



# Welcome to Our Spring Education Series

## RESILIENCE

PREPARING FOR THE NEXT DOWNTURN

*Helping you and your clients confront risk  
and optimize business performance!*

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**Friday, May 1, 2020**

# **Gripped by COVID-19: An Economic and Geopolitical Outlook Past the Media Headlines**



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**Spring Webinar Conference - May 1, 2020**

**Gripped by COVID-19:  
An Economic and Geopolitical Outlook Past the Media Headlines**

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*[www.EconomicOutlookGroup.com](http://www.EconomicOutlookGroup.com)*



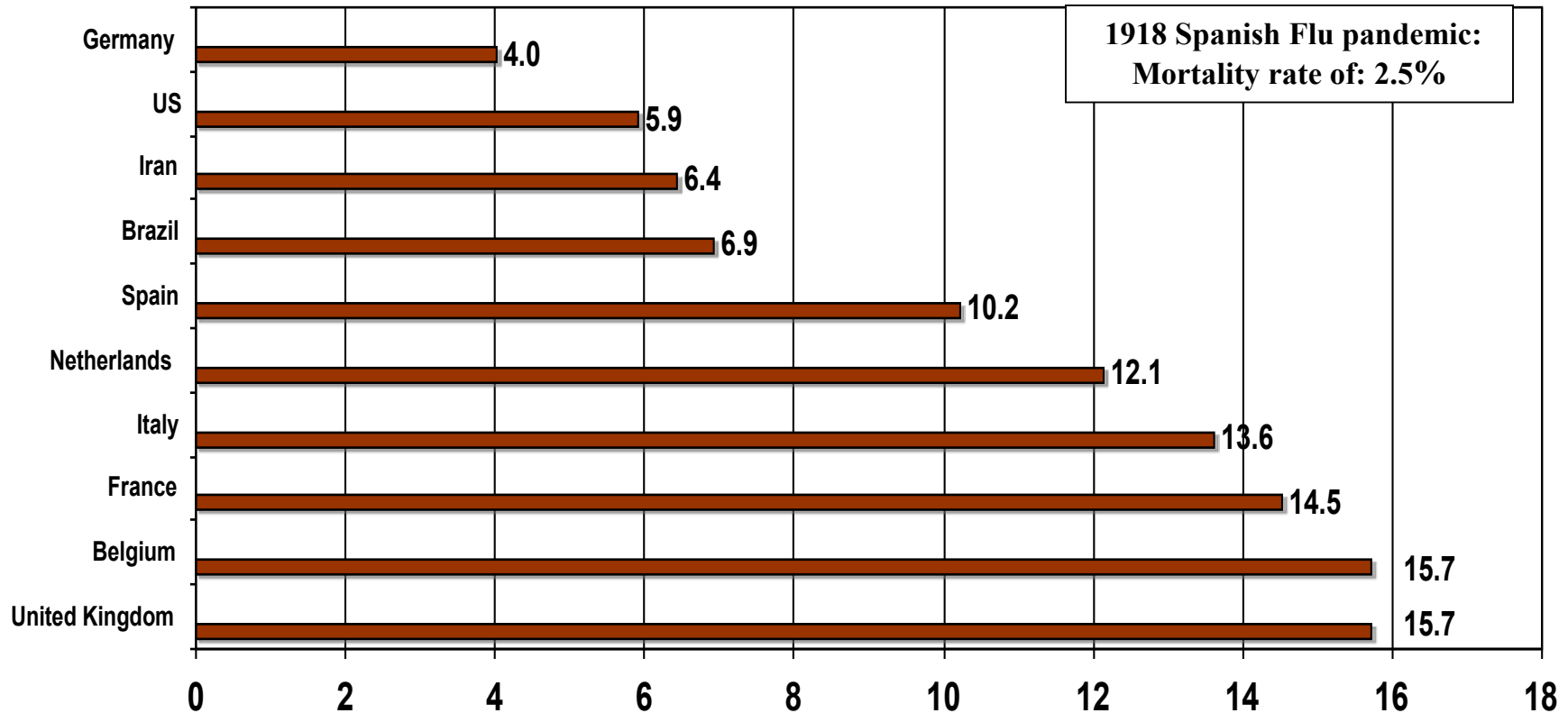
**The Economic Outlook Group LLC**

# **We are at a defining moment in world history!**

- **Covid-19: A pandemic bomb paralyzes the world economy.**
- **Emergency stimulus plans to revive US economic activity.**
- **What's next? Three scenarios on how this virus plays out.**
- **Presidential election: Its influence on economic activity in 2021 and 2022.**
- **Post Covid-19 world: What will the economic and business landscape look like?**
- **More exogenous shocks to come; how to prepare for them?**

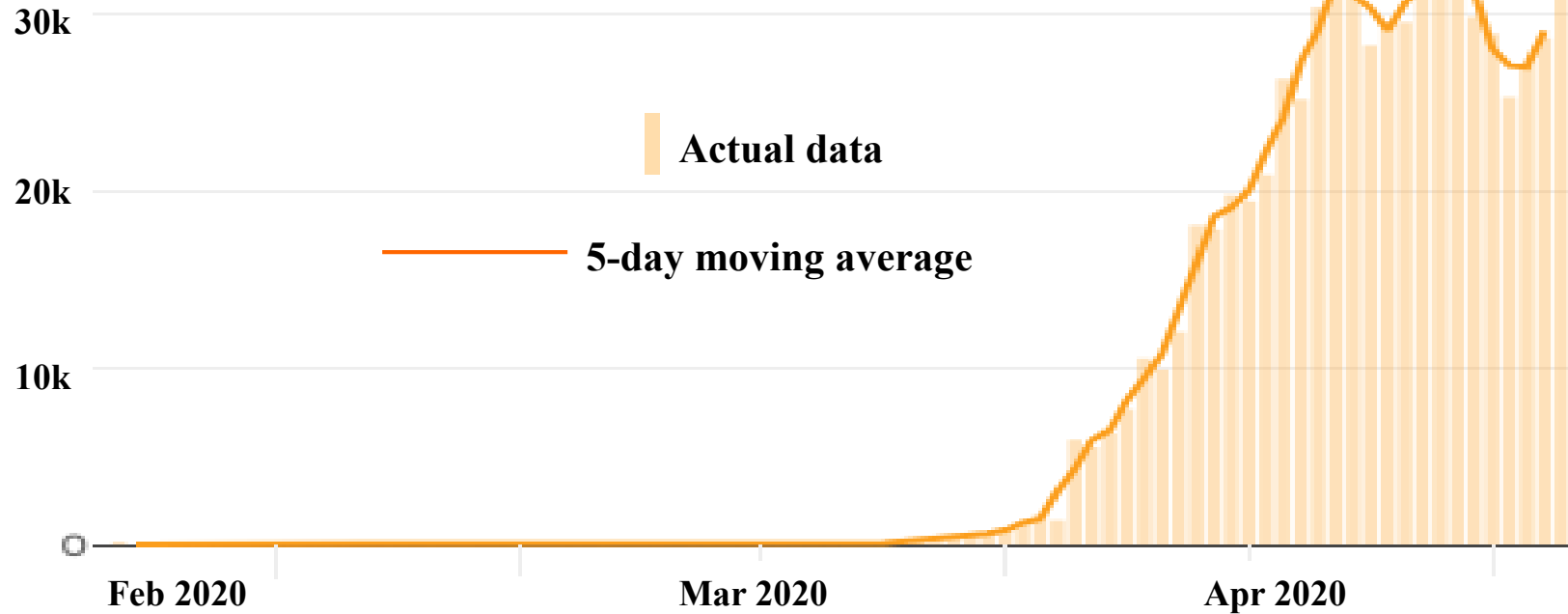


## Mortality rate of Covid-19: % of fatalities per 100 confirmed cases



## The number of new patients with the coronavirus *may* be plateauing

Confirmed new cases in the U.S.



# Fallout from the new coronavirus

## 1. US and world economy implodes in just weeks!

Consumer demand evaporates; unemployment surges; stores shutter;  
factories cease production; stock market in free fall;  
Washington unleashes the biggest stimulus ever in the fastest time ever.

## 2. This is not a recession but something totally different.

*"The Great Lockdown,"* marked by the speed & magnitude of the downturn.

## 3. Economic models are ill-equipped to handle the Covid-19 shock.

Not equivalent to an earthquake, hurricane or a terrorist act.



**What is certain at this point: We are going to get through this!**

- But...the longer it takes to arrest the virus, the more “permanent” damage it inflicts on the economy.
- It is NOT the multi-trillion dollars stimulus packages that will determine the time line for recovery.  
The virus that is calling the shots this time!
- There is an inverse correlation between an increase in infection rates -- and economic activity (with 3-6 month lag).



## Recession Warning Signs: 12 Key Indicators to Monitor Now!

## Consumer spending patterns:

- Consumer purchases of durable goods (Census, BEA)
- Personal savings rate (BEA)
- Confidence levels; 3-month moving average (CB & UofM)
- New single family home sales / Pending Homes sales (Census; NAR)

## Employment data

- Average weekly OT hours worked; manufacturing (BLS)
- New applications for unemployment benefits (BLS)
- Hiring plans (NFIB)

## Business :

- ISM manufacturing – new orders (ISM)
- Ratio of building permits to new starts (Census)
- Chemical Activity Barometer (ACC)

## Finance:

- Cost of capital to business (Yield spreads)

## Capital Markets:

- Shape of the yield curve (10-yr. minus 2 yr & 3-M)





# Shelter-in-place!

**With consumers hunkering down, nearly 65% of US GDP is at home.**

## Willingness to spend:

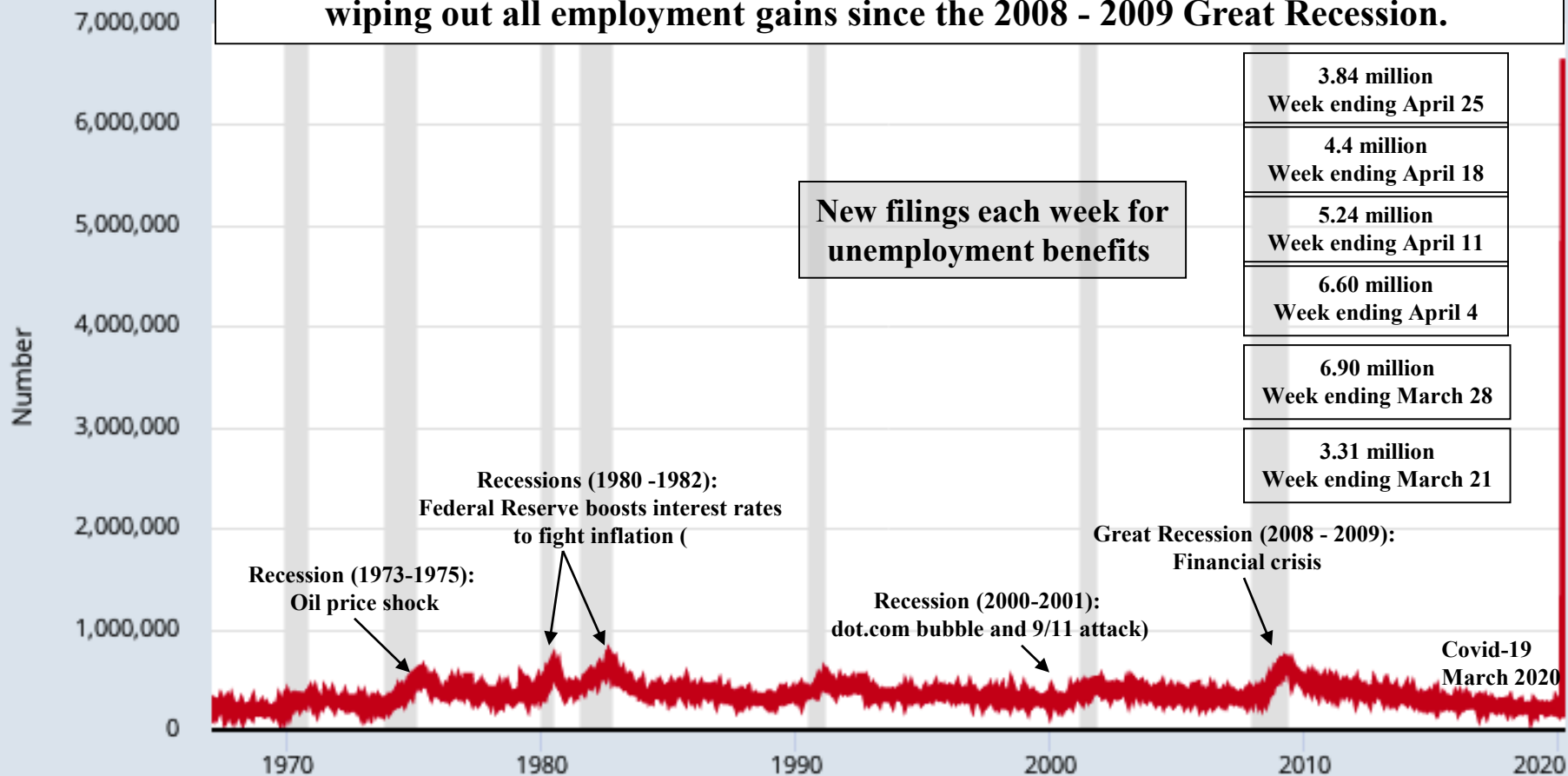
1. Americans are “instructed” to socially disengage to reduce spread of Covid-19.
2. As layoffs climb, worries mount about income and future job security.
3. Consumer sentiment has deteriorated for 3 consecutive months.
4. Consumers will limit spending to essentials; less interest discretionary goods.
5. Popularity and ease of eCommerce + digital payments increases online shopping. and deliveries of medicines, groceries, beverages and prepared meals.

## Ability to spend:

1. Stock market collapse has devastated personal investment portfolios and 401ks.
2. Drop in interest income significantly affects retirees and their inclination to spend.
3. Gov't \$1,200 checks and unemployment benefits help, but stress levels remain high.
4. Uncertainty + anxiety puts pressure on households to save more.
5. Personal delinquencies and defaults increase as the “economic lockdown” lingers.
6. Some good news: No need to worry about general inflation (except medical essentials).



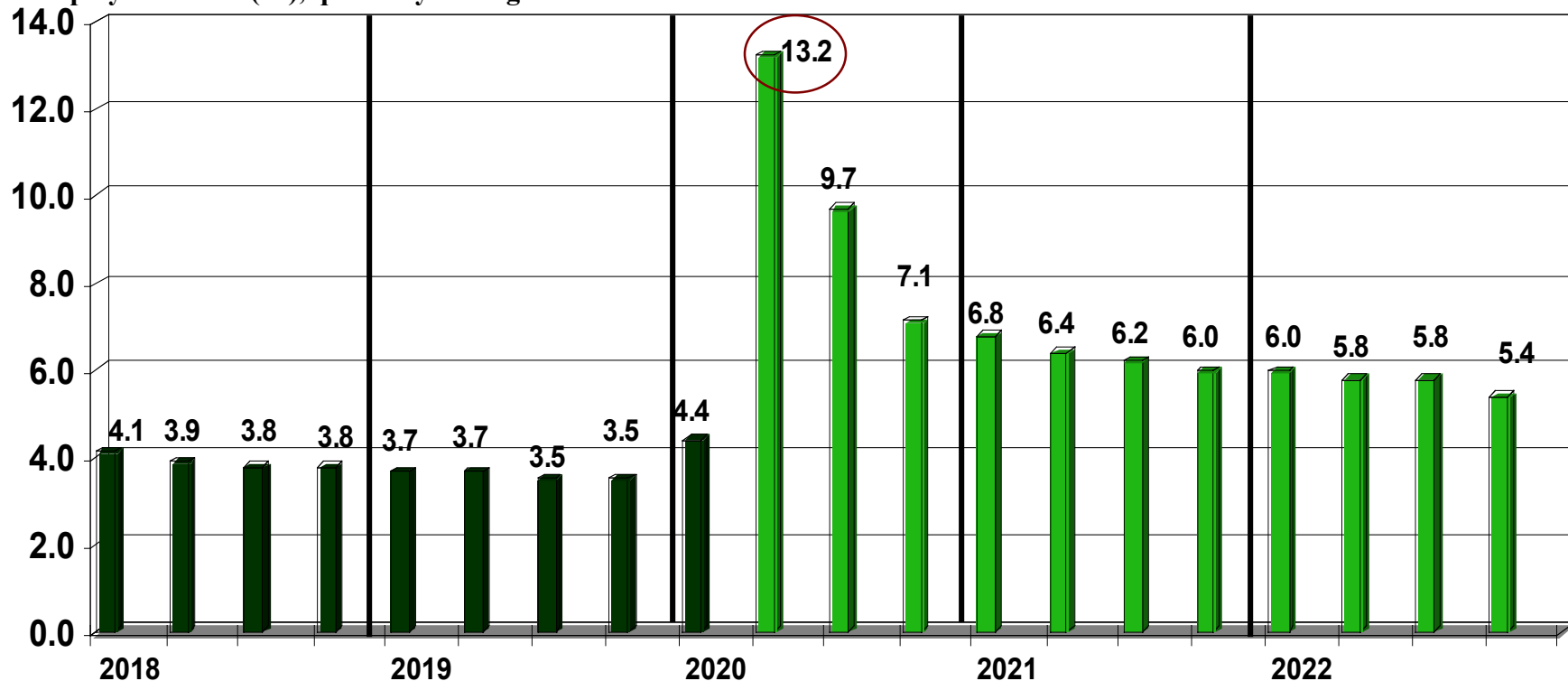
**In just *six weeks*, this pandemic eliminated 30 million US jobs,  
wiping out all employment gains since the 2008 - 2009 Great Recession.**



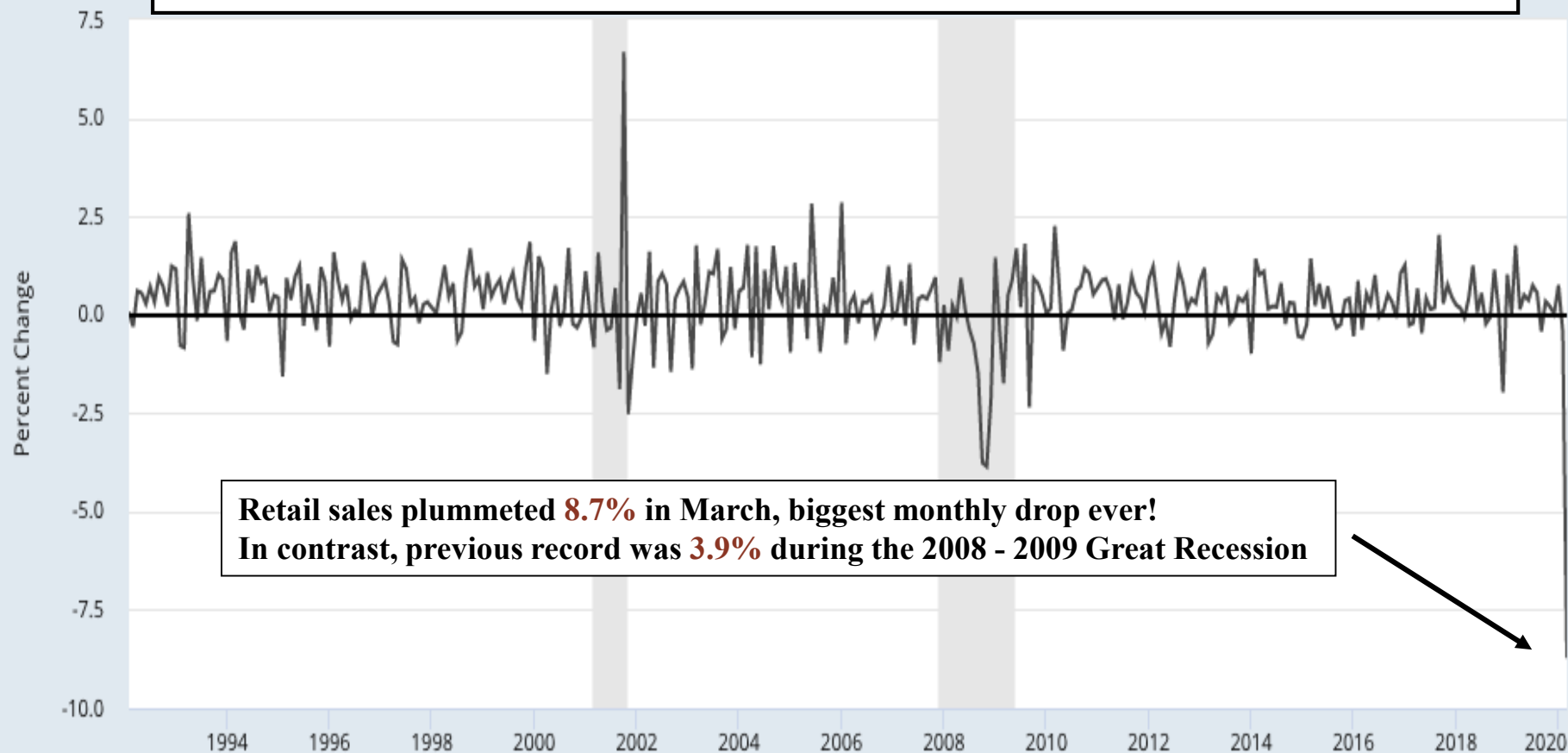
# Massive layoffs & furloughs: Unemployment to peak at 15.0% in 2Q 2020

Unemployment rate (%), quarterly averages

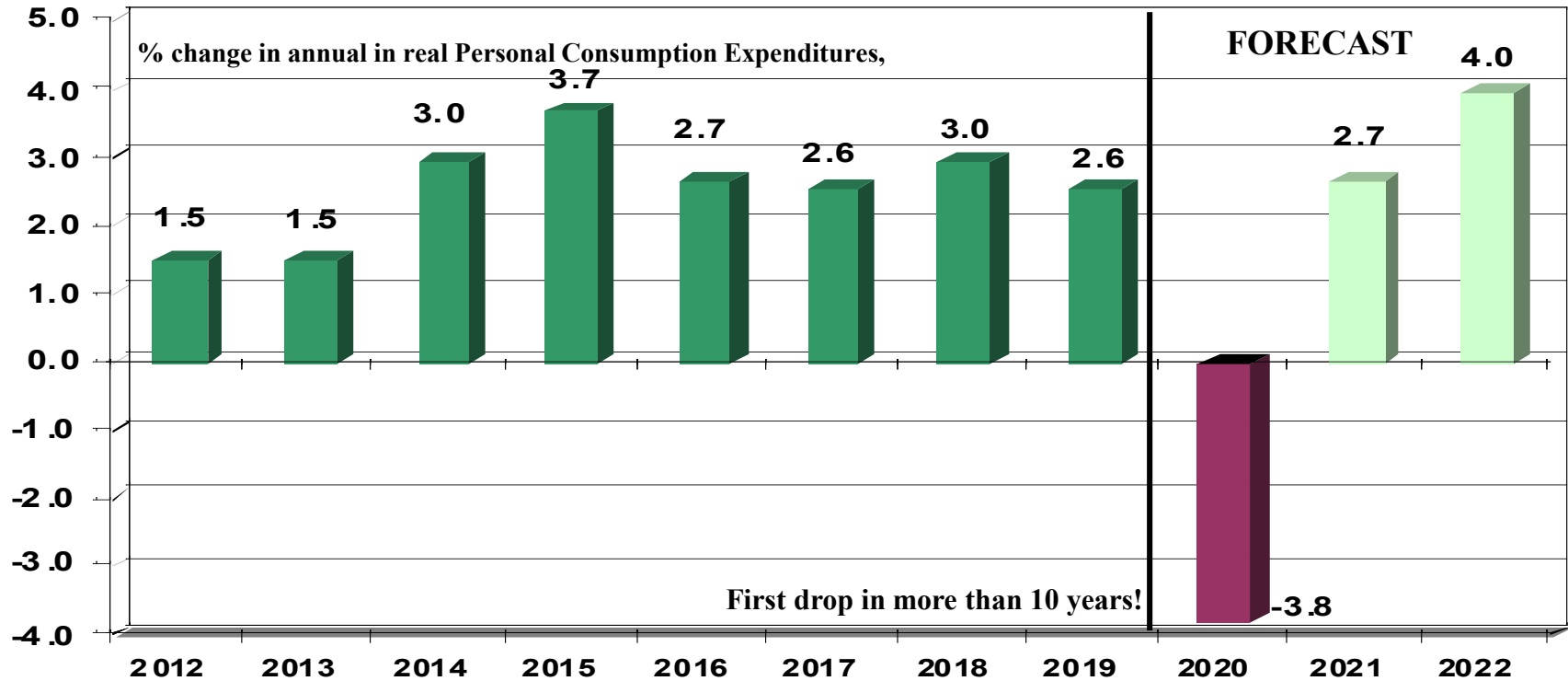
FORECAST



Historic drop in retail spending as malls closed and Americans stayed home.



**Consumers spending nosedives in 2020 due to stay-at-home orders and worries over job and income security. Pent-up demand to boost shopping in 2021.**



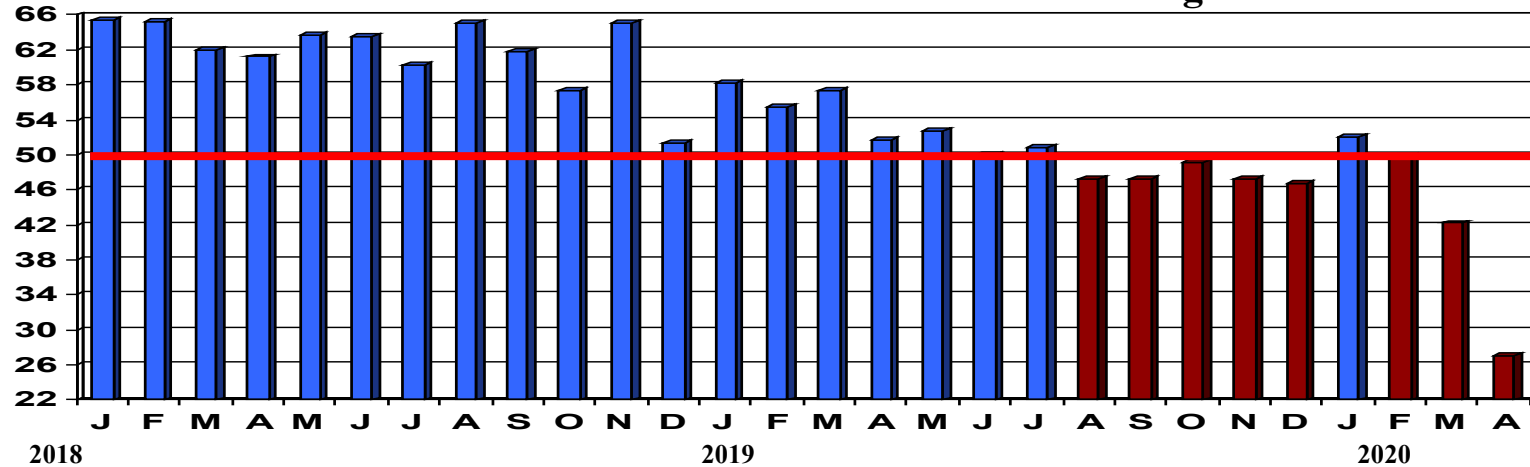
## **Business sector: Firms were set to increase much-needed Cap Ex in 2020, but the Covid-19 pandemic and collapse in oil prices changed everything!**



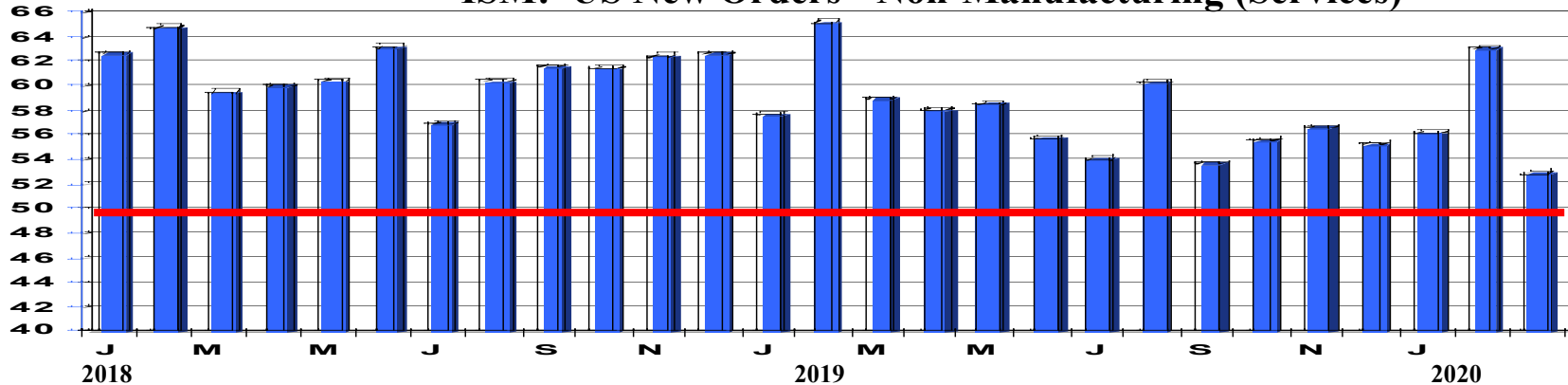
- Main focus now is to preserve cash and navigate through this economic deep freeze.
- Cash-strapped and indebted small and midsize firms struggle to survive.
- Firms are tapping credit lines and gov't funds to pay for rent, utilities, wages and service debt.
- Worst hit: Restaurants, retailers, transportation, hotels, casinos, farmers, real estate, shale oil.
- Many US manufacturers have ceased operations or drastically scaled back output.
- Rethinking how to reduce their reliance on foreign supply chains.
- WH-imposed tariffs remain in place and pose another headwind for struggling US firms.

Above "50" indicates new order are expanding  
Below "50" indicates new orders are contracting

## ISM: US New Orders - Manufacturing

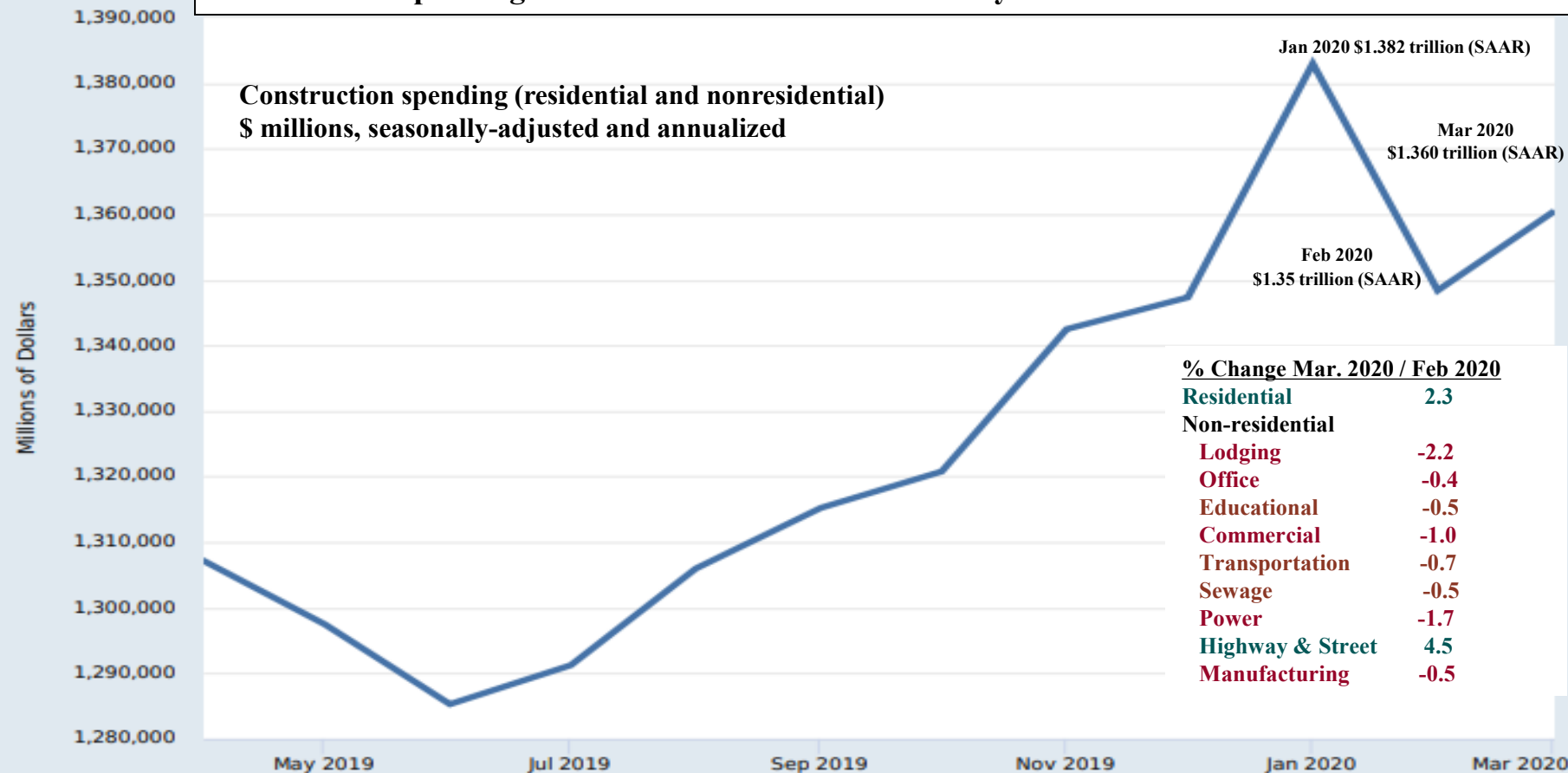


## ISM: US New Orders - Non-Manufacturing (Services)





# Construction spending rose in March as residential outlays offset decline in nonresidential.



## **Reports on commercial real estate activity from around the nation**

**(Source: Federal Reserve's Beige Book - April 15, 2020)**

**“Many commercial construction projects were put on hold due to uncertainty about viability or supply chain disruptions.”**

**--- *Federal Reserve Bank of Minneapolis***

**“Commercial real estate across the District have also ground to a halt with office, industrial and retail leasing largely ceasing....New construction starts have essentially fallen to zero.”**

**--- *Federal Reserve Bank of New York***

**“Commercial real estate construction fell 70% by the end of March — some contractors have no projects”**

**--- *Federal Reserve Bank of Philadelphia***

**“Commercial real estate activity decreased significantly, particularly for retail and office spaces.”**

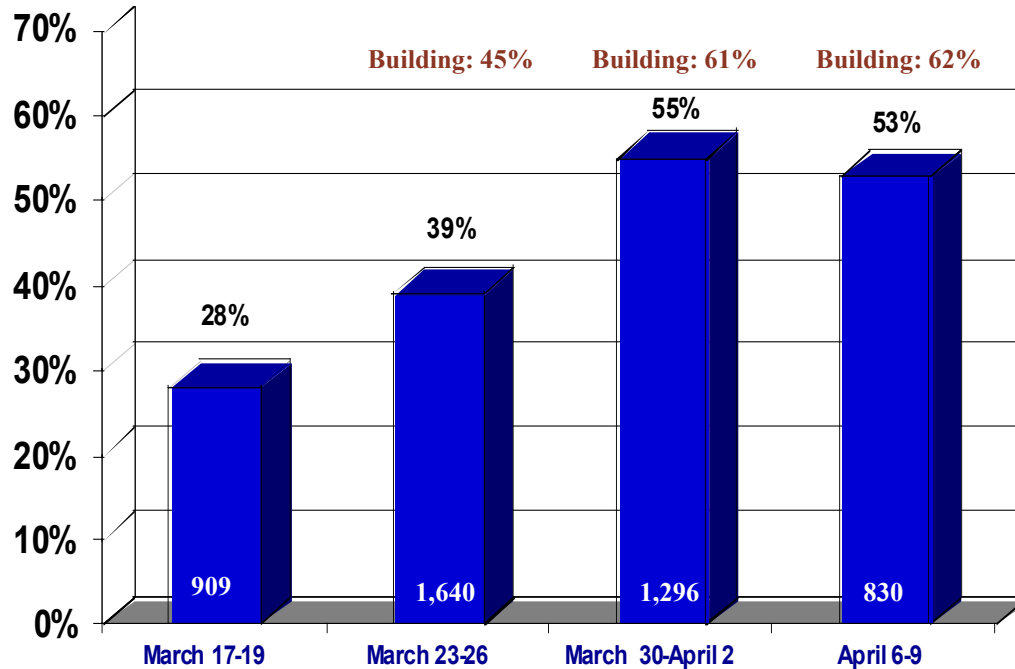
**--- *Federal Reserve Bank of Chicago***

**“Home sales and rentals, commercial leasing and construction have largely stopped.”**

**--- *National Summary, Federal Reserve Beige Book***

## Weekly Survey of CRE Construction Contractors (Building, Highway, Utilities, Federal)

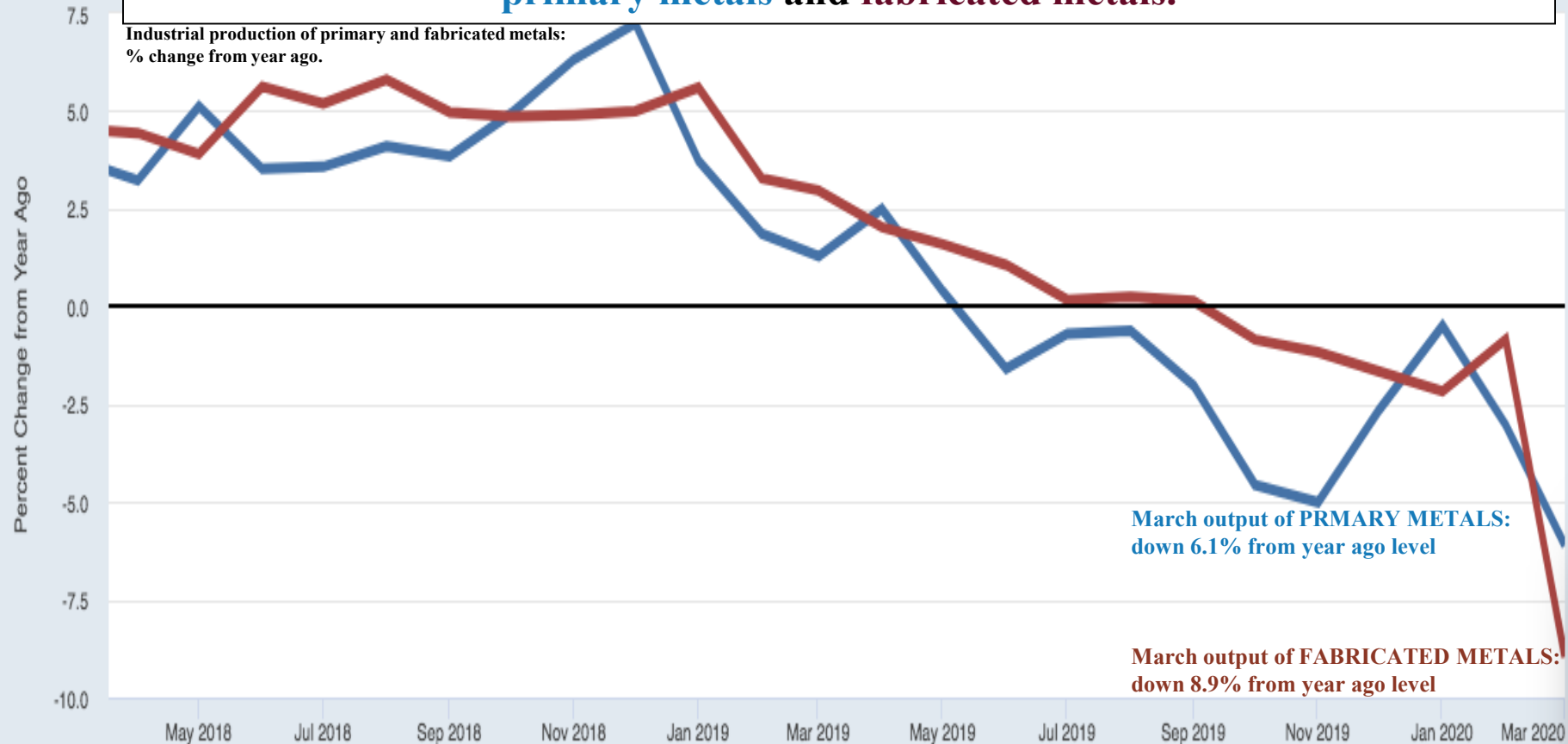
% of contractors who said an owner (including a public owner) directed them to halt or cancel work on a current or upcoming project.



### Among the main reasons cited:

- shortage of material and equipment
- lack of essential craft workers
- inability to get permits, C of O
- can't get inspections in a timely manner
- more workers infected with Covid-19

# Drop in auto, oil & gas, and construction activity has slashed US output of primary metals and fabricated metals.





**States and cities grapple over which construction sites are “essential” projects.**

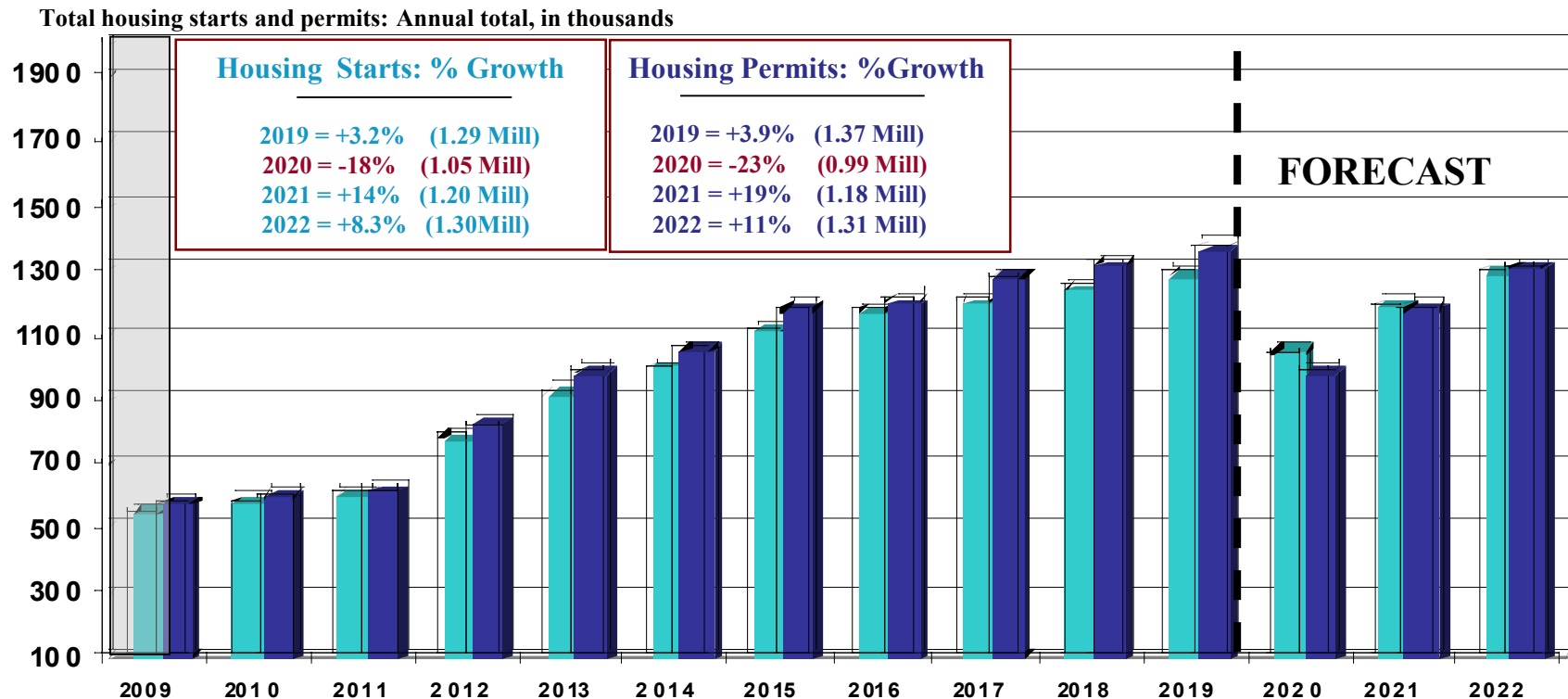
**Overall, Covid-19 will hit the CRE hard.**



**Forecast - Capital Spending: Structures**  
(% annual change)

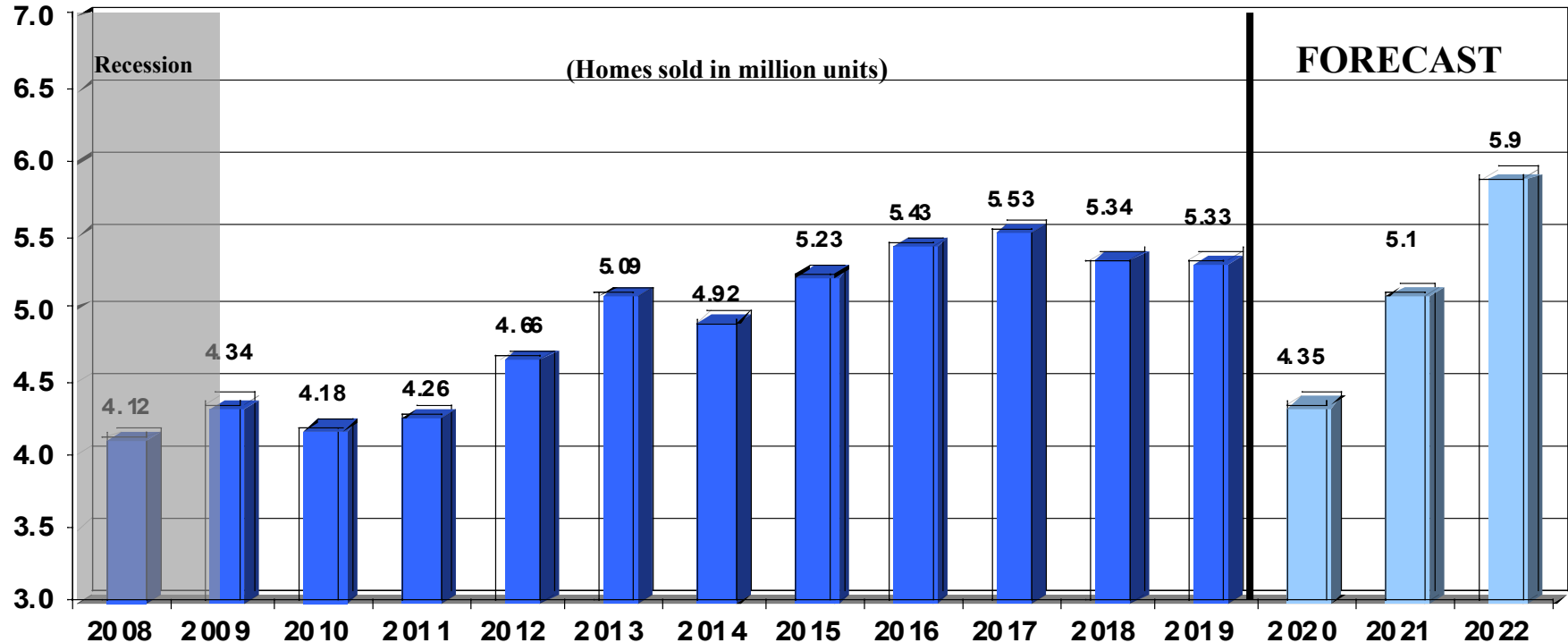
	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
<b>Nonresidential construction spending</b>	+ 4.3%	-19.5%	-2.4%	+6.7%
<b>Buildings (Offices, lodging, retail and etc)</b>	-3.1%	-20.2%	-1.8%	+9.2%
<b>Power &amp; Communications</b>	-3.0%	-8.1%	-1.4%	+4.5%
<b>Mining &amp; Petroleum</b>	-8.8%	-38.5%	-13.5%	+6.9%

**2020 was to be a stellar year for housing. But it came to a *screeching halt* with Covid-19.  
Homebuilding to be sharply curtailed. Builder showrooms are closed.**



## Existing homes sales to plummet in 2020: Realtors cancel open houses.

- Sellers do not want strangers in their homes now.
- Buyers are uncertain about future job security and income.





# To prevent an economic collapse, Washington digs deeper than ever into its tool kit

## **CARES ACT (Coronavirus Aid, Relief & Economic Security)**

### **I - IV Rescue Packages: \$3 trillion**

#### **For households:**

- Cash payments up to \$1,200 per person; would increase by \$500 per child. Income limitations. (\$292 billion)
- Extend unemployment benefits to 39 weeks & increase amount by \$600/wk for up to 4 months.
- Unemployment benefits this time includes self-employed and gig workers.
- Free testing for Covid-19
- Suspension of student loan payments for up to 6 months
- Paid leave coverage
- Aid to families affected by the coronavirus.

#### **Corporate assistance:**

- Aid to hospitals and health care centers. (\$250 billion)
- Reduction and delays in tax payments. (\$300 billion)
- Loans and grants to airlines and air cargo companies. (\$58 billion)
- Loans, grants & loan guarantees to cash-strapped businesses. (\$1.4 trillion)
- Federal aid to state & local communities to fight Covid-19 (\$150 billion)



# Federal Reserve's Emergency Stimulus Package: \$2.3 trillion

*"Shock and Awe"... "All Guns blazing"... "Presses all the buttons"... "The big Bazooka"*

**March 3rd:**

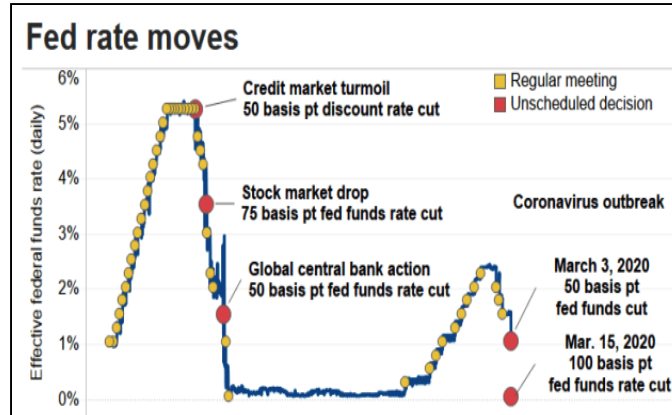
- Lowers the fed funds rate 50 bp to 1.88%

**March 15th:**

- Drops fed funds by 100 bp, to virtually zero!
- Will purchases of Treasuries and MBS up to \$700 billion.

**April (month to date):** Announces slew of new programs.

- Will buy Treasuries and MBS in unlimited amounts.
- Establishes dollar liquidity swap lines with foreign central banks.
- Launches half a dozen new lending facilities and expands existing ones.
- Federal Reserve Act Section 13 (3) permits the central bank to provide emergency lending to bank and non-bank entities.  
Under Dodd Frank Act, use of 13(3) will require permission from US Treasury Dept.



**Primary Dealers Credit Facility:**

Offers short term loans (overnight to 90 day loans) to two dozen Wall Street firms to facilitate the funding needs to businesses and households.

**Main Street Lending Facility (MSLF)**

Fed will use banks to funnel up to \$600 billion in loans to firms that have up to 10,000 employees or less than \$2.5 billion in 2019 revenue.

**Municipal Liquidity Facility (MLF)**

Purchase municipal debt directly from of states, cities (pop. of 1 million+) and counties (pop.2 million+). With maturity of 24 months or less from date of issuance, Will pump up to \$500 billion into the \$3.9 trillion US muni bond market.

**Commercial Paper Funding Facility (PDCF)**

Purchase high quality (unsecured and asset-backed) 90-day commercial paper to secure smooth functioning of CP market.

**Primary Market Corporate Credit Facility (PMCCF)**

Will purchase investment grade bonds directly from US-based issuers. Also provide loans of maturities of 4 years or less to top-rated firms.

**Secondary Market Corporate Credit Facility (SMCCF)**

Fed can purchase corporate debt of “fallen angels” provided they fell into junk bond status as of March 22nd  
Will also buy ETFs that also include high-yield corp. bonds.

**Term Asset Backed Loan Facility (expands TALF program introduced in 2008)**

Fed provides low interest loans to investors to purchase securities backed by small business loans, credit card debt, student loans, auto loans, CMBS and CLOs, Must be AAA rated and US-based. (CMBS must be issued prior to March 23rd. CLOs on or after that date.)



# So **WHEN** will all this stimulus revive the economy?

## Two factors will determine the pace of economic activity 2020 - 2022:

### 1. Once the virus no longer poses a major public health threat.

It's not fiscal and monetary economic policies that will dictate the time line. The virus is calling the shots this time!



### 2. Who wins the presidential election?

The two principal adversaries (Trump & Biden) have radically different policies and personalities.

Whoever wins the presidency will shape the economy's recovery.



## Three Covid-19 scenarios and their impact on the economy

### Scenario 1. The infection and mortality rates peak late spring/summer 2020.

An anti-viral drug and/or vaccine becomes available more quickly.

Greatly reduces the risk of a Covid-19 relapse next season

The \$10 trillion + stimulus packages will produce a healthy rebound:

**Growth rate 2nd half of 2020 = +4% to +6%; GDP for 2020 = -2%**

### Scenario 2. Infection and mortality rates decline in 4th quarter of 2020.

Anti-viral drugs and vaccines finally become available end of year.

Stimulus package will only have a modest impact on the economy in 2020

**Growth rate 2nd half of 2020 = +2.8%; GDP for 2020 = -5.0%**



### Scenario 3. Infection and mortality rates peak mid-year 2021.

Anti-viral drugs or vaccines does not become available until spring/summer 2021.

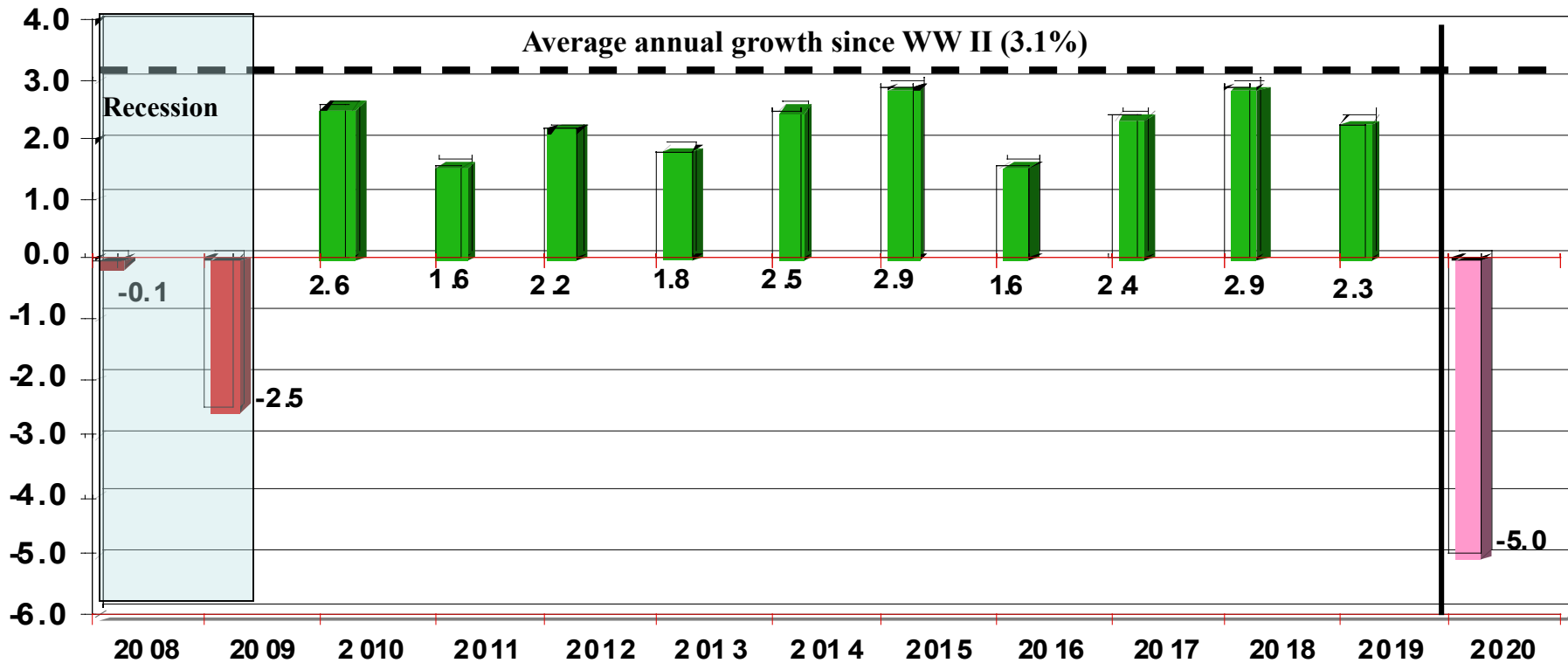
Stimulus package will have no discernable impact on the economy in 2020 AND 2021.

Reason: Covid-19 spreads faster and has a greater fatality rate than the 1918 Spanish Flu pandemic. Americans will thus not socialize/travel/ work until the virus comes under control. Also, an economic downturn of a year or more will result in many business casualties, industry consolidations and lost jobs.

**GDP growth for 2020: -15%; Growth in 2021 = +2%**

# Baseline Forecast for U.S. GDP growth 2020

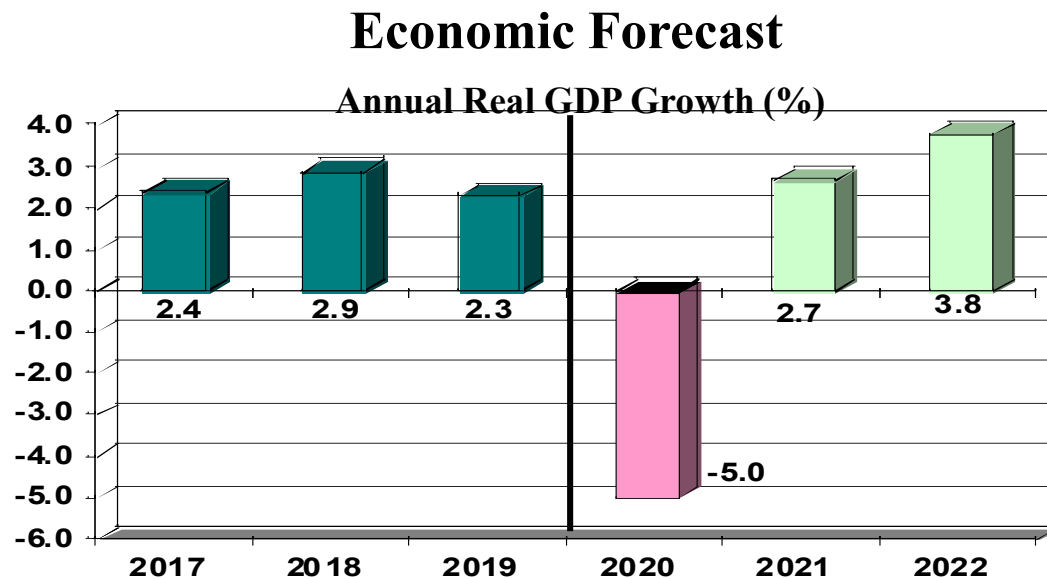
## Annual Real GDP growth (%)



**Our baseline forecast with following assumption:**

**Presidential Election:**

**Joe Biden wins the presidency**



### Changes in Policy & Economic Climate: 2021 - 2022

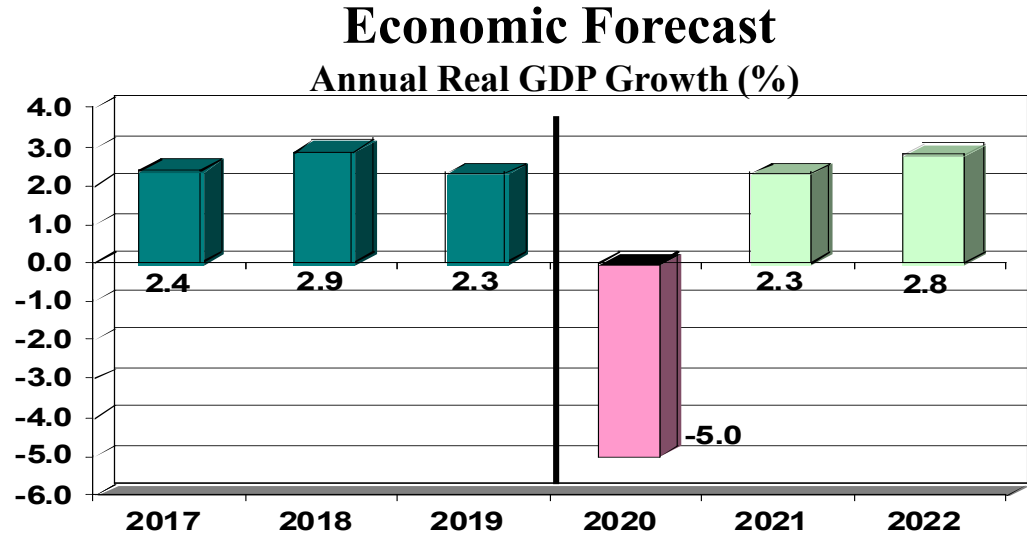
- **Post-COVID 19:** Consumers and businesses adjust to the new economic landscape.
- **Low interest rates and energy prices + stimulus checks** allow for more discretionary outlays by households.
- **Additional fiscal spending** on education, climate protection, infrastructure investments.
- **Partial rollback of 2017 Tax Act;** More tax cuts for middle/low income households.
- **More clarity on trade and climate policies.** US to rejoin TPP (now called CPTPP) and Paris Climate Accord.
- **Global economic activity picks up** as uncertainty over trade, tariffs, and foreign policies fades.



## Alternate Scenario

### Presidential Election:

**Donald Trump wins a second term**



### Changes in Policy & Economic Climate: 2021 -2022

- **Post-COVID 19:** Consumers and business adjust to the new economic landscape.
- **Low interest rates and energy prices** + stimulus checks allow for more discretionary outlays by households
- **WH resumes tough stance on trade with China, Europe and other countries during second term.**
- **Faced with another four years of uncertain trade policy, businesses pull back on CAP EX.**
- **Trump unlikely to re-appoint Jerome Powell as Fed chair in 2022. Change unnerves financial markets.**
- **Geopolitical tensions worsen with Iran, North Korea, Venezuela and in the South China Sea.**
- **More deregulation to come.**

# A post Covid-19 world: Expect 10 changes in the business landscape

## 1. **Corporate casualties:** Historic number of small and midsize businesses to fail.

Expect major consolidations across different industries. (Examples: restaurants, hotels, small airlines, shale oil producers, malls, mom & pop retail shops)

## 2. **Supply chain reassessment:** Avoid dependence on single-point global supply chains.

But the diversification of suppliers or plant relocation will not be easy.

--- Do other countries have enough skilled workers? Machine tools? Adequate quality control?

--- Do they have sufficient infrastructure: modern roads, rails and ports?

--- How likely is it the US will eventually boost tariffs on those countries too?

## 3. **Repatriating supply chains:** Have the economics of domestic production improved?

--- Foreign labor, production and transportation costs have increased.

--- Trans-ocean shipping more expensive as cargo industry has consolidated.

--- New IMO caps on sulfur emissions for ocean going vessels will drive up freight rates.

--- US technology & productivity: AI, robotics, 3-D printing can help produce more at lower costs.

--- US suppliers/manufacturers can more easily manage just-in-time inventory policies.

--- **Big Question: Will customers be willing to pay a higher price if made in the US?**

## 4. **More employees to work offsite:** Companies now have real time experience on the costs & benefits of having employees regularly work out of their homes. (Reduces health risks & lessens the need for costly office space)

# A post Covid-19 world: Expect 10 changes in the business landscape

5. **Corporate travel policies to change.** Slash non-essential travel. Video conferencing becomes more popular as the technology and security improves. Will affect airline and hotel revenues.  
(Airlines to consider ending three-row seating as a marketing tool.)
6. **Change in human psychology:** Hand shakes may be discouraged.  
Americans will be less inclined to return to a crowded work environment until they have been vaccinated
7. **Fundamental changes coming to public health:**
  - **National Security:** Expect less spending on military defense as more funds are diverted to reducing reliance on China and India for critical medicines and equipment. Theme: “Protect the country against future pandemics.”
  - Establish an emergency stockpile (much like an SPR for oil) of HC equipment and supplies.
  - Hospitals will rely on 3-D printers to make protective gear as needed.
  - Life science revolution: Investment surges on gene editing (CRISPR) to fight enemy viruses.
  - Telemedicine to become widespread. Diagnostic tests taken from home with results transmitted online to MDs.
8. **Consumer preference for online shopping:** Demand for warehouse space and transport to the last mile will climb.
9. **Federal Reserve’ s independence in jeopardy:** Future politicians will note Fed’s readiness to monetize massive debt.
10. **Public policy:** Fear of foreign-born viruses may result in xenophobia and lead to new international travel barriers.

**“Necessity is the mother of inventions”**

**In a post Covid-19 world, consumers and businesses will rely on new products!**

**NEED SOME FANCY SHOES FAST?**

**Purchase the proprietary codes and your home 3-D printer will manufacture a pair!**



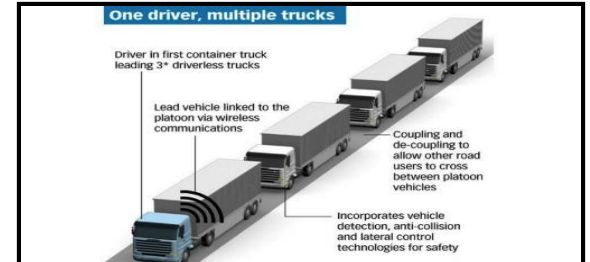
**CAN'T FIND ENOUGH WORKERS FOR CONSTRUCTION:**

**Have robots lay bricks on location and save time and labor costs.**



**HOW CAN TRUCKING FIRMS SAVE ON FUEL, LABOR COSTS AND REDUCE EMISSIONS?**

**Wireless communications now allows for “platooning,” one driver followed by multiple trucks or trailers.**



# OPEC Plus “consensus” to reduce crude output is too little, too late. Too much oil — nowhere to go, nowhere to store!

## Latest accord details (based on April 12th virtual G-20 meeting):

- OPEC + to cut production by 9.7 MBD beginning May 1st and lasts thru June 2020.
- July 1st thru end of 2020, output is reduced to 7.6 MBD
- Jan. 2021 thru April 2022, products is cut to 5.6 MBD
- If the US, Canada, Norway and Brazil agree to join, total cuts would amount to 19.5 MBD.

**PROBLEM: Covid-19 slashed global demand by 20 - 30 MBD. So oil glut will not disappear.**

### SAUDI ARABIA:

--> Needs \$80 bbl. to finance its budget (for, diversification, war effort in Yemen, defense against Iran, foreign aid for Middle East allies.

### RUSSIA:

--> Requires \$42 a bbl. for its budget. Ruble has also depreciated.  
--> Saw the pandemic as an opportunity to wipe out high-cost US shale producers.  
--> Russian oligarchs (e.g., Rosneft) were furious about US sanctions on Russian oil exports.  
--> Oligarchs angry US oil exports were cutting into Russia's market share.

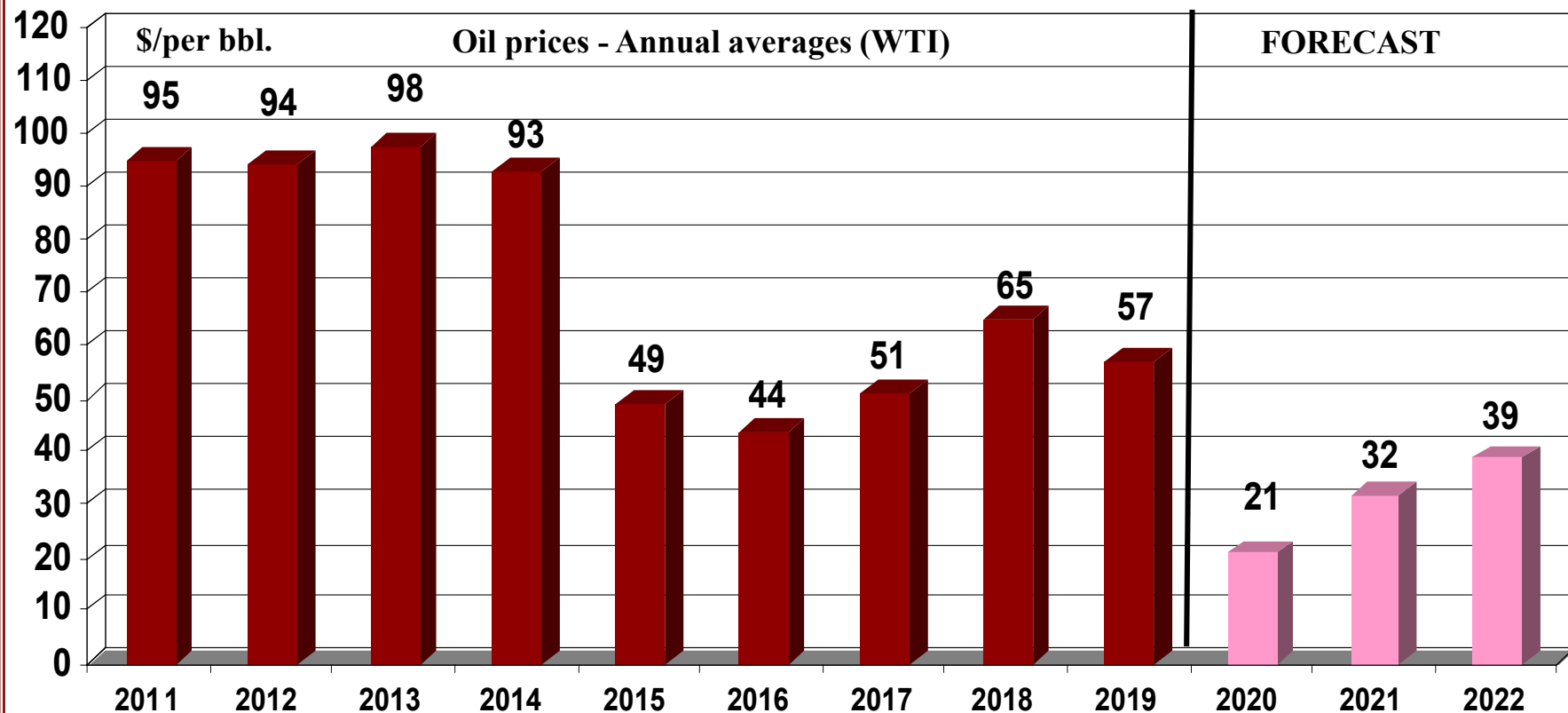
### US:

→ Shale producers are shutting down. Many won't survive with WTI prices in \$15 - \$30 per barrel.  
→ Defaults to climb. Price of credit default swaps surges. Expect consolidation in the industry.



# “Price kills price” in the oil industry!

Crude at \$15 - \$30 bbl. is not sustainable. US producers will leave oil in the ground.



# Average age of America's capital stock is oldest on record (to 1925)!

## Age of private fixed capital: Average age is 23 years, oldest in 63 years.

- Manufacturing structures - 23.0 years old, near its 1946 peak (23.2 yrs)!
- Industrial equipment - 9.8 years old. Nearly oldest since 1939
- Healthcare facilities - 21.6 years, oldest ever.
- Power & communication structures - 23.6 years old.
- Housing - 35 years, oldest since 1947.



## Age of government fixed assets: Average age is 24.8 years, oldest in 93 years!

- Highways and streets (Federal) - 37.9 years, oldest ever.
- Highways and streets (State & local) - 28.8 years, oldest ever!
- Sewer systems (State & local) - 28.3 years, oldest ever!
- Water systems (State & local) - 28.4 years, oldest ever!
- Public transportation (airports & seaports) - 20.1 years, oldest ever!



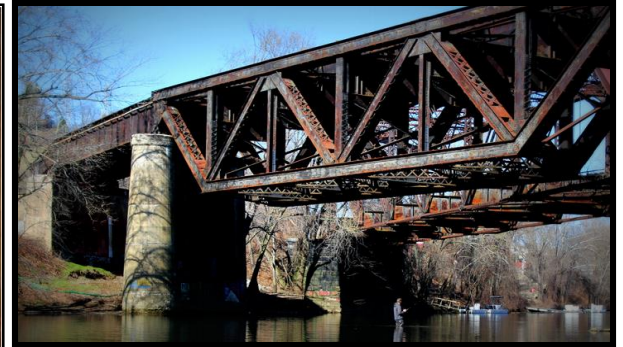


# Decrepit infrastructure holds back economic growth:

But money and politics often gets in the way of much-needed repairs.

## EXAMPLES:

- Philadelphia still relies on underground pipes installed *before* the Civil War.
- 84,000 bridges considered functionally obsolete.
- 58,000 bridges deemed “**structurally deficient**,” yet still carry 180 million cars a day!



- There are more than 650 water main breaks a day on average in the US; 240,000 a year.
- Leakages and spills waste an average of **5.8 billion gallons of water each day!**

# United States

## Baseline Forecast: 2020 - 2022

	I 2019	II 2019	III 2019	IV 2019	I 2020	II 2020	III 2020	IV 2020	I 2021	II 2021	III 2021	IV 2021	I 2022	II 2022	III 2022	IV 2022
Real Gross Domestic Product (GDP):																
%	3.1	2.0	2.1	2.1	-4.8	-23.7	1.7	4.4	2.2	2.8	2.5	3.1	2.8	4.5	4.0	3.7
Personal Consumption Expenditures:																
PCE %	1.1	4.6	3.2	1.8	-7.6	-19.5	2.4	5.1	2.3	2.5	2.7	3.3	2.4	5.1	4.8	3.7
Inflation, end of period, year-over-year:																
CPI %	1.9	1.6	1.7	2.3	1.5	-4.3	-0.6	1.3	1.6	2.2	2.5	2.1	2.4	2.5	2.3	2.2
Unemployment Rate (end of period):																
%	3.8	3.7	3.5	3.5	4.4	13.2	9.7	7.1	6.8	6.4	6.2	6.0	6.0	5.8	5.8	5.4
Non-farm Payrolls, monthly avg. thousand:																
	174	152	188	210	-71	-335	-85	38	85	110	135	140	135	120	110	115
Treasury 10-yr Note Yield % (end of period):																
	2.42	2.00	1.65	1.88	0.63	0.70	1.00	1.25	1.50	2.00	2.55	2.80	2.80	2.95	3.00	3.20
Federal funds rate % (end of period):																
	2.38	2.38	1.88	1.63	0.13	0.13	0.13	0.13	0.13	0.13	0.63	1.13	1.63	1.88	1.88	1.88

## GDP Growth - Global Economy

Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
US	2.6	1.6	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.3	-5.0	2.7	3.8
Eurozone	1.7	1.4	-0.9	-0.2	1.4	2.1	1.9	2.5	1.9	1.2	-5.8	3.1	4.2
United Kingdom	1.7	0.7	0.3	1.8	2.9	2.2	1.9	1.9	1.3	1.5	-5.7	3.1	3.9
Japan	4.6	-0.4	1.6	1.5	-0.1	1.1	0.5	2.2	0.3	0.7	-5.5	2.4	3.2
Canada	3.1	3.1	1.8	2.3	2.9	0.7	1.0	3.2	2.0	1.6	-6.0	2.7	3.4
India	8.4	8.6	6.7	4.9	7.4	8.0	8.1	7.2	6.8	4.2	2.2	6.1	7.4
China	10.5	9.5	7.8	7.7	7.3	6.9	6.7	6.8	6.6	6.1	2.4	7.2	6.5
Brazil	7.5	2.7	0.9	2.3	0.1	-3.5	-3.5	1.2	1.2	1.1	-3.2	1.8	2.7
Mexico	5.2	4.0	3.9	1.4	2.3	2.7	2.7	2.4	2.1	-0.1	-7.0	1.8	2.8
Australia	2.8	2.6	3.6	2.4	2.6	2.5	2.4	2.4	2.7	1.8	-6.9	2.2	4.1
Russia	4.0	4.3	3.4	1.3	0.6	-2.8	-0.2	1.6	2.5	1.3	-4.5	1.9	3.0
World	4.2	3.1	2.5	2.6	2.8	2.8	2.6	3.4	3.2	2.9	-3.3	3.5	4.2

So...what *more* could possibly  
go wrong?





## Biggest hazards on the radar screen!



### United States

- Delays in the availability of vaccine for the public.
- Coronavirus mutates and reduces the effectiveness of a vaccine.
- US sleep walks into a national debt crisis. FY 2020 *budget deficit to exceed \$3.8 trillion and \$2.1 trillion in 2021*. National debt held by the public to be more than total US GDP.

Who will continue to finance it, and at what cost (interest rate) in the coming years?

- Trade deal w/China collapses; US slaps new round of tariffs on China, Europe and others.

### International

- US adversaries (Russia, China, Iran, North Korea) take advantage of America's distractions.
  - > Iran enriches uranium above 20%. Prompts US or Israel to strike back militarily.
  - > US and Chinese military confrontation: South China Sea, Hong Kong, Taiwan.
- Cyber world war: Foreign state launches cyber attack on US and harms the US economy.
- Venezuela: a major flashpoint between the U.S. and Russia.

# Exogenous shocks will become more common...and more consequential!

## How to prepare for such scenarios?

1. Companies should undertake “rigorous” stress tests to determine their greatest vulnerabilities.
  - Conduct “what if” scenarios: Introduce adverse hypothetical scenarios (e.g. systemic power failure or pandemics, no access to the internet and credit lines.)
  - How to cope under such dire circumstances and remain both operational and profitable?
2. Consider cyber theft insurance, upgrade software, and finally hire firms to hack into your system.
  - Average time it takes a U.S. firm to identify a breach = 201 days
  - Average time it takes to contain the breach = 70 days
  - Average cost of a single data breach = more than \$4 million (Source: IBM)
3. Geopolitical / Health / Climate threat preparedness:
  - Dedicate a risk management team to engage in geopolitical forecasting, especially where one has foreign exposure (e.g., customers, supply chain sources, key investors, real estate, banking relationships.)
4. Customers demand reliability of service --- or they'll walk! Be proactive. Focus on being agile.
  - Prepare in advance a governance plan that can be implemented quickly to mitigate any harmful fallout from an external shock. *Your firm's reputation is always at risk.*



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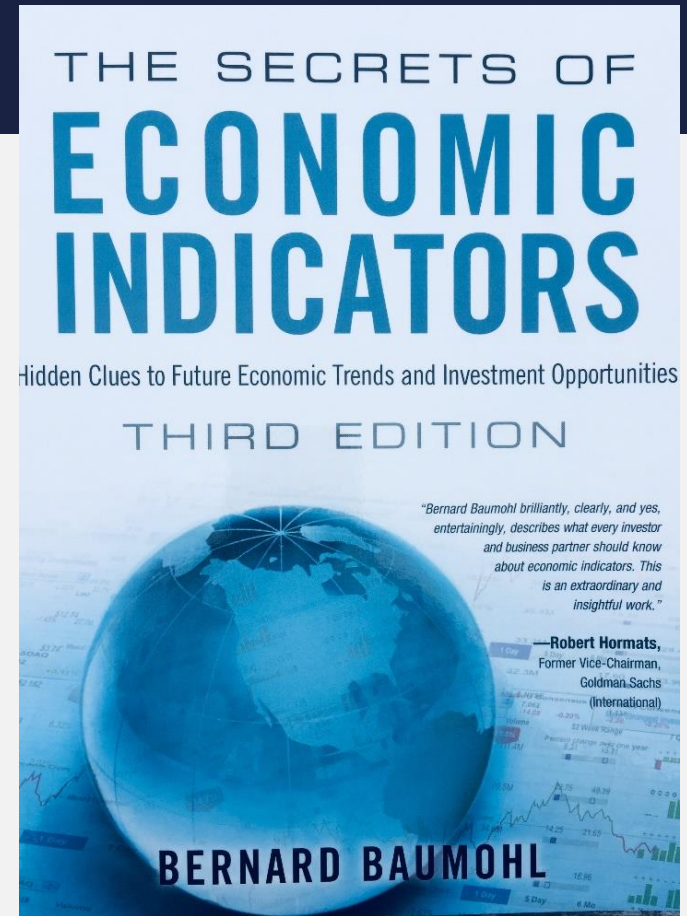


**Questions?**



# Available on Amazon

**Bernard Baumohl**  
**Chief Global Economist**  
**The Economic Outlook Group, LLC**



# Surveys & PDHs

- After the webinar, registered participants for this “live” presentation will receive an e-mail with a short survey to complete and a certificate for Professional Development Hours (PDHs).
- This presentation will be placed on GBA’s website for on-demand viewing.  
*\* PDHs are not available for on-demand viewing.*

October 2019

## Preparing for the Next Recession Now

U.S. economic history is punctuated by recessions. The 2008-2009 recession was the United States' worst economic downturn since the 1930s and is now remembered as "the Great Recession." Nonetheless, some geoprofessional firms avoided major loss of profit; a few even thrived. But those that were not prepared - those that simply hoped for the best - experienced extremely negative impacts.

No one knows when the next recession will arrive, but most economists agree that another recession is certain. Most also agree that we're closer to the next recession than the last one. What does that mean for geoprofessionals?

History suggests that a recession affects the general economy by six to twelve months before the consulting-engineering industry is affected. Accordingly, if history repeats - as it often does - consulting-engineering firms leaders would have little excuse for not seeing a recession on the way and failing to take appropriate, proactive measures.

Are you preparing to prepare, or just hoping for the best?

**PREPARE FOR THE NEXT RECESSION NOW**

Be ready for the next recession by preparing now, while you still have the luxury of time. Consider implementing some of the following measures.

**Create or Update Your Strategic Plan**

If you already have a strategic plan in place, when was the last time you reviewed, challenged, and updated it? Now is the time to analyze the plan, ensure the conditions you considered when you established or last updated it still apply, integrate new ideas linked to present conditions and possible future conditions, and prepare your financials and your culture for any needed changes.

**Ask yourself if your market mix is viable in a declining/recessionary economy.**

If you are not appropriately diversified in markets, services, and geography, begin making the needed

Those that were not prepared experienced extremely negative impacts.

Ask yourself if your market mix is viable in a declining/recessionary economy.

GEOPROFESSIONAL BUSINESS ASSOCIATION

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## GBA NEWS

### GBA Director Spotlight — Ken Johnston (GZA GeoEnvironmental)

Volunteers that serve on the GBA Board of Directors dedicate significant time and energy providing leadership to our Association. Not all our Board Members take the same path to leadership. In this spotlight, read about Ken Johnston's path to leadership as he took a road less traveled.

Read about Ken Johnston's road less traveled:

[READ MORE](#)

### 2020 Virtual Spring Conference

Although we are not meeting in Florida for our 2020 Spring Conference, the show must go on. We are ready to deliver, important elements of the Conference virtually including Committee Meetings, the Annual Business Meeting, and conference presentations by noted experts, authors, and leaders.

**Business Meeting**

GBA will host its annual Business Meeting during which our current President Arthur G. Hoffmann, P.E., D.G.E. and our President-Elect Kenneth R. Johnston will share their thoughts on GBA and its role in helping members manage risk and optimize performance during these challenging times. This is also the time where we officially elect and transition to our new Board of Directors.

Please plan on attending this important meeting on Friday, April 24, 2020 at 2:00 PM Eastern Time.

**Register Now for this meeting: Annual Business Meeting**

### Peer Groups Provide Support in Troubled Times

GBA Peer Review Committee

GBA's Peer Review program has for decades provided member firms the business perspective they need in times of relative normality. In the fall of 2018, GBA's Peer Review Committee launched a related program (Peer Groups) designed to provide continuity and sustain a network for confidential peer perspective on business best practices among participants. The first Peer Group (5 executives from firms with little competitive overlap) was launched and remains engaged, especially

GEOPROFESSIONAL BUSINESS ASSOCIATION  
DIRECTOR SPOTLIGHT  
Ken Johnston  
GZA GeoEnvironmental

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GBA'S 2020 VIRTUAL SPRING CONFERENCE & ANNUAL BUSINESS MEETING  
APRIL 23-MAY 1, 2020  
**RESILIENCE**  
PREPARING FOR THE NEXT DOWNTURN

GEOPROFESSIONAL BUSINESS ASSOCIATION

## CASE HISTORY

NUMBER 67

### PROJECT MANAGEMENT

**The Client**  
A contractor-in-charge

**The Project**  
A one-story, light-manufacturing building

**Assignment of the GBA-Member Firm**  
Perform a geotechnical-engineering study to evaluate subgrade soil conditions for floor slab support and perform soil/fill compaction testing during grading.

**Background**

A development company retained the GBA-Member Firm to perform a geotechnical-engineering study for a 100-acre site intended for use as an industrial park. As part of the study, the Member Firm advanced geotechnical borings at locations throughout the site and performed laboratory testing on soil samples from the borings. The firm

**Testing indicated that some of the site soils were highly plastic, the Member Firm's project manager noted this condition in her report.**

also advanced borings at specific building sites. Testing indicated that some of the site soils were highly plastic and so could exhibit significant shrink/swell characteristics in response to changes in their moisture content. The Member Firm's project manager noted this condition in her report and advised that special requirements would have to be met for building construction. Grading at the building sites required both excavation and fill placement.

Five months later, the development company retained the Member Firm again, this time to provide construction-materials engineering and testing (COMET) services: observe grading and perform concrete

**Construction included the building shell only; the floor slab would be constructed later to meet the needs of the eventual occupant.**

testing during construction of foundations for a speculative, one-story light-industrial building. Construction included the building shell only; the floor slab would be constructed later to meet the needs of the eventual occupant.

A manufacturer purchased the building shell about 3 years later and hired a con-

structor-in-charge to complete building construction. The manufacturer required a minimum modulus-of-subgrade reaction,  $k_v$ , of 200 pci for the building's floor slab. Noting that some of the subgrade soils exhibited significant tension cracks, some as deep as 15 feet, the contractor-in-charge contacted the Member Firm, seeking its opinion about the soil's suitability to achieve a  $k_v$  of 200 pci.

The Member Firm assigned a project manager who had not been involved with the services previously performed for the development company. The project manager

prepared a plate load test proposal whose general conditions included a provision limiting the Member Firm's professional-negligence liability to \$50,000 or the fee, whichever was higher. The contractor-in-charge signed the proposal and the Member Firm conducted the test.

Results of the plate load test indicated a  $k_v$  of 150 pci, requiring the floor slab's thickness to be increased to 10 inches in some areas. The Member Firm's project manager noted in his report that desiccation caused the tension cracks that contractor-in-charge personnel had observed. He recommended that the soils, to be acceptable, should be reworked and recompacted (no depth indicated) and that the contractor-in-charge should place a layer of crushed stone over the exposed subgrade soils to help reduce drying. The project manager also wrote that he had had the plate load test performed in areas where the soils had been scarified, moistened, and recompacted specifically for the test.

The contractor-in-charge accepted the Member Firm's report and then retained

# Future GBA Conferences

GBA FALL CONFERENCE / OCTOBER 22-24, 2020

# MINNEAPOLIS

HYATT REGENCY  
MINNEAPOLIS HOTEL



GBA SPRING CONFERENCE / APRIL 22-25, 2021

# SAN DIEGO

MARRIOTT MARQUIS / SAN DIEGO MARINA



GBA FALL CONFERENCE / OCTOBER 21-23, 2021

# HENDERSON, NV

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