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### Presentation Focus

1. Macroeconomic & COVID-19 Data
2. Construction, & Cement Outlook By Sector
3. Longer Term Considerations

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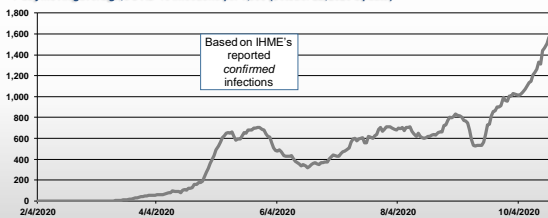
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### IHME Daily Infection - Minnesota

7 day moving average, COVID-19 infections per 1,000 (October 22, 2020 Update)



Source: IHME

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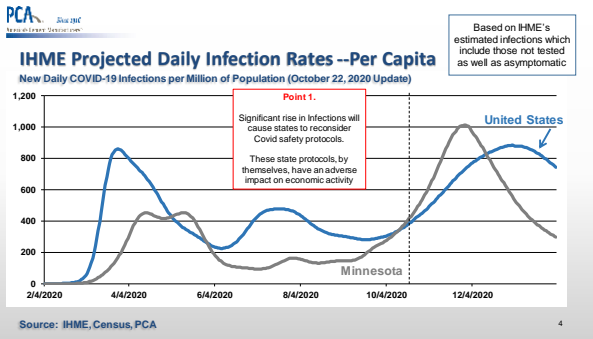
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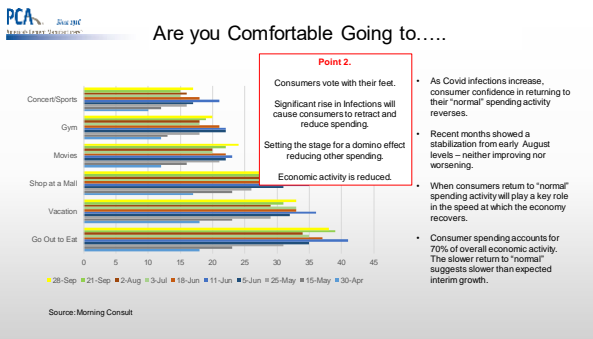
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### Economic Crossroads: An Inflection Point

#### Change in Employment



#### Consumer Confidence



**Point 4.**  
Despite the highly touted gains in economic activity....  
The economy is not healthy.

- By any measure, economic activity crashed during the second half of March through April. GDP suffered a 32% decline. 20 million jobs were lost overnight.
- With the states re-opening business, the economy has shown significant growth. That growth is becoming less robust over the past several months.
- September's job report reinforced this trend. Sector re-openings (hospitality & retail) played key role in the improvement but can not be counted as a longer term driver of jobs.
- Government shed 216,000 jobs. A trend that could grow larger.
- The economy may be at a crossroads.
- With the gradual expiration of the CARES act, in the context of weak economic conditions - risks exist that the recent momentum of the recovery could be lost.

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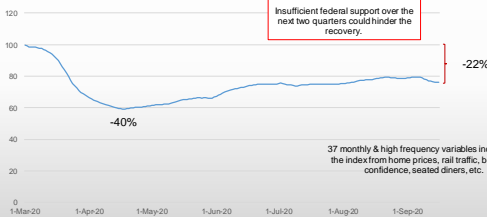
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### Back to Normal Index

Moody's-CNN Survey 100=March 1st



**Point 5.**  
Federal Support has been spectacularly successful in preventing a deeper and more prolonged decline.  
Insufficient federal support over the next two quarters could hinder the recovery.

37 monthly & high frequency variables included in the index from home prices, rail traffic, business confidence, seated diners, etc.

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### Economic Outlook

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## The Alphabets of Recovery

**U** A Sharp deep decline, followed by a period of slow recovery.

- Some scarring.
- Many business foreclosures. Consumer spending is hurt by debt, and lacks confidence.
- Economic growth is enhanced by relaxation of state policies aimed at restraining the spread of the virus.
- After initial reopening phase, jobs come back slowly reflecting modest growth.
- Fourth quarter increase in Covid (HME Base Case) – 2,276 daily death rate February 1<sup>st</sup> compared to 693 October 1<sup>st</sup>.
- Federal Support continues. \$1.5 trillion additional funding. \$500 billion to states.
- Consumer confidence slowly improves as Covid deaths ebb throughout 2021.
- Growth slows/pauses in 4<sup>th</sup> quarter. A slow process of gradual & sustained recovery thereafter.

**W** A Sharp deep decline, followed by a slow recovery and a slide back into recession due to a significant rise in infections, limited Federal support & pause in state re-openings

- More scarring, particularly in 2021.
- More business foreclosures. More building space is vented into the market. Consumer spending is hurt. Consumers lacks confidence.
- Initially, economic growth is initially enhanced by relaxation of state policies aimed at restraining the spread of the virus.
- Consumer fear and uncertainty re-appear.
- Substantial fourth quarter increase in Covid (HME High Case) – 5,554 daily death rate February 1<sup>st</sup>.
- Some state re-opening retrenchment. Some state pausing of re-opening schedule.
- Federal Support continues, but at a lower level. \$1 trillion added in further support in early 2021. \$333 billion to states.
- The slow shallow process of recovery is interrupted, followed by a two quarter retrenchment in 1<sup>st</sup> half 2021 GDP growth.

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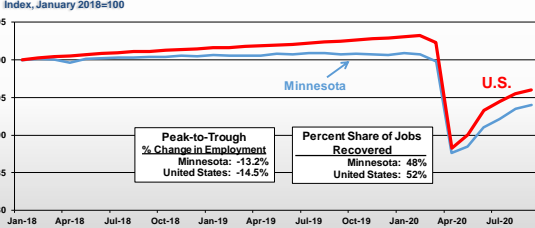
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## Employment Recovery



Source: BLS, PCA 11

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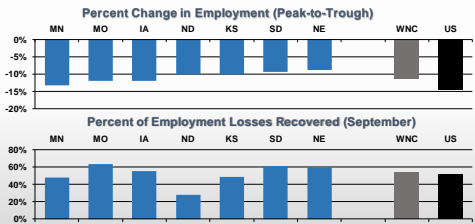
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## Regional Employment Recovery



Source: BLS, PCA 12

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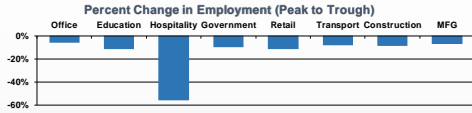
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## Employment Recovery: Minnesota



Source: BLS, PCA

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## Residential Outlook

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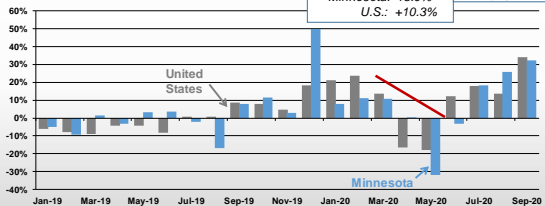
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## Housing Permits

Seasonally adjusted, year-over-year percent change.



Source: PCA

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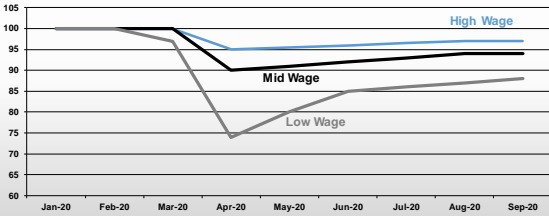
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### Low Income Households Slowest to Heal in Jobs Recovery

Employment by Income, January 2020=100



Source: BLS, PCA

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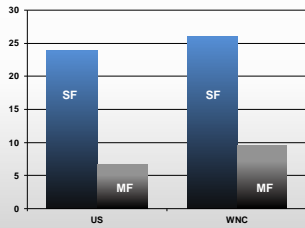
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### Potential Shift in Homebuyer Preferences?

Metric Tons of Cement Per Housing Unit



- 21% of agents reported buyers seeking the benefits of new homes, such as office space or backyards. (Source: NAR Research Group Survey)
- Potential for intrastate moves from urban to suburban/exurban locations.
- Home ownership rates have returned to a level not seen since 2008 (Minnesota 2005).

Source: PCA, NAR

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### Affordability Conditions

	2006	2018	2021
New Home Price	\$243K	\$333K	\$336K
Mortgage Rate	6.41%	4.56%	2.95%
Monthly Payment	\$1,688	\$1,701	\$1,409
Median Monthly HH Income	\$4,479	\$5,479	\$5,725
Mo. Pay/Mo. Income	37.7%	31.0%	24.6%

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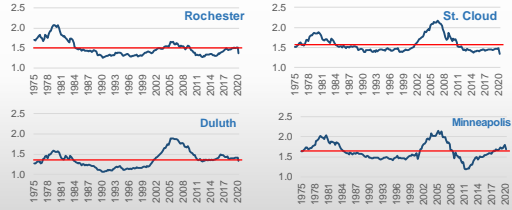
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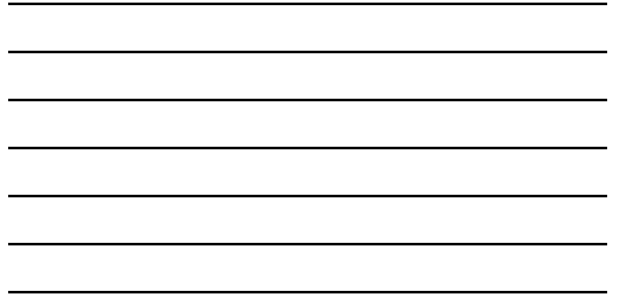
### Favorable Regional Home Affordability will Provide Support

Home Price-to-Household Income, SA



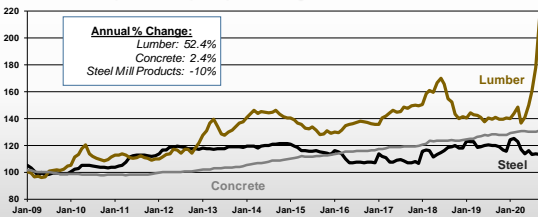
Source: NAR, BEA, BOC, Moody's

19



### Lumber Cost Increases Could Hamper Housing Surge

Producer Price Indices (Base:2009=100) - Competitive Building Materials



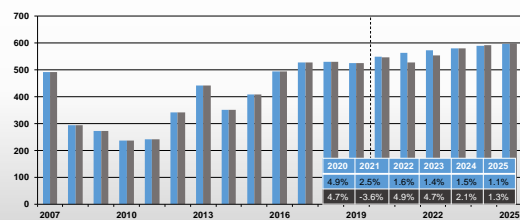
Source: BLS, PCA

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### Residential Cement Consumption: Minnesota

Metric Tons (000s)



Source: PCA

Baseline Scenario

W Scenario

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### Nonresidential Outlook

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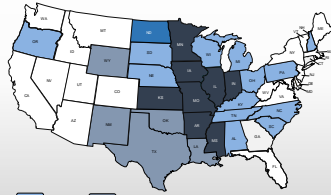
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### Manufacturing, Energy, and Agriculture Exposure



Source: PCA

Manufacturing    Energy    Energy & Agriculture    Manufacturing & Agriculture

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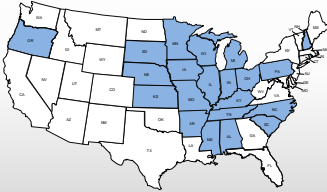
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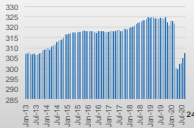
### Manufacturing Exposure 10% or Greater Manufacturing Share of Total Employment



Mid American Production Index



Manufacturing Employment (000s)



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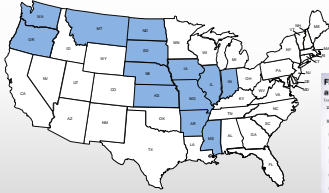
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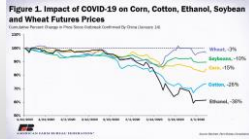


### Agriculture Exposure

Crop Cash Receipts 10% or Greater Share of Gross State Product



- Closures of schools, restaurants, corporate cafeterias... have deeply unsettled agriculture futures markets.
- Additionally, reduced demand for ethanol in light of lower gasoline consumption continues to weigh on the market.
- Meat processing plant closures have created a bottlenecks and subsequent end-market price increase which has lowered demand.



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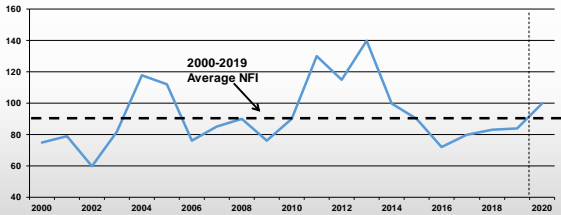
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### Net Farm Income

\$s, Billions, Constant 2020



Source: USDA

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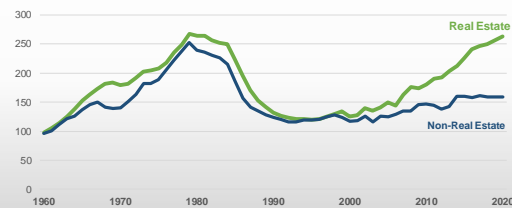
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### U.S. Farm Debt

Real 2019 \$s, billions



Source: U.S. Department of Agriculture (USDA): Farm Income and Wealth Statistics

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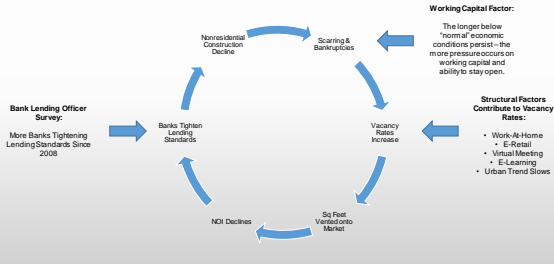
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## Nonresidential: A Long Recovery




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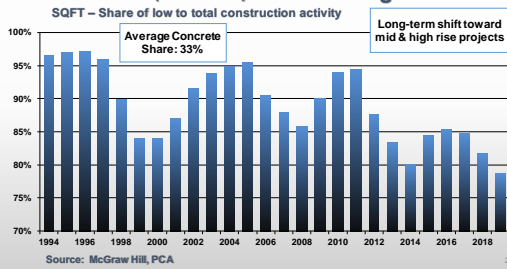
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## Low-Rise (1-5 Stories) – All Buildings: MN




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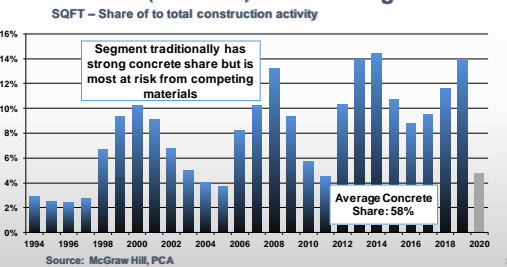
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## Mid-Rise (6-10 Stories) – All Buildings: MN




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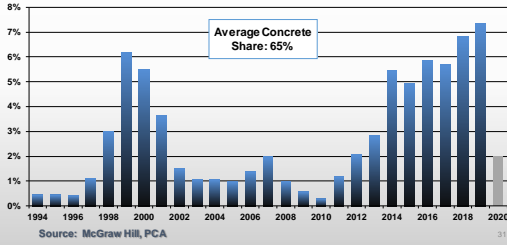
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### High-Rise (11+ Stories) – All Buildings: MN SQFT – Share of to total construction activity




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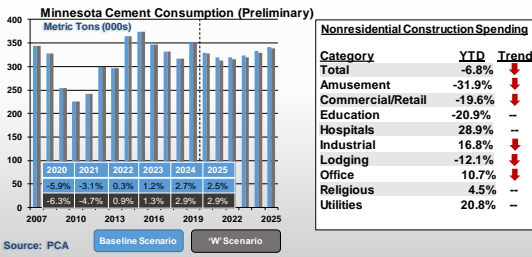
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### Nonresidential Sector




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### Public Outlook

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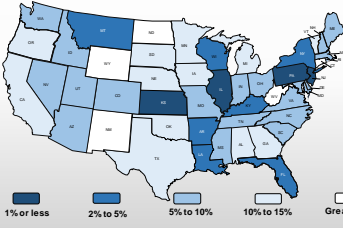
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### State Rainy Day Funding – FY2020

Rainy day balances as share of general fund expenditures

Current National Average: 7.6%

Prior to Great Recession: 4.5%



Kansas and Illinois effectively have \$0 balances, Pennsylvania and New Jersey are roughly 1%

Oil revenue reliant states of New Mexico, North Dakota and Wyoming have respective balances of 27%, 30% and 109%

Source: NASBO Fall 2019 Fiscal Survey of the States

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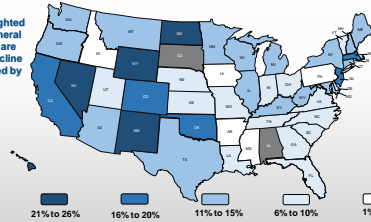
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### State Funding – FY2021

Percent Declines in General Fund Tax Revenues from Pre-COVID Levels (Preliminary)

On a state weighted basis, 2021 general fund revenues are expected to decline 13% as reported by state agencies



States with high exposure to oil & tourism revenues are at most risk

Last updated August 24<sup>th</sup> from reports ranging between April through August.

Source: Center on Budget and Policy Priorities: Data compiled from various state agencies

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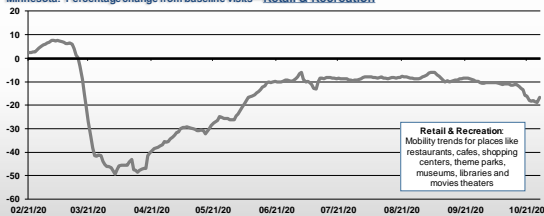
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### Consumers Once Again Showing Apprehension:

Minnesota: Percentage change from baseline visits—Retail & Recreation



Retail & Recreation: Mobility trends for places like restaurants, cafes, shopping centers, theme parks, museums, libraries and movies theaters

Source: Google Mobility Report, PCA

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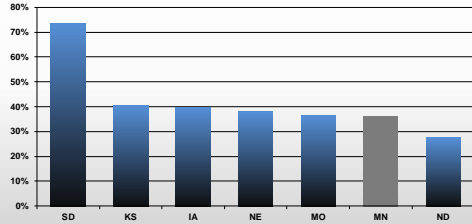
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### States with High Sales Tax Exposure at Risk

Sales tax as a share of total tax collections



Source: Census State Government Tax Collections Report, PCA

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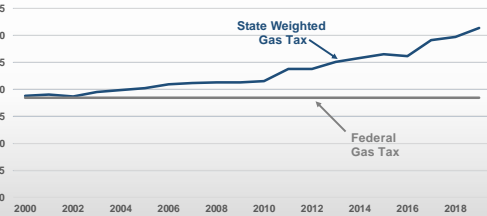
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### States Have Been Increasingly Less Reliant on Federal Funds

Cents Per Gallon



Source: Federal Tax Administrators, FHWA, PCA

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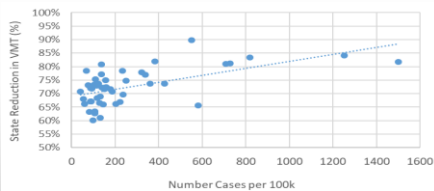
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### Reduction in Vehicle Miles Traveled Relative to COVID-19 Cases

Percent change in VMT the second week of April vs. first week of March



Source: University of California, Davis

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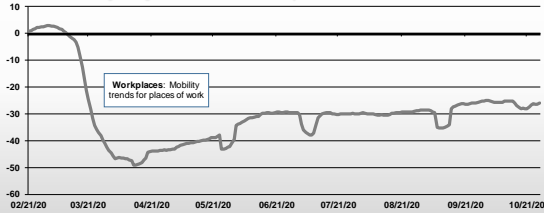
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### Many employees continue to work remotely

Minnesota: Percentage change from baseline visits—Workplace



Source: Google Mobility Report, PCA

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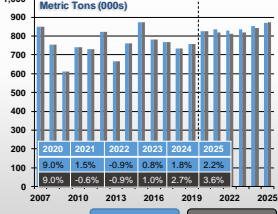
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### Public Sector

Minnesota Cement Consumption (Preliminary)



Category	YTD	Trend
Total	21.9%	-
Public Buildings	25.1%	↓
Conservation	13.3%	↓
Highway	19.7%	↑
Sewer	28.9%	↑
Public Water	38.8%	↑

Source: PCA

Baseline Scenario

W Scenario

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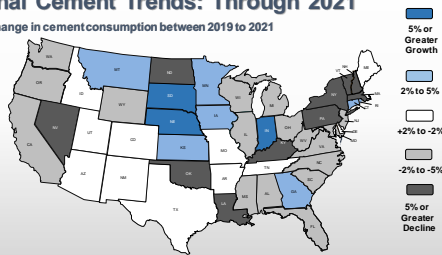
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### Regional Cement Trends: Through 2021

Based on change in cement consumption between 2019 to 2021



Source: PCA 2020 Summer State Forecast

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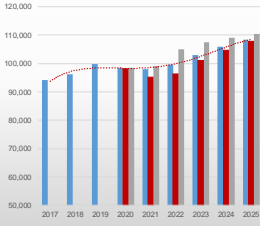
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### PCA Minnesota U.S. Cement Consumption – “U, W & Vaccine” Scenarios

#### Cement Consumption

Metric Tons



#### Cement Consumption Growth % Y-O-Y

Projections				
Scenario	2020	2021	2022	2023
*U* (40%)	-1.3%	-0.5%	1.6%	2.7%
*W* (25%)	-1.8%	-3.4%	1.3%	4.3%
*Vac* (35%)	-1.3%	0.7%	5.1%	2.4%

Weighted Average				
Scenario	2020	2021	2022	2023
Weighted	-1.5%	-0.9%	2.9%	3.0%

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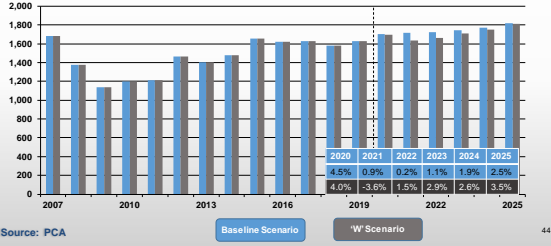
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### PCA Minnesota Total Cement Consumption: Minnesota

Metric Tons (000s) Preliminary




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### PCA Minnesota Long-Term Considerations

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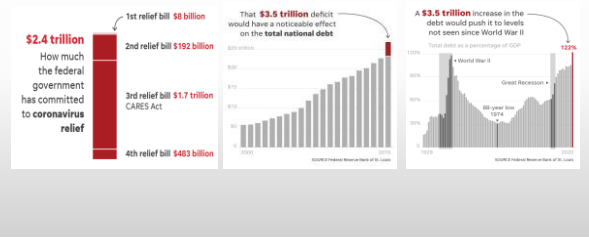
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### Debt Likely to Shape Future Federal Infrastructure Plans




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### Election Impacts

#### Trump With Senate

- Federal Reserve Position**
- Monetary Policy continues to facilitate recovery with low interest rates.
- Infrastructure**
- PCA forecast contains a holding place for an infrastructure program beyond FAST. The assumption is \$250 billion over 10 years. First pour 2<sup>nd</sup> half of 2022.
  - May be more "traditional" definition of infrastructure. More cement intensive.
- Housing**
- No policy identified that directly benefits housing.
- Taxes**
- Favors corporate.
- Regulation**
- Continued emphasis against adding to business, emission and climate change regulations.

#### Biden With Senate

- Federal Reserve Position**
- Monetary Policy continues to facilitate recovery with low interest rates.
- Infrastructure**
- PCA forecast contains a holding place for an infrastructure program beyond FAST. The assumption is \$250 billion over 10 years. First pour 2<sup>nd</sup> half of 2022.
  - May be less "traditional" definition of infrastructure with more emphasis on broadband, transit, etc. carrying lower cement intensities.
- Housing**
- 200,000 low income housing construction over 10 years.
- Taxes**
- Favors lower income runs less favorable corporate.
- Regulation**
- Renewed emphasis against adding to business, emission and climate change regulations.

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**Economic, Construction & Cement Outlook: Cyclical & Structural Changes Resulting From COVID-19**

Dave Zwicke, Sr. Director & Regional Economist  
November 2020

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