



### **Presentation Focus**

- 1. 2020 Cement Consumption Performance
- 2. Macroeconomic Data & Covid-19 Relief Impacts
- 3. IHME Covid-19 Projections
- 4. The Vaccine Scenario & Achieving Herd Immunity
- 5. Winter 2020-2021 Projections
- 6. The Biden Agenda: Infrastructure Implications
- 7. Longer Term Considerations

Note: PCA's regional forecasts are scheduled for release next week.

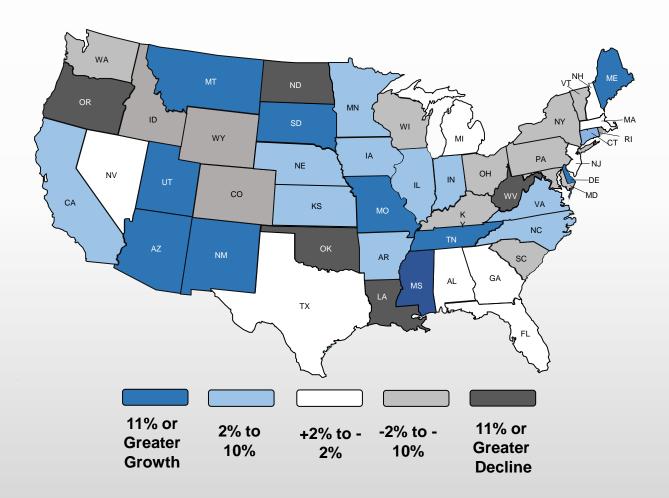


## 2020 US Cement Consumption Performance



## **Regional Cement Trends**

#### **December year-to-date**



West North Central	7.0%
West South Central	-2.2%
New England	4.4%
East North Central	0.7%
Middle Atlantic	-3.9%
South Atlantic	0.6%
East South Central	6.3%
Pacific	0.4%
Mountain	10.2%
United States	1.6%

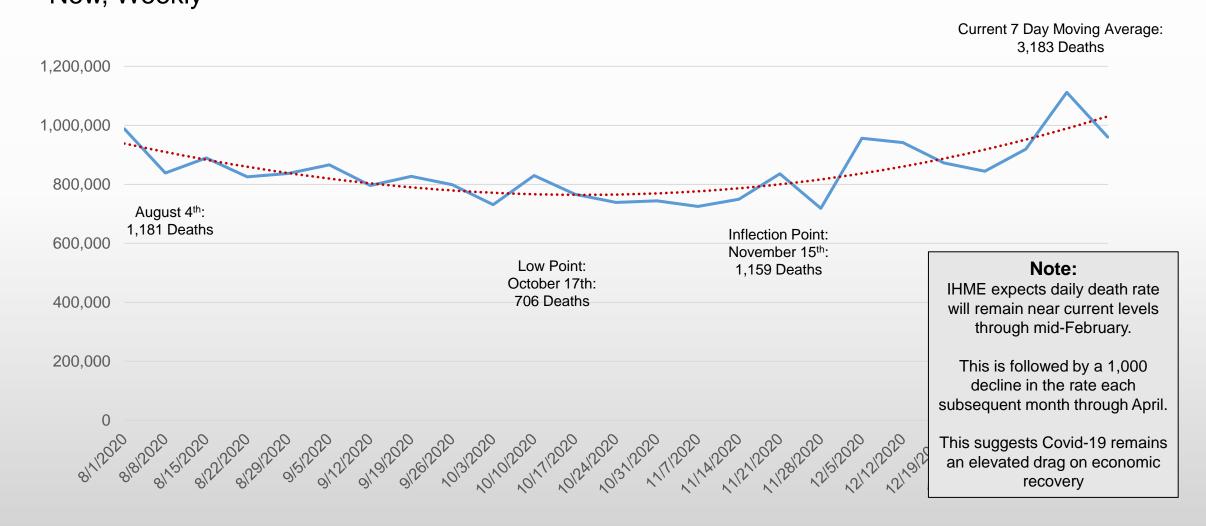
Source: USGS/PCA



## **Macroeconomic Data**



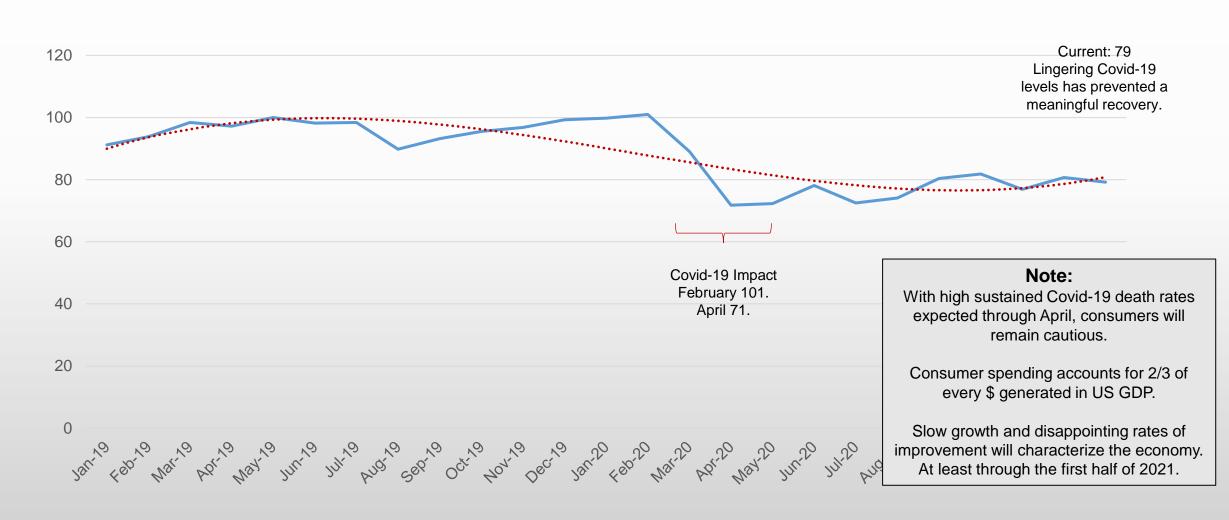
## Unemployment Claims New, Weekly





### Consumer Sentiment

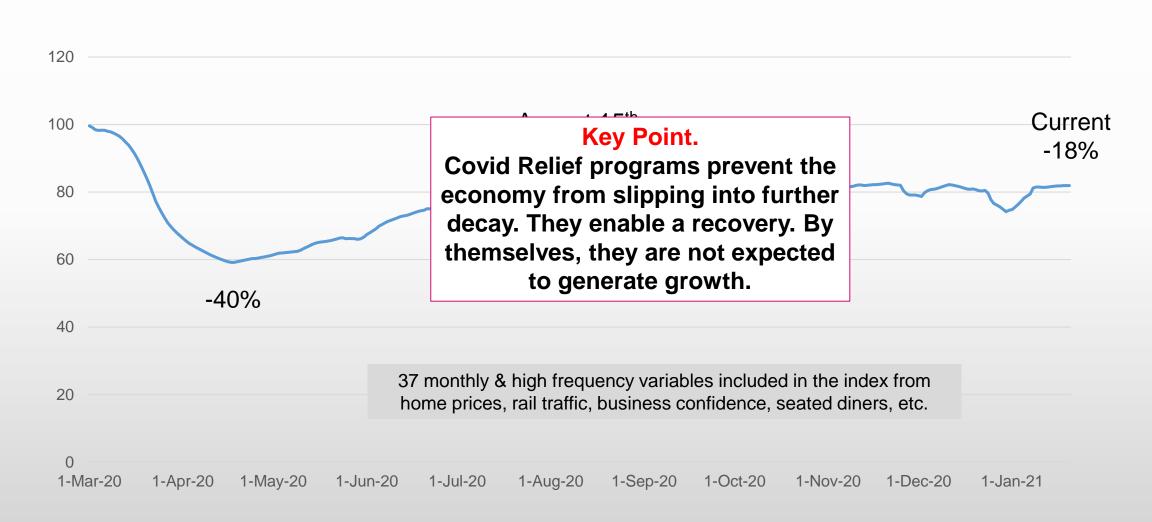
#### Composite, University of Michigan





### **Back to Normal Index**

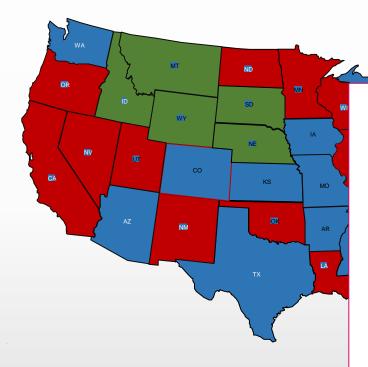
Moody's-CNN Survey 100=March 1st





### State Revenues: 2020

### State Revenues: 2021



#### **Key Point.**

The current Covid Relief programs excludes funds for States.

Lacking another program that addresses this...results in an economic drag and a significant drag on the public sector's cement consumption outlook for 2021.

From an economic perspective, there is more to be done regarding near term Federal Covid relief.

#### **Given our Macroeconomic Projection**

- Estimate Income by State Consumer Spending by State VMT By State Real Estate Values



Less than 2% Decline

2.1 to 4% **Decline** 

4.1 to 5.9% **Decline** 

6% Decline or More

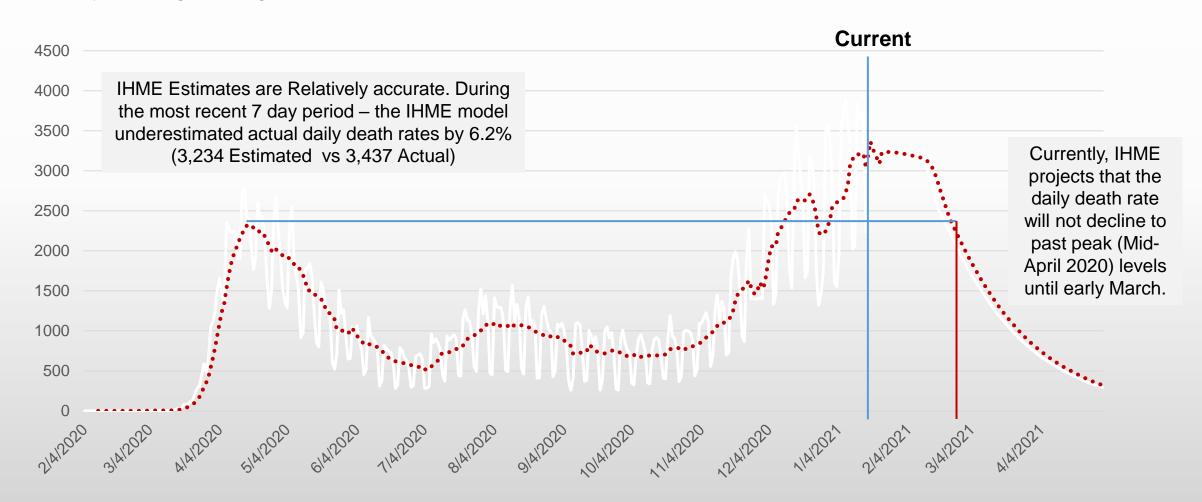
- Culate State Revenues Individual & Corporate Income Taxes
- Sales Taxes
- Fuel Taxes
- Property & All Other
- Assume drawdown of rainy day fund



## **Covid Data & Projections**

## **IHME Daily Death Rate Projections**

7 Day Moving Average





## The Vaccine Scenario



## Vaccine Impact on the Economy

Once the Vaccine is Mass Distributed....and herd immunity levels reached.....

#### It will:

- Result in a dramatic surge in consumer confidence.
- Encourage a return to ma
  - Dining, movies, sho
- Business will reopen, nev
  - Perhaps encourage

#### **Key Point.**

Without reaching herd immunity levels....the "White Knight" never shows up.

by the virus.

- Investment uncertainty will decline.
- Economy will expand rapidly.
- Jobs growth will be strong.

This is largely based on consumers returning to pre-Covid patterns.

Given the severity and duration of the disruption...restoration of consumer patterns may occur over several quarters to materialize...

The process begins with consumers sense of safety and the achievement of herd immunity.



## **Reaching Herd Immunity**

US Population: 328,240,000

Percent Required to Achieve Herd Immunity: 75%

Herd Immunity Population Target: 246,180,000

Assumed US Population with Anti-Bodies: 10%

Population Already With Antibodies: 32,824,000

Total Vaccinated January 25, 2021: 23,500,000

Population needing to be Vaccinated: 189,856,000

Doses Required Per Person: 2

Total Doses Required: 379,712,000

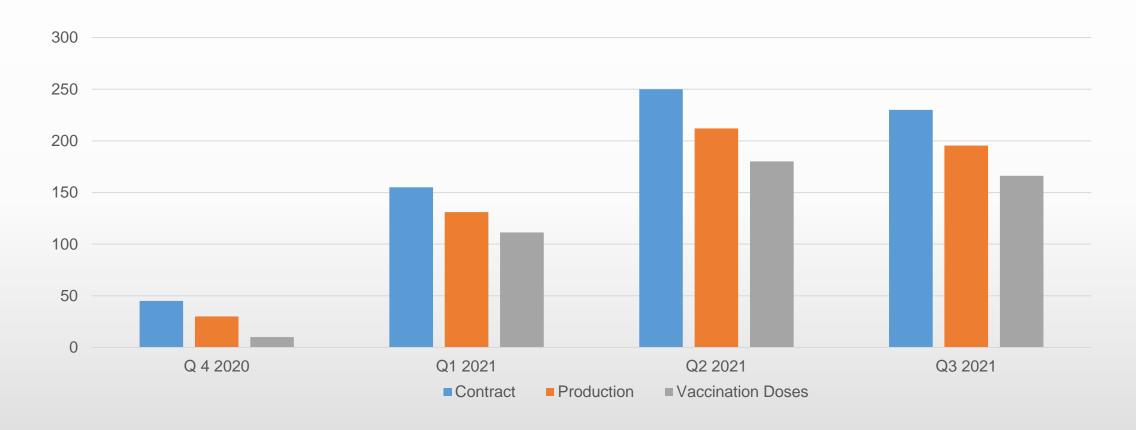


### **Delivery Deadlines for US Covid-19 Vaccine Orders**

Company	Doses	Deadline
Pfizer-BioNTech	25 million	Dec. 31, 2020
Moderna	20 million	Dec. 31, 2020
Pfizer-BioNTech	75 million	Mar. 31, 2021
Pfizer-BioNTech	70 million	Jun. 30, 2021
Moderna	180 million	Jun. 30, 2021
Pfizer-BioNTech	30 million	Jul. 31, 2021
Total doses Ordered	400 million	



## **US Vaccine Supply**



#### **Notes:**

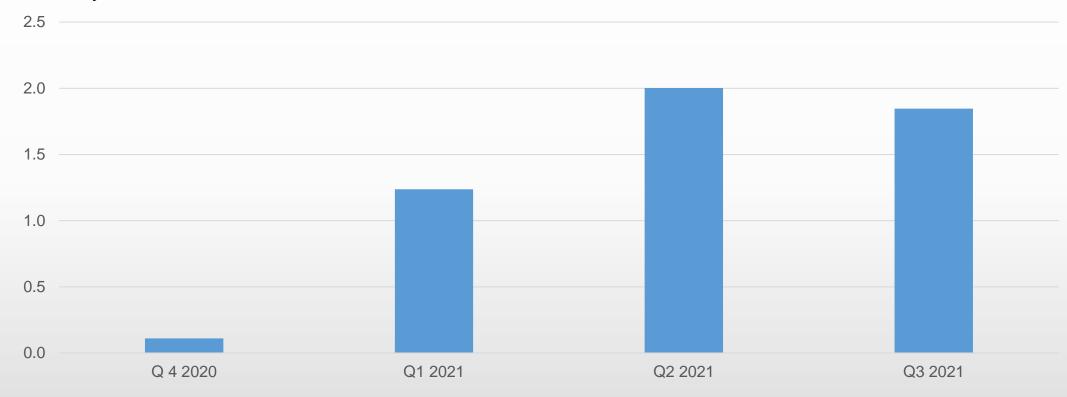
Q 4 Performance: Production-to-Contract: 67%, Doses Delivered-to-Vaccination: 33% Forward Assumptions: Production-to-Contract: 85%, Doses Delivered-to-Vaccination: 85%



#### Since 1016

## **Daily Rate of Vaccinations**

### Million Vaccination Doses Daily

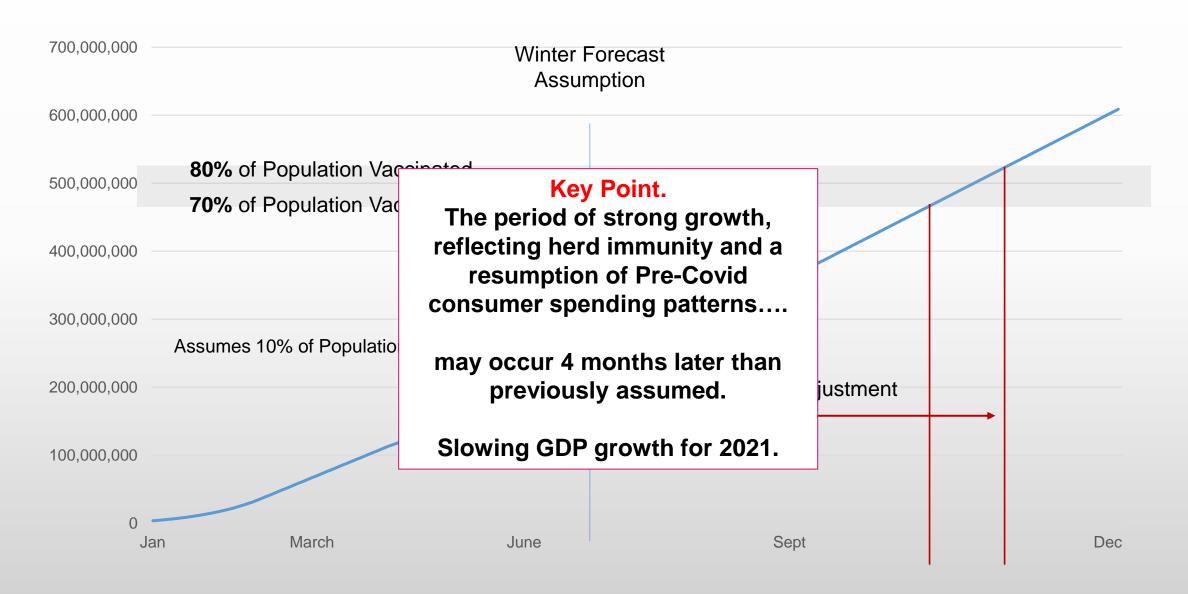


#### **Notes:**

2 Doses are required to reach the herd immunity level.



### When We Return to Normal





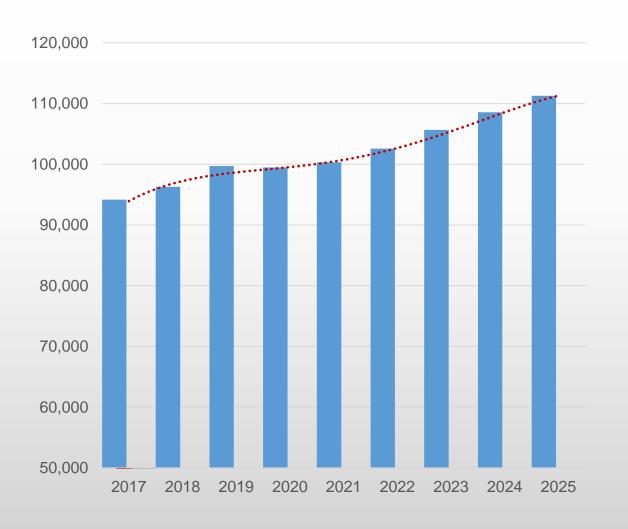
## Winter Projection



### **Cement Consumption**

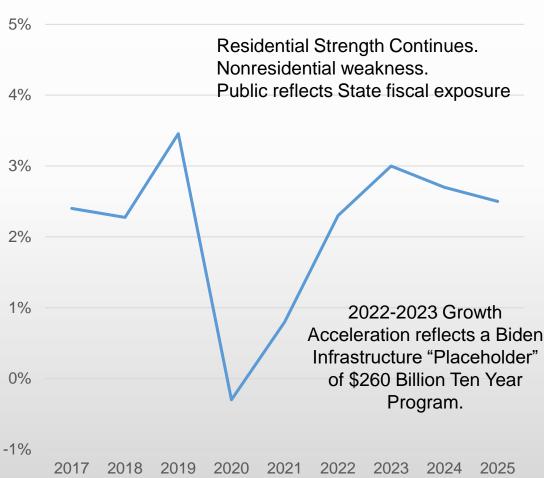
### **Cement Consumption**

**Metric Tons** 



#### **Cement Consumption Growth**

%, Y-O-Y





# The Biden Agenda: Infrastructure



### Biden Plan & Moving Forward Act

**Key Point.** 

The proposed program, as we see

it, is more massive than any

previous infrastructure program.

\$1,954.0

#### "Hybrid" Baseline Level of Detail: \$2 Trillion over 4 Years

#### Item

Highways	\$494.0
Low Carbon Technology & Research	\$400.0
Road & Bridge Repair	\$300.0

School Building Repair & Modern

Rail Infrastructure

Affordable Housing

**Broadband Internet** 

Renewable Energy

Total

Misc. Green Projects	\$70.0
Water Infrastructure	\$58.0
Transformation Projects Fund	\$40.0
Hospital Upgrades & Expansion	\$30.0
Urban Revitalization Projects	\$18.0
Airport Direct Funding	\$14.0

The "Face Value" plan is more than 8 times the size of PCA's "placeholder of \$235 billion over 10 years.

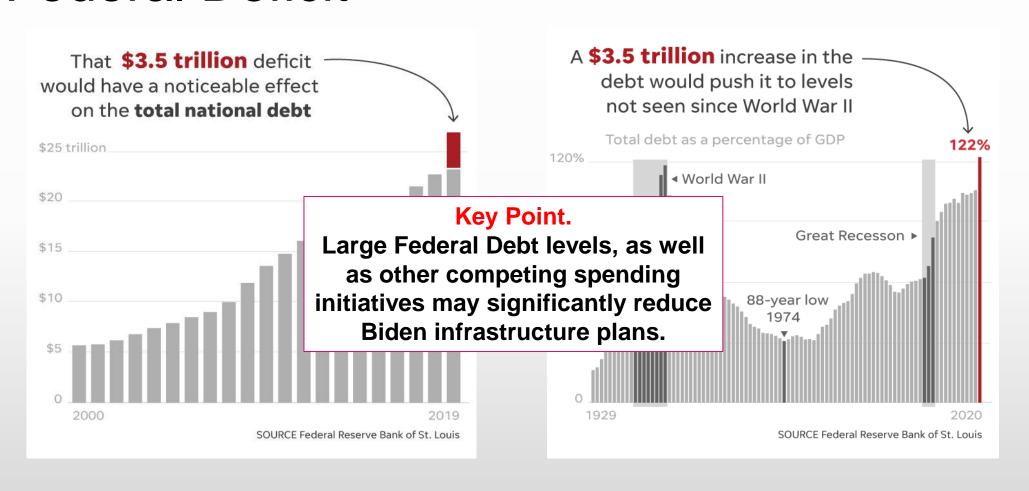
PCA combines information from the Biden infrastructure plan and the Moving Forward Act passed by the House to garner potential details. From there, cement intensities are assigned.

Very rough estimates suggest massive - UNPRECEDENTED increases in annual cement consumption beginning in 2023.



### **Federal Deficit**

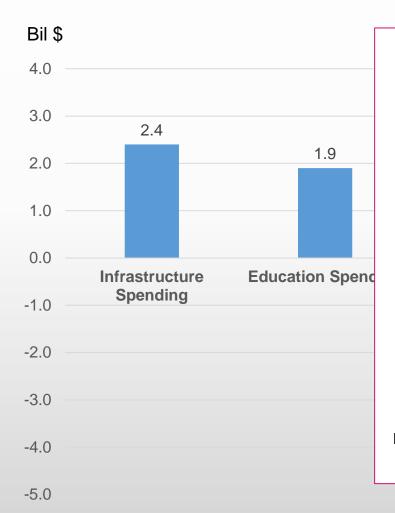
## Estimates Prior to the recent Covid relief and excluding further relief efforts.





### **Federal Debt May Hinder Policy Actions**

(Billion \$, 2021-2025)



#### **Key Point**

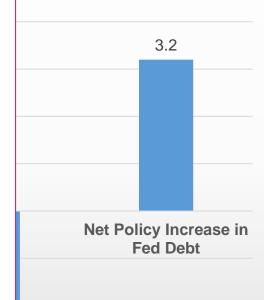
Federal Debt has risen to such high levels that it requires policy attention.

As a result....

The intentions of Biden's "Face Value" spending/investment programs may be compromised down to less ambitious programs.

And....

Suggests that the *actual* stimulatory impact on the economy and cement consumption may be much less than the implied "Face Value" levels.



e in

Tax Revenues

