



## Yardi Webinar

TO ENSURE GOOD SOUND QUALITY, ALL ATTENDEES WILL BE MUTED DURING THE WEBINAR.

TO ASK A QUESTION: TYPE YOUR QUESTION IN TO THE QUESTION BOX ON YOUR CONTROL PANEL. YARDI MATRIX STAFF WILL REVIEW AND PRESENT YOUR QUESTION TO THE SPEAKERS AS TIME ALLOWS.

TODAY'S WEBINAR IS BEING RECORDED AND WILL BE MADE AVAILABLE SHORTLY.



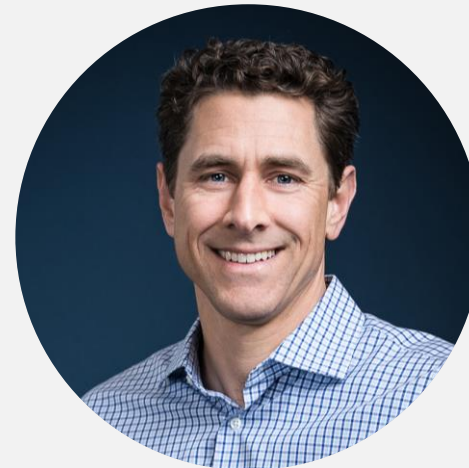
# COVID-19'S IMPACT ON COMMERCIAL REAL ESTATE



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1. Opening Remarks
2. Epidemiology & Pharmacology
3. Financial Markets, Economic Indicators, Government Monetary & Fiscal Policy Actions
4. Commercial Real Estate Fundamentals & Trends
5. Operational Response
6. Shape and Timing of Recovery





# Opening Remarks

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# Yardi Matrix House View May 2020

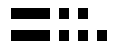


## **The shock is over, but the pain has just started**

- The COVID-19 caused downturn has been swift and deep
  - 30 MM jobless in 6 weeks – depression levels
  - U.S. fiscal/monetary response has been swift too
    - Mitigating losses in the financial markets
    - Initially replacing incomes lost at the bottom of the economic scale
    - Carnage in the energy sector is just as bad as travel and hospitality
    - Impossible to replace a \$22 trillion economy, despite best efforts
  - The pain has just started; Q1 GDP -5%, Q2 -20% to -40%; we are just beginning to see the ripple effects

## **The shape and speed of a recovery is dependent first on a medical solution, but second on political will**

- Scenarios mostly driven by progress on anti-virals & vaccines; we should assume medical science will prevail, but with a lag
- Initial primary public policy goal was to avoid overwhelming the medical system
- Politically, now morphing into implicit partisan driven power objectives – for some, “a tragedy is a terrible thing to waste”
- Under the best of circumstances, and short of a medical solution, the recovery is likely to be partial and slow – think extended “U”, leaving =>10% of the workforce idled for an extended period of time
- Recovery likely to be slower in “Blue” states, faster in “Red” States...at least through the Nov. election, for each’s political goals
- The resulting explosion of “war-time” government debt will result in higher taxes and inflation – but not for another ~5 years



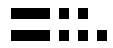
# Yardi Matrix House View May 2020



## Impact on commercial real estate differs widely by asset class

- Office:
  - Short-term impact felt among small businesses, co-working, and retail tenants — April collections ~85%
  - PPP programs may stabilize; but many of the \$ went to non-core city businesses via community banks
  - Longer re-thinking of space likely to shrink footprints & disperse workforces, with impact on supporting mixed use
  - Densification trend will be under pressure for next several years
  - Technology tools are critical to CRE business continuity & phased re-opening/prevention of virus hotspots
- Industrial:
  - Holding up well but not immune; e-commerce is upside; small business tenants the downside
- Retail:
  - Experiential retail (services), the savior of retail placemaking shifting away from retailing goods, has been decimated, and will recover only slower due to social distancing and consumer sentiment
  - Grocery anchored is the safe harbor, shorter term, but vulnerable to e-commerce trends
  - Retail goods survivors will lean even more on omni-channel distribution
  - E-commerce trends likely to accelerate
  - Best likely hunting ground for distress opportunities
- Position of banks and CMBS lenders to forbearances/restructuring will determine extent of financial distress; process will take some time





# Yardi Matrix House View May 2020



## Society will be re-shaped by an acceleration of pre-existing trends

- Population movement South & West
- Movement to urbanized suburbs
- Aging of the population
- De-globalization (trade & immigration)
- E-commerce
- Technology/automation & remote business tools
- But, we will gather again – humans are social animals and travel, entertainment, and hospitality will re-emerge...slow



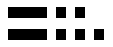


# Epidemiology & Pharmacology

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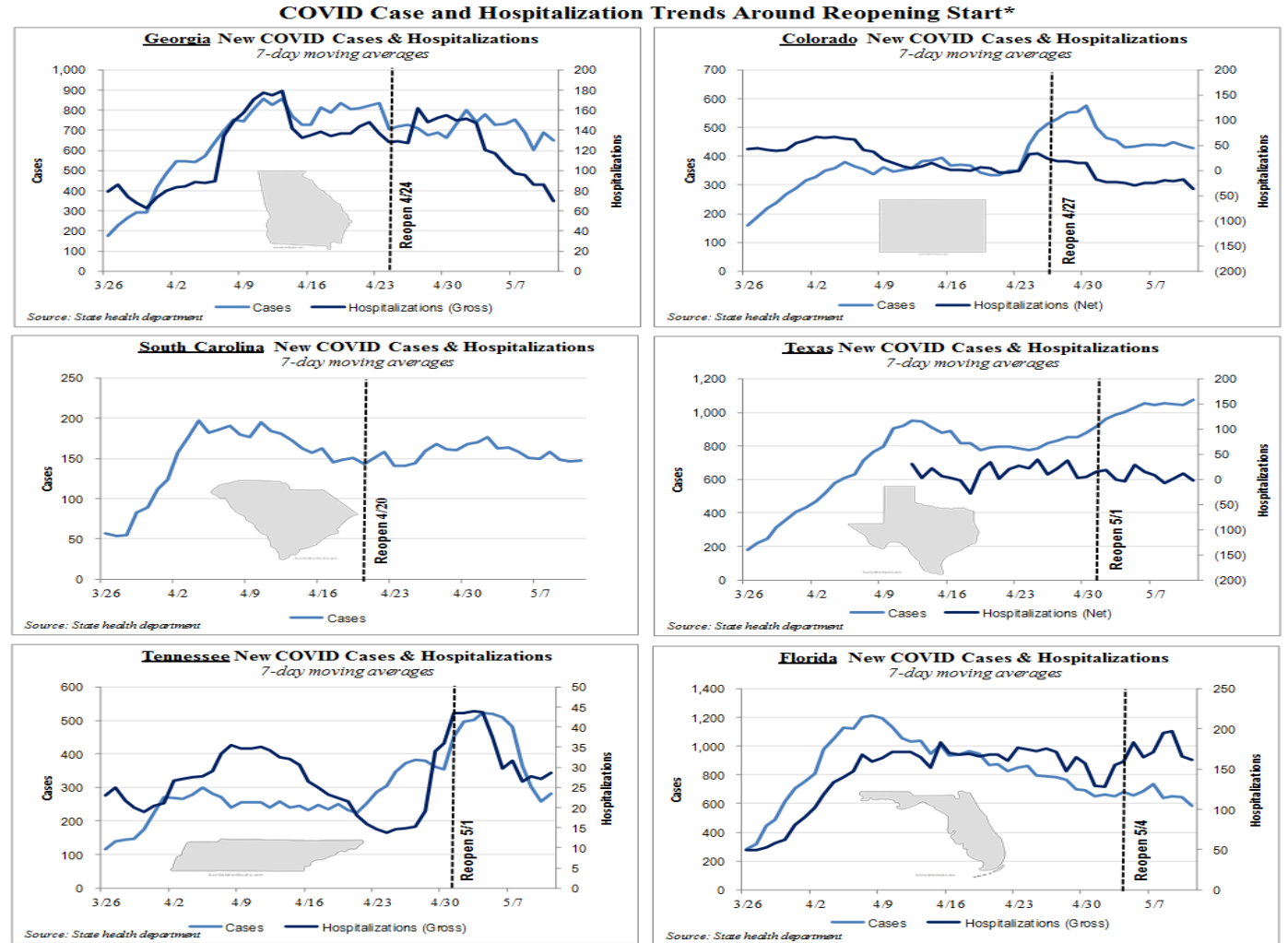




# United States' Concern Is Now When & How to Gradually Reopen



- The United States is starting to see a decline in daily infection rates, signaling the country has successfully begun to flatten the curve of the coronavirus pandemic
- Officials have expressed cautious optimism that infections are hitting a plateau and economies can start slowly reopening
- To balance financial worries with fears that easing lockdowns could spur new COVID-19 outbreaks, government officials warn that the return to normalcy will need to be gradual



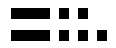
\* Date marks the beginning of easing restrictions; states phasing reopening over multiple weeks



\*Confirmed cases as of May 10, 2020 @ 11:46PM EDT

Source: Yardi Matrix; CDC; John Hopkins University; Wall Street Journal, "States Move to Coordinate on Reopening Plans", Evercore ISI





# COVID-19 Outbreak Will Not Be Solved Until a Vaccine or Effective Treatment is Discovered



## REMDESIVIR:

- April 29 press release announced preliminary results from clinical trial of the antiviral drug shows promise, as a result of this study, the FDA authorized emergency use of the drug on May 1
  - Run by the National Institute of Allergy and Infectious Diseases (NIAID), which Dr. Fauci leads
  - Placebo-controlled, randomized study of 1000 patients at numerous hospitals. Trial was expanded 400 to 440 to 572 to 1000.
  - Clinical improvement, the study objective, was defined as an improvement from patient's baseline on a 7-point scale
  - Prelim. results found patients given drug recovered in avg. of 11 days, 31% faster than the 15-day avg. of patients given placebo
    - Trial “stopped” early and it appears drug is moving quickly to probable FDA approval. Trial will continue, as results are promising enough to move to next stage of FDA approval. Results are being sent to a journal for peer review.

## VACCINE:

- There are 70 coronavirus vaccines in development globally, with 3 candidates already in human trials.
  - First human trial for a vaccine has begun in 45 adults in Seattle — skipping any animal research.
  - First animal trial for a vaccine has begun in Australia. Hopes to be in human testing stage by end of April.
- Dr. Fauci has said there's a chance that hundreds of millions of doses of a potential COVID-19 vaccine could be available by early next year, noting the ideal plan for a potential vaccine is to ensure it is safe and effective — and that it can be rapidly scaled up for distribution.



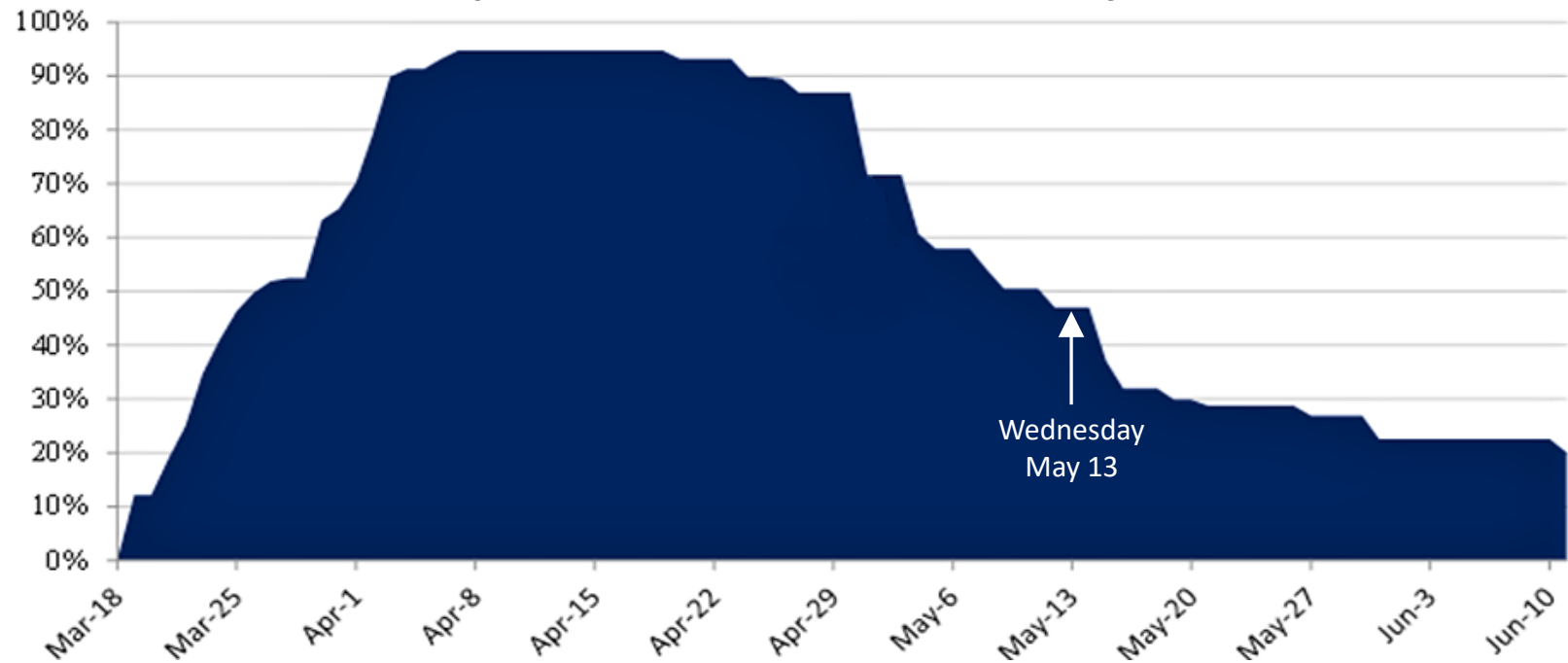
# The U.S. Is Using a Phased Approach to Slowly Reopen



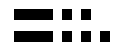
- President Trump released guidelines for a **three-phased approach** that allows the U.S. to gradually begin reopening in a cautious and deliberate way to avoid a resurgence of COVID-19 infections
- Governors and local officials have been announcing and enacting timelines for relaxing the strict measures taken to mitigate COVID-19 **based on their individual, local situations**
- To avoid a second wave of virus spread, health experts say the U.S. needs to follow the strategies of South Korea and Germany — **established, aggressive testing**

***95% of the U.S. population was under statewide stay-at-home restrictions for most of April, by May 1 that dropped to 72%, and by May 10 it fell to 50%***

## % of U.S. Population Under Statewide Stay-at-Home Orders



*Expirations as of 5/1/2020 and subject to change; some states have no end date. Sourced from Evercore ISI.*



# Most U.S. States Are Beginning to Re-open Slowly, Following the Phased Approach Guidelines



**Each governor has tailored Trump's phased approach guidelines to create their own timeline that meets the diverse circumstances of their state**

## **States that started partial reopening` and/or relaxing restrictions by May 8th**

Alabama, Alaska, Arizona\*, Arkansas, California\*, Colorado, Delaware, Florida, Georgia, Hawaii\*, Idaho, Illinois\*, Indiana, Iowa, Kansas, Louisiana\*, Maine\*, Maryland\*, Michigan\*, Minnesota\*, Mississippi\*, Missouri, Montana, Nebraska, Nevada\*, New Hampshire\*, New Jersey\*, New Mexico\*, North Carolina\*, North Dakota, Ohio\*, Oklahoma, Pennsylvania\*, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington\*, West Virginia, Wisconsin\*, Wyoming

## **States that plan to start partial reopening and/or relaxing restrictions after May 8th**

Connecticut, District of Columbia, Kentucky, Massachusetts, New York, Oregon, Rhode Island, Virginia

\*Statewide stay-at-home order still intact as of May 8, but state has begun partial reopening of specific non-essential businesses, healthcare, or outdoor recreation areas

\*\*As of May 8, 2020

Source: Yardi Matrix; NBC News, "Reopening America"

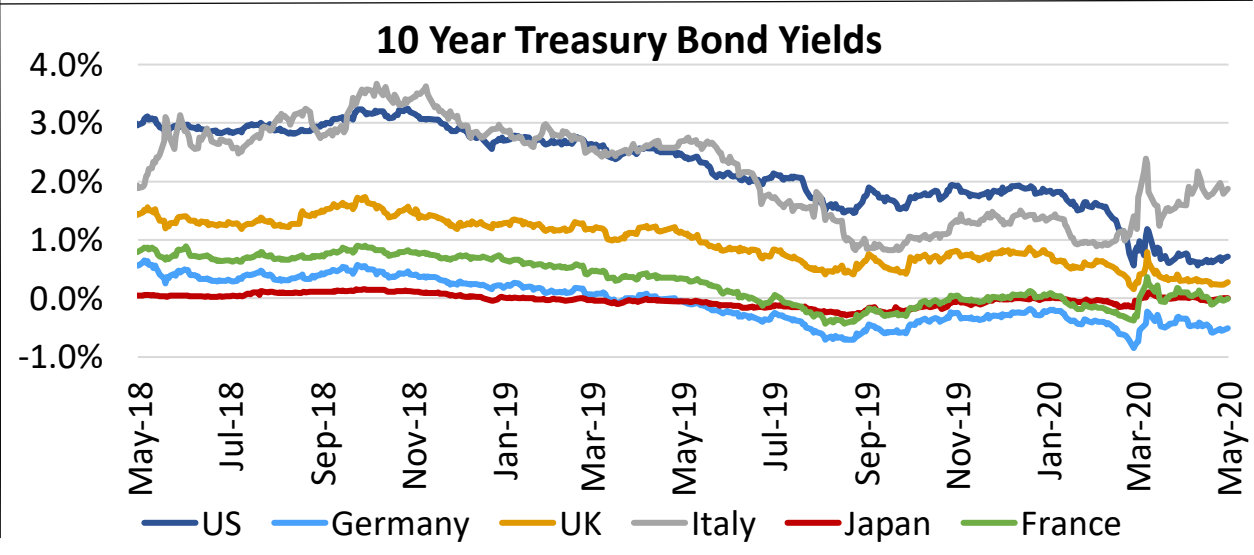
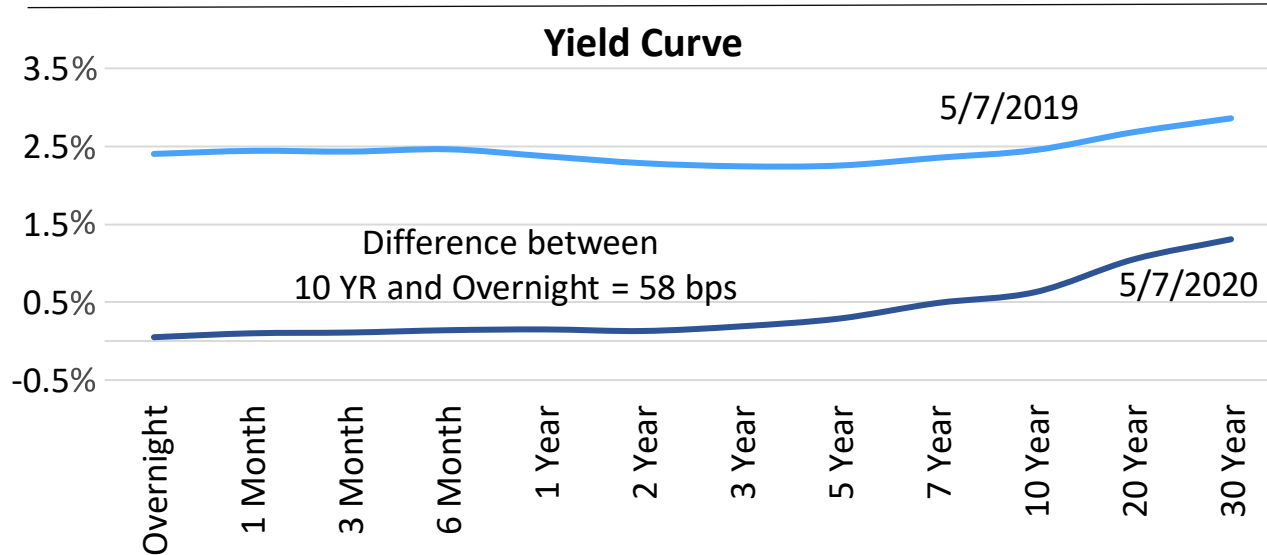
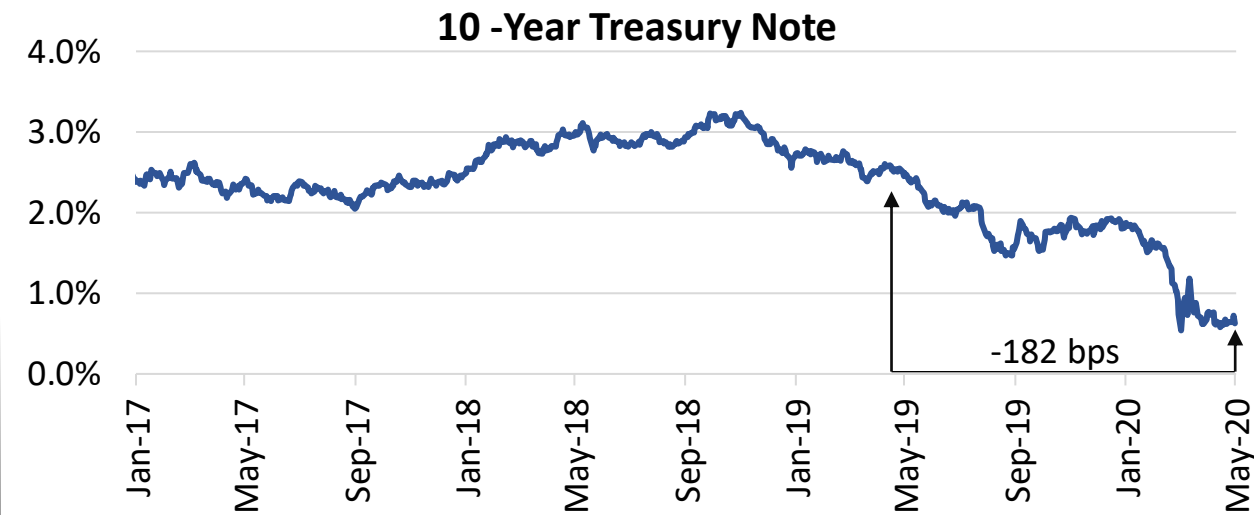
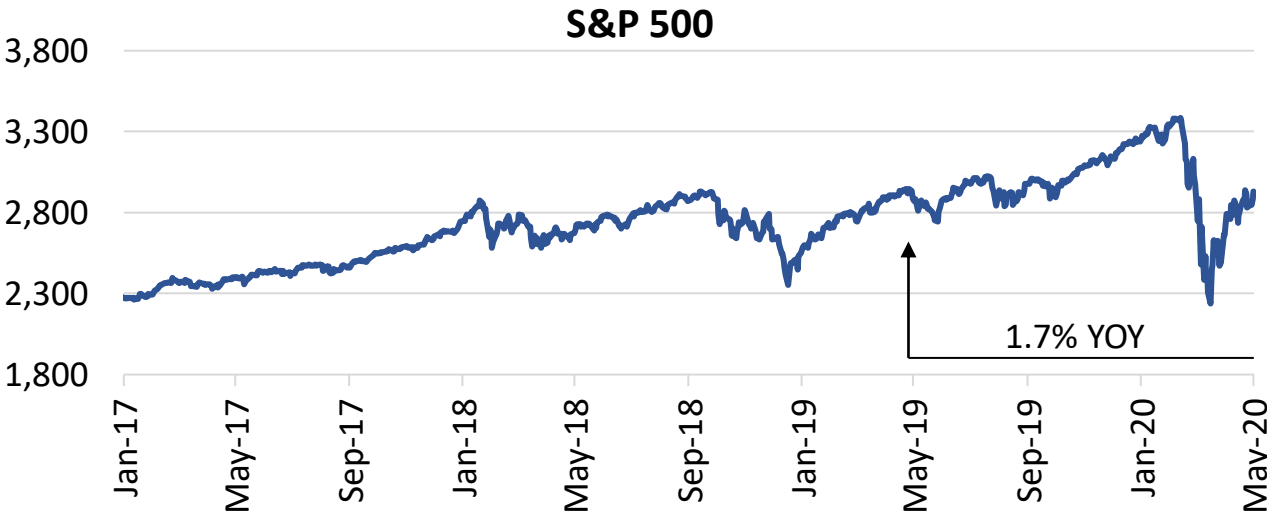


# Financial Markets, Economic Indicators, Government Monetary & Fiscal Policy Actions

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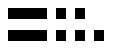


# U.S. and International Financial Market



Source: Yardi Matrix; Moody's Analytics; Investing.com

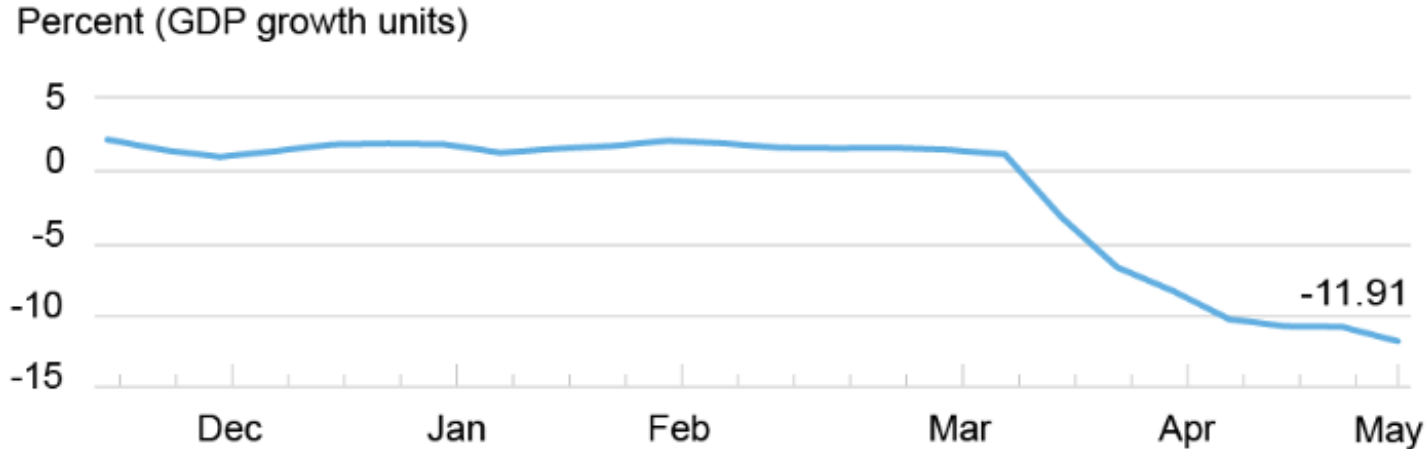




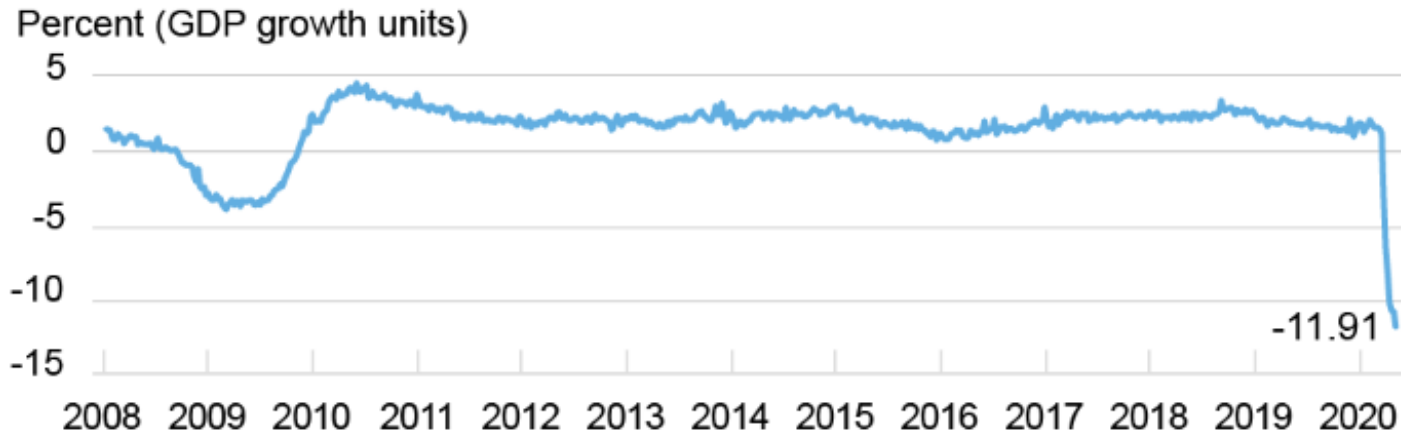
# Weekly Economic Index (WEI)



## WEI over Recent Months



## WEI, 2008-Present



**U.S. GDP contracted 4.8% in the first quarter of 2020**

*(at a seasonally & inflation adjusted annual rate)*

**The WEI is an index of 10 daily and weekly indicators of real economic activity, scaled to align with the four-quarter GDP growth rate**

- For the week ending May 2, the WEI is -11.91%, scaled to four-quarter GDP growth; in comparison, the WEI stood at 1.58% for the week ending February 29.
- The **decline** in WEI for the week of May 2 was **driven by the initial unemployment claims release, a drop in electricity usage, and a fall in fuel sales relative to the same time last year**. These factors cancel out the increases in rail traffic and payroll tax withholdings.

\*As of May 7, 2020

Source: Yardi Matrix; Wall Street Journal;

Federal Reserve Bank of New York: Weekly Economic Index, <https://www.newyorkfed.org/research/policy/weekly-economic-index>





# Oil Prices Improving as Production Cuts Continue and Demand Begins to Recover from 39-Year Low



- ***Oil prices collapsed under the supply glut in April, but as producers continue to lower production and demand for transportation fuels begins to climb again, oil prices are improving***
  - Daily U.S. crude production has declined by more than a million barrels since reaching a record in mid-March
  - On May 5, the U.S. oil price closed at \$24.56, **a 99% increase from the week earlier**
- As parts of the U.S. begin to reopen, some places have seen the consumption of gasoline rise 31% since April 10, according to data from the U.S. Energy Information Administration (as of May 6)
- Despite re-emerging demand, **producers will need to continue cutting production to maintain prices and prevent storage facilities from reaching capacity**
- Nearly 90% of the global oil storage capacity is already full, according to the consultancy Rystad Energy. Most of the excess oil ends up in floating-roof storage tanks, but millions of barrels are also idly sitting in supertankers, which are usually used to transport not store oil.



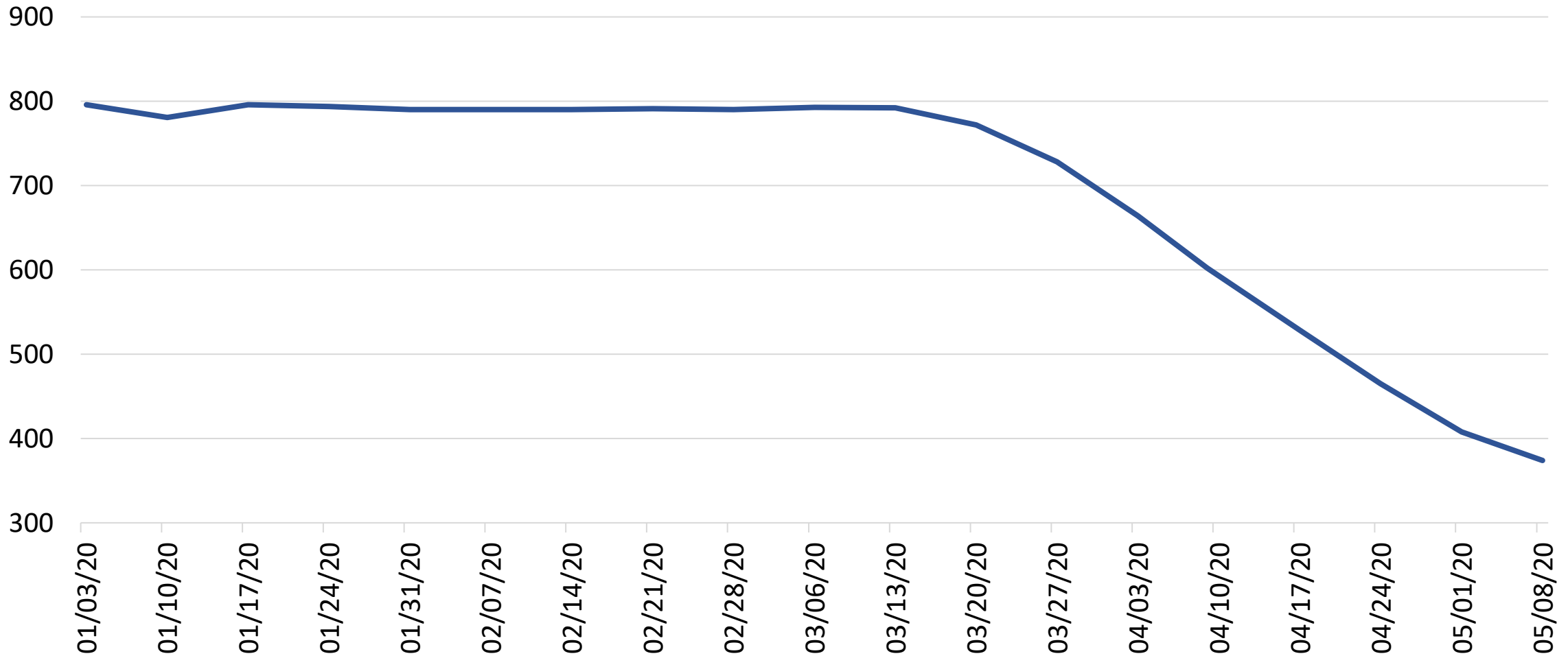




# The United States' Rig Count Has Been Steadily Declining

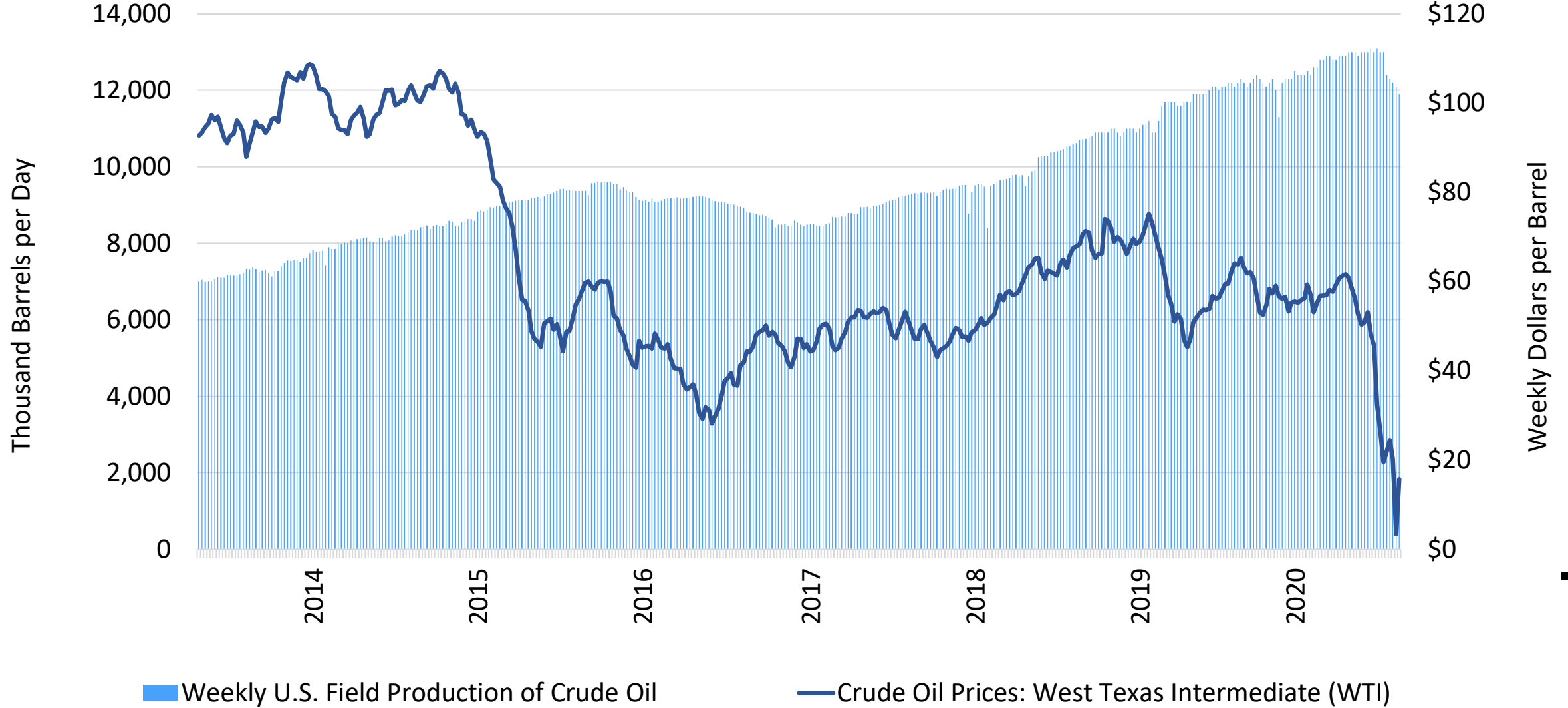


## United States Oil Rig Count



\*Data as of May 8, 2020  
Source: Yardi Matrix; Baker Hughes

# No Inflation Here



\*Data as of April 29, 2020

Source: Yardi Matrix; Energy Information Administration, Federal Reserve Bank of St. Louis, Economic Research Division





# Actions Being Taken in Real Estate to Cushion the Blow

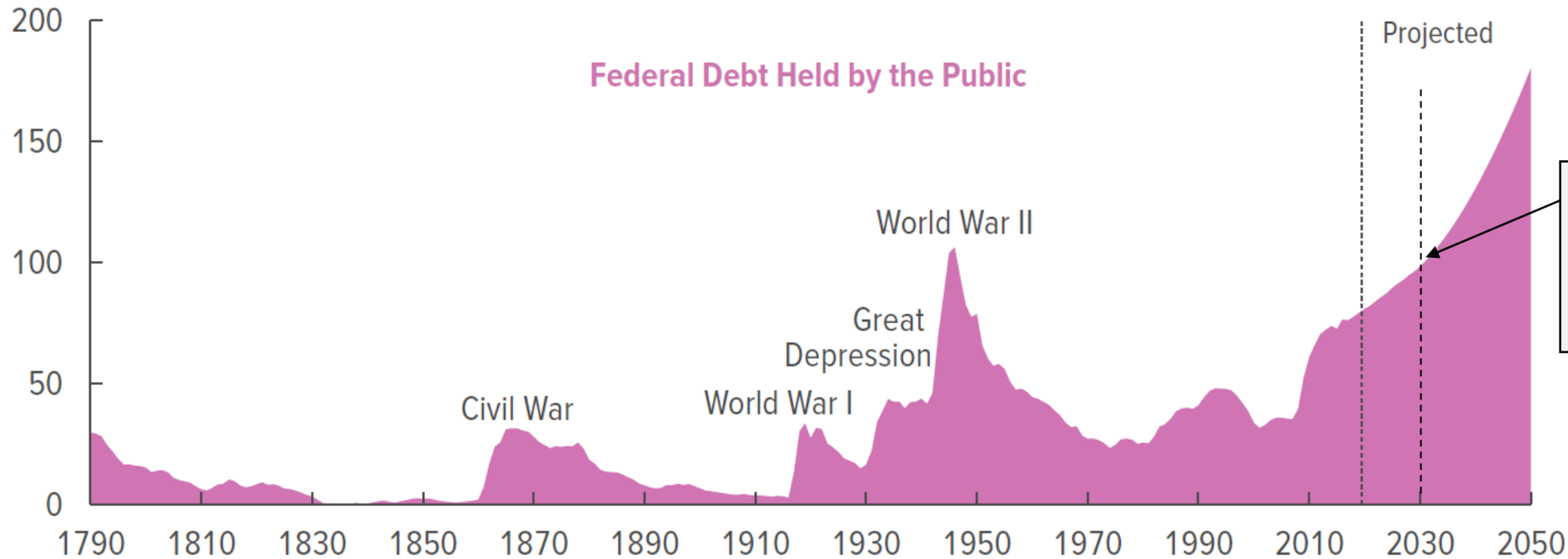


- **Bank Regulators** will permit banks to **defer mortgage payments for 90 days** and will not consider the loans non-performing (triggering bank capital write-downs)
- Many cities are halting evictions for small businesses. Here are just a few:
  - **Seattle**: Moratorium on evictions of small businesses and nonprofit tenants impacted by the pandemic. The order is effective immediately and will be in place for at least 60 days.
  - **San Diego**: Eviction moratorium approved to provide relief to residents and businesses facing financial hardship related to COVID-19. Will last until May 31.
  - **Los Angeles**: Temporary moratorium on evictions for tenants who are unable to pay rent due to circumstances related to the COVID-19 pandemic
  - **New York**: Expanded 90-day eviction moratorium to commercial tenants
  - **Santa Monica**: Moratorium on evictions of commercial tenants extended to May 31
  - **Austin**: Postponed all commercial evictions until May 8 in Travis County, TX



# Federal Debt to GDP Ratio: Before the COVID-19 Pandemic

Percentage of Gross Domestic Product



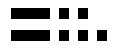
In January 2020, the Congressional Budget Office (CBO) released “The Budget and Economic Outlook: 2020 to 2030” report based on the laws and economy at that time. **In April, CBO updated their projections based reflect the COVID-19 pandemic**

Some of this findings and predictions from this report included:

- **Federal debt** held by the public was **79% of GDP** at the end of fiscal year **2019**
- CBO estimated federal debt was going to rise over the coming decade— from 81% of GDP in 2020 to 98% of GDP in 2030

\*Chart taken from CBO’s Budget and Economic Outlook: 2020 to 2030 report released January 28, 2020. Predictions are based on laws and economy as of January 2020.

Source: Yardi Matrix; Congressional Budget Office (CBO), “The Budget and Economic Outlook: 2020 to 2030”; Committee for a Responsible Federal Budget



# Federal Debt to GDP Ratio In the Wake of COVID-19



*On April 24, CBO released new preliminary projections which factor in the effects of the COVID-10 pandemic on the U.S. economy.*

**Federal debt will rise to 101% of GDP by end of FY 2020**

→ 20% higher than the March baseline projections

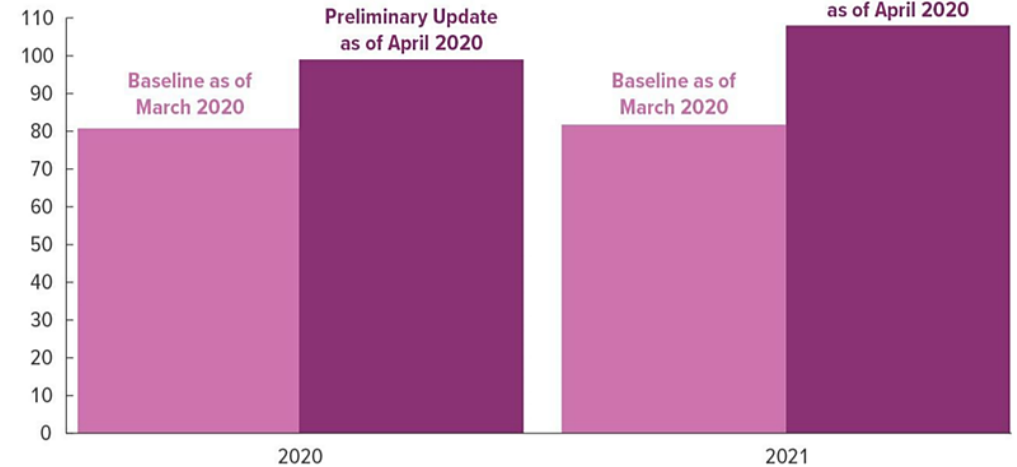
**Federal debt will grow to 108% of GDP by end of FY 2021**

→ 26% higher than the March baseline projections

→ Surpassing the 107% threshold during World War II

## Federal Debt Held by the Public

Percentage of Gross Domestic Product

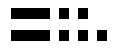


## POTENTIAL IMPLICATIONS OF THE RISING FEDERAL DEBT DUE TO COVID-19

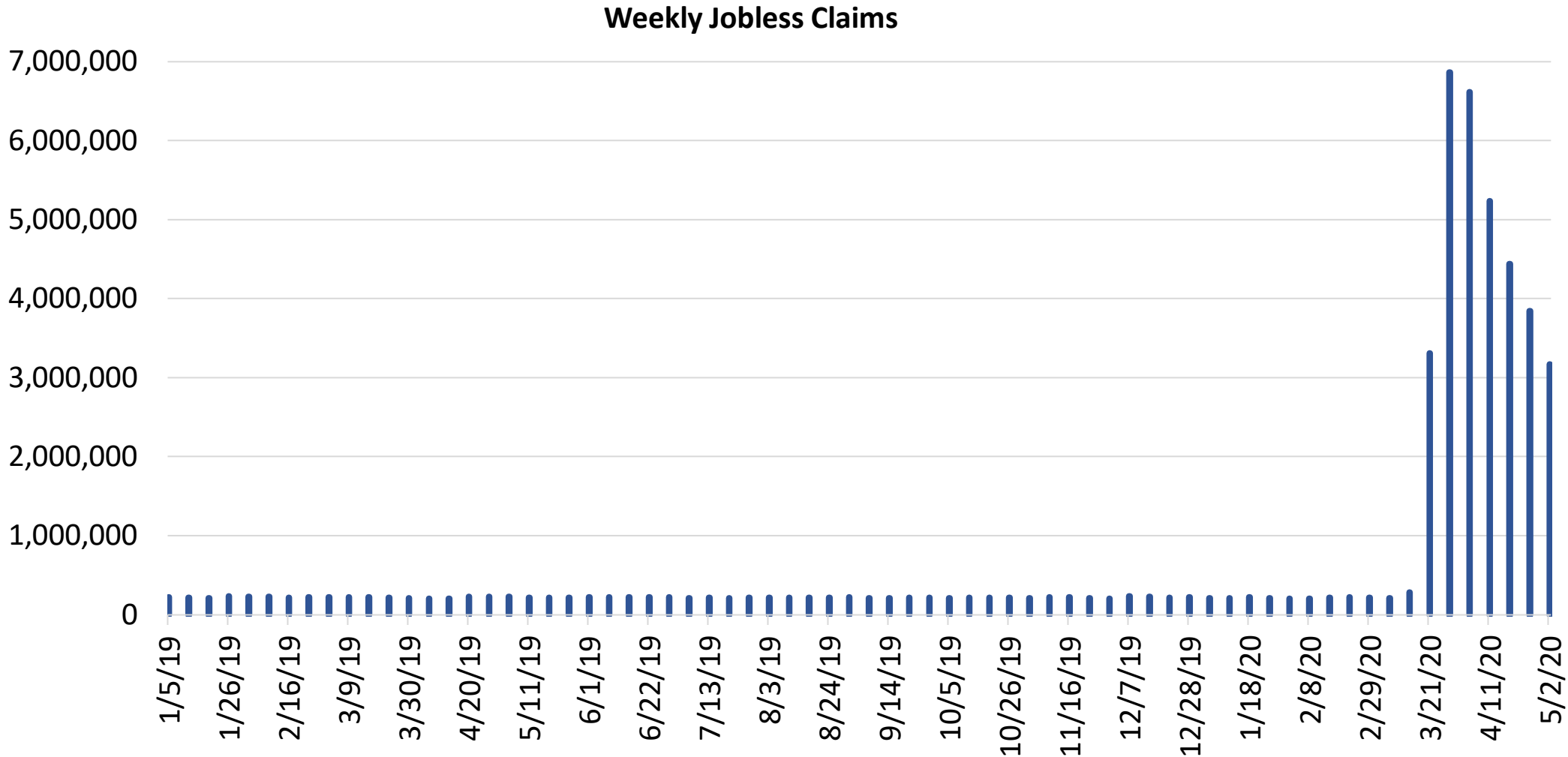
- Surge in debt is equal to increases historically seen in times of war and resulted in inflation afterwards (WWI, WWII, Vietnam)
- There will likely be an inflationary after-effect in 3 to 5 years
  - An aging population may mitigate some inflation, esp. as more people claim pension benefits, further burdening federal debt
- Low interest rates have helped offset the rise in debt, but there is still some uncertainty of the long-term effects of COVID-19 to rates
- Not an immediate concern, but 7 to 10-year investment horizons must take into account

\*Preliminary projections based on laws and economy as of April 24. Current projections are only through 2021, CBO plans to provide a comprehensive, long-term analysis of pandemic legislature & baseline projections later this year.

Source: Yardi Matrix; Congressional Budget Office (CBO); Committee for a Responsible Federal Budget; Wall Street Journal



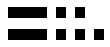
# 34 Million Have Filed for U.S. Jobless Benefits Since the Beginning of March



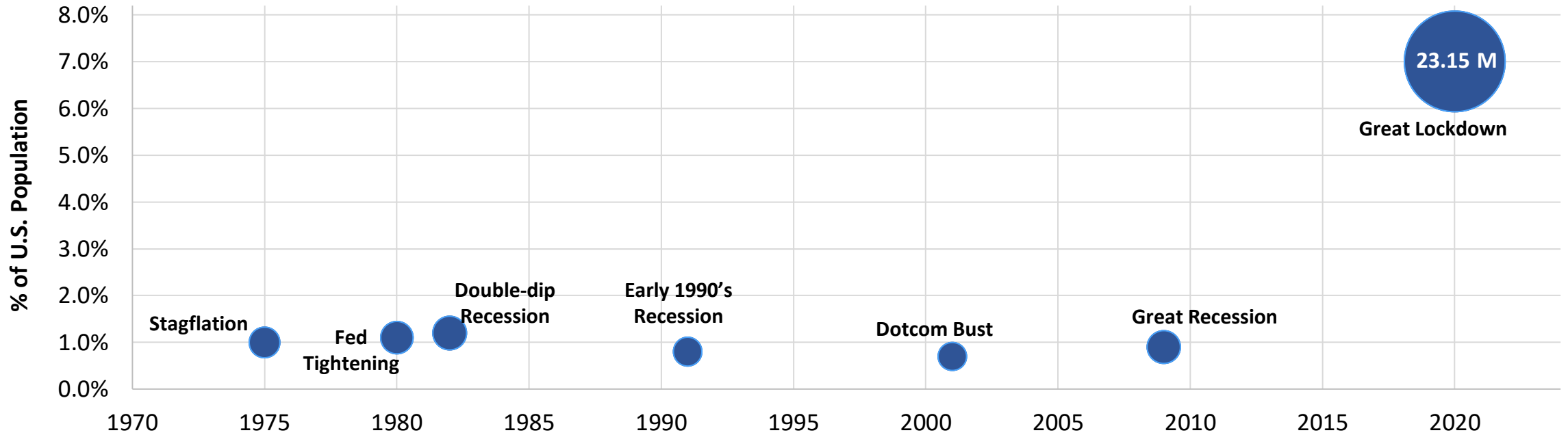
\*Data as of May 7, 2020

Source: Yardi Matrix; Moody's Analytics; U.S. Employment & Training Administration (ETA)





# Historic U.S. Job Losses in Perspective



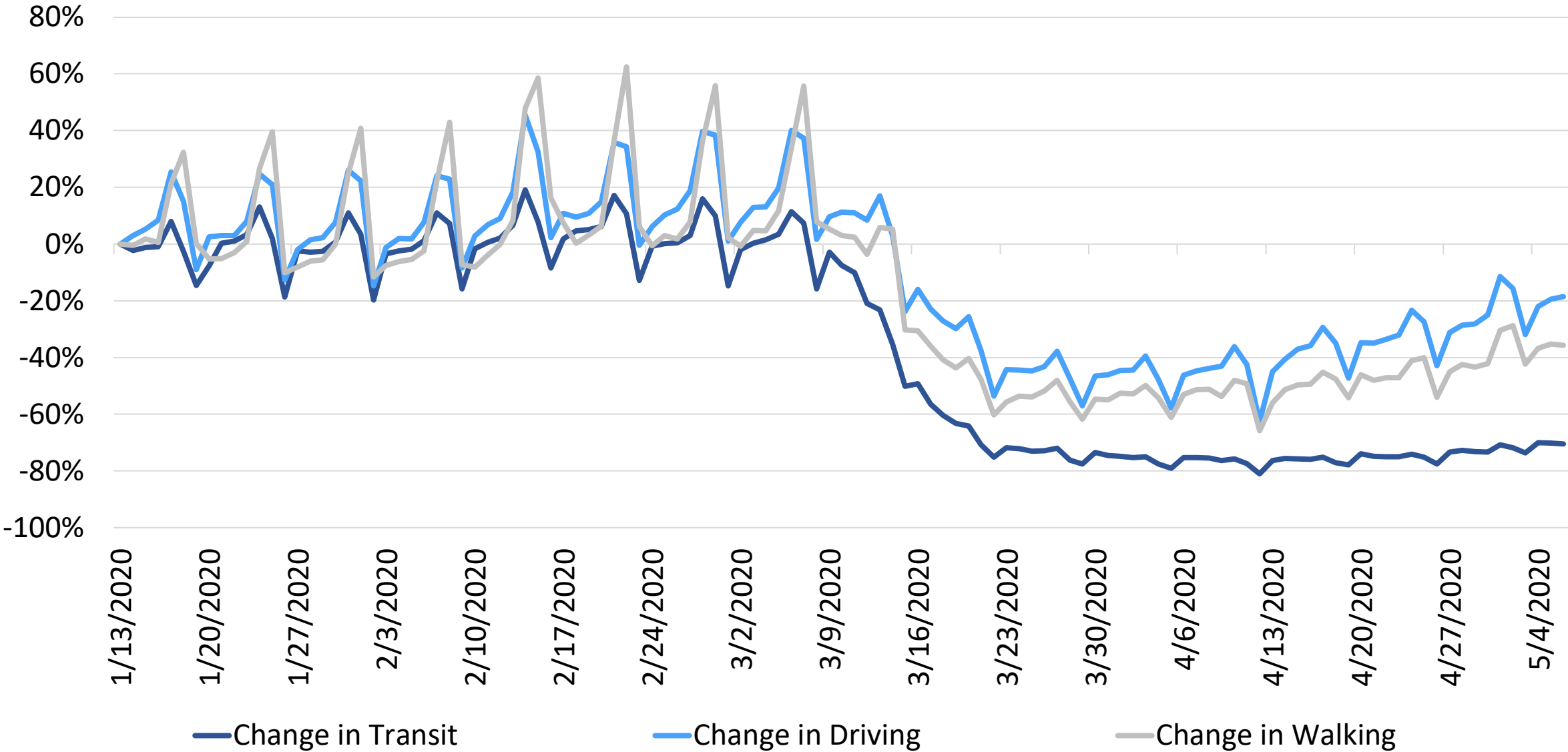
| Year | Description                        | Peak Jobless Claims (4-week total) | % of U.S. Population |
|------|------------------------------------|------------------------------------|----------------------|
| 1975 | Stagflation                        | 2.24 Million                       | 1.0%                 |
| 1980 | Fed Tightening (Volcker)           | 2.52 Million                       | 1.1%                 |
| 1982 | Double-dip Recession               | 2.70 Million                       | 1.2%                 |
| 1991 | Early 1990's Recession             | 2.00 Million                       | 0.8%                 |
| 2001 | Dotcom Bust                        | 1.96 Million                       | 0.7%                 |
| 2009 | Great Recession                    | 2.64 Million                       | 0.9%                 |
| 2020 | Great Lockdown (COVID-19 Pandemic) | 23.15 Million*                     | 7.0%                 |



\*4-week total of jobless claims for the week end of March 28, 2020 to the week end of April 18, 2020

Source: Yardi Matrix; Moody's Analytics; U.S. Employment & Training Administration (ETA); Visual Capitalist; Financial Times

# National Mobility Trends



Change in Transit

Change in Driving

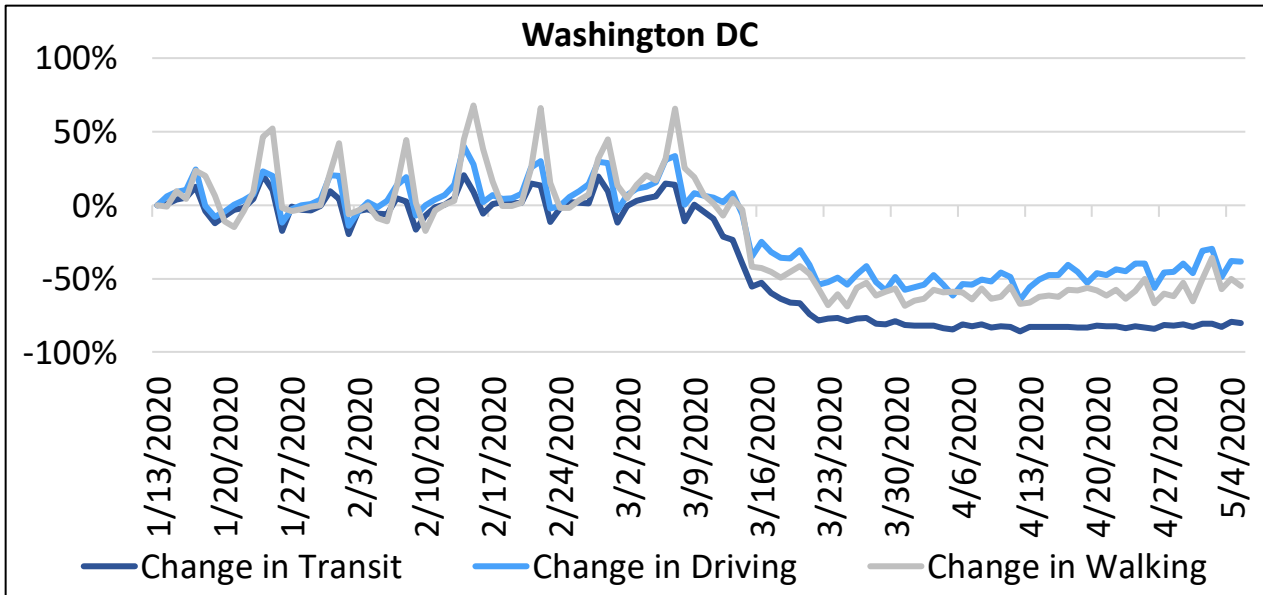
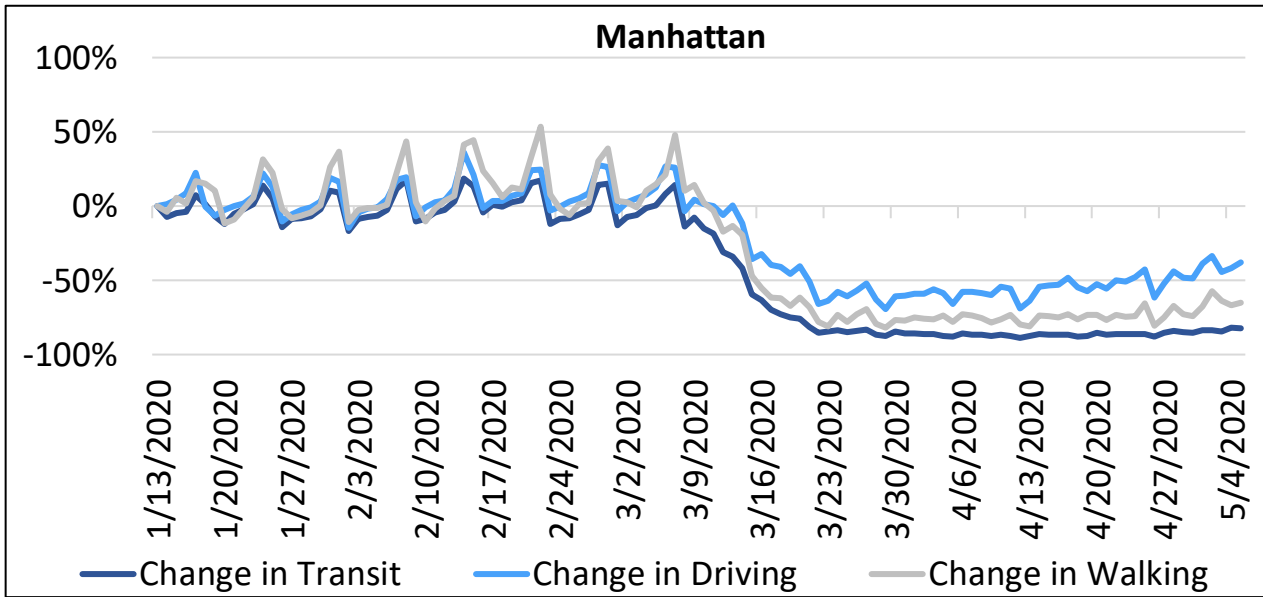
Change in Walking

\*Change in routing request = January 13, 2020 – May 5, 2020  
Source: Yardi Matrix; Apple.com, "Mobility Trends Report"





# Mobility Trends – Most Impacted Markets



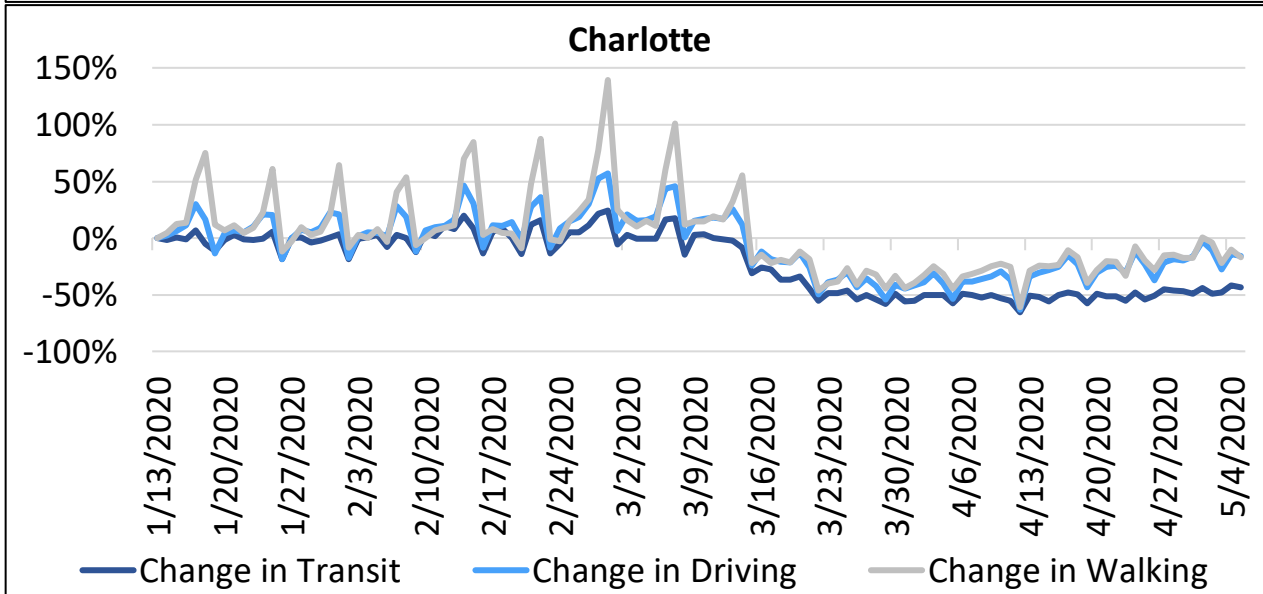
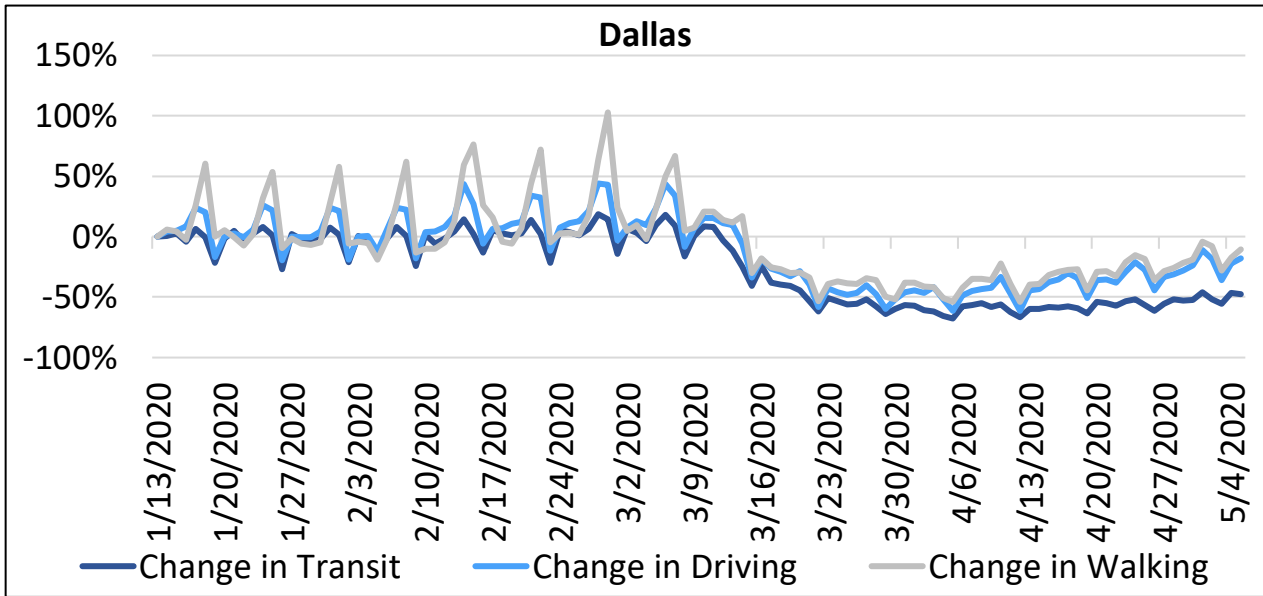
| Market        | Change in Routing Requests - TRANSIT | Change in Routing Requests - DRIVING | Change in Routing Requests - WALKING |
|---------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Manhattan     | -82.0%                               | -37.9%                               | -64.8%                               |
| Washington DC | -80.0%                               | -38.6%                               | -55.1%                               |
| Seattle       | -79.7%                               | -19.7%                               | -38.7%                               |
| Boston        | -77.8%                               | -40.7%                               | -56.2%                               |
| San Francisco | -77.1%                               | -46.7%                               | -67.7%                               |
| Chicago       | -75.0%                               | -31.7%                               | -50.1%                               |
| Portland      | -74.2%                               | -30.1%                               | -30.5%                               |
| Los Angeles   | -71.7%                               | -35.8%                               | -36.0%                               |
| Pittsburgh    | -70.3%                               | -26.8%                               | -42.5%                               |
| Philadelphia  | -67.3%                               | -25.0%                               | -34.3%                               |
| Minneapolis   | -64.9%                               | -25.5%                               | -3.3%                                |
| Detroit       | -62.7%                               | -26.2%                               | -5.0%                                |
| Tampa         | -62.5%                               | -32.4%                               | -35.8%                               |
| Denver        | -62.2%                               | -27.9%                               | -27.0%                               |
| Sacramento    | -61.8%                               | -20.5%                               | -18.8%                               |



\*Change in routing request = January 13, 2020 – May 5, 2020

Source: Yardi Matrix; Apple.com, "Mobility Trends Report"

# Mobility Trends – Least Impacted Markets

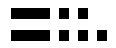


| Market         | Change in Routing Requests - TRANSIT | Change in Routing Requests - DRIVING | Change in Routing Requests - WALKING |
|----------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Miami          | -61.4%                               | -35.8%                               | -40.7%                               |
| Salt Lake City | -60.3%                               | 0.0%                                 | +12.6%                               |
| Austin         | -60.0%                               | -31.2%                               | -31.7%                               |
| Las Vegas      | -59.0%                               | -20.8%                               | -48.7%                               |
| Orlando        | -58.3%                               | -38.3%                               | -43.8%                               |
| Phoenix        | -55.8%                               | -25.7%                               | -32.1%                               |
| Atlanta        | -53.6%                               | -14.4%                               | -17.3%                               |
| San Antonio    | -50.9%                               | -16.3%                               | -18.6%                               |
| Raleigh        | -50.8%                               | -22.0%                               | -23.2%                               |
| Baltimore      | -49.9%                               | -21.2%                               | -21.4%                               |
| Nashville      | -49.7%                               | -25.5%                               | -51.5%                               |
| Houston        | -48.8%                               | -19.9%                               | -16.1%                               |
| Indianapolis   | -48.6%                               | -11.3%                               | -14.0%                               |
| Dallas         | -47.8%                               | -18.0%                               | -10.8%                               |
| Charlotte      | -43.5%                               | -15.7%                               | -16.6%                               |



\*Change in routing request = January 13, 2020 – May 5, 2020

Source: Yardi Matrix; Apple.com, "Mobility Trends Report"



# Employment: Secondary Industry Layoffs Begin



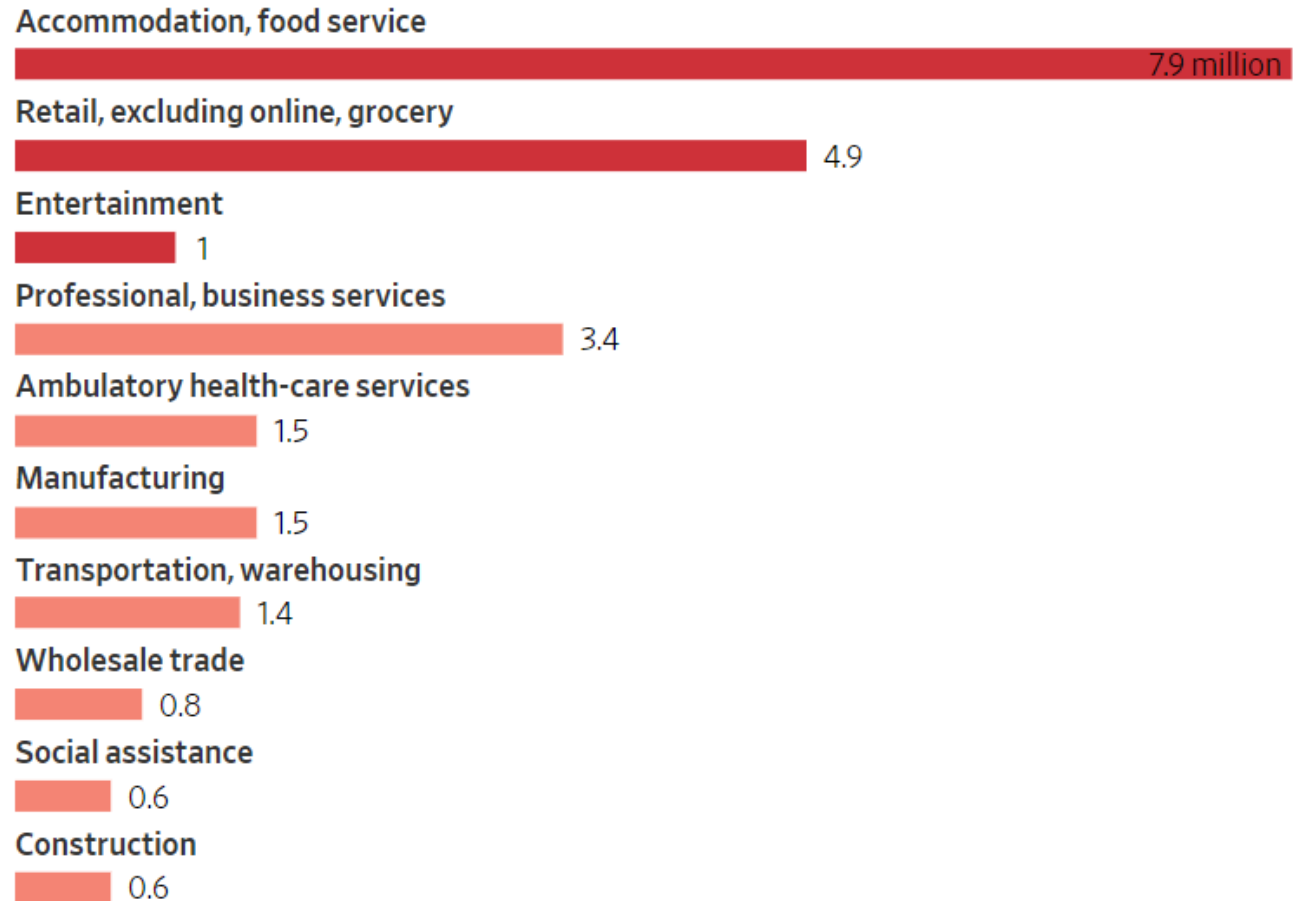
First industries to lose their jobs included restaurants, malls, hotels and other places that closed to contain the pandemic

Now, a **second wave of job loss** is hitting higher-skilled workers, including corporate lawyers, healthcare workers not involved in fighting the pandemic & government workers being furloughed

Consensus of 57 economists surveyed by The Wall Street Journal says **14.4 million jobs will be lost in the coming months**, and **unemployment rate will rise to a record 13% in June**

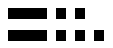
***Given all the industries impacted, we can expect to see a 10-20% GDP loss in the second quarter***

Forecast April job losses, in selected industries

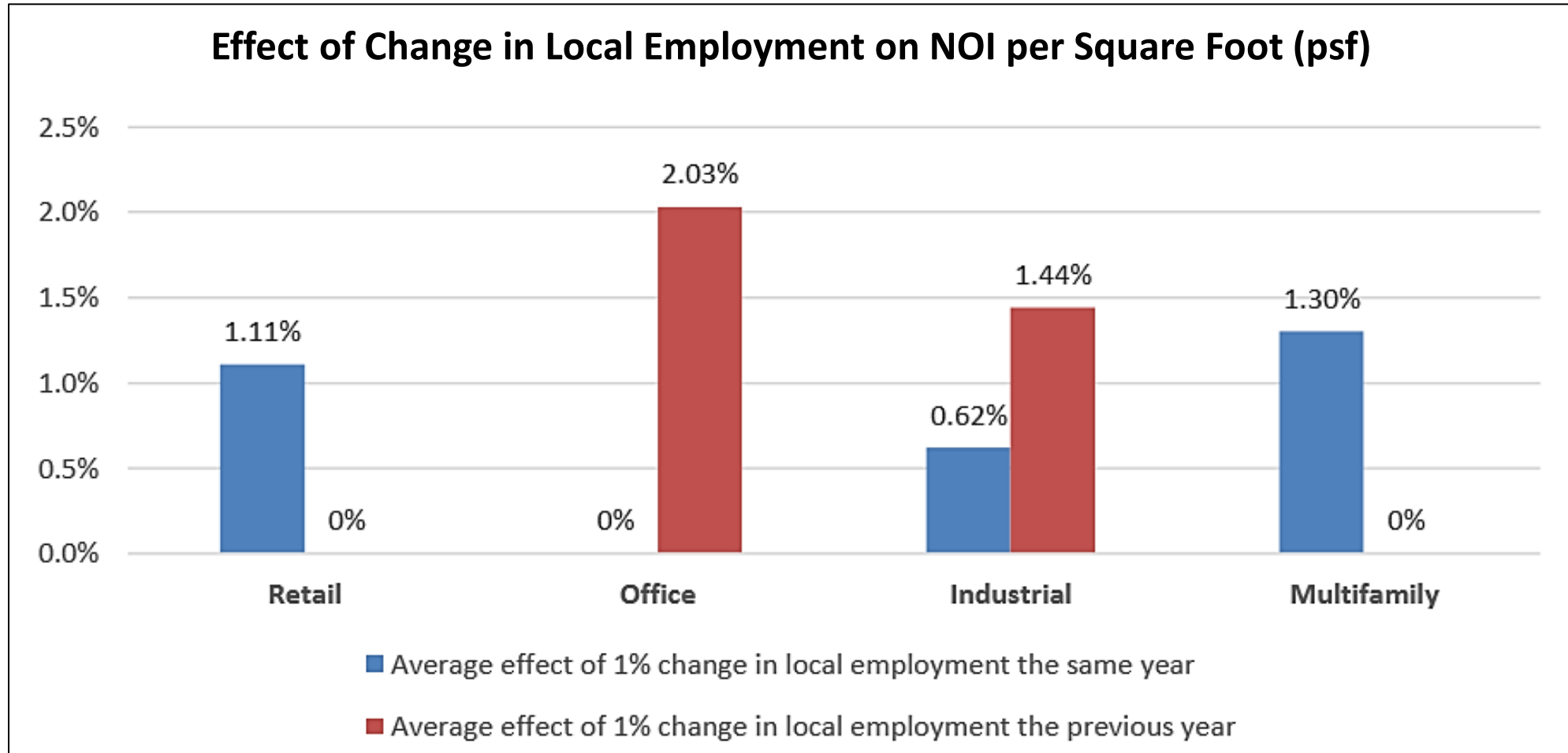


Source: Oxford Economics





# Sensitivity of Property NOI psf to Local Job Loss Varies by Property Type



All numbers displayed are statistically significant at a 5% level. Numbers not significantly different from zero at a 5% level are displayed as 0 in the table

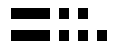




# Commercial Real Estate Fundamentals & Trends

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# Commercial Sectors Are Navigating the COVID-19 Situation Differently



## Office

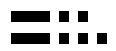
- The longer companies and offices stay closed, the harder the office sector will be hit, **as companies re-think use of space**
- **April collections ~85% range**; large, well-capitalized companies should have less of an issue paying rent and meeting the terms of lease; **retail/mixed, ancillary income use hit hard**
- **Listing asking prices are beginning to tail down; it will take >1 year for impact to unfold**
- Coworking operators have seen the most immediate impact to cash flow and vacancy; **Softbank reneges on WeWork**
- Energy concentrated markets in Houston, Oklahoma, Denver, New Orleans & Pittsburgh could be hit hard

## Industrial

- Will be the best performing sector of commercial real estate; performing as expected
- **April collections ~86-87% range; not immune, as we noted earlier**
- Demand has been durable as more people utilize e-commerce for discretionary goods as well as consumer staples and groceries
- Cold storage demand increasing
- Logistics and distribution values expected to hold up, but lack of price discovery
- Likely increases in the amount of inventory on hand – decline in the ‘just in time’ model
- Reshoring manufacturing to US; but import trade declining

## Retail

- Likely the hardest hit sector of commercial real estate; **April collections crushed; range from 20% to 65%; ~45% average**
- Experiential retail including restaurants, theatres, show rooms had been increasing in demand – but, have been crushed due to social distancing restrictions
- Grocery anchored retail will outperform the rest of the retail sector, but still may take a sizable hit
- Store closings, bankruptcies and consolidations are likely; **already happening, more to come**
- Business models will need to evolve and incorporating technology will become even more important



# Which Office Properties Are Most at Risk?



- Properties under construction, or just completed are most at risk
- Properties with a heavy retail component
- Properties with a maturing loan – hard to refinance in this environment

## NYC Office Impacts:

- *Empire State Realty Trust* (owner of Empire State Building & 13 other properties in NYC region) collected 73% of April office rents
- *SL Green Realty* (NY's largest office-building landlord by amount of office space owned) collected more than 90% of April office rents

## Largest Completions in the Last 6 Months

| Market        | Property Count | Total Sq. Ft. |
|---------------|----------------|---------------|
| Chicago       | 13             | 4,268,363     |
| Washington DC | 9              | 2,788,144     |
| Dallas        | 8              | 2,367,776     |
| Queens        | 6              | 2,363,371     |
| Boston        | 9              | 1,866,843     |
| Atlanta       | 11             | 1,696,300     |
| Brooklyn      | 5              | 1,504,618     |
| Buffalo       | 1              | 1,348,964     |
| Nashville     | 4              | 1,294,415     |
| Phoenix       | 6              | 1,227,284     |



\*Last 6 months = Nov. 2019 – Apr. 2020

Source: Yardi Matrix; Wall Street Journal

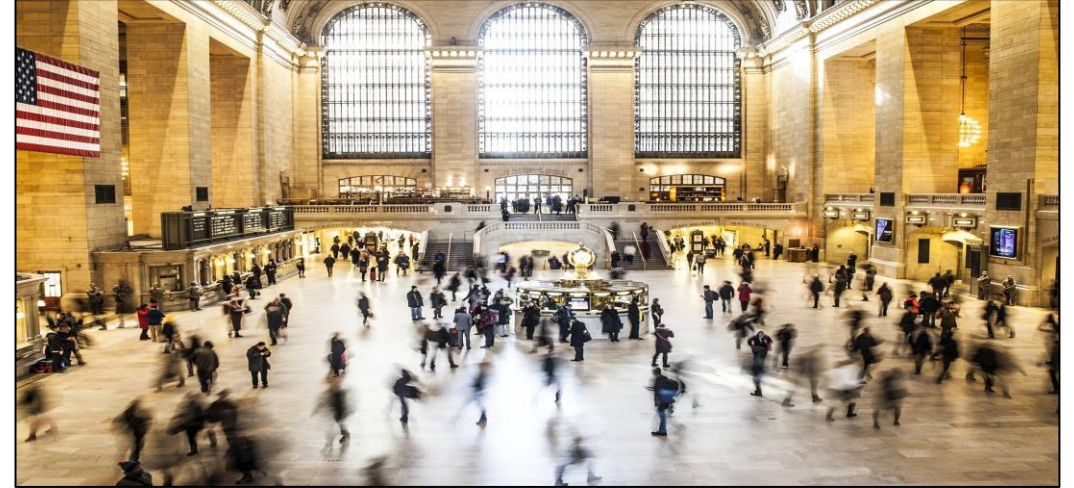
# Unexpected Effects of COVID-19 on Office Properties

## Non-Core Income Will be Affected:

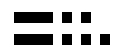
- Parking fees
- Studio service fees – dried up as film and TV studios have been put on hold
- Retail income from the retail components in high-rise office buildings

## Long-Term Demand For Office Space Unknown:

- Corporations will likely re-visit their office needs and could transition some positions to permanent work-from-home
- Many NYC companies are exploring satellite office options to avoid employees having to use mass transit







# Office Fundamentals – Major Markets



| Market        | MoM Change in FSE Asking Rent | MoM Change in Vacancy Rate | May FSE Rent | May Vacancy Rate |
|---------------|-------------------------------|----------------------------|--------------|------------------|
| San Francisco | -0.7%                         | 0.1%                       | \$71.4       | 7.0%             |
| Atlanta       | -0.3%                         | 0.2%                       | \$27.0       | 15.8%            |
| Tampa         | -0.3%                         | 0.2%                       | \$29.3       | 11.3%            |
| Houston       | -0.2%                         | 0.1%                       | \$30.2       | 22.1%            |
| Inland Empire | -0.2%                         | 0.1%                       | \$23.8       | 8.6%             |
| Chicago       | -0.1%                         | 0.1%                       | \$28.9       | 14.2%            |
| Minneapolis   | -0.1%                         | 0.5%                       | \$27.5       | 11.6%            |
| Orlando       | -0.1%                         | 0.4%                       | \$21.6       | 12.9%            |
| Philadelphia  | -0.1%                         | -0.2%                      | \$28.4       | 12.5%            |
| Boston        | 0.0%                          | 0.1%                       | \$32.2       | 9.8%             |
| Brooklyn      | 0.0%                          | 0.1%                       | \$53.7       | 12.5%            |
| Charlotte     | 0.0%                          | 0.5%                       | \$29.2       | 10.0%            |
| Dallas        | 0.0%                          | 0.5%                       | \$27.5       | 18.2%            |

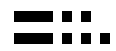
| Market        | MoM Change in FSE Asking Rent | MoM Change in Vacancy Rate | May FSE Rent | May Vacancy Rate |
|---------------|-------------------------------|----------------------------|--------------|------------------|
| Manhattan     | 0.0%                          | 0.4%                       | \$85.9       | 8.1%             |
| Phoenix       | 0.0%                          | 0.1%                       | \$26.7       | 17.4%            |
| Seattle       | 0.0%                          | 1.0%                       | \$37.7       | 9.3%             |
| Austin        | 0.1%                          | 0.1%                       | \$41.4       | 7.6%             |
| Nashville     | 0.1%                          | 0.8%                       | \$30.6       | 11.1%            |
| Portland      | 0.1%                          | 0.1%                       | \$29.9       | 12.4%            |
| San Diego     | 0.1%                          | -0.3%                      | \$39.0       | 11.2%            |
| Bay Area      | 0.2%                          | 0.5%                       | \$49.1       | 13.8%            |
| Washington DC | 0.2%                          | 0.3%                       | \$39.9       | 14.6%            |
| Miami         | 0.3%                          | -0.1%                      | \$41.8       | 11.8%            |
| New Jersey    | 0.3%                          | 0.2%                       | \$31.4       | 20.6%            |
| Denver        | 0.4%                          | -0.4%                      | \$28.4       | 11.6%            |
| Los Angeles   | 0.4%                          | 0.7%                       | \$39.3       | 11.7%            |

\*MoM Change = May 1, 2020 vs. April 1, 2020

\*FSE Rents & Vacancy as of May 1, 2020

Source: Yardi Matrix





# Office Fundamentals By Size of Space



| Market        | MoM Change in FSE Asking Rent <= 100K SF | MoM Change in FSE Asking Rent > 100K SF | May FSE Rent <= 100K SF | May FSE Rent > 100K SF |
|---------------|--|---|-------------------------|------------------------|
| San Francisco | -1.7%                                    | -0.3%                                   | \$61.0                  | \$76.7                 |
| Houston       | -0.5%                                    | -0.1%                                   | \$22.2                  | \$31.5                 |
| Chicago       | -0.4%                                    | -0.1%                                   | \$23.4                  | \$30.2                 |
| Bay Area      | -0.3%                                    | 0.4%                                    | \$41.4                  | \$52.4                 |
| Inland Empire | -0.3%                                    | 0.0%                                    | \$23.3                  | \$25.8                 |
| Philadelphia  | -0.2%                                    | -0.1%                                   | \$26.3                  | \$29.2                 |
| New Jersey    | -0.1%                                    | 0.3%                                    | \$26.2                  | \$32.6                 |
| Atlanta       | 0.0%                                     | -0.2%                                   | \$20.4                  | \$28.4                 |
| Austin        | 0.0%                                     | 0.1%                                    | \$34.0                  | \$45.6                 |
| Brooklyn      | 0.0%                                     | 0.0%                                    | \$42.2                  | \$54.0                 |
| Manhattan     | 0.0%                                     | 0.0%                                    | \$63.5                  | \$87.6                 |
| Miami         | 0.0%                                     | 0.5%                                    | \$36.5                  | \$43.3                 |
| Nashville     | 0.0%                                     | 0.2%                                    | \$25.9                  | \$32.9                 |

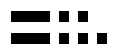
| Market        | MoM Change in FSE Asking Rent <= 100K SF | MoM Change in FSE Asking Rent > 100K SF | May FSE Rent <= 100K SF | May FSE Rent > 100K SF |
|---------------|--|---|-------------------------|------------------------|
| Phoenix       | 0.0%                                     | 0.0%                                    | \$24.8                  | \$27.8                 |
| Portland      | 0.0%                                     | 0.0%                                    | \$26.1                  | \$34.0                 |
| Washington DC | 0.0%                                     | 0.3%                                    | \$28.6                  | \$42.0                 |
| Charlotte     | 0.1%                                     | 0.0%                                    | \$26.1                  | \$30.3                 |
| Dallas        | 0.1%                                     | -0.1%                                   | \$21.9                  | \$28.7                 |
| Tampa         | 0.1%                                     | -0.2%                                   | \$22.8                  | \$31.5                 |
| Orlando       | 0.2%                                     | -0.2%                                   | \$21.2                  | \$21.9                 |
| Boston        | 0.3%                                     | -0.1%                                   | \$30.3                  | \$33.1                 |
| Denver        | 0.3%                                     | 0.4%                                    | \$25.7                  | \$29.2                 |
| Seattle       | 0.3%                                     | 0.0%                                    | \$30.5                  | \$41.8                 |
| Los Angeles   | 0.4%                                     | 0.4%                                    | \$37.9                  | \$39.7                 |
| Minneapolis   | 0.4%                                     | -0.1%                                   | \$24.6                  | \$28.1                 |
| San Diego     | 0.4%                                     | -0.1%                                   | \$38.2                  | \$39.7                 |

\*MoM Change = May 1, 2020 vs. April 1, 2020

\*FSE Rents as of May 1, 2020

Source: Yardi Matrix





# Where is Future *Office* Supply Concentrated?



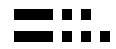
| Property Status    | September 2019 | May 2020    | Difference  |
|--------------------|----------------|-------------|-------------|
| Under Construction | 209,468,002    | 223,562,051 | 14,094,049  |
| Planned            | 268,362,980    | 262,131,764 | (6,231,216) |
| Prospective        | 549,005,520    | 680,212,617 | 131,207,097 |

| Top 10 Markets | Sq. Ft. UC (MM) | UC as a % of Existing Stock | Top 10 Markets | Sq. Ft. Planned (MM) | Planned as a % of Existing Stock | Top 10 Markets  | Sq. Ft. Prospective (MM) | Prospective as a % of Existing Stock |
|----------------|-----------------|-----------------------------|----------------|----------------------|----------------------------------|-----------------|--------------------------|--------------------------------------|
| Austin         | 12.7            | 15.4%                       | Austin         | 14.1                 | 17.1%                            | Austin          | 25.7                     | 31.1%                                |
| Seattle        | 14.5            | 8.6%                        | Queens         | 3.0                  | 12.1%                            | Nashville       | 17.8                     | 29.7%                                |
| Brooklyn       | 3.1             | 7.7%                        | Brooklyn       | 3.6                  | 9.1%                             | Bay Area        | 66.7                     | 24.9%                                |
| Nashville      | 4.4             | 7.3%                        | Raleigh        | 7.0                  | 9.0%                             | Charlotte       | 18.5                     | 24.3%                                |
| Charlotte      | 5.4             | 7.1%                        | Long Island    | 4.8                  | 8.7%                             | Phoenix         | 23.4                     | 16.3%                                |
| San Francisco  | 11.0            | 6.2%                        | Charlotte      | 6.4                  | 8.3%                             | Jacksonville    | 6.7                      | 16.0%                                |
| El Paso        | 0.4             | 5.7%                        | Nashville      | 5.0                  | 8.3%                             | San Francisco   | 27.8                     | 15.6%                                |
| Miami          | 3.8             | 5.3%                        | Wilmington     | 0.3                  | 8.0%                             | Atlanta         | 32.7                     | 15.4%                                |
| Raleigh        | 3.8             | 5.0%                        | San Francisco  | 13.7                 | 7.7%                             | Brooklyn        | 6.0                      | 15.2%                                |
| Boston         | 13.1            | 4.8%                        | Mobile         | 0.5                  | 7.2%                             | West Palm Beach | 5.4                      | 14.7%                                |

\*Data as of May 2020

Source: Yardi Matrix





# Traditional Coworking Model Is Most At Risk, But the New Model Is Not Safe



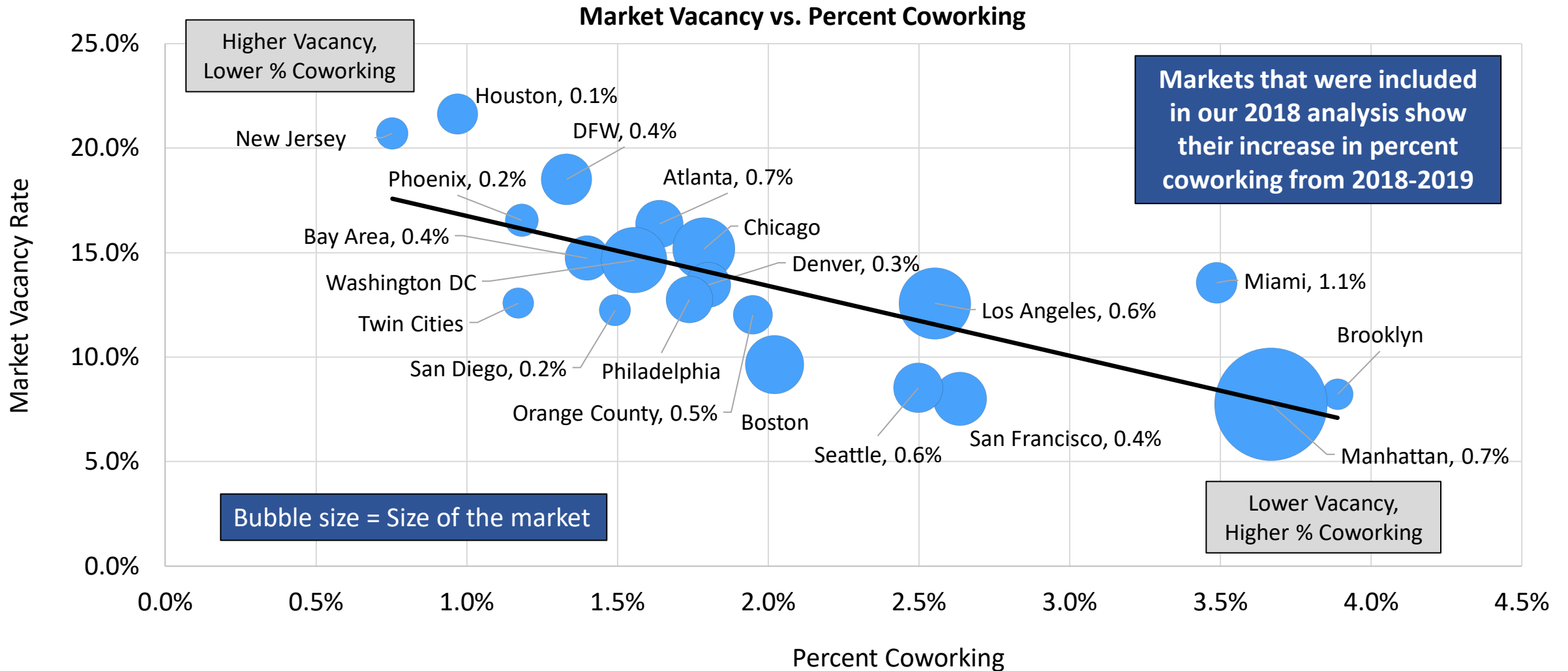
## Traditional Model (WeWork)

- Coworking operator locks in a long-term lease with a property owner, and then signs their users on short-term leases
- SoftBank has backed out on a \$3 billion offer to buy WeWork shares
- Ex-WeWork CEO, Adam Neumann, reportedly intends to sue SoftBank for backing out
- WeWork failed to pay April rent at several locations

## New Model (Hana, Convene, Knotel, Industrious)

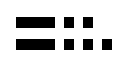
- Partnership model viewed as more sustainable than the traditional model - the building owner pays the coworking operator to manage the space, then receives pass-through income received by the tenants (rather than receiving a fixed rate from a lease)
- Convene has closed all 28 locations and laid off 20% of workforce
- Knotel has skipped April rent payments for at least three NYC locations and cut half its staff

# Markets With The Highest Percentage of CoWorking Are Most At Risk



\*As of September 2019

Source: Yardi Matrix



# Several Large Office Projects Have Already Hit Pause, Likely More to Come



## Large Office Projects Hitting Pause:

- **VRBO** has delayed the start of construction on phase two of its headquarters at The Domain in Austin, TX
- **Expedia** has halted construction of its Seattle headquarters
- **Uber** paused construction at Old Post Office in Chicago – originally planned to move in this Fall, but will push back to 2021
- **Boston Properties** paused construction on 1.1 million SF office project in downtown San Jose
- **Royal Caribbean Cruise Line's** \$300 million headquarters at the Port of Miami has been delayed indefinitely



# ☰☰☰ Ride-sharing Companies Grappling with COVID-19's Impact ☰☰

## Ride-sharing companies have seen ride business diminish as governments restrict people's work, recreation and travel

- Fortunately, as stay-at-home restrictions begin to ease, ride volume has been increasing again
- Uber reports **ride gross bookings are up 43% in Georgia** and **up 50% in Texas** from recent lows

## Ride-sharing companies have also been facing increased regulatory pressures

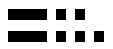
- California's Attorney General sued Lyft and Uber on May 5, alleging both companies have avoided paying for benefits for their drivers by wrongfully classifying them as independent contractors rather than full-time employees
- The back wages and penalties could cost both companies hundreds of million dollars

### UBER

- Reported a net loss of \$2.94 billion and revenue of \$3.54 billion for Q1 2020
  - While revenue rose 14% compared to last year, **losses soared 190%**
- Laid off 3,700 employees, a roughly 14% reduction of staff, to cut costs
- **Uber's Rides business was down 80% in April from last year**
- Uber Eats, the company's food delivery segment, emerged as the company's big opportunity— gross bookings surged 52% from Q1 2019
- Uber announced \$170 million investment in Lime on May 7. Uber will fold its "Jump" electric bike and scooter business into that of Lime's

### LYFT

- Reported a net loss of \$398.1 million and \$955.7 million revenue for Q1 2020
  - Results were better-than-expected with a net loss margin of 41.7% in Q1 2020 compared to 146.7% net loss margin in Q1 2019
  - **Lyft anticipates the negative effects of the pandemic shutdown will be fully seen in their Q2 financial results**
- Laid off 982 employees, or about 17% of staff, and furloughed another 5% of staff in roles that can't be performed at this time
- **Lyft rides dropped almost 80% in late March and are still down 70% in May**



# Industrial Fundamentals



| Market              | MoM Change in FSE Asking Rent | May FSE Rent | May Vacancy Rate |
|---------------------|-------------------------------|--------------|------------------|
| San Diego           | -8.5%                         | \$10.8       | 9.8%             |
| Phoenix             | -3.0%                         | \$7.4        | 10.3%            |
| Bay Area            | -0.8%                         | \$10.5       | 9.1%             |
| Las Vegas           | -0.7%                         | \$8.6        | 3.1%             |
| Chicago             | -0.6%                         | \$5.2        | 9.8%             |
| Kansas City         | -0.4%                         | \$4.4        | 16.1%            |
| Los Angeles         | -0.2%                         | \$10.1       | 1.7%             |
| Miami               | -0.2%                         | \$8.9        | 5.6%             |
| Orange County       | -0.2%                         | \$12.3       | 2.6%             |
| Cincinnati          | -0.1%                         | \$4.2        | 12.3%            |
| Brooklyn            | 0.0%                          | \$28.6       | 4.0%             |
| Dallas - Fort Worth | 0.0%                          | \$4.3        | 9.4%             |
| Denver              | 0.0%                          | \$7.1        | 11.9%            |
| Detroit             | 0.0%                          | \$7.6        | 11.7%            |
| Fort Lauderdale     | 0.0%                          | \$9.0        | 12.7%            |

| Market        | MoM Change in FSE Asking Rent | May FSE Rent | May Vacancy Rate |
|---------------|-------------------------------|--------------|------------------|
| Houston       | 0.0%                          | \$6.1        | 18.8%            |
| Orlando       | 0.0%                          | \$7.4        | 7.1%             |
| Philadelphia  | 0.0%                          | \$10.4       | 9.5%             |
| Pittsburgh    | 0.0%                          | \$15.5       | 8.7%             |
| Queens        | 0.0%                          | \$21.5       | 9.8%             |
| Seattle       | 0.0%                          | \$9.2        | 6.7%             |
| Tampa         | 0.0%                          | \$6.0        | 11.9%            |
| New Jersey    | 0.1%                          | \$7.6        | 15.3%            |
| Sacramento    | 0.1%                          | \$6.3        | 16.7%            |
| Inland Empire | 0.4%                          | \$22.5       | 3.4%             |
| Atlanta       | 0.6%                          | \$7.3        | 10.3%            |
| Minneapolis   | 0.6%                          | \$6.4        | 9.4%             |
| Boston        | 0.9%                          | \$9.1        | 9.4%             |
| San Francisco | 1.1%                          | \$17.7       | 7.0%             |
| Nashville     | 1.9%                          | \$20.0       | 14.1%            |



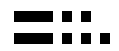
\*MoM Change = May 1, 2020 vs. April 1, 2020

\*FSE Rents & Vacancy as of May 1, 2020

Source: Yardi Matrix







# Industrial Fundamentals By Size of Space



| Market         | MoM Change in FSE Asking Rent <= 200K SF | MoM Change in FSE Asking Rent > 200K SF | May FSE Rent <= 200K SF | May FSE Rent > 200K SF | Market        | MoM Change in FSE Asking Rent <= 200K SF | MoM Change in FSE Asking Rent > 200K SF | May FSE Rent <= 200K SF | May FSE Rent > 200K SF |
|----------------|--|---|-------------------------|------------------------|---------------|--|---|-------------------------|------------------------|
| Bay Area       | -1.7%                                    | 0.0%                                    | \$11.9                  | \$9.2                  | Nashville     | 0.0%                                     | 2.8%                                    | \$33.9                  | \$16.1                 |
| Phoenix        | -1.4%                                    | -6.5%                                   | \$8.1                   | \$6.5                  | Orange County | 0.0%                                     | -0.4%                                   | \$11.7                  | \$13.1                 |
| San Diego      | -0.9%                                    | -22.7%                                  | \$10.4                  | \$13.5                 | Orlando       | 0.0%                                     | 0.0%                                    | \$7.5                   | \$7.2                  |
| Cincinnati     | -0.4%                                    | 0.0%                                    | \$4.5                   | \$4.0                  | Philadelphia  | 0.0%                                     | 0.0%                                    | \$20.8                  | \$6.7                  |
| Los Angeles    | -0.1%                                    | 0.0%                                    | \$10.7                  | \$9.1                  | Seattle       | 0.0%                                     | 0.0%                                    | \$13.2                  | \$7.5                  |
| Brooklyn       | 0.0%                                     | 0.0%                                    | \$28.4                  | \$29.0                 | Tampa         | 0.0%                                     | 0.0%                                    | \$6.8                   | \$5.7                  |
| Dallas         | 0.0%                                     | 0.0%                                    | \$6.6                   | \$3.6                  | Sacramento    | 0.2%                                     | 0.0%                                    | \$6.8                   | \$6.0                  |
| Denver         | 0.0%                                     | 0.0%                                    | \$6.8                   | \$7.1                  | Chicago       | 0.8%                                     | -1.9%                                   | \$6.2                   | \$4.4                  |
| Detroit        | 0.0%                                     | 0.0%                                    | \$9.3                   | \$5.7                  | Atlanta       | 0.9%                                     | 0.0%                                    | \$7.3                   | \$8.0                  |
| Ft. Lauderdale | 0.0%                                     | 0.0%                                    | \$9.3                   | \$7.1                  | Miami         | 0.9%                                     | 0.0%                                    | \$10.4                  | \$8.8                  |
| Houston        | 0.0%                                     | -0.1%                                   | \$7.4                   | \$5.7                  | New Jersey    | 1.3%                                     | 0.0%                                    | \$8.4                   | \$7.4                  |
| Inland Empire  | 0.0%                                     | 1.6%                                    | \$16.8                  | \$38.0                 | San Francisco | 1.4%                                     | 0.0%                                    | \$17.8                  | \$17.1                 |
| Kansas City    | 0.0%                                     | -2.0%                                   | \$6.3                   | \$4.0                  | Minneapolis   | 1.7%                                     | 0.0%                                    | \$7.1                   | \$5.9                  |
| Las Vegas      | 0.0%                                     | -1.2%                                   | \$8.5                   | \$8.8                  | Boston        | 6.5%                                     | 0.0%                                    | \$14.0                  | \$6.9                  |

\*MoM Change = May 1, 2020 vs. April 1, 2020

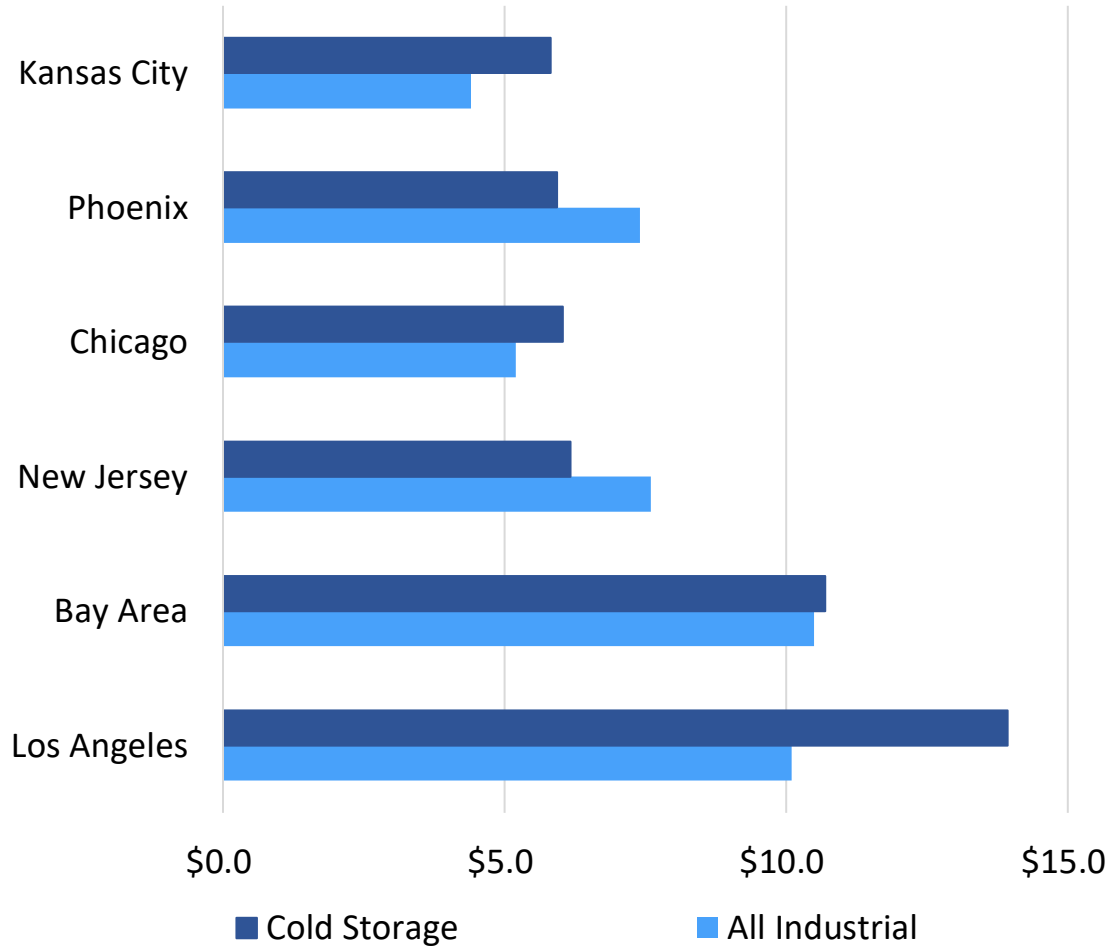
\*FSE Rents & Vacancy as of May 1, 2020

Source: Yardi Matrix

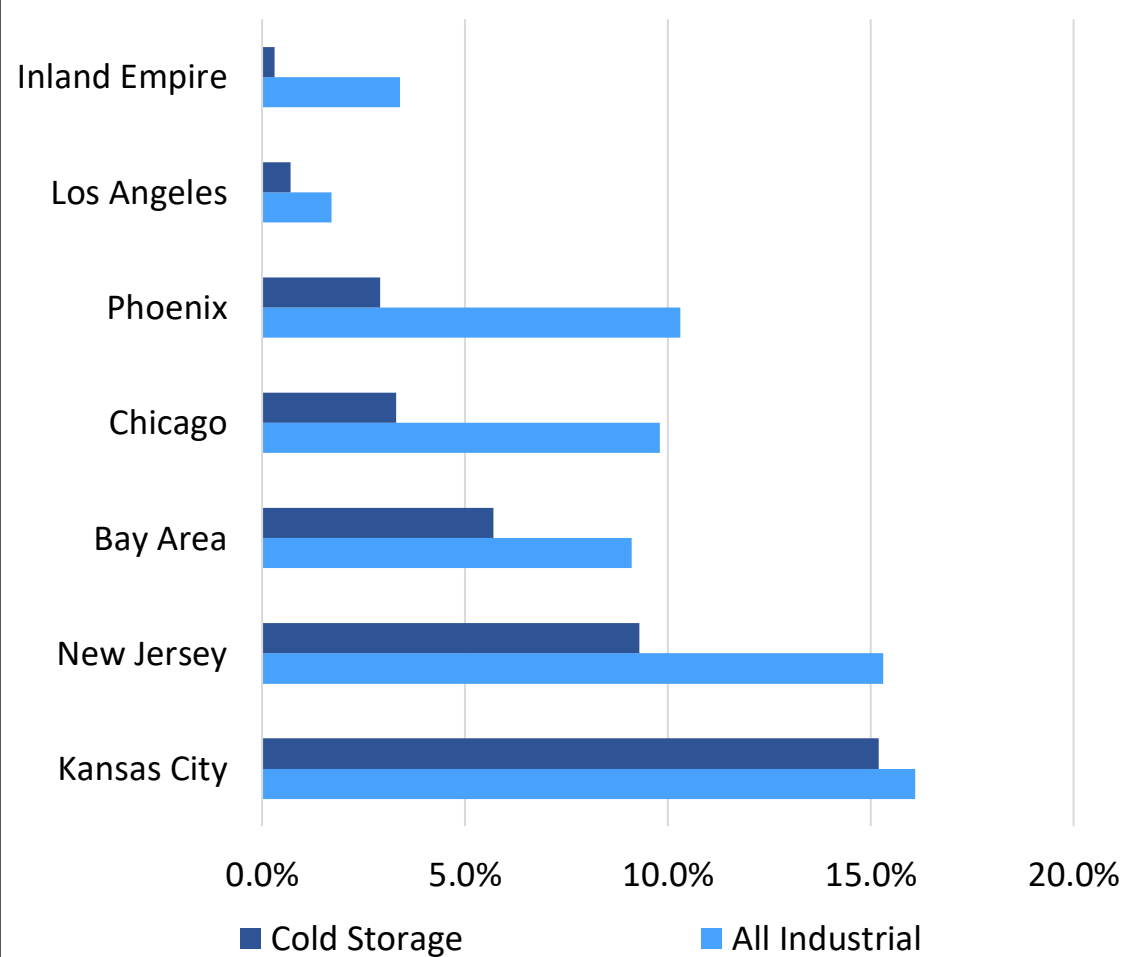


# Cold Storage In High Demand

### FSE Asking Rents

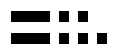


### Vacancy

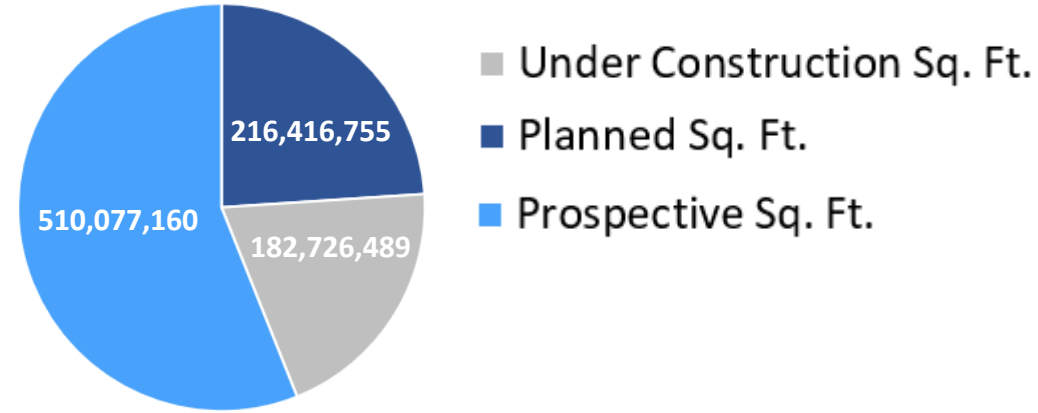


\*FSE Rents & Vacancy as of May 1, 2020

Source: Yardi Matrix



# Where is Future *Industrial* Supply Concentrated?



| Top 10 Markets    | Sq. Ft. UC (MM) | UC as a % of Existing Stock | Top 10 Markets   | Sq. Ft. Planned (MM) | Planned as a % of Existing Stock | Top 10 Markets | Sq. Ft. Prospective (MM) | Prospective as a % of Existing Stock |
|-------------------|-----------------|-----------------------------|------------------|----------------------|----------------------------------|----------------|--------------------------|--------------------------------------|
| Staten Island     | 1.0             | 28.3%                       | SW Florida Coast | 6.2                  | 23.9%                            | Inland Empire  | 102.3                    | 18.6%                                |
| North Central FL  | 2.0             | 7.3%                        | Long Island      | 8.2                  | 15.9%                            | Denver         | 20.4                     | 16.0%                                |
| Phoenix           | 13.8            | 6.8%                        | Orlando          | 7.7                  | 8.1%                             | Tampa          | 20.1                     | 15.2%                                |
| Denver            | 7.4             | 5.8%                        | North Central FL | 2.0                  | 7.3%                             | South Carolina | 35.4                     | 14.3%                                |
| Bronx             | 0.6             | 4.9%                        | Las Vegas        | 5.6                  | 7.1%                             | Jacksonville   | 10.1                     | 12.1%                                |
| Las Vegas         | 3.7             | 4.8%                        | Phoenix          | 12.7                 | 6.2%                             | Phoenix        | 23.6                     | 11.6%                                |
| Tampa             | 6.0             | 4.5%                        | Brooklyn         | 1.7                  | 5.7%                             | Austin         | 7.8                      | 10.1%                                |
| San Francisco     | 2.5             | 4.4%                        | Columbus         | 12.2                 | 5.6%                             | Sacramento     | 7.8                      | 9.7%                                 |
| Dallas-Fort Worth | 22.6            | 4.2%                        | Denver           | 6.9                  | 5.4%                             | Kansas City    | 14.9                     | 9.4%                                 |
| West Palm Beach   | 0.7             | 3.8%                        | South Carolina   | 11.4                 | 4.6%                             | Chicago        | 58.5                     | 8.5%                                 |

\*Data as of May 2020

Source: Yardi Matrix



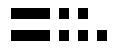


# Debt Market Update



- Banks are focused on immediate issues — hotel & retail work-outs, processing SBA/PPP loans
- Private debt funds and CMBS are shut down for originations; will also be focused on work-outs
- Very hard to get a handle on pricing & terms for now
- Expiring, performing, loans will most likely be extended in the short-term; dearth of transactions leaves valuation uncertain
- Non-performing loans will, as in most recessions, go through an extensive process before repossession
  - Retail loans are the wild card - the pain has been quick & very deep



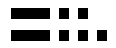


## Resulting Probable Areas of Distress in Late 3Q/4Q



- Office and industrial properties with already low occupancy
- Office construction loans coming due between June and December of this year
- Commercial locations with significant traditional coworking model exposure
- Retail – clothing & apparel, restaurants, theatres, show rooms

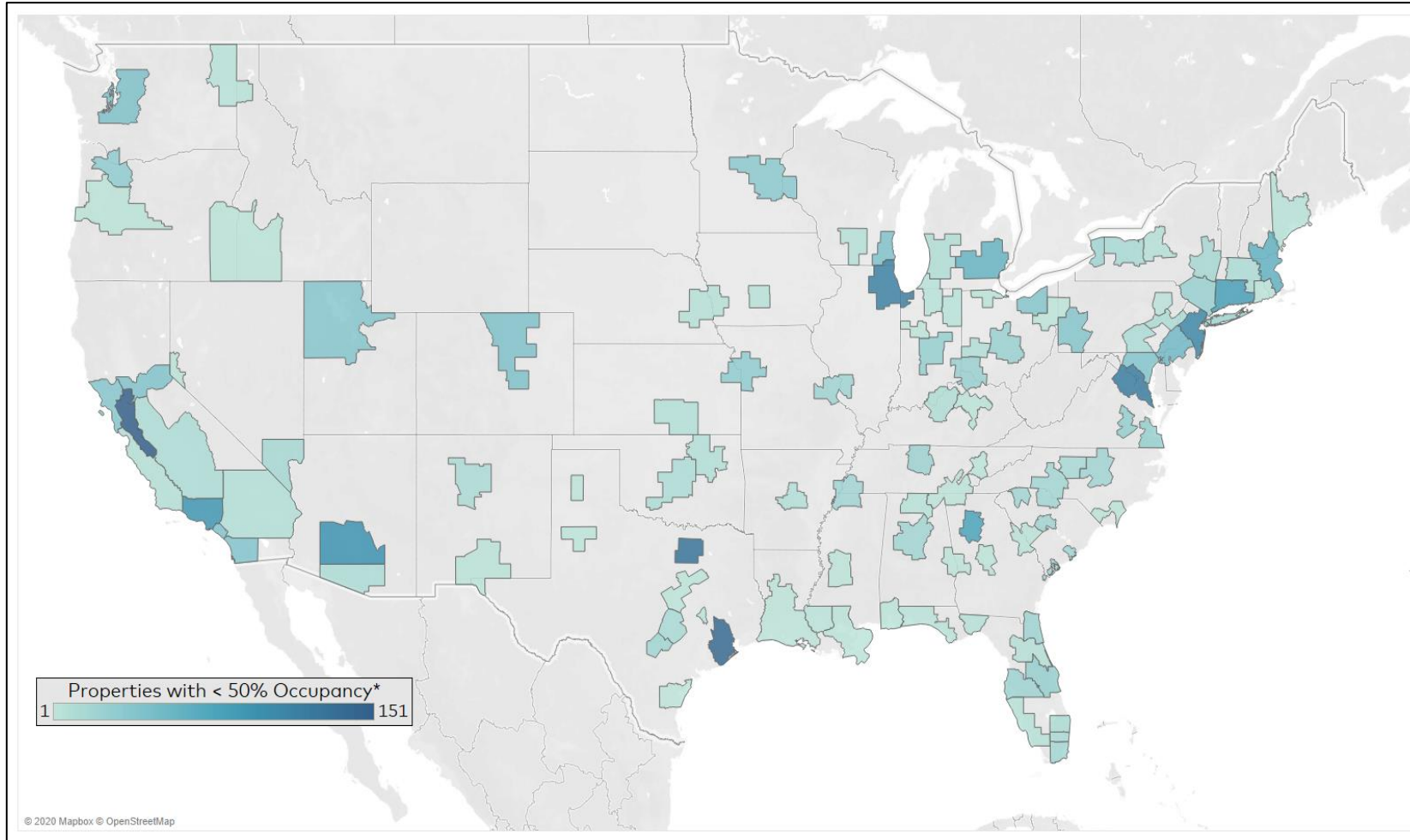




# Potential Distress Areas:



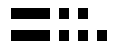
## Office Properties in Each Market That are Less Than 50% Occupied



| Market                 | Properties |
|------------------------|------------|
| Bay Area               | 151        |
| Houston                | 139        |
| Dallas - Fort Worth    | 130        |
| Washington DC          | 120        |
| Chicago                | 115        |
| New Jersey             | 108        |
| Phoenix                | 96         |
| Los Angeles            | 91         |
| Bridgeport - New Haven | 82         |
| Atlanta                | 77         |
| Boston                 | 61         |
| Detroit                | 60         |
| Philadelphia           | 53         |
| Manhattan              | 44         |
| Denver                 | 43         |
| Seattle                | 43         |

\*As of May 8, 2020  
Source: Yardi Matrix

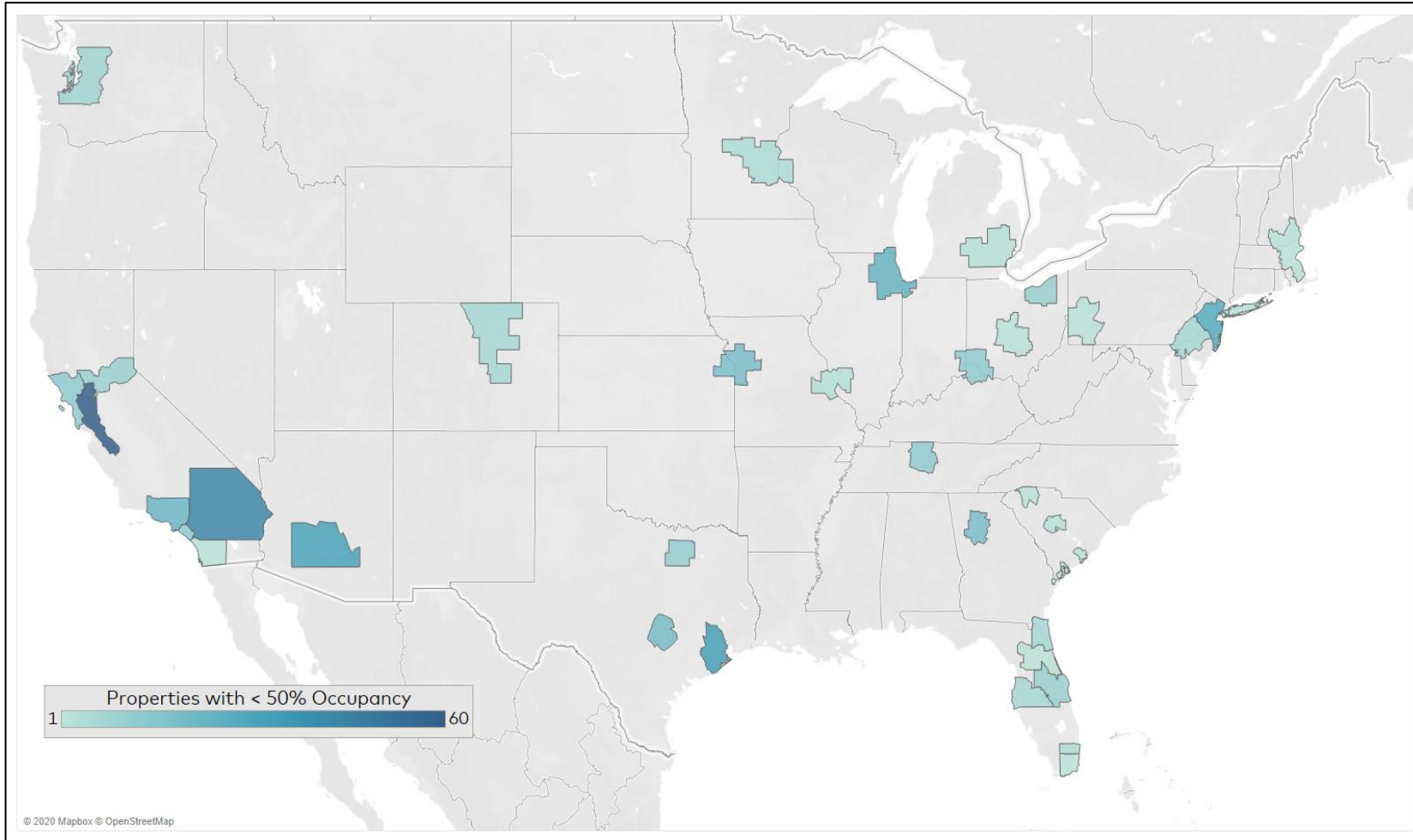




# Potential Distress Areas:

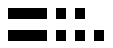


## Industrial Properties in Each Market That are Less Than 50% Occupied

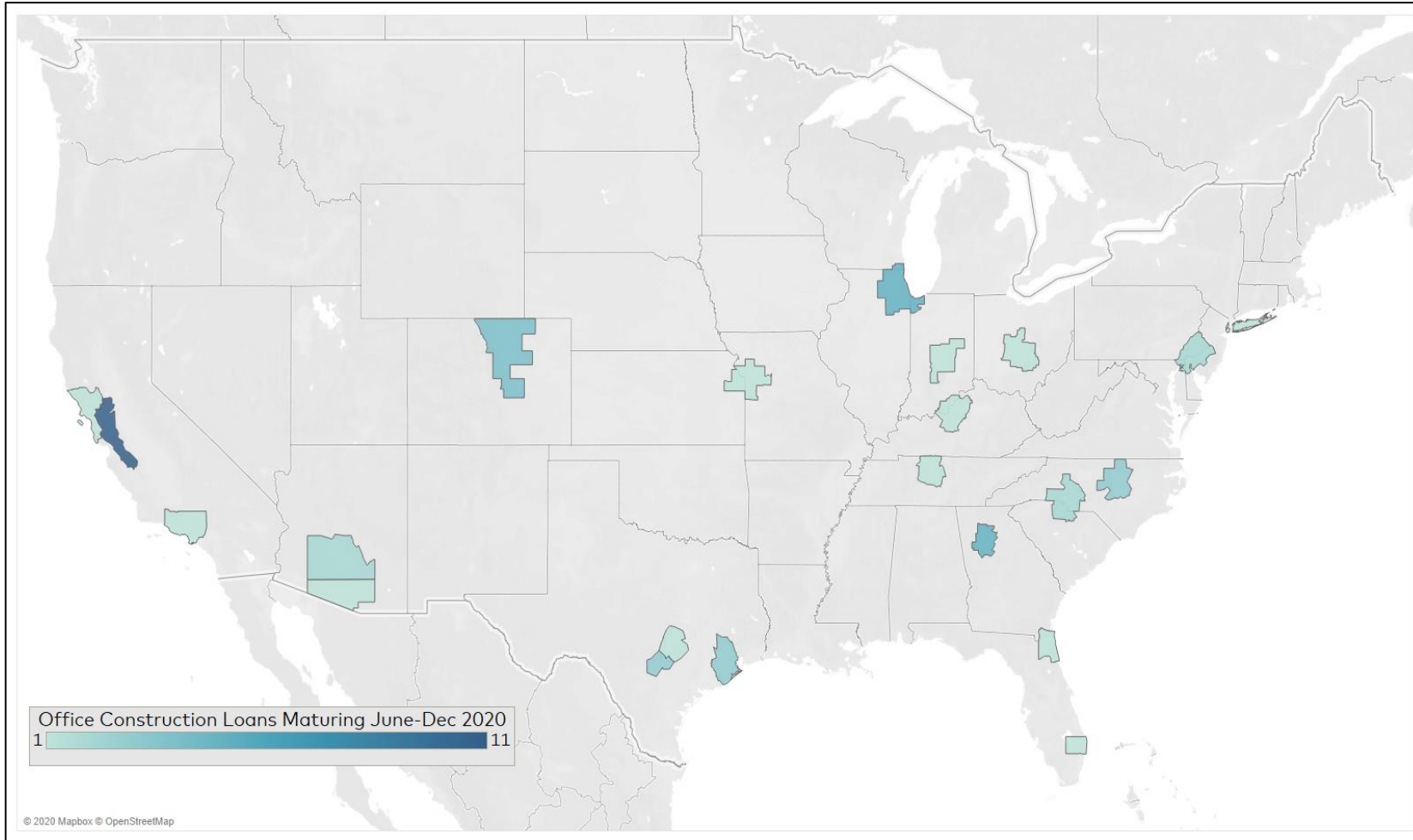


| Market              | Properties |
|---------------------|------------|
| Bay Area            | 60         |
| Inland Empire       | 43         |
| Houston             | 33         |
| Phoenix             | 31         |
| New Jersey          | 28         |
| Chicago             | 24         |
| Los Angeles         | 23         |
| Austin              | 20         |
| Atlanta             | 19         |
| Kansas City         | 19         |
| Cincinnati          | 13         |
| Nashville           | 13         |
| Orange County       | 13         |
| San Francisco       | 13         |
| Dallas - Fort Worth | 12         |

\*As of May 8, 2020  
Source: Yardi Matrix



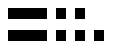
# Potential Distress Areas: Office Construction Loans Maturing June-Dec 2020



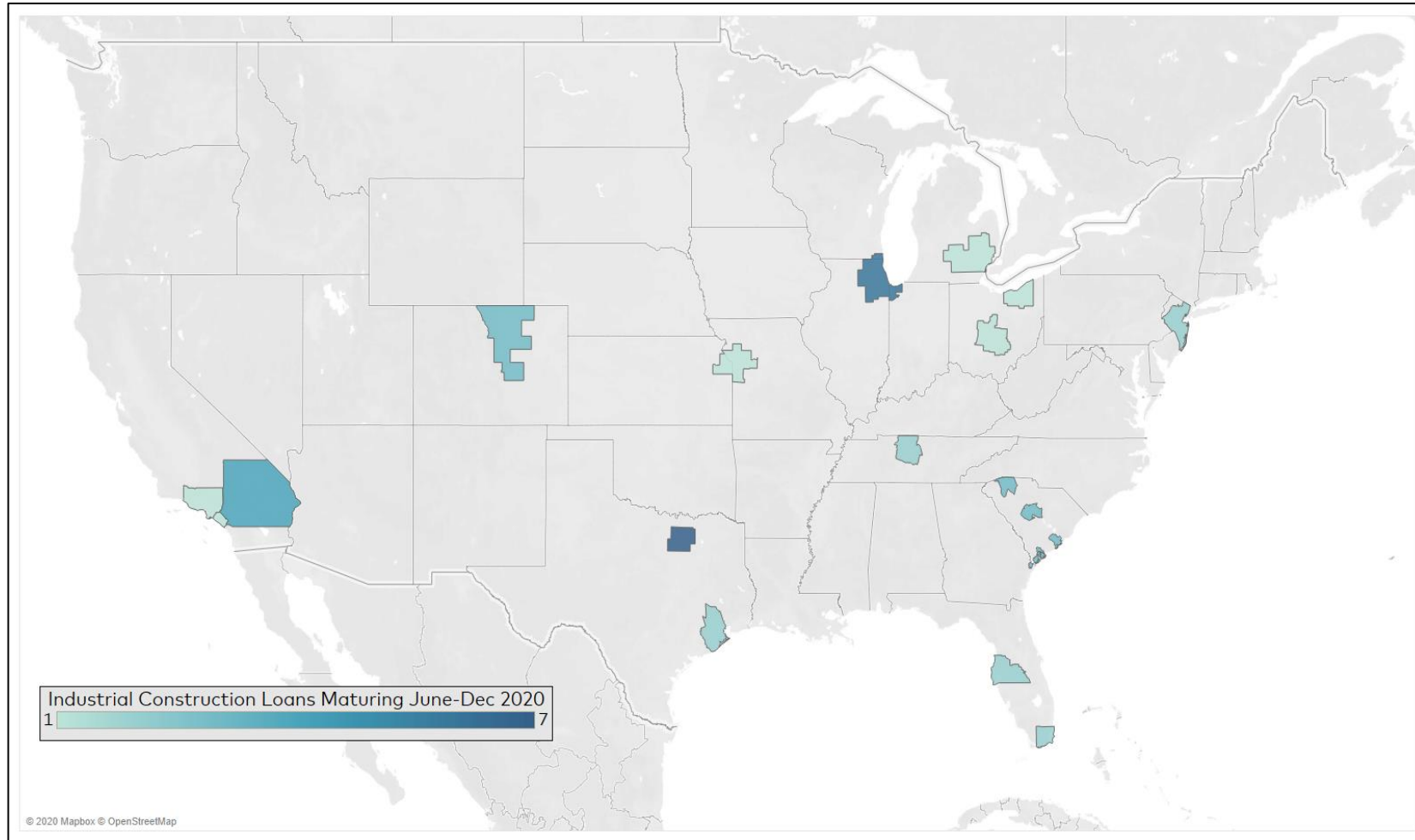
| Market           | # Loans |
|------------------|---------|
| Bay Area         | 11      |
| Atlanta          | 5       |
| Chicago          | 5       |
| Denver           | 4       |
| Houston          | 3       |
| Raleigh - Durham | 3       |
| San Antonio      | 3       |
| Charlotte        | 2       |
| Philadelphia     | 2       |







# Potential Distress Areas: Industrial Construction Loans Maturing June-Dec 2020



| Market              | # Loans |
|---------------------|---------|
| Dallas - Fort Worth | 7       |
| Chicago             | 6       |
| Inland Empire       | 4       |
| Denver              | 3       |
| South Carolina      | 3       |
| Houston             | 2       |
| Miami               | 2       |
| Nashville           | 2       |
| New Jersey          | 2       |
| Tampa               | 2       |



# Large Retailers Collapse Into Bankruptcy Amid Pandemic

## J.Crew Group, Inc.

- Filed for Chapter 11 bankruptcy protection on May 4. The retailer entered the Chapter 11 filing with a defined, pre-negotiated plan with lenders for how to exit
- After struggling for years with declining sales and unsustainable debt, J.Crew expects to lose \$900 million in sales this year due to the COVID-19 store closures and economic shutdown

## Neiman-Marcus Group, Inc.

- Filed for Chapter 11 bankruptcy protection on May 7, seeking to eliminate \$4 billion of roughly \$5.1 billion in debt
- Operates 43 Neiman Marcus stores, 2 Bergdorf Goodman stores and 22 Last Call stores. Neiman already had plans to close roughly half of the Last Call stores, but stated they aren't planning other mass closings or asset sales as part of their restructuring

## Aldo Group, Inc.

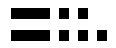
- The Montreal-based retailer began a court restructuring on May 7 by obtaining protection via the Companies' Creditors Arrangement Act in Canada and filing for Chapter 15 bankruptcy in the U.S.

## Lord & Taylor

- Postponing plans to file for bankruptcy until reopening its 38 stores and liquidating inventory through "going out of business" sales to generate cash



***Experts believe this is likely the beginning of a wave of bankruptcies of retailers in weak financial positions amid the COVID-19 crisis***



# Retail – Who Paid April Rent and Who Didn't?



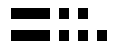
| Company                                 | 0% of April Rent Paid | Portion of April Rent Paid | 100% of April Rent Paid |
|---|-----------------------|----------------------------|-------------------------|
| <b>Clothing &amp; Apparel Companies</b> |                       |                            |                         |
| Foot Locker                             | ✓                     |                            |                         |
| JCPenney                                |                       |                            | ✓                       |
| LOFT                                    | ✓                     |                            |                         |
| Nordstrom                               | ✓                     |                            |                         |
| Nordstrom Rack                          |                       |                            | ✓                       |
| Old Navy                                | ✓                     |                            |                         |
| The Gap                                 | ✓                     |                            |                         |
| <b>Movie Theaters</b>                   |                       |                            |                         |
| AMC Theaters                            | ✓                     |                            |                         |
| Cinepolis                               | ✓                     |                            |                         |
| Harkins Theaters                        | ✓                     |                            |                         |
| Regal Cinemas                           | ✓                     |                            |                         |
| <b>Fast-Food Chains</b>                 |                       |                            |                         |
| Chick Fil-A                             |                       |                            | ✓                       |
| Chipotle                                |                       |                            | ✓                       |
| Five Guys                               |                       | ✓                          |                         |
| IHOP                                    |                       | ✓                          |                         |
| Jamba Juice                             |                       | ✓                          |                         |

| Company                             | 0% of April Rent Paid | Portion of April Rent Paid | 100% of April Rent Paid |
|-------------------------------------|-----------------------|----------------------------|-------------------------|
| <b>Other Retail</b>                 |                       |                            |                         |
| Barnes and Noble                    | ✓                     |                            |                         |
| Best Buy                            |                       |                            | ✓                       |
| Dollar Tree                         |                       |                            | ✓                       |
| Hobby Lobby                         |                       |                            | ✓                       |
| Home Depot                          |                       |                            | ✓                       |
| Home Goods                          |                       |                            | ✓                       |
| Kirkland's                          | ✓                     |                            |                         |
| LA Fitness                          | ✓                     |                            |                         |
| Lowes                               |                       |                            | ✓                       |
| Marshalls                           |                       |                            | ✓                       |
| Michaels                            |                       | ✓                          |                         |
| Party City                          | ✓                     |                            |                         |
| Petco                               |                       | ✓                          |                         |
| PetSmart                            |                       |                            | ✓                       |
| Walmart                             |                       |                            | ✓                       |
| Wells Fargo, Bank of America, Chase |                       |                            | ✓                       |

\*As of April 17, 2020

Source: Yardi Matrix; The Real Deal, "Retailers exposed: Who's Paying Rent and Who's Not"





# Certain Trends Have Seen a Reversal or Acceleration Due to Impacts of the Coronavirus



## **ACCELERATION OF TRENDS**

- E-commerce
- Virtualization
- Local Political Risk/Higher Taxes

## **POTENTIAL REVERSAL OF TRENDS**

- Experiences over “Things”
- Densification
- Globalization





# Operational Response

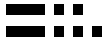
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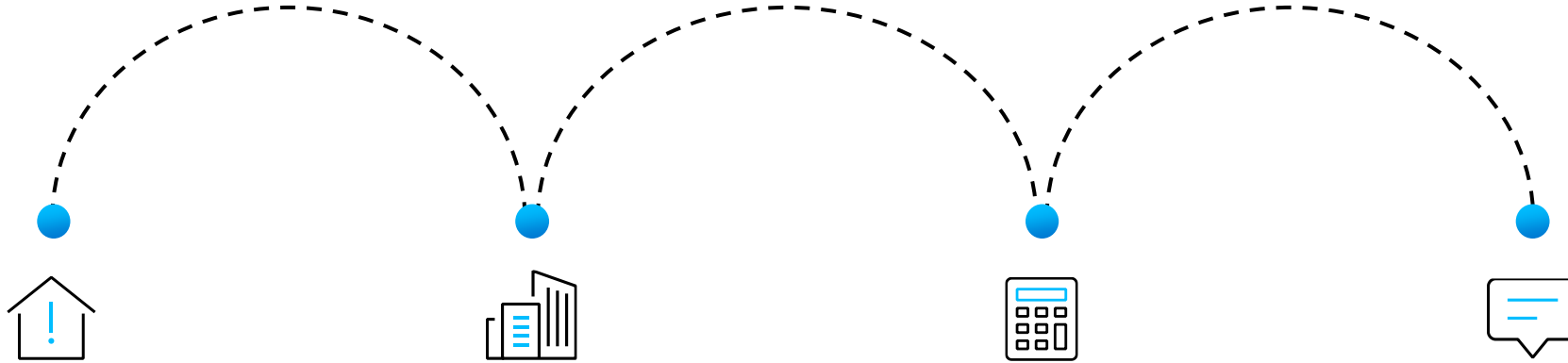


# COMMERCIAL ACCOUNTING TRENDS

- Rent deferrals and concessions
- Collections
- Move to online everything – no more paper
  - Finally, let's get rid of checks
  - Vendor invoices
  - Tenant invoices
- AP/AR outsourcing
- Future risk analysis



# COVID RISK ANALYSIS



## TENANT RISK

- Risk management
- Improved visibility
- Rank and weigh

## BUSINESS IMPACT

- Rent deferrals
- Special accommodations
- Actionable insights

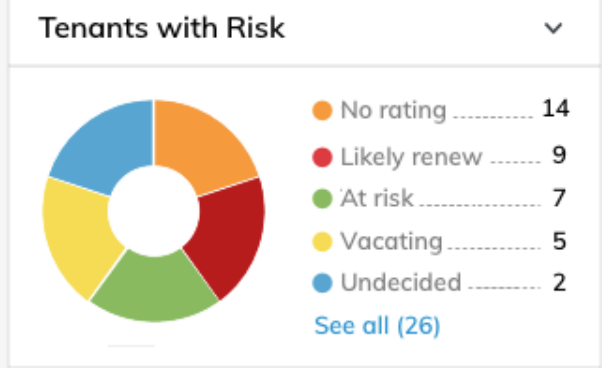
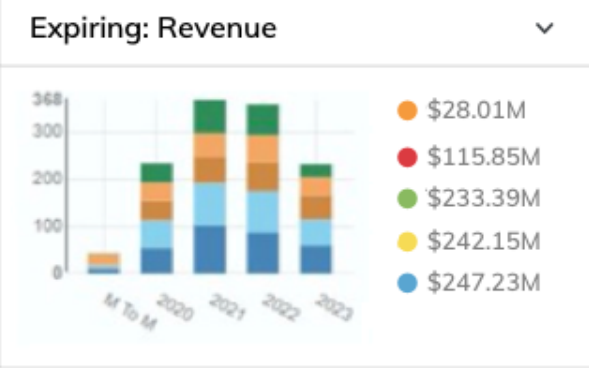
## COLLECTION MANAGEMENT

- Streamlined collections
- Task management
- Legal status and holds

## CENTRALIZE COMMUNICATION

- Pursuits tracking
- Increased collaboration
- Improved communication





### AR Summary

[See details](#)

| Aging Bucket |           | Receipts vs Charges |             |
|--------------|-----------|---------------------|-------------|
| 0-30         | \$895,540 | March '20           | \$823,450 / |
| 31-60        | \$41,250  | Rent                | \$925,190   |
| 61-90        | \$25,600  | Receipts            | (84%)       |
| >90          | \$10,650  | April '20           | \$823,450 / |
|              |           | Rent                | \$925,190   |
|              |           | Receipts            | (84%)       |

### Deferrals & Abatement

[See details](#)

|                      |                          |
|----------------------|--------------------------|
| Total Future Charge  | \$825,190 (45 Tenants)   |
| Billed Deferred      | \$895,540 (4 tenants)    |
| Past Due (31+)       | \$20,950 (3 tenants)     |
| Unbilled Deferred    | \$815,550 (41 tenants)   |
| Total Rent Abatement | \$1,025,190 (45 tenants) |
| COVID Rent Abatement | \$800,540 (28 tenants)   |

102 Tenants

| Tenant   | Property                                   | Area/Unit         | Lease Start | Lease Expiration | Ending Rent / OpEx                | Collection Status   | Rent Deferral   | Contact    | Last Activity        |
|--|--|-------------------|-------------|------------------|-----------------------------------|---|---|------------|----------------------|
| AG Edwards <span>Critical</span><br>t123435<br>Child of Amazon | Flatiron Building<br>p123435<br>Dallas, TX | 2500 SF<br>(101A) | 9/1/2019    | 4/30/2021        | Rent: \$252,000<br>OpEx: \$82,000 | No status<br>0-30: \$12,560<br>31-60: \$5,400<br>61+: \$0 | Total: \$37,560<br>Billed-Paid: \$0<br>Billed-Due (0-30): \$5,460<br>Billed-Past Due (30+): \$0<br>Unbilled: \$32,100 | Jane Smith | NZ ⓘ<br>2 months ago |
| AG Edwards <span>Critical</span><br>t123435<br>Child of Amazon | Flatiron Building<br>p123435<br>Dallas, TX | 2500 SF<br>(101A) | 9/1/2019    | 4/30/2021        | Rent: \$252,000<br>OpEx: \$82,000 | Late Fee<br>0-30: \$12,560<br>31-60: \$5,400<br>61+: \$0  | n/a   | Jane Smith | NZ ⓘ<br>2 months ago |
| AG Edwards <span>Critical</span><br>t123435<br>Child of Amazon | Flatiron Building<br>p123435<br>Dallas, TX | 2500 SF<br>(101A) | 9/1/2019    | 4/30/2021        | Rent: \$252,000<br>OpEx: \$82,000 | At Risk<br>0-30: \$12,560<br>31-60: \$5,400               | n/a   | Jane Smith | NZ ⓘ<br>2 months ago |



### Accounts Receivable Analysis April 2020

**Target Period: April 2020**

|                    |                        |
|--------------------|------------------------|
| Total Charges      | \$925,190 (45 Tenants) |
| Receipts Collected | \$650,560 (21 Tenants) |
| % Collected        | 75%                    |
| Uncollected \$     | \$275,000              |

\* As of April 28, 2020

**Last Period: March 2020**

|                    |                        |
|--------------------|------------------------|
| Total Charges      | \$925,190 (45 Tenants) |
| Receipts Collected | \$650,560 (21 Tenants) |
| % Collected        | 75%                    |
| Uncollected \$     | \$275,000              |

\* As of March 28, 2020

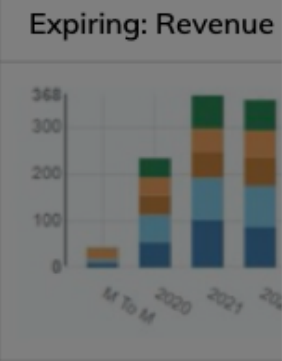
**YoY Period: April 2019**

|                    |                        |
|--------------------|------------------------|
| Total Charges      | \$925,190 (45 Tenants) |
| Receipts Collected | \$650,560 (21 Tenants) |
| % Collected        | 75%                    |
| Uncollected \$     | \$275,000              |

\* As of April 28, 2019

23 Properties

| Charge Code        | April 2020 |          |          | March 2020 |          |          | April 2019 |          |          |
|--------------------|------------|----------|----------|------------|----------|----------|------------|----------|----------|
|                    | Charges    | Receipts | Received | Charges    | Receipts | Received | Charges    | Receipts | Received |
| Rent               | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      |
| Operating Expenses | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      |
| Insurance          | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      |
| Real Estate Taxes  | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      |
| Mgmt Fees          | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      | \$100,000  | \$75,000 | 75%      |



102 Tenants

Tenant

AG Edwards Critical  
t123435  
Child of Amazon

AG Edwards Critical  
t123435  
Child of Amazon

AG Edwards Critical  
t123435

- See details
- \$825,190 (45 Tenants)
- \$895,540 (4 tenants)
- \$20,950 (3 tenants)
- \$815,550 (41 tenants)
- \$1,025,190 (45 tenants)
- \$800,540 (28 tenants)

Last Activity

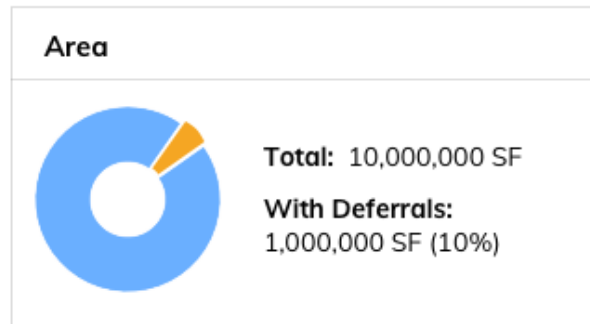
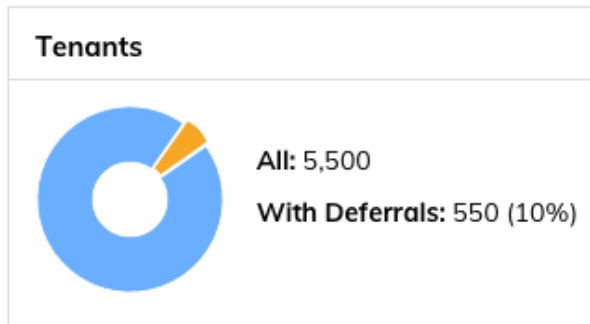
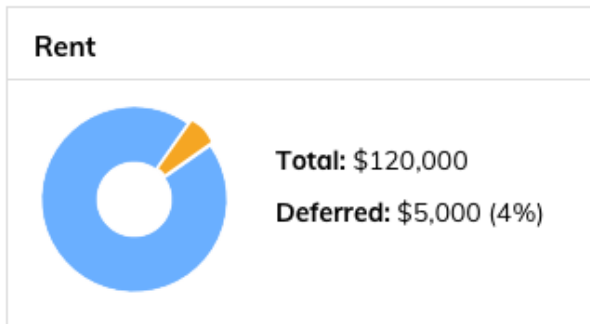
NZ i  
2 months ago

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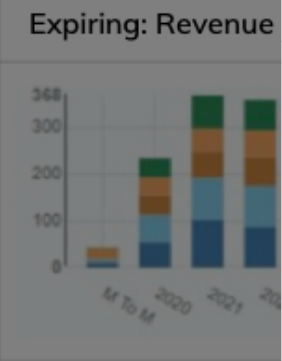
### Deferrals & Abatement

Deferred Rent Snapshot Time period Q2 2020



Revenue and Deferrals Over Time Time period Q2 2020 View Quarterly

|                      | Q1 2020        | Q2 2020        | Q3 2020        | Q4 2020        | Total 2020      |
|----------------------|----------------|----------------|----------------|----------------|-----------------|
| <b>Revenue</b>       | \$100,000      | \$120,000      | \$120,000      | \$120,000      | \$460,000       |
| Not deferred         | \$75,000 (75%) | \$75,000 (85%) | \$75,000 (85%) | \$75,000 (85%) | \$420,000 (85%) |
| Not yet due          | \$0            | \$80,000       | \$80,000       | \$80,000       | \$240,000       |
| Paid                 | \$50,000       | \$20,000       | \$20,000       | \$20,000       | \$20,000        |
| Overdue              | \$25,000       | \$15,000       | \$15,000       | \$15,000       | \$15,000        |
| <b>Deferred</b>      | \$25,000 (25%) | \$5,000 (15%)  | \$5,000 (15%)  | \$5,000 (15%)  | \$5,000 (15%)   |
| COVID Rent Abatement | \$14,500       | \$35,000       | -              | -              | \$49,500        |



102 Tenants

Tenant

AG Edwards Critical  
t123435  
Child of Amazon

AG Edwards Critical  
t123435  
Child of Amazon

AG Edwards Critical  
t123435

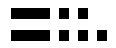
- See details
- \$825,190 (45 Tenants)
- \$895,540 (4 tenants)
- \$20,950 (3 tenants)
- \$815,550 (41 tenants)
- \$1,025,190 (45 tenants)
- \$800,540 (28 tenants)

Last Activity

NZ 2 months ago

NZ 2 months ago

NZ 2 months ago

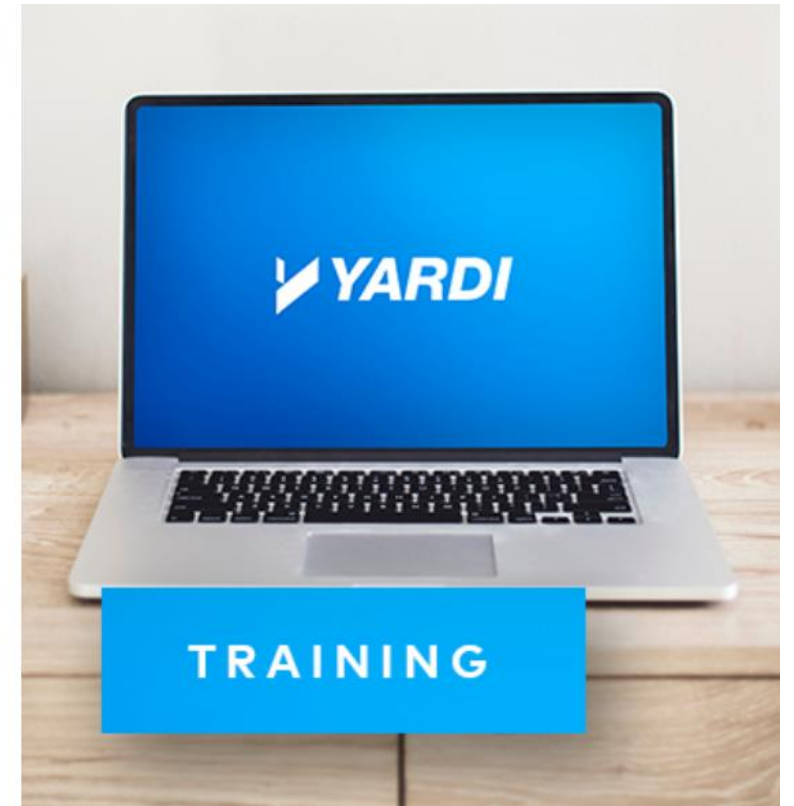
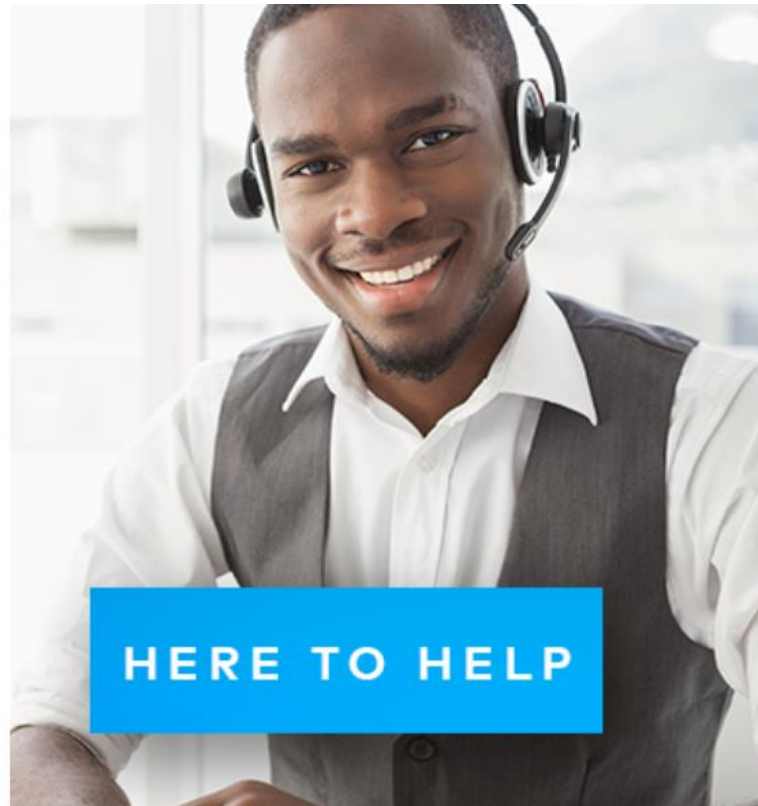


# For More on Yardi's Capabilities



## Yardi's COVID-19 Resource Page:

<https://www.yardi.com/coronavirus/>

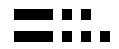




# Shape and Timing of Recovery

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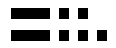


# JPMorgan Chase & Co. Expects 2Q U.S. GDP to Contract a Historic 40%, Revised Down From 25%



- JPMorgan slashed its growth outlook for 2Q to -40% from -25%
- Widespread stay-at-home orders and record-high weekly jobless claims contributed to their revision
- According to the bank, the federal government's \$2 trillion stimulus "should provide only a partial offset to ongoing income losses" while adding to the economy's debt load
- The JPMorgan forecast assumes the virus has run its course by June

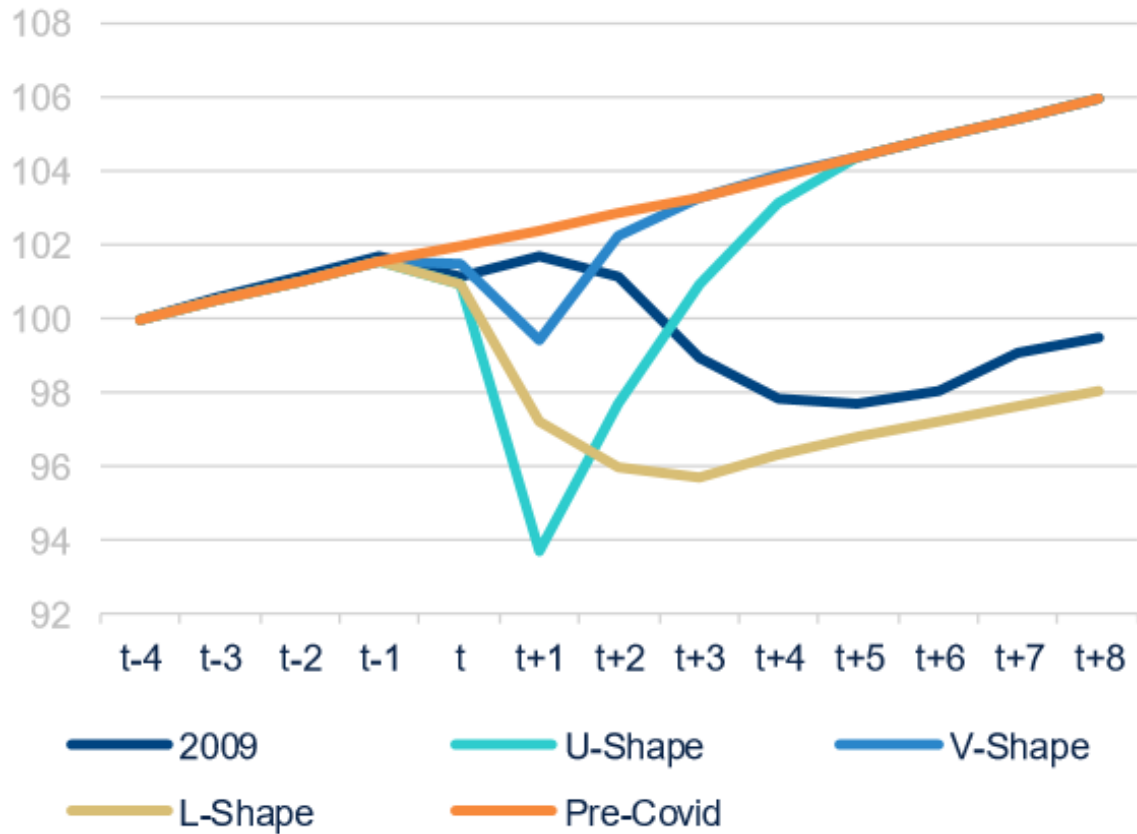




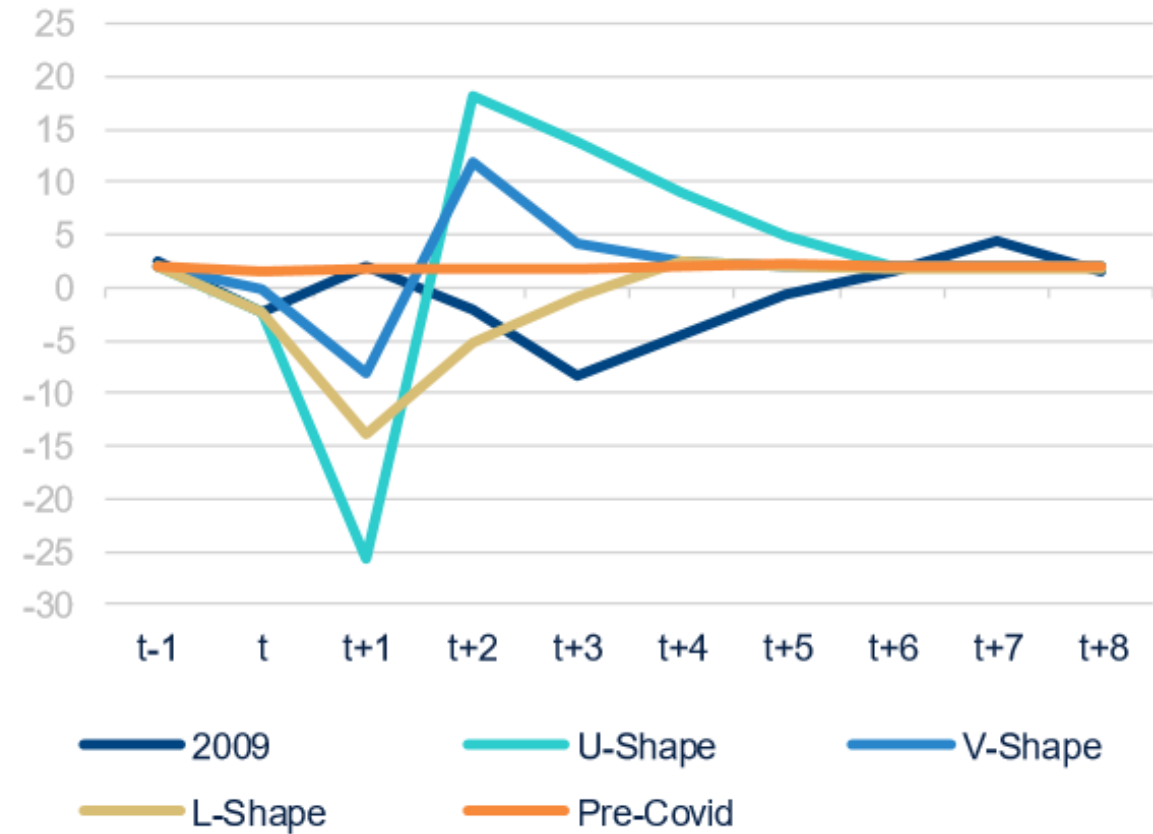
# BBVA Research GDP Simulations



Pre-Covid vs V, U and L-shape recoveries  
(Index t-4=100, quarters)

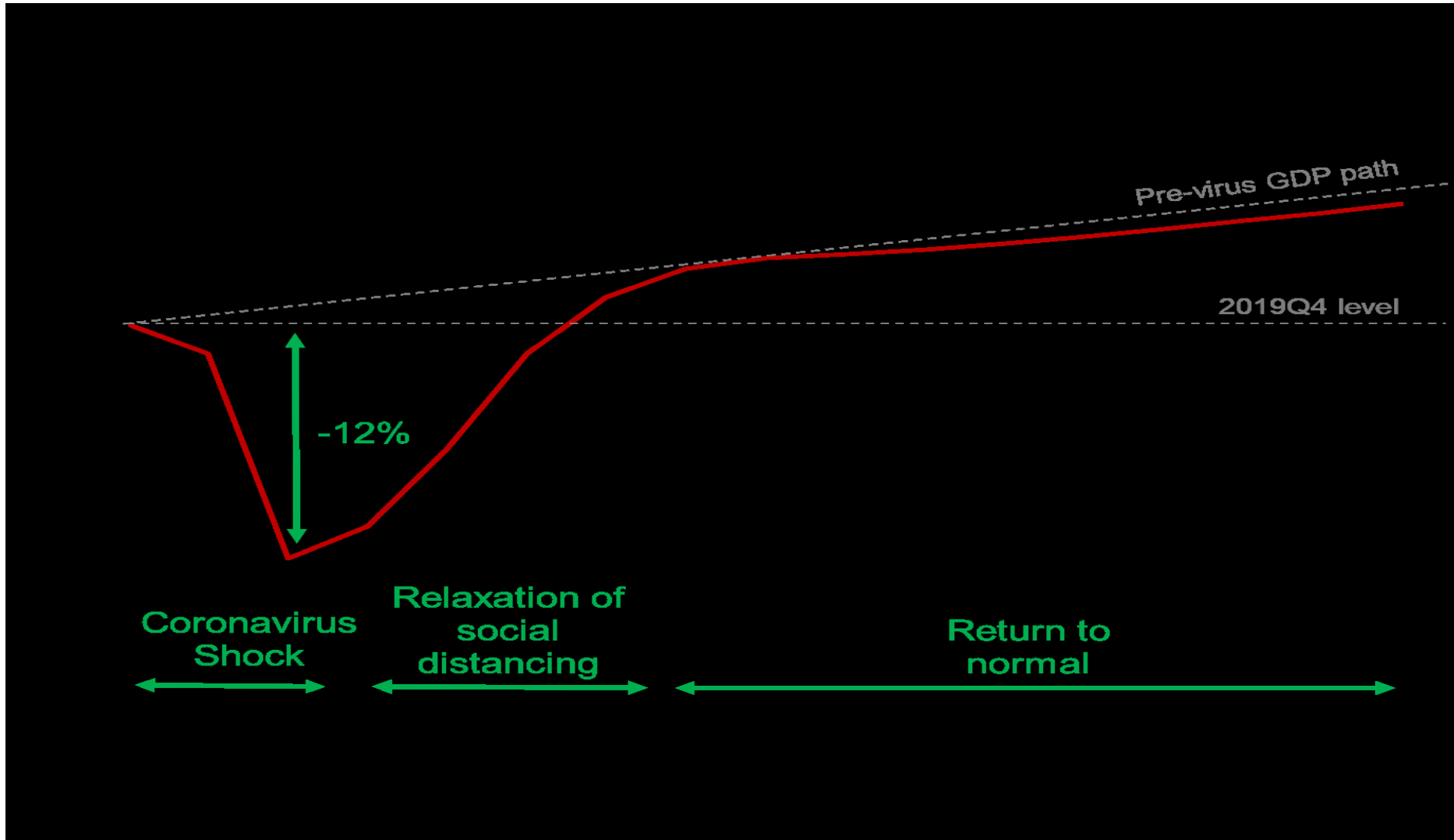


Pre-Covid vs V, U and L-shape recoveries  
(QoQ % Change, annualized, t=start of recession)

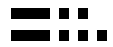


Source: Yardi Matrix; BBVA Research, "When will the U.S. economy recover from the infection?"

# ☛ A Deep Recession with a Return to Trend in 2 Years Seems Likely☚



..



# Yardi Matrix House View May 2020



## **The shock is over, but the pain has just started**

- The COVID-19 caused downturn has been swift and deep
  - 30 MM jobless in 6 weeks – depression levels
  - U.S. fiscal/monetary response has been swift too
    - Mitigating losses in the financial markets
    - Initially replacing incomes lost at the bottom of the economic scale
    - Carnage in the energy sector is just as bad as travel and hospitality
    - Impossible to replace a \$22 trillion economy, despite best efforts
  - The pain has just started; Q1 GDP -5%, Q2 -20% to -40%; we are just beginning to see the ripple effects

## **The shape and speed of a recovery is dependent first on a medical solution, but second on political will**

- Scenarios mostly driven by progress on anti-virals & vaccines; we should assume medical science will prevail, but with a lag
- Initial primary public policy goal was to avoid overwhelming the medical system
- Politically, now morphing into implicit partisan driven power objectives – for some, “a tragedy is a terrible thing to waste”
- Under the best of circumstances, and short of a medical solution, the recovery is likely to be partial and slow – think extended “U”, leaving =>10% of the workforce idled for an extended period of time
- Recovery likely to be slower in “Blue” states, faster in “Red” States...at least through the Nov. election, for each party’s political goals
- The resulting explosion of “war-time” government debt will result in higher taxes and inflation – but not for another ~5 years





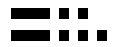
# Yardi Matrix House View May 2020



## Impact on Commercial Real Estate Differs Widely by Asset Class

- Office:
  - Short-term impact felt among small businesses, co-working, and retail tenants - April collections ~85%
  - PPP Programs may stabilize; but many of the \$ went to non-core city businesses via Community Banks
  - Longer re-thinking of space likely to shrink footprints & disperse workforces, with impact on supporting mixed use
  - Densification trend will be under pressure for next several years
  - Technology tools are critical to CRE business continuity & phased re-opening/prevention of virus hotspots
- Industrial:
  - Holding up well but not immune; E-commerce is upside; small business tenants the downside
- Retail:
  - Experiential Retail (services), the savior of Retail placemaking shifting away from retailing goods, has been decimated, and will recover only slower due to social distancing and consumer sentiment
  - Grocery anchored is the safe harbor, shorter term, but vulnerable to e-commerce trends
  - Retail goods survivors will lean even more on omni-channel distribution
  - E-commerce trends likely to accelerate
  - Best likely hunting ground for distress opportunities
- Position of banks and CMBS lenders to forbearances/restructuring will determine extent of financial distress; process will take some time





# Yardi Matrix House View May 2020



## Society will be re-shaped by an acceleration of pre-existing trends

- Population movement South & West
- Movement to urbanized suburbs
- Aging of the population
- De-globalization (trade & immigration)
- E-commerce
- Technology/automation & remote business tools
- But, we will gather again – humans are social animals and travel, entertainment, and hospitality will re-emerge...slow






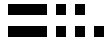
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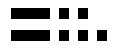
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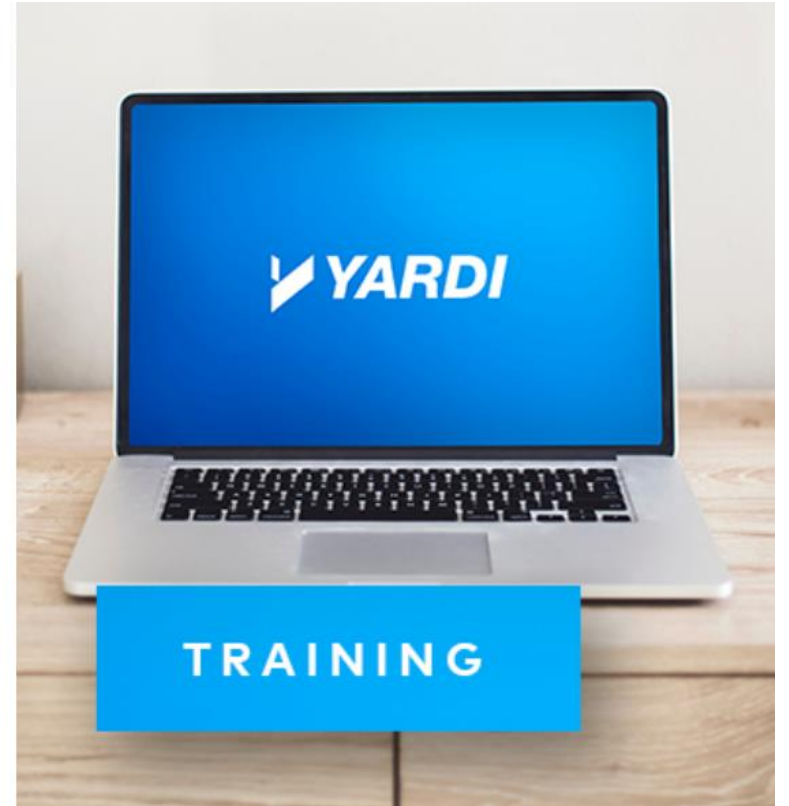
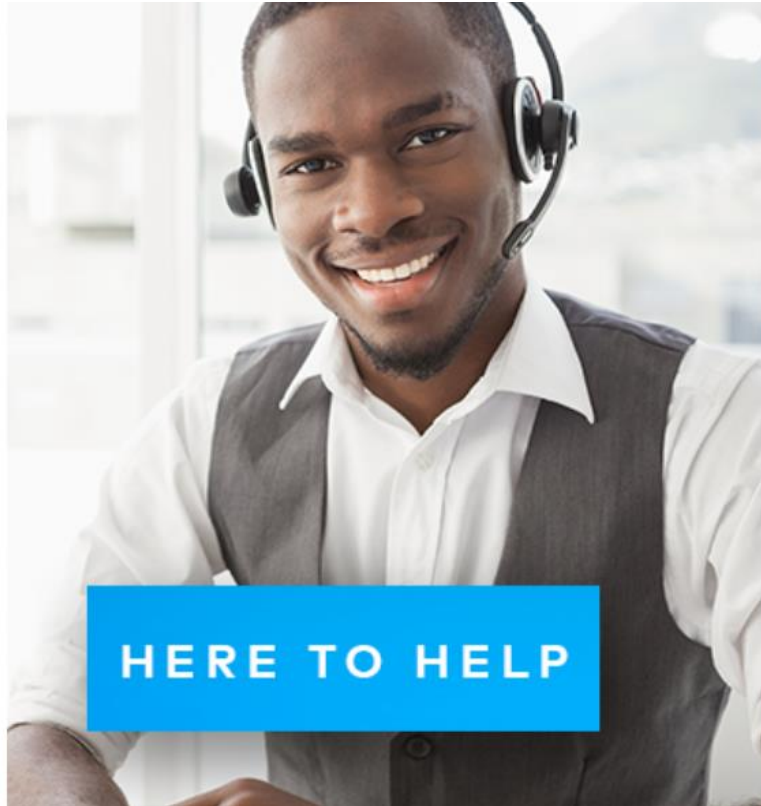
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