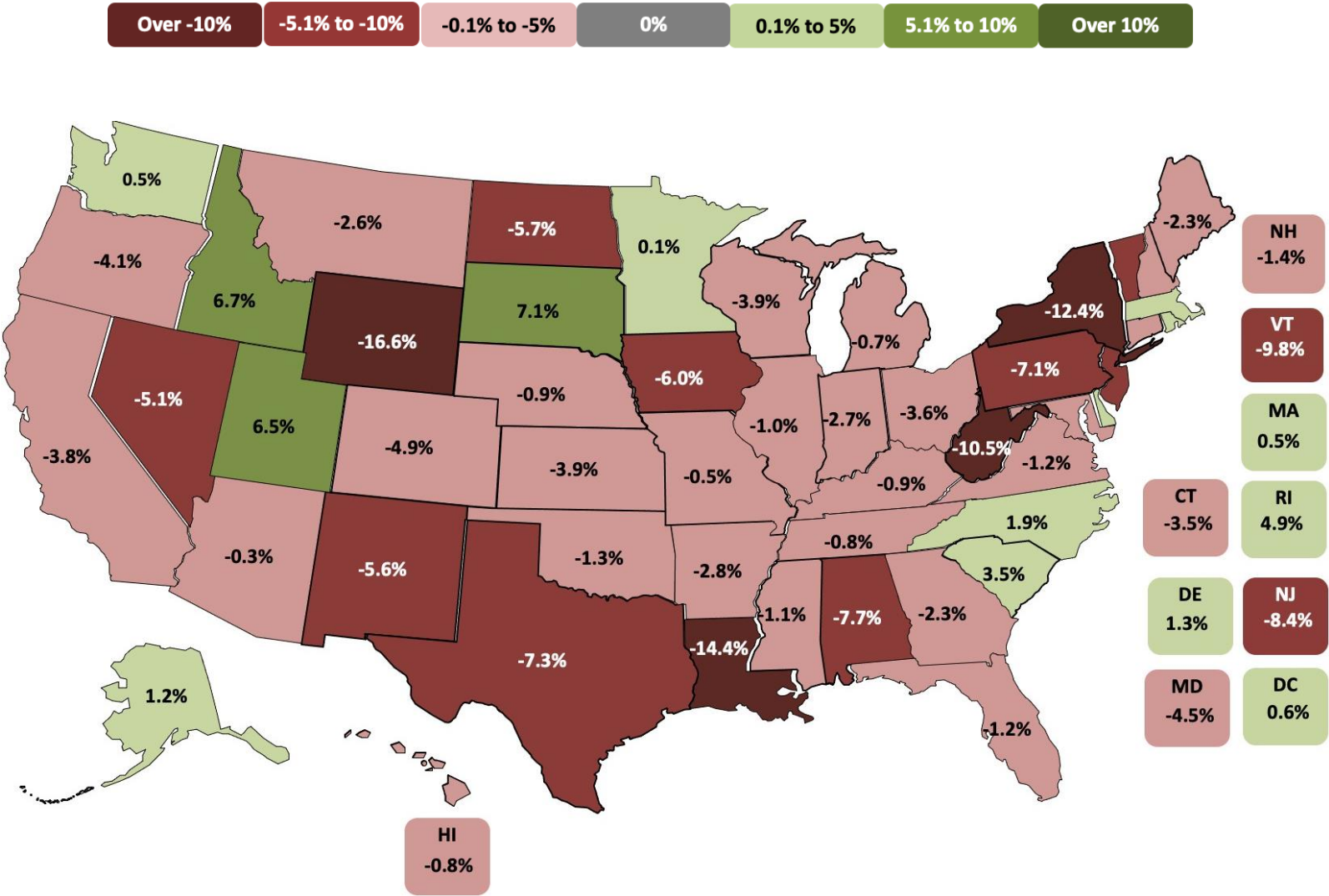
11 states and DC **up**, 39 states **down** (U.S.: -3.0%)

Top 5

South Dakota	7.1%
Idaho	6.7%
Utah	6.5%
Rhode Island	4.9%
South Carolina	3.5%

Bottom 5

Wyoming	-16.6%
Louisiana	-14.4%
New York	-12.4%
West Virginia	-10.5%
Vermont	-9.8%



Year-to-date construction spending: Jan-July 2021 vs. Jan-July 2020

(not seasonally adjusted)

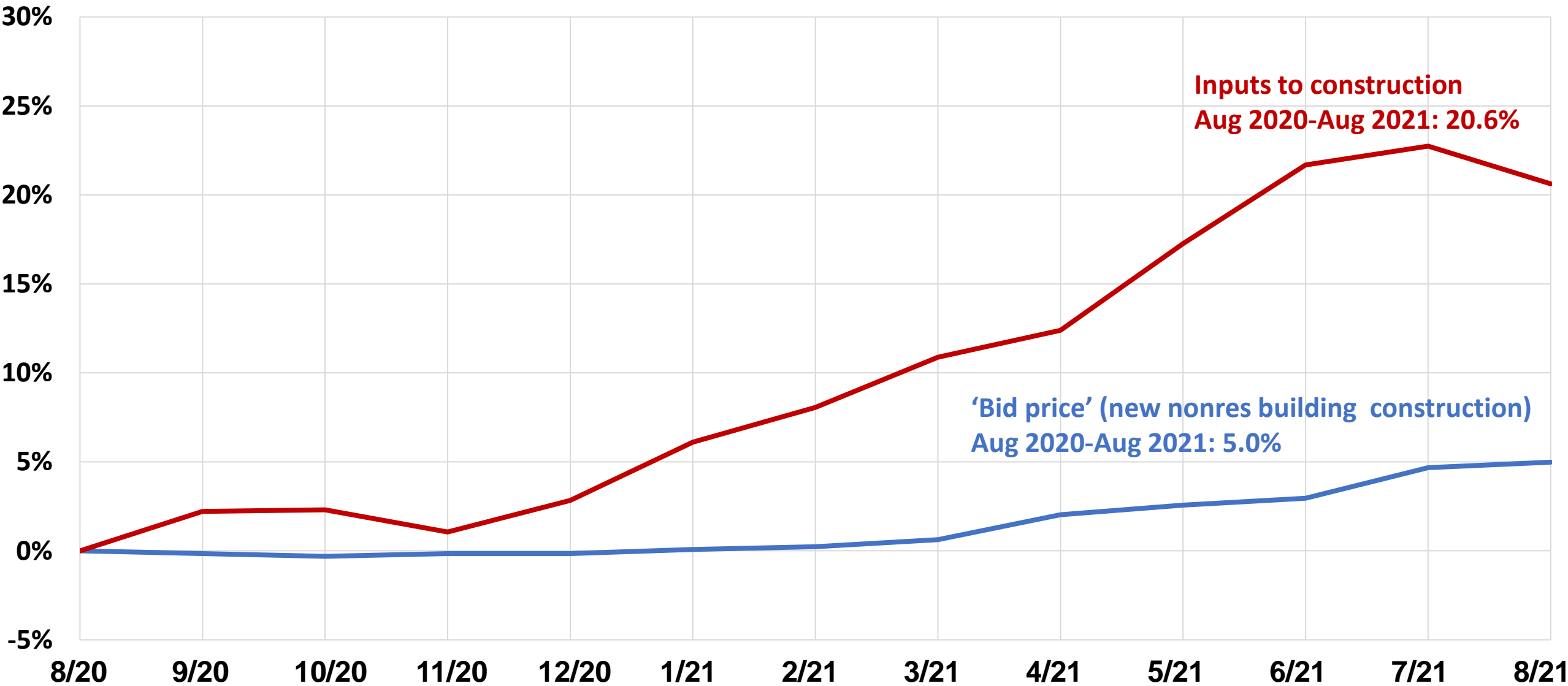
- Total 6%; private residential 26% (single-family 38%; multi 19%); private nonres -8%; public -7%

Largest segments (in descending order of 2021 year-to-date spending)

- Power -5% (electric -3%; oil/gas fields & pipelines -12%)
- Education -11% (primary/secondary -8%; higher ed -17%)
- Highway and street -5%
- Commercial -3% (warehouse 9%; retail -18%)
- Office -11%
- Mfg. -2% (chemical 7%; transp. Equip. 6%; food/beverage/tobacco 13%; electronic/electric -18%)
- Transportation -6% (air -12%; freight rail/trucking -5%; mass transit 6%)
- Health care -2% (hospital 2%; medical building -7%; special care -3%)
- Loading -30%

Construction input and 'bid price' producer price indexes (PPIs)

Cumulative change in PPIs, August 2020 – August 2021 (not seasonally adjusted)



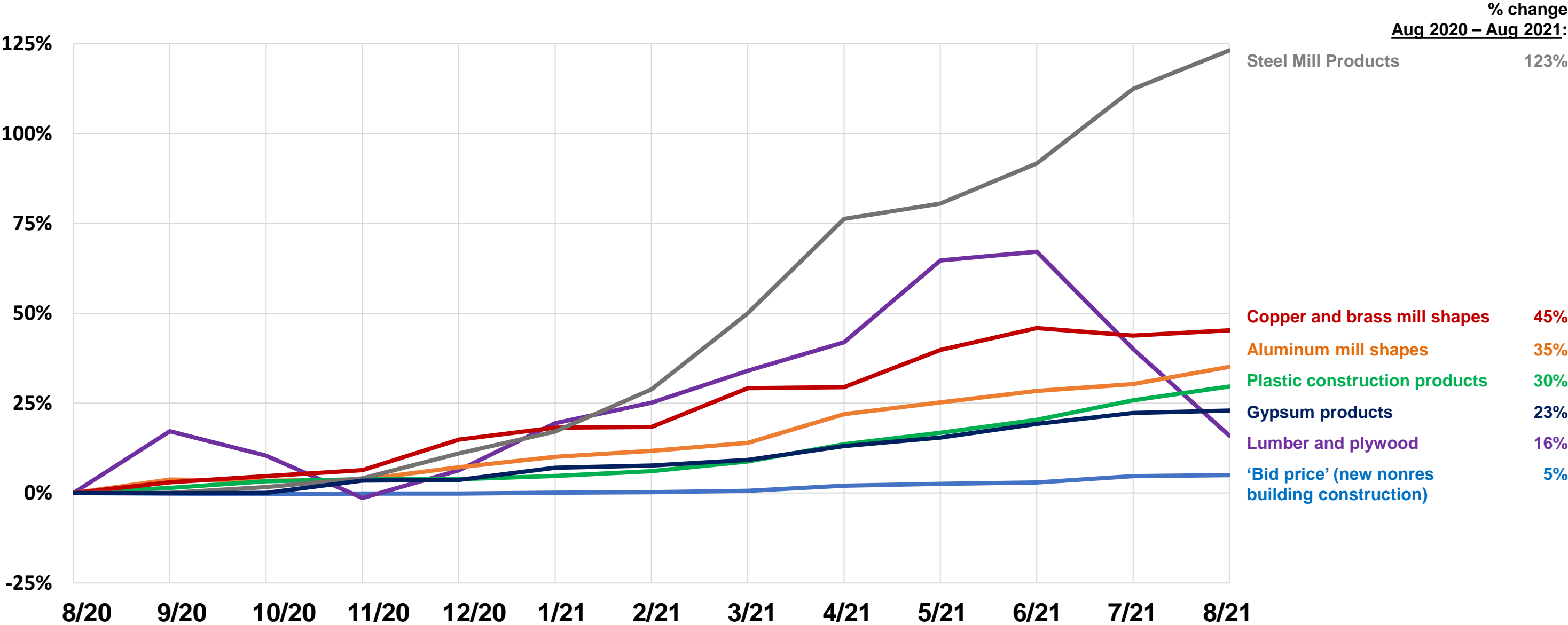
Source: Bureau of Labor Statistics, producer price indexes, www.bls.gov/ppi

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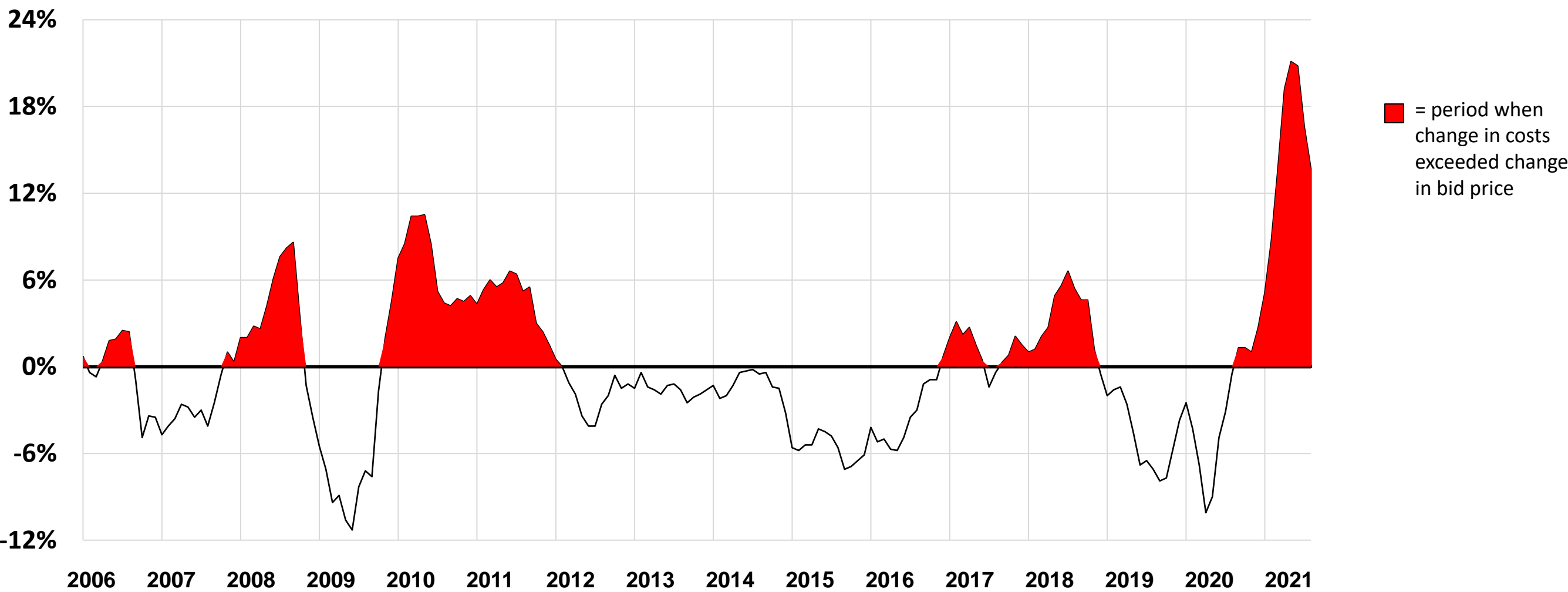
PPIs for construction and selected inputs

Cumulative change in PPIs August 2020 – August 2021 (not seasonally adjusted)



Cost squeeze on contractors can last two years or more

Difference between year-over-year change in materials costs vs. bid prices, Jan 2006 – August 2021

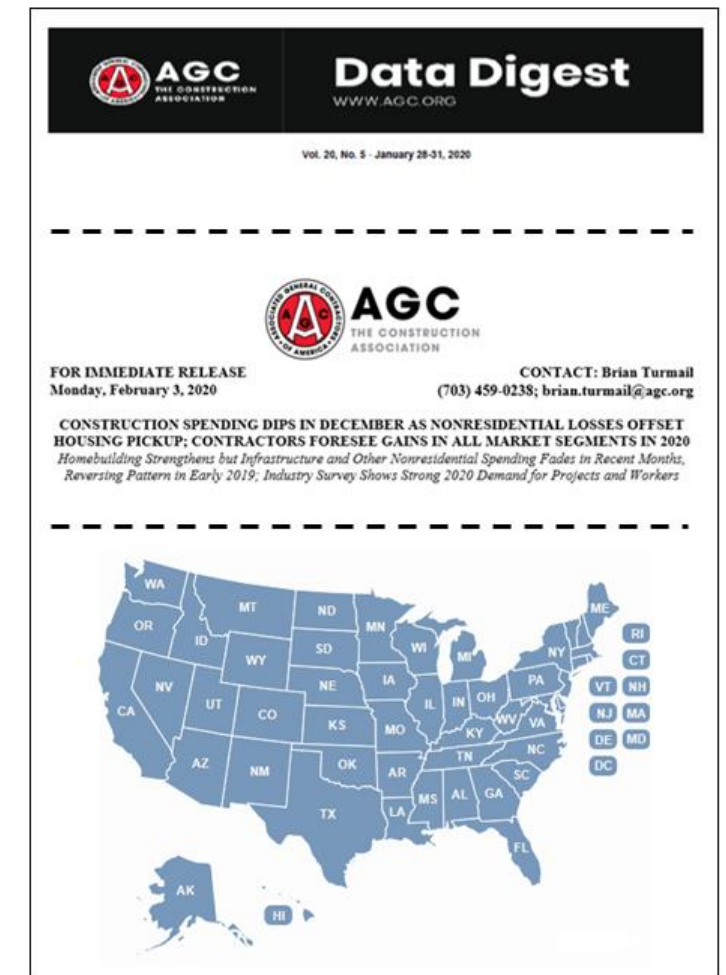


(material costs) and new warehouse construction (bid prices)

AGC economic resources

(email: ken.simonson@agc.org)

- The Data DIGest: weekly 1-page email (subscribe at <http://store.agc.org>)
- Construction Inflation Alert: <https://www.agc.org/learn/construction-data/agc-construction-inflation-alert>
- ConsensusDocs Price Escalation Resource Center: <https://www.consensusdocs.org/price-escalation-clause/>
- Autodesk-AGC of America Workforce [Survey Results](#)
- State and metro data, fact sheets: www.agc.org/learn/construction-data
- Monthly press releases (<https://www.agc.org/newsroom>) covering: construction spending; producer price indexes; national, state, metro employment with rankings



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Source: Author

How to Mitigate Risk of Material Price Escalation

- Risk Mitigation for Material Price Escalation can be done:
 1. At the time of bid;
 2. During the procurement phase;
 3. During contract negotiation—by including a Material Escalation Clause; or
 4. Existing Contracts



How to Mitigate the Risk of Material Price Escalation – Time of Bid

- Cost Estimates:
 - Need to account for price escalation
 - Use a Cost Index such as the:
 - Building Cost Index (BCI);
 - Construction Cost Index (CCI); or,
 - Turner Cost Index (TCI)
- Note: some public owners may have their own in-house indices for use in bidding a project for that public owner, *if accounting for escalations is permitted at all.*



How to Mitigate the Risk of Material Price Escalation – Time of Bid

- Additional processes pre-bid:
 - Lock in material prices early with suppliers and shift the risk down stream
 - Include a generous bid contingency that accounts for potential escalation
 - Shorten the time duration that your bid will remain valid
 - Discuss with Owner use of alternative materials (with more consistent pricing)

How to Mitigate the Risk of Material Price Escalation – Procurement Phase

- Purchase materials with the most volatile prices as early as possible
- But Note:
 - Works best when Owner, Designer, and Contractors are on board and working cooperatively early in the project (Design Assist or IPD)
 - Early material purchasing requires design to be complete/reliable early in the project to effectively mitigate risk
 - Consider the impact of any potential design changes
 - Remember to account for increased storage and handling costs

How to Mitigate the Risk of Material Price Escalation – Procurement Phase

- Limit the suppliers' right to increase prices to the contractor's rights to increase prices to the owner.
- Alternatively, limit the suppliers' right to increase prices to a fixed amount, thereby capping the risk.



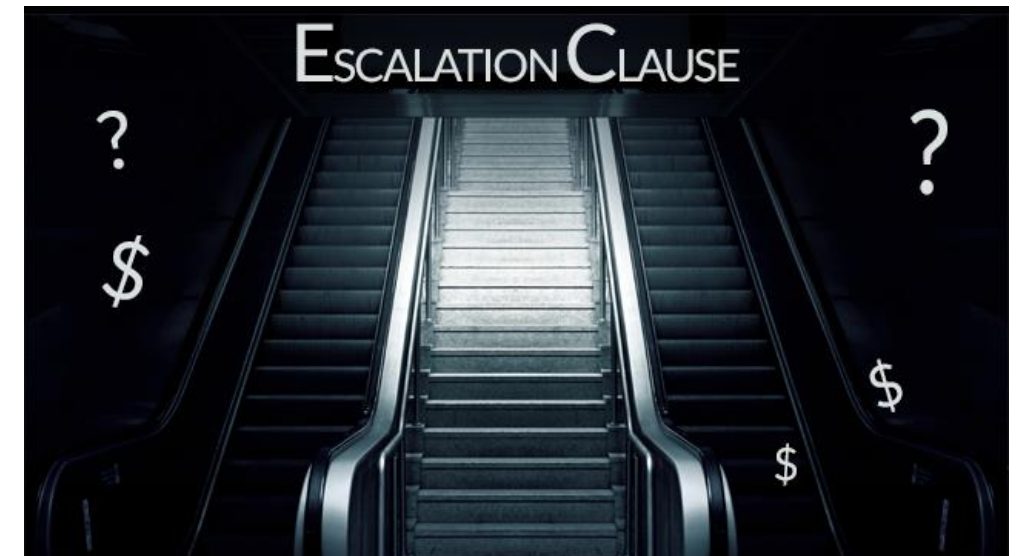
How to Mitigate the Risk of Material Price Escalation - Contract

- The best method: Use a Cost Plus contracting method.
- In a typical stipulated/lump-sum contract the Contractor bears the risk of any financial impact arising from fluctuations in material prices.
 - If using a stipulated/lump-sum contract, include a material price escalation clause.



Material Escalation Clauses

- **Day One Escalation Clauses**
 - A “day one” escalation clause requires the upstream party to pay for any increases in material costs once the contract is executed
 - The contract must define exactly what materials are subject to the clause, and must include baseline prices for those materials



Material Escalation Clauses

- **Threshold Escalation Clause**

- A “threshold” escalation clause shares the risk by requiring the upstream party to pay for material price increases above a defined threshold
- The contractor is reimbursed only for significant price increases which occur between the bid (or contract date) and the date of installation or purchase of materials
- This type of clause shifts the risk of significant price increases to the upstream party, but vests the contractor with the risk of price increases up to the threshold level, effectively capping the contractor’s potential exposure

Material Escalation Clauses

- **Delay Escalation Clause**
 - A “delay” escalation clause holds a fixed price for a limited period of time, but allows the contractor to receive an equitable adjustment if the project is delayed or, more commonly, if it is not feasible to purchase all materials for the project at the start of construction.
 - Especially effective if contractor believes project may be delayed in its inception.



Material Escalation Clauses – Convincing a Reluctant Owner

- Owners may be reluctant to incorporate unilateral material escalation clauses
- Consider inclusion of a mutual or bilateral clause where each party stands to have some of the risk and some of the reward (consider ConsensusDocs Amendment 200.1)
- Owner bears the risk of price increases but also gets a corresponding reward if material prices drop



Material Escalation Clauses – Convincing a Reluctant Owner

- **Mutually Beneficial Material Escalation Clause**
 - The Owner bears the risk of price increases but also gets a corresponding reward if material prices drop
 - Usually take the form of a threshold escalation clause to avoid unnecessary forfeiture of the Contractor's margins



Material Escalation Clauses – Existing Contracts

- Even if there is no Material Price Escalation Clause, contractors may be able to find relief from material price escalation through existing contract provisions or equitable principles.
 - Changes in Law Provisions
 - ConsensusDocs 200 § 3.21.2 allows for an equitable adjustment for additional costs or time needed resulting from any change in law, including increased taxes, enacted after the date of the Agreement
 - Force Majeure
 - Mutual Mistake
 - Commercial Impracticability

Material Escalation Clauses – Existing Contracts

- However, these arguments are difficult to make and win. Incorporation of a material escalation clause and proactive procurement provide the best opportunity to mitigate the risk of material price increases.

Material Escalation Clauses – Form Documents

- Contractors using the AIA standard fixed-price contract should be sure to modify the contract to appropriately allocate the risk of material price escalation
- The AIA documents have no materials escalation clause
- ConsensusDocs 200.1 Potentially Time and Price-Impacted Materials Amendment
 - Balanced document that carries the possibility that if prices fall, payment would also be decreased (§ 3.1)
 - Provides for caps on the amount of increase or decrease if mutually agreed by the parties (§ 3.3)

QUESTIONS?

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The background of the slide is a composite image. It features a construction site at sunset, with silhouettes of workers on a building's steel framework and a large tower crane. Overlaid on this is a semi-transparent image of a person in a white business suit and a red patterned tie, with their hands clasped in front of them. The text is overlaid on the central part of the image.

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evaluation in the CSC
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