

# 2021 Macroeconomic and Real Estate Update and Forecast

*Presented to:*

North Central Regional Association of Assessing Officers (NCRAAO)

*Presented by:*

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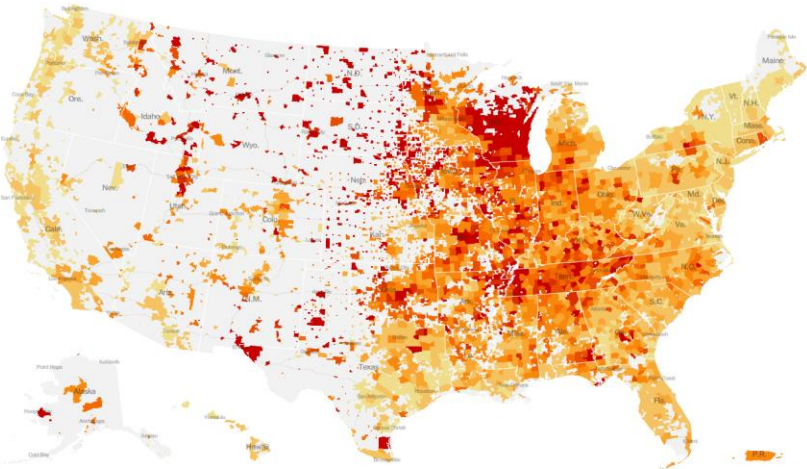
June 22, 2021

# 2021 Macroeconomic and Real Estate Update and Forecast

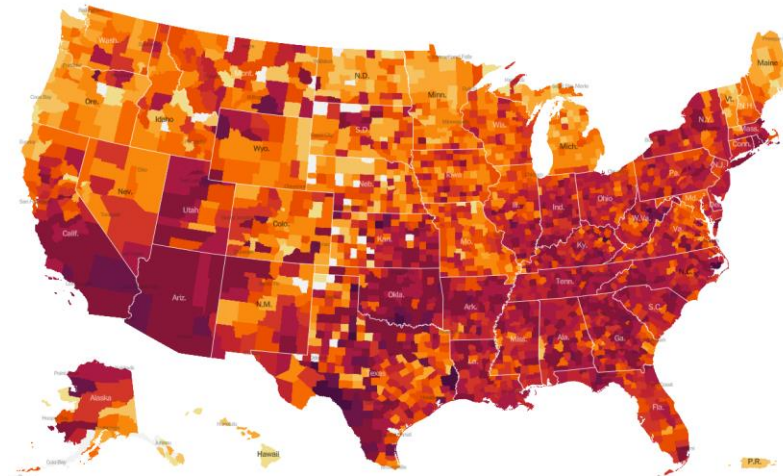
- I. GDP, Fiscal and Monetary Stimulus
  - A. Fiscal Stimulus
  - B. Monetary Stimulus
- II. Commercial Property Markets
  - A. Capital Markets
  - B. Space/Property Markets
- III. Urban Economics and Expected Property Returns
  - A. Past Impacts and Future Impacts on the Built Environment
  - B. Expected and Relative Returns

Covid cases are falling with 176 million (65%) of adults vaccinated (at least one-shot). . . .

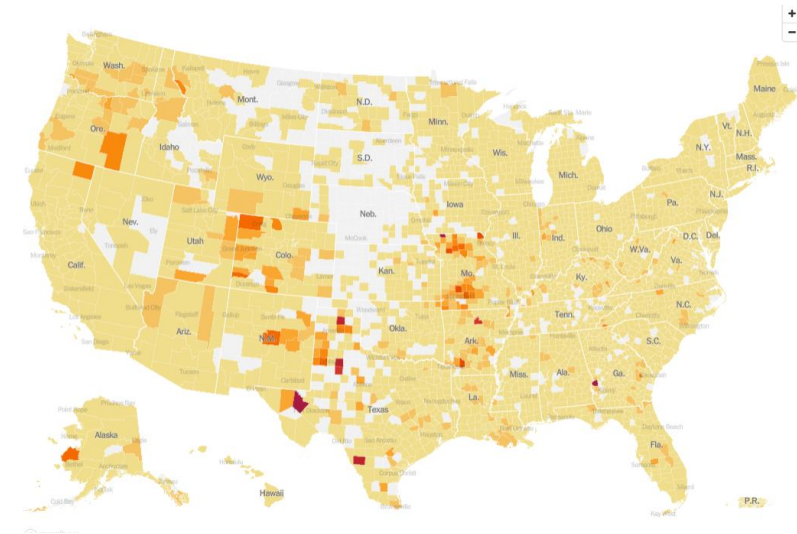
New Daily Covid Cases Oct. 25, 2020



New Daily Covid Cases Jan.12, 2021

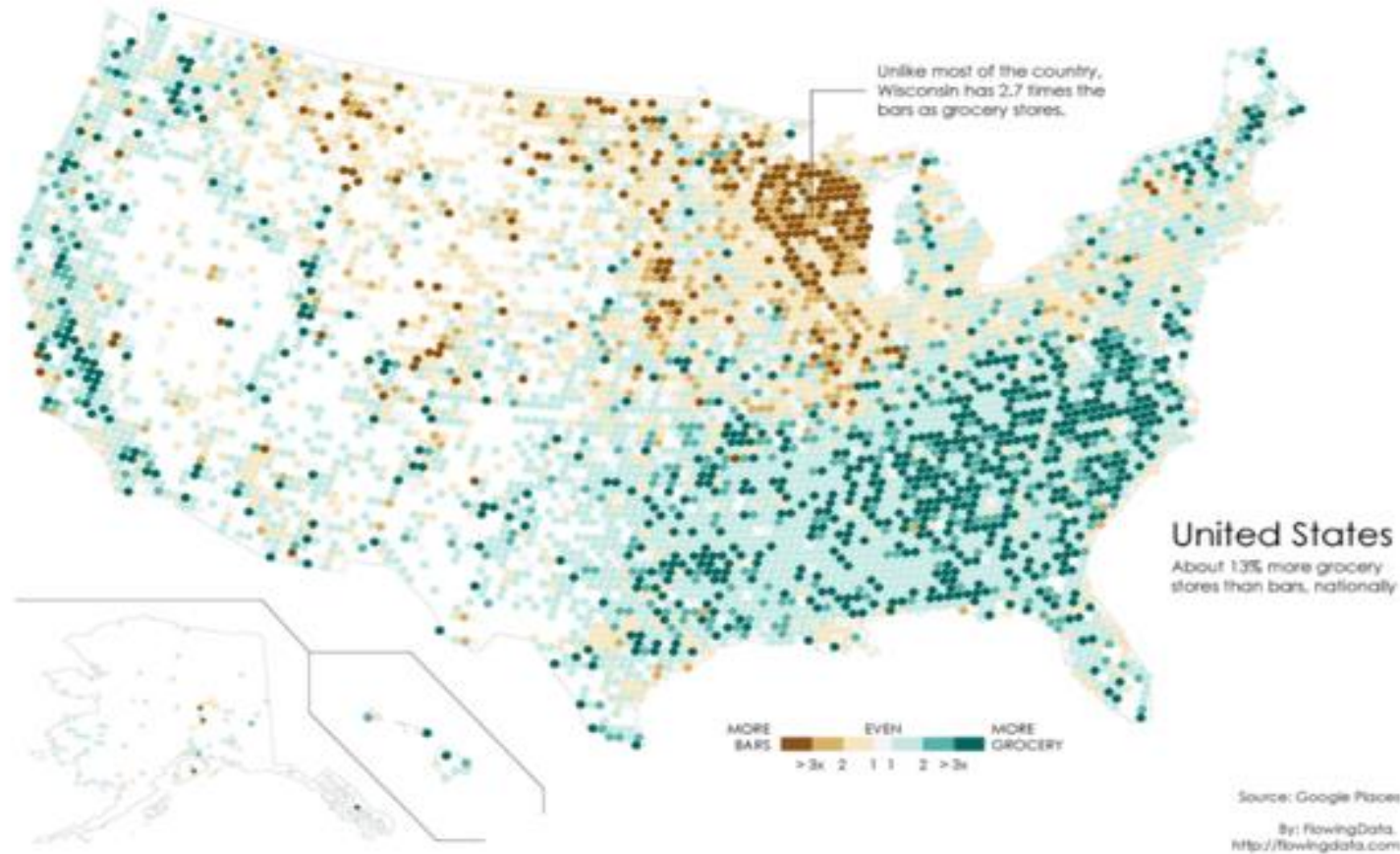


New Daily Covid Cases June 19, 2021



# ... Covid relief or Covid super-spreader???

## The Ratio of Bars-to-Grocery Stores in the U.S.



# GDP and Fiscal and Monetary Stimulus

# Back to Basics

Value = NOI/Cap Rate

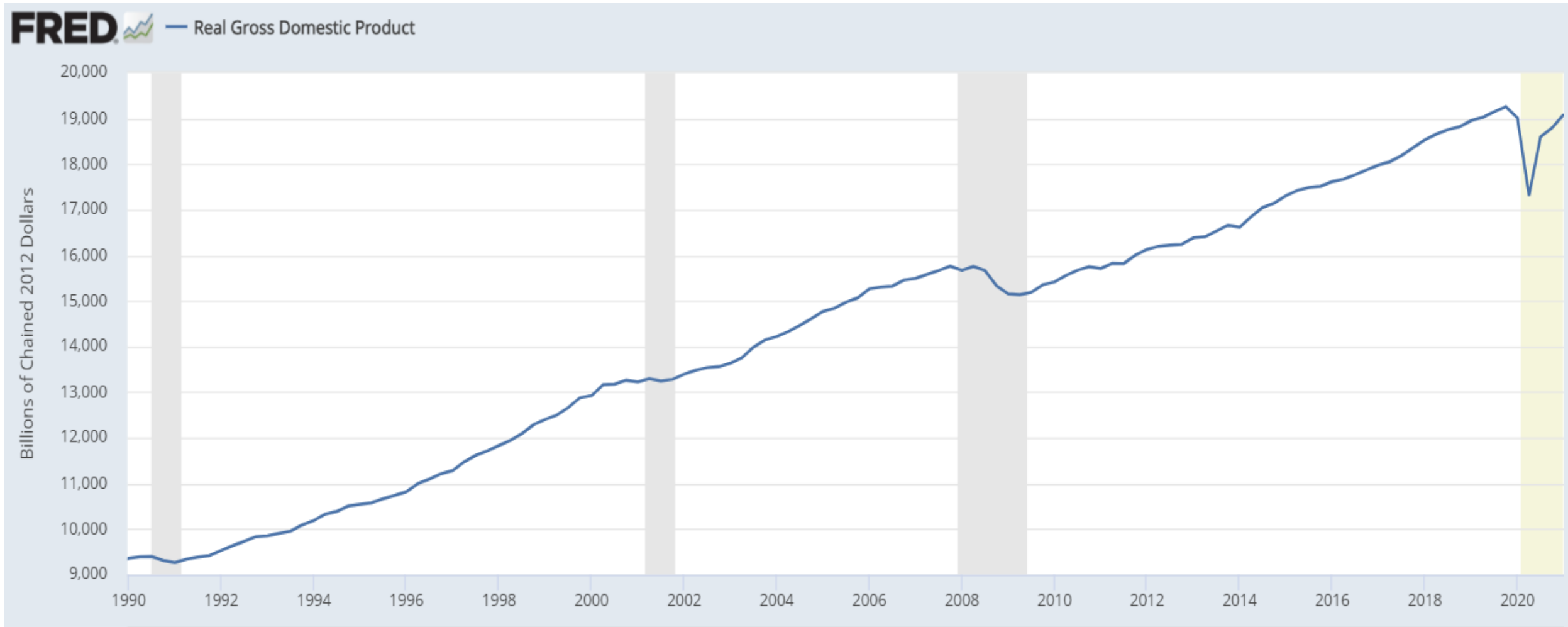
Value = Main Street/Wall Street

Value = RE Property Markets/RE Capital Markets

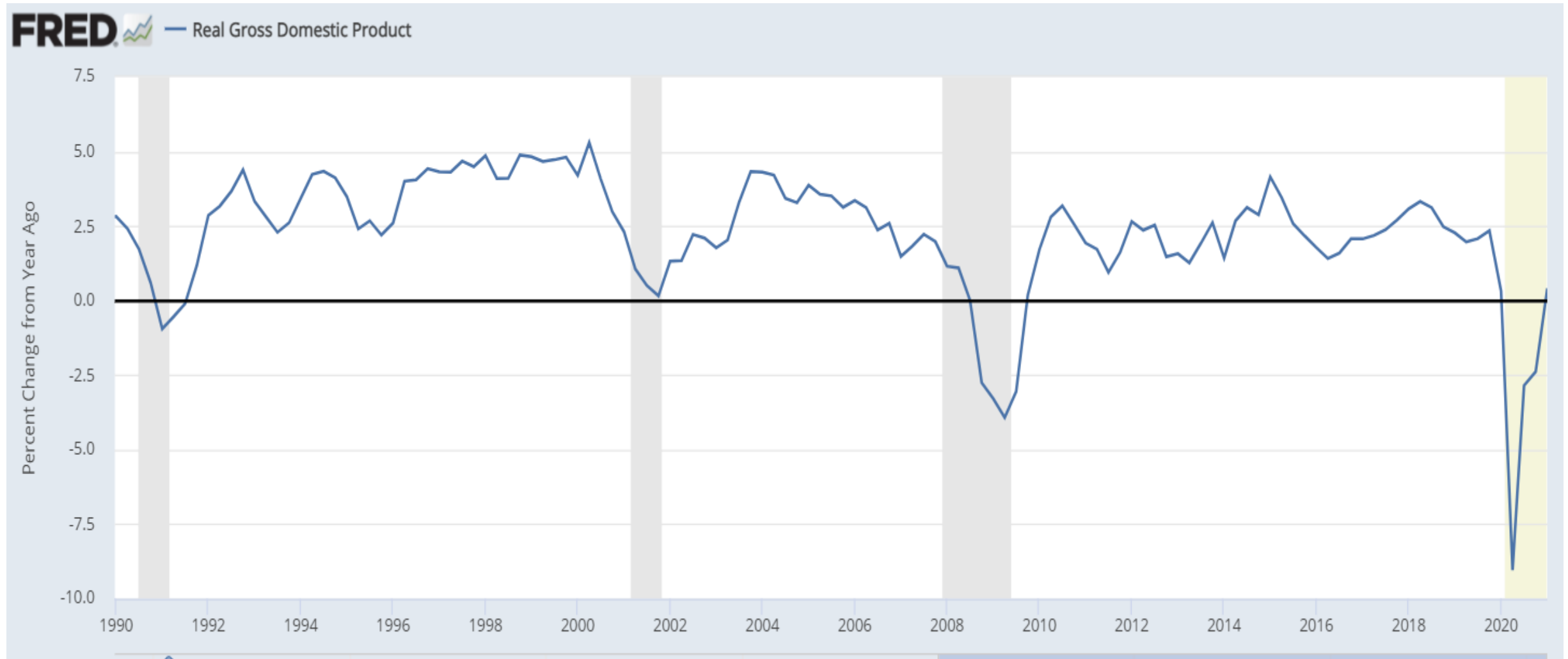
Value = Fiscal Stimulus/Monetary Stimulus



In the long-run, GDP maintains a fairly stable growth rate . . . .

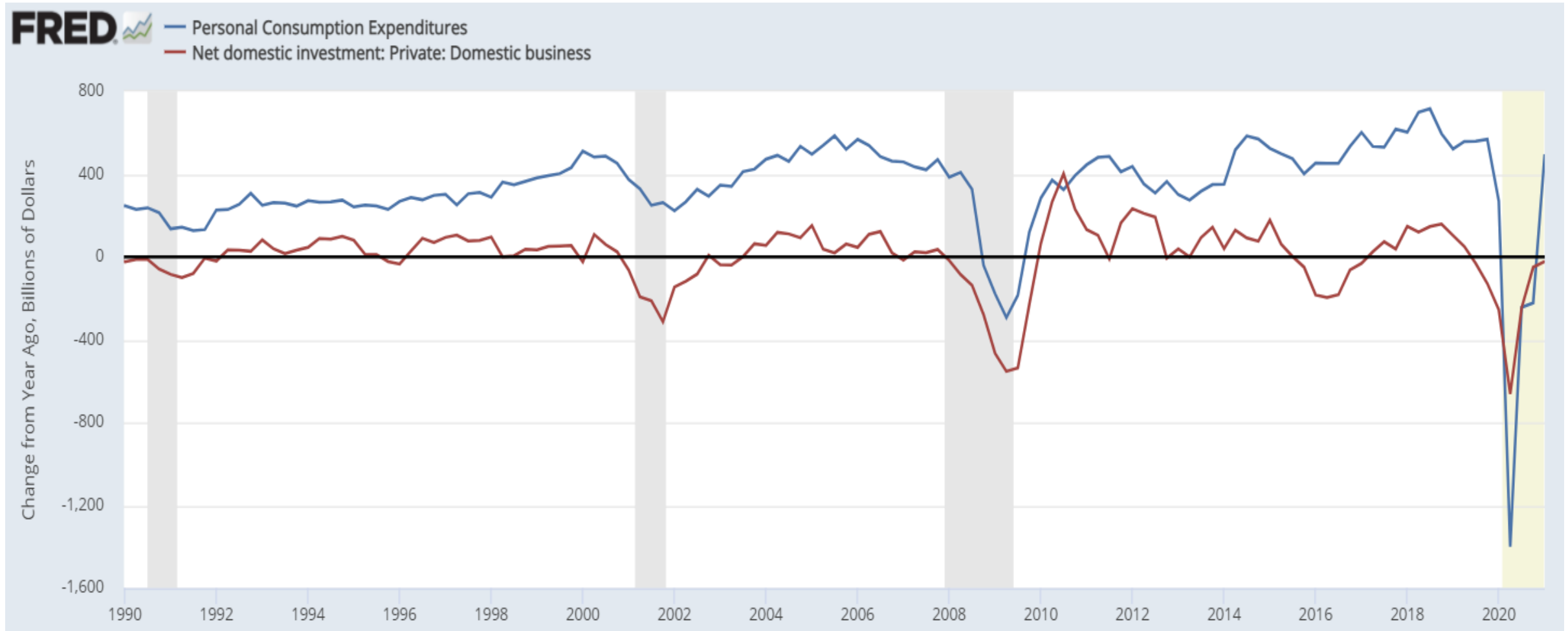


... in the short-run, GDP growth cycles (y-o-y change) ...

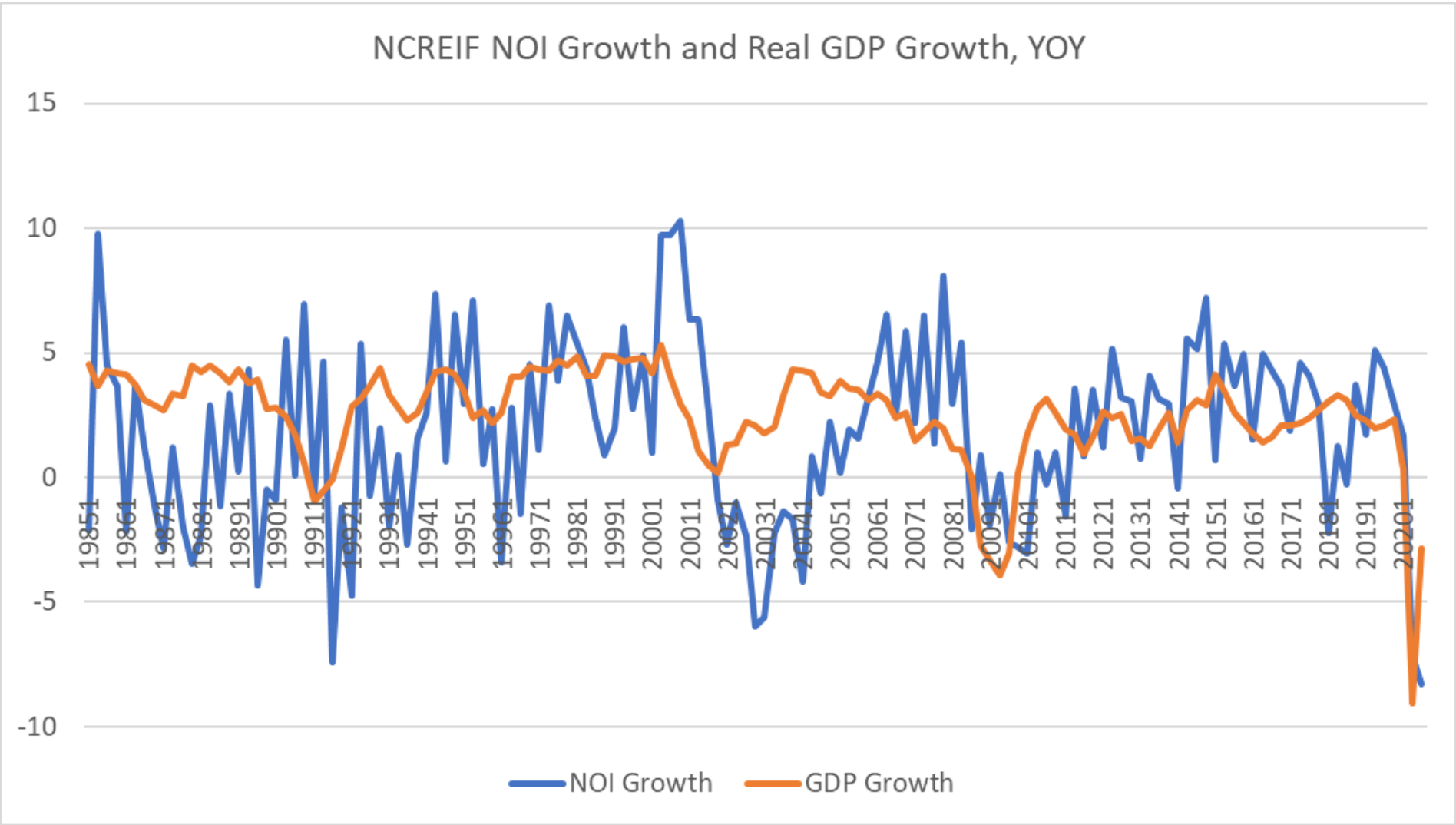




... with about 12% of GDP, business investment is the tail that wags the dog ...

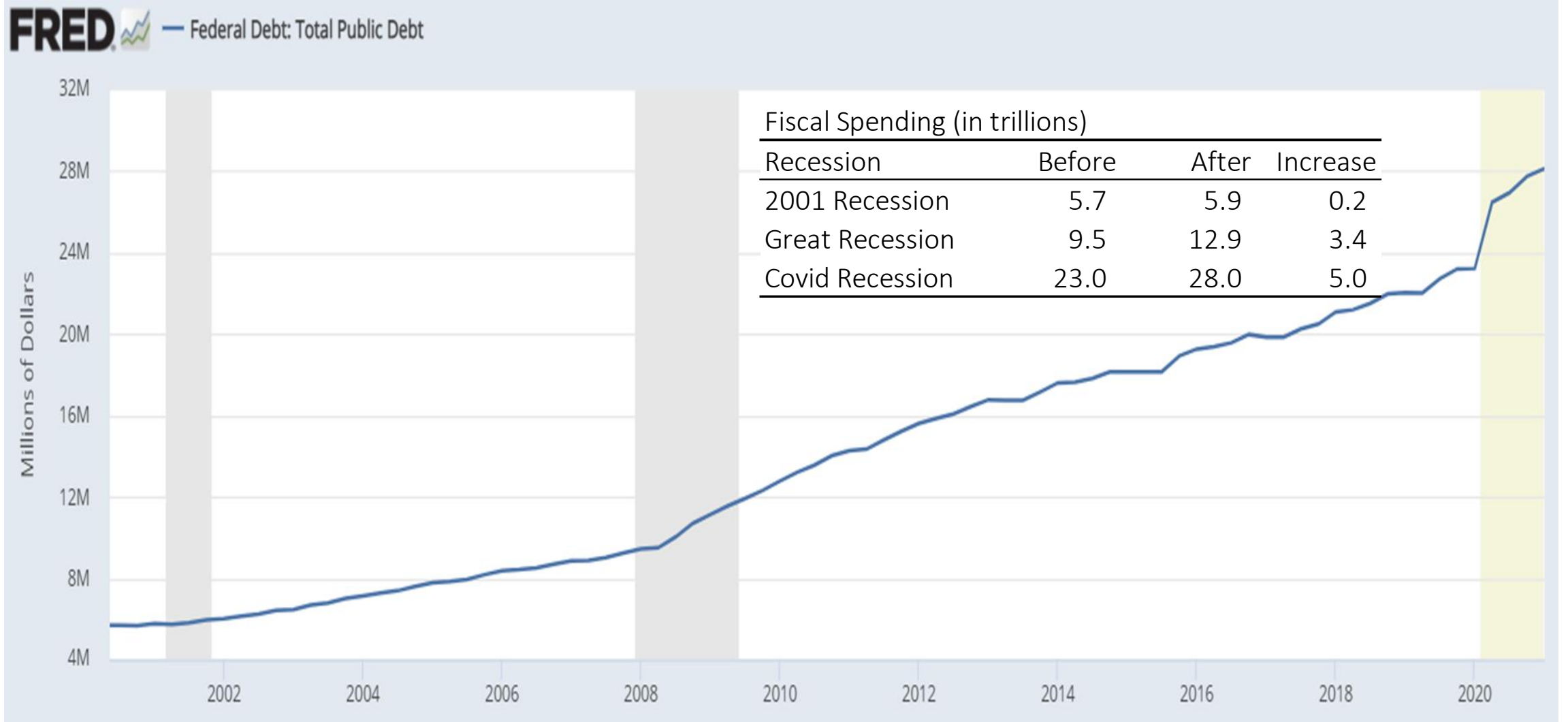


. . . . why is GDP so important? It impacts and leads real estate Net Operating Income.

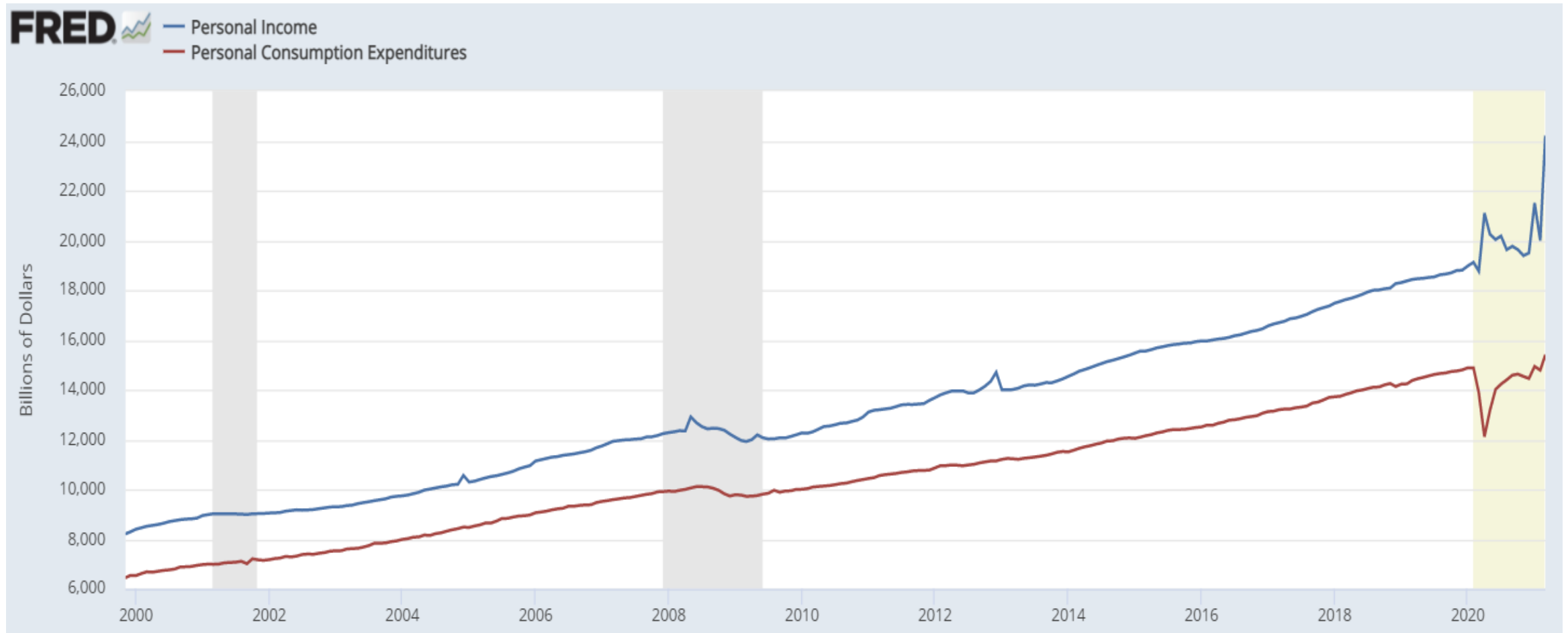


# Fiscal Stimulus: Consumption Spending Impacts

# Covid recession fiscal stimulus is ¼ of U.S. GDP . . . .



. . . . fiscal stimulus boosted personal income and revived consumer spending . . .



. . . . where did the taxpayer Covid stimulus check go . . . .

### How households spent their first stimulus check

#### Saved



#### Pay down debt



#### Essentials



#### Non-essentials



#### Donated

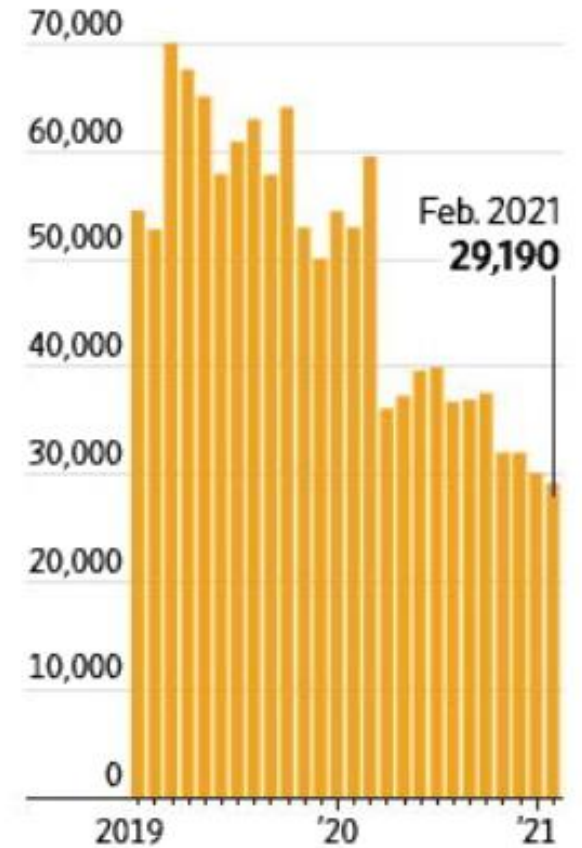


### Total outstanding U.S. credit-card debt\*

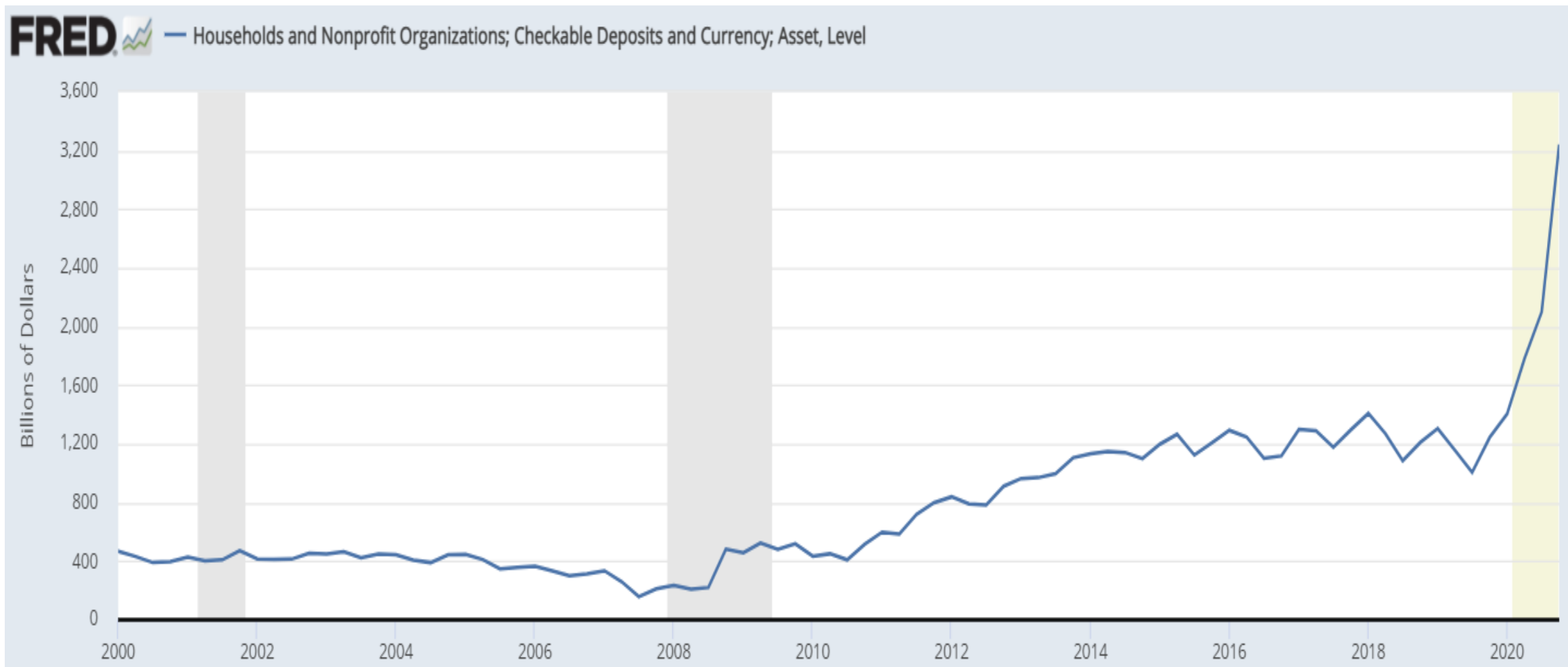
\$950 billion



### U.S. personal bankruptcy filings, monthly



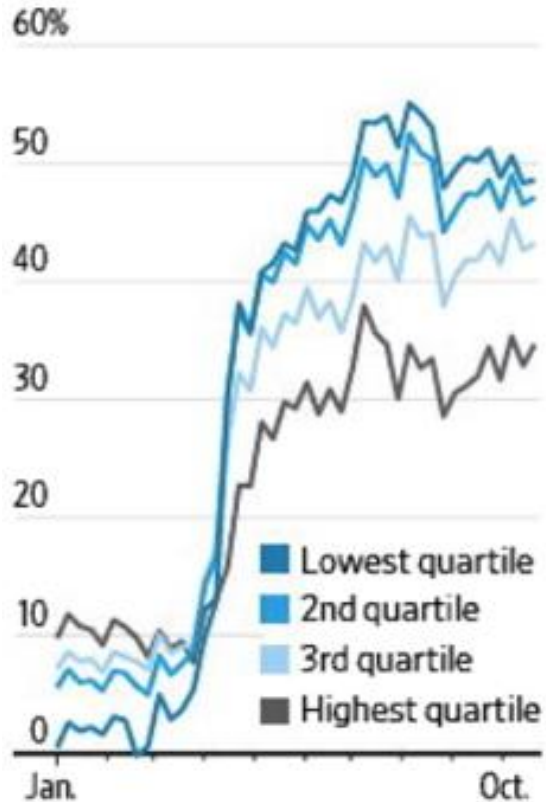
. . . . an increase of \$2.0 trillion in checkable deposits, fiscal stimulus defined . . . .



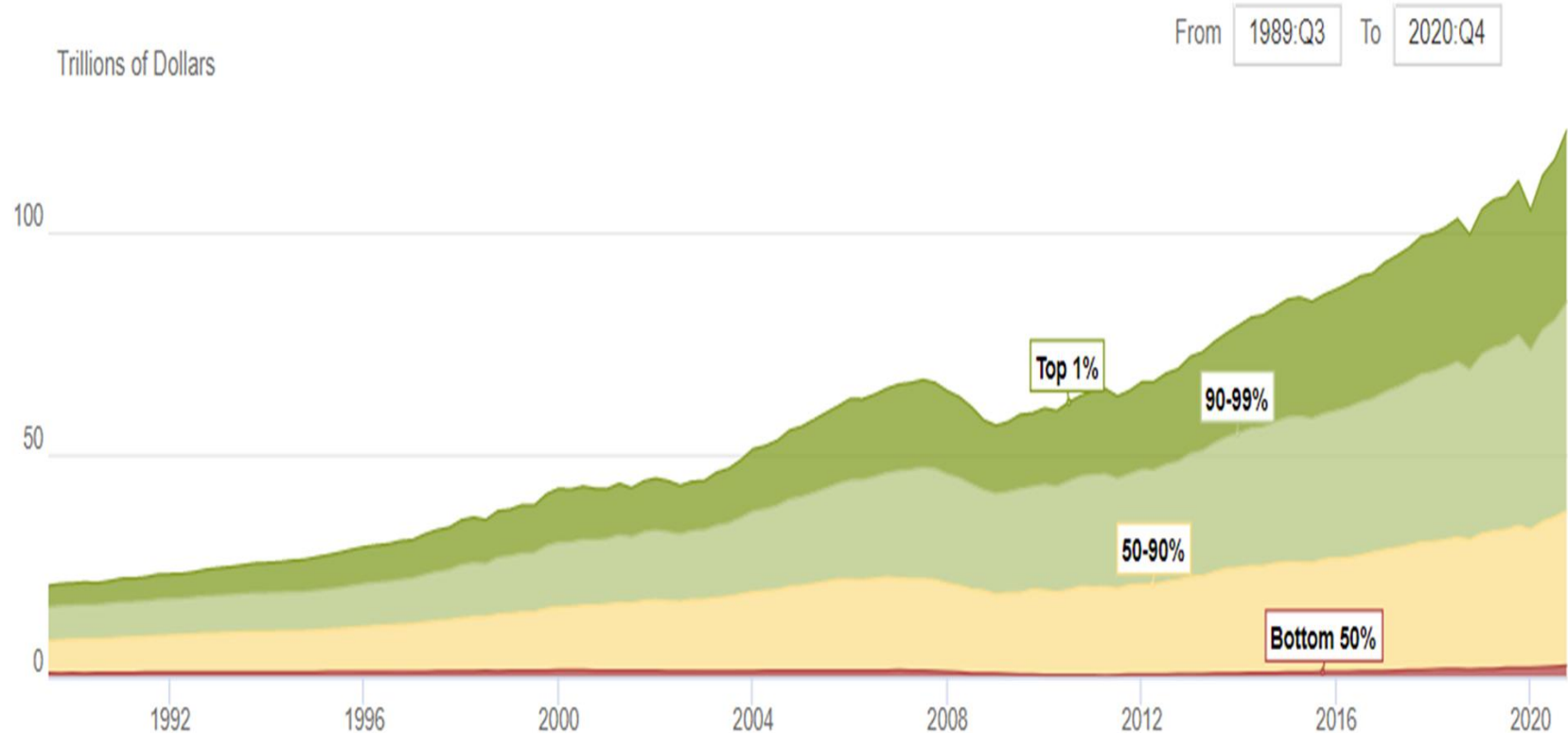


. . . . stimulus savings positively impacted checking account balances across income levels however wealth is unevenly distributed. . . .

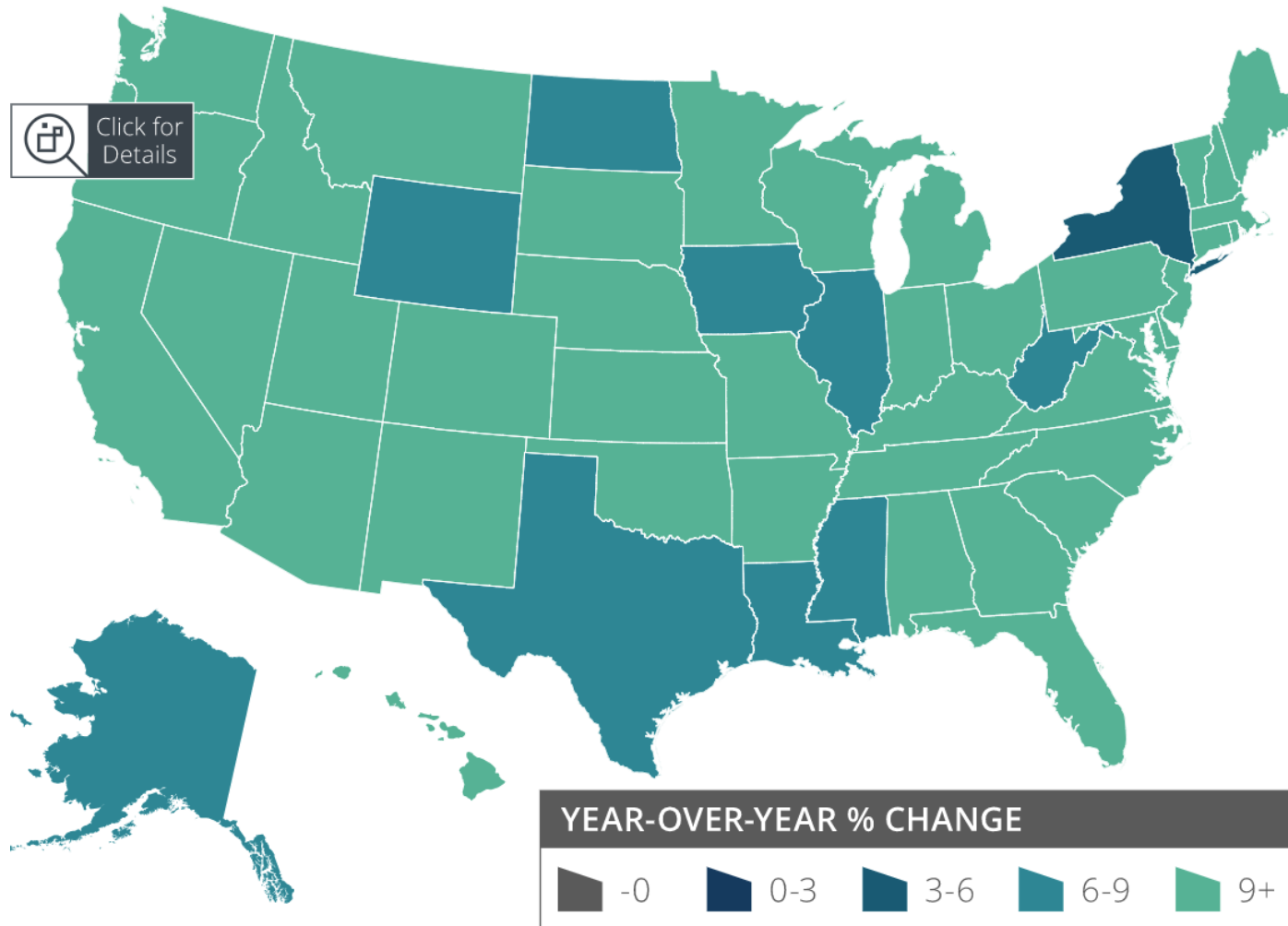
Checking account balances,  
change from a year earlier



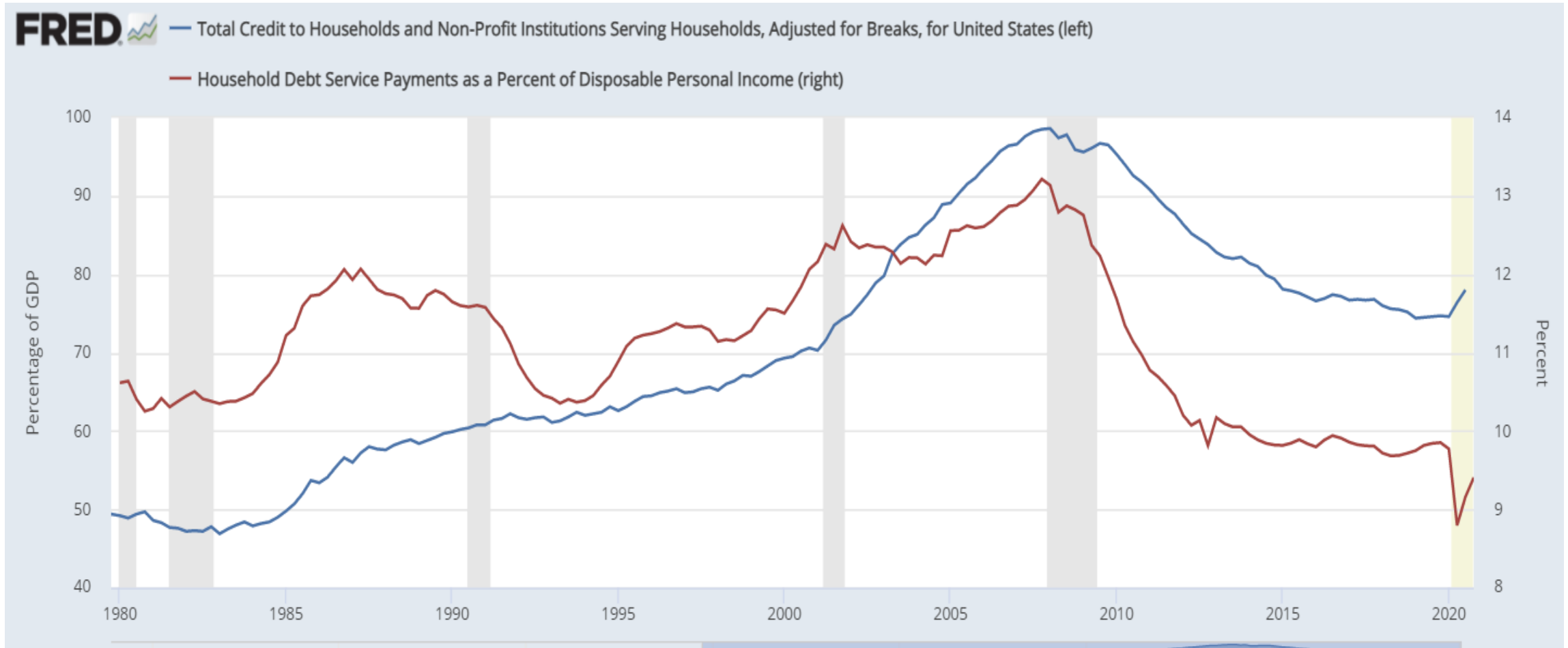
Wealth by wealth percentile group



. . . . year-over-year single-family price appreciation rates nationally were over 13%, . . . .



. . . . consumers have significant debt service and debt capacity . . . .

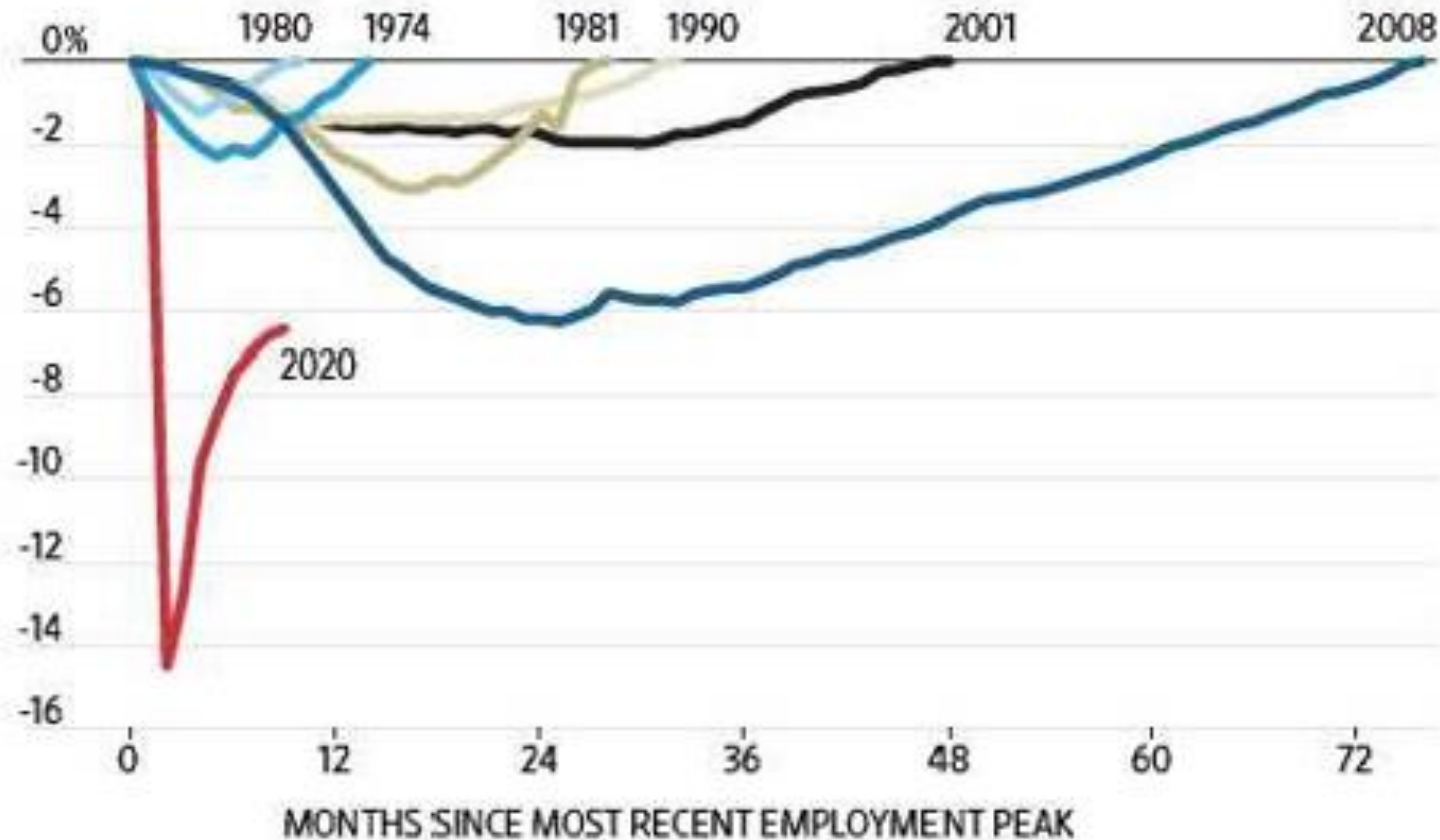


# Fiscal Stimulus – Employment/Business Impacts

The path back to full employment, the Nike-swoosh shape that it is taking . . . .

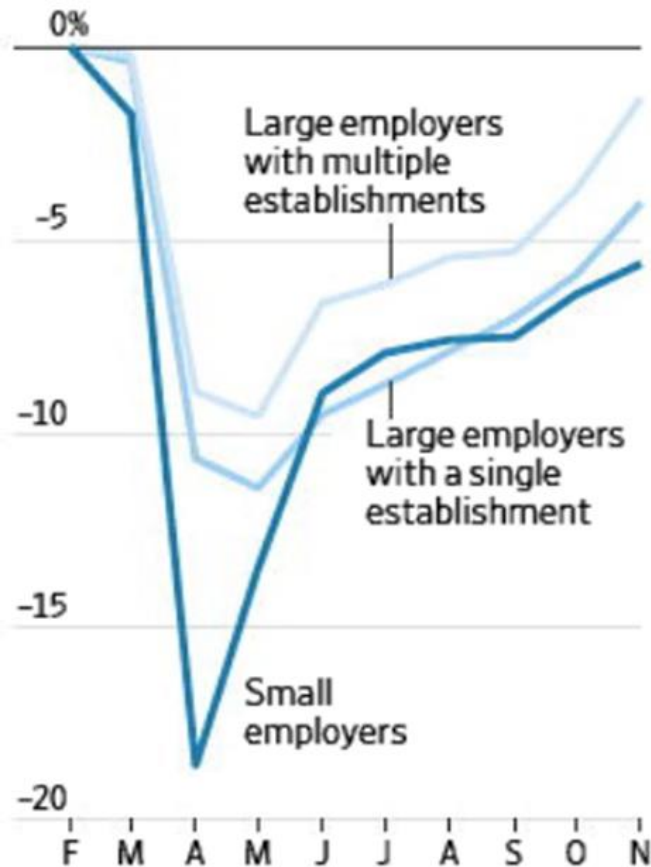
## Payroll Employment

Percentage change in payroll employment relative to pre-recession peak

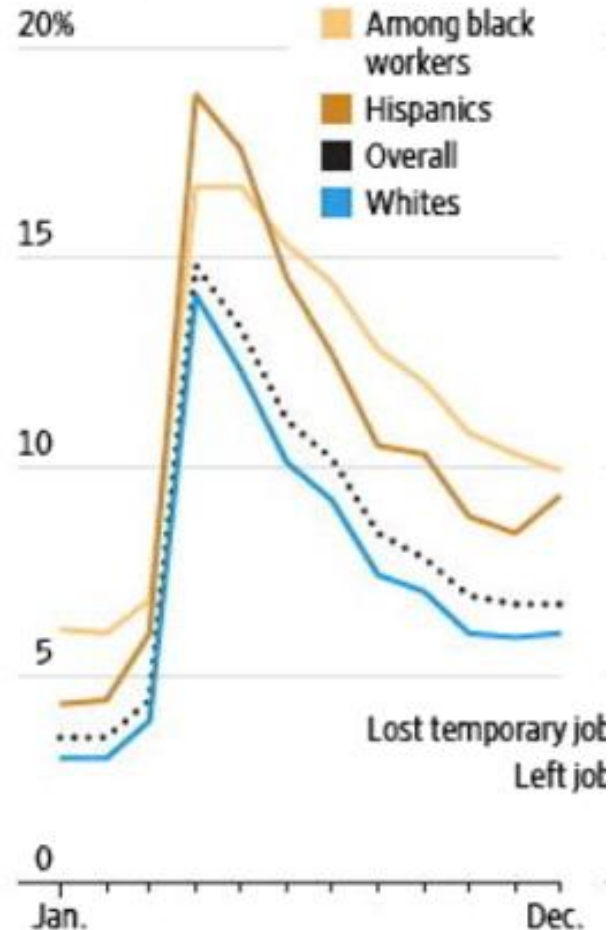


... the uneven impact of the Covid recession on employment ...

U.S. employment change from February, by employer size



Unemployment rate



Unemployed, by reason

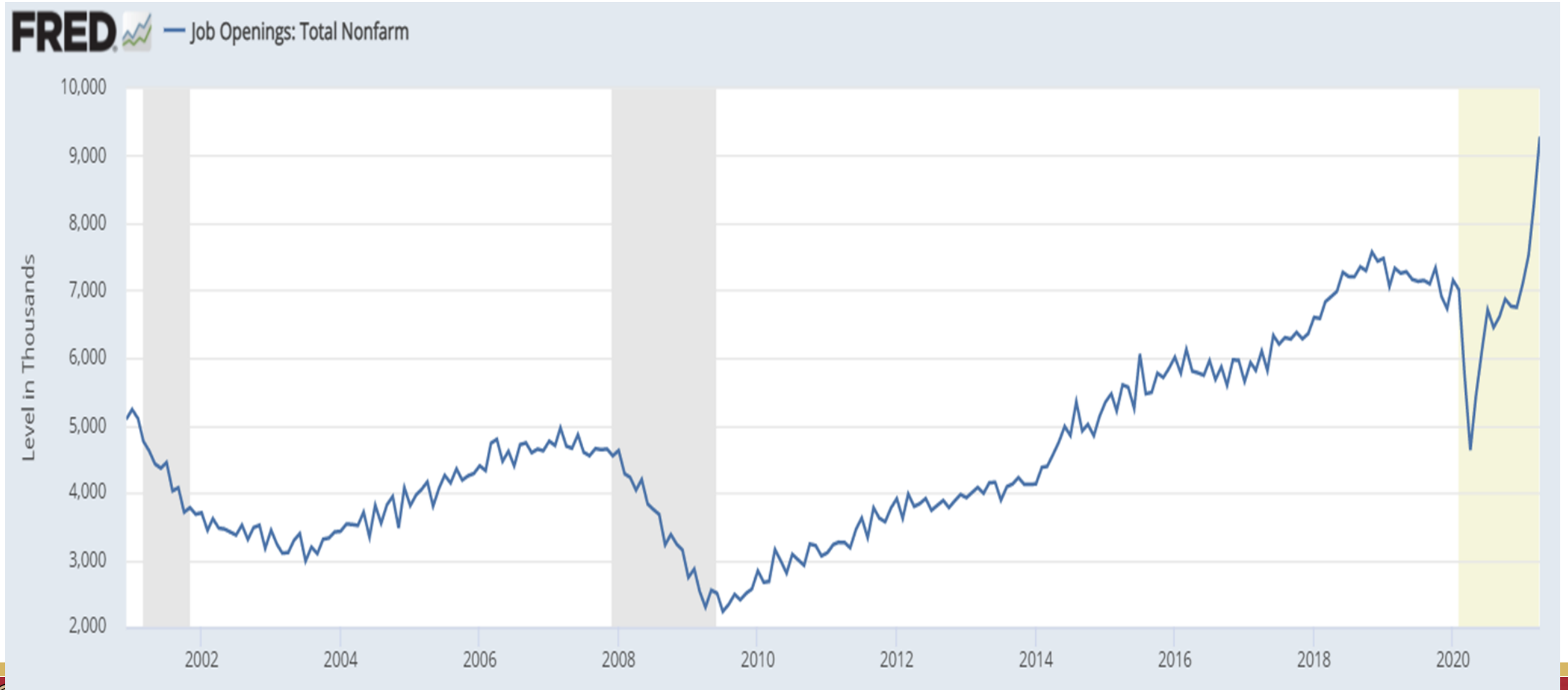


. . . . the uneven job loss of the Covid recession. . . .

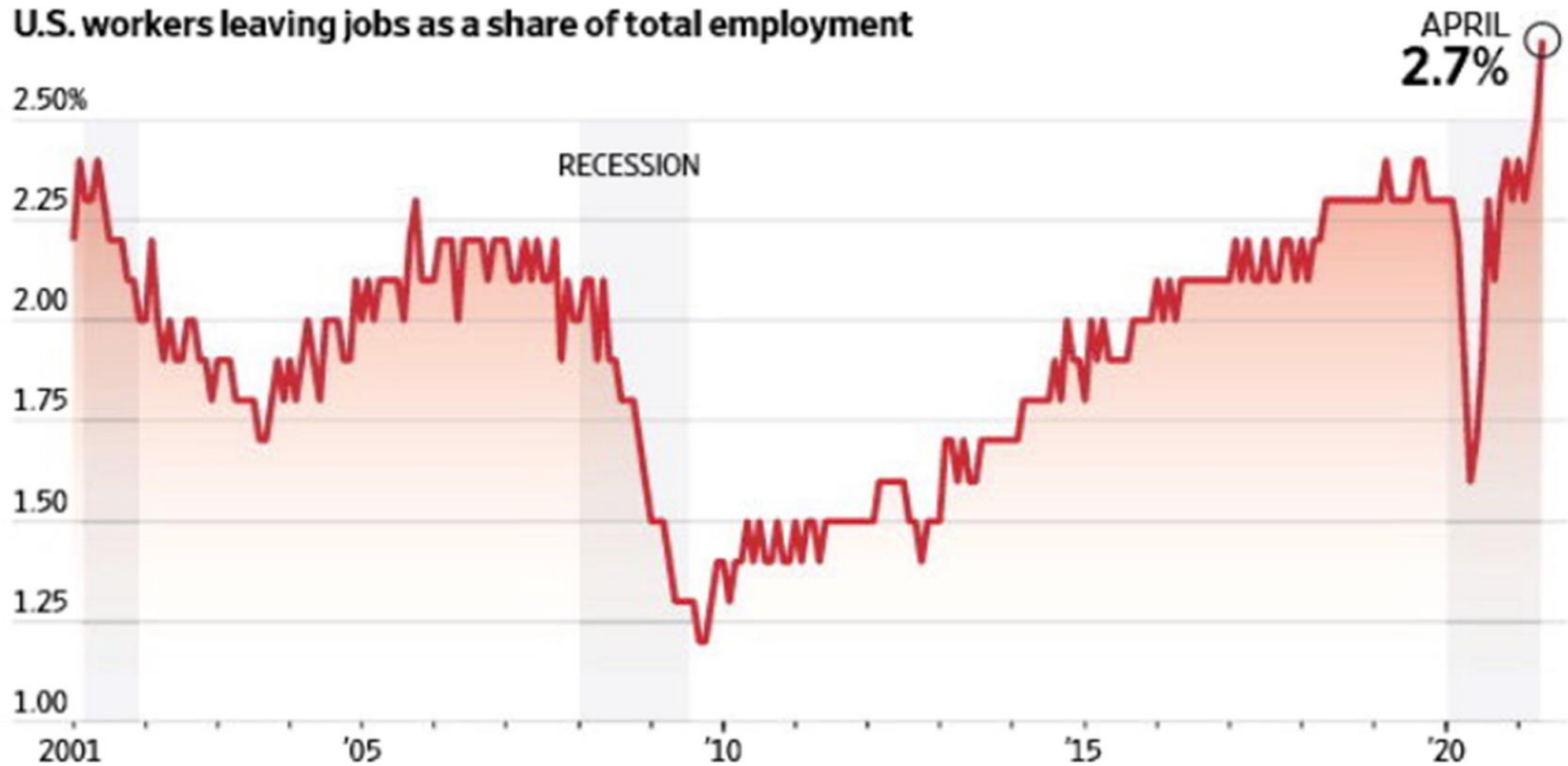
Covid Employment Impact				
Sector	Feb-20	Nov-20	Change	Percent Change
Total Non-Farm Jobs	152,463	142,764	-9,699	-6.4%
Leisure and Hospitality	16,808	13,457	-3,351	-19.9%
Other Services	5,941	5,510	-431	-7.3%
Government	22,745	21,446	-1,299	-5.7%
Education and Health Services	24,586	23,323	-1,263	-5.1%
Professional/Business Services	21,550	20,531	-1,019	-4.7%
Manufacturing and Utilities	13,398	12,809	-589	-4.4%
Construction and Mining	8,353	7,988	-365	-4.4%
Retail and Wholesale	21,606	20,799	-807	-3.7%
Financial Activities and Information	11,739	11,358	-381	-3.2%
Transportation and Warehousing	5,678	5,542	-136	-2.4%



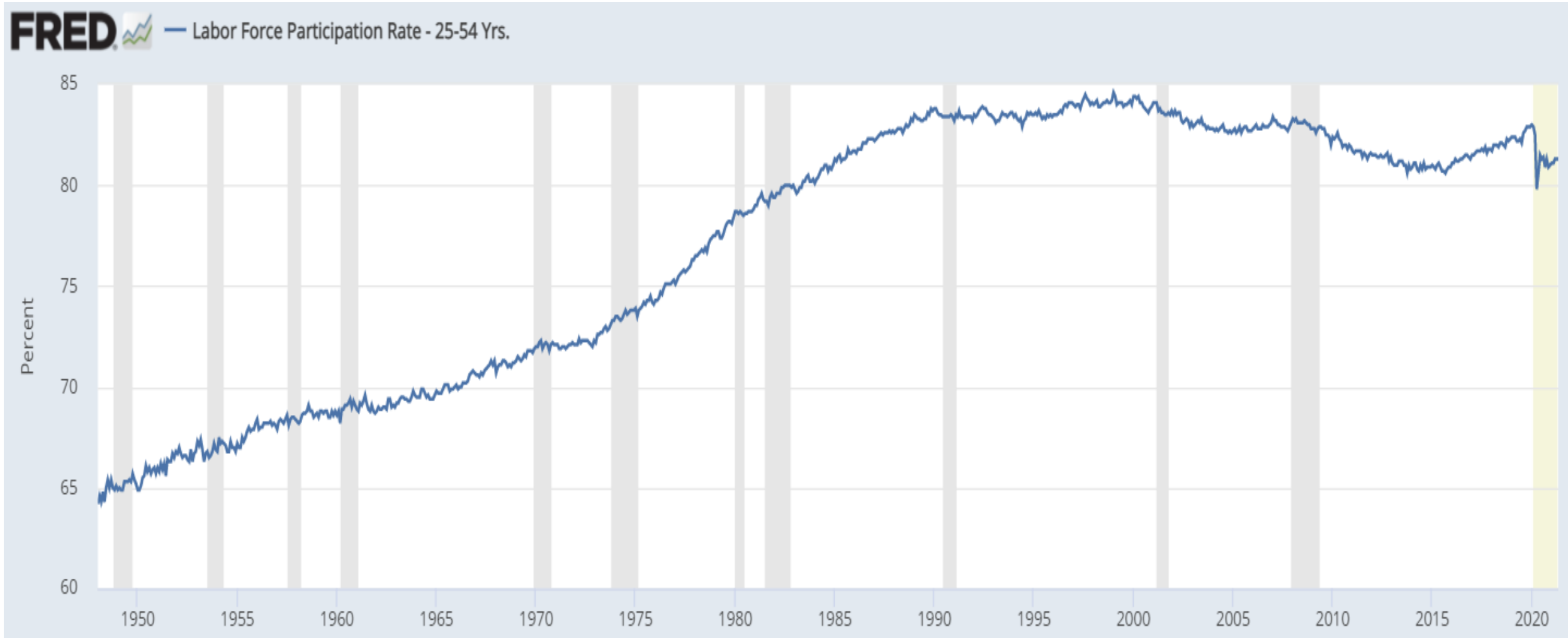
. . . . job openings are millions greater than pre-Covid recession . . . .



. . . . voluntary employment departures are at an all-time high (worker confidence) . . . .



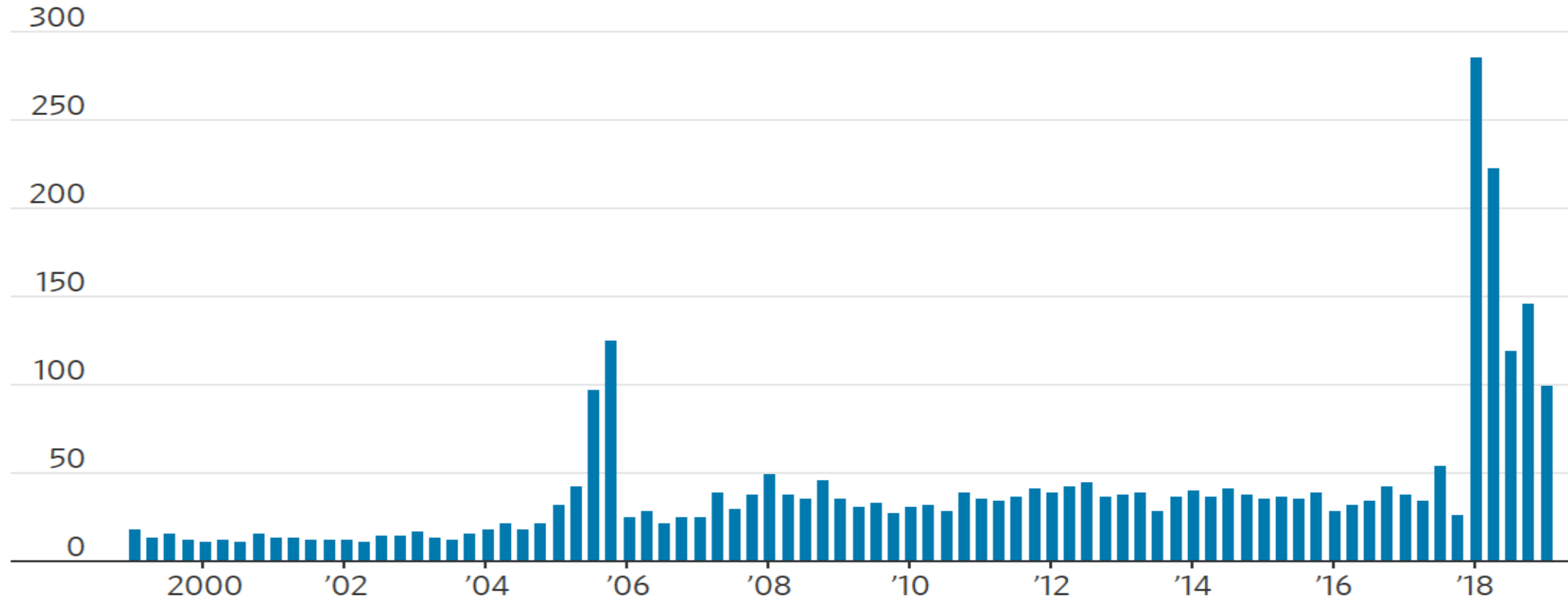
. . . . labor force participation rates are key to GDP growth. . . .



. . . . repatriated business profits from abroad, \$777 bill. (2018), \$155.08 bill. (2017). . . .

### Dividends and withdrawals from outside U.S.

\$350 billion



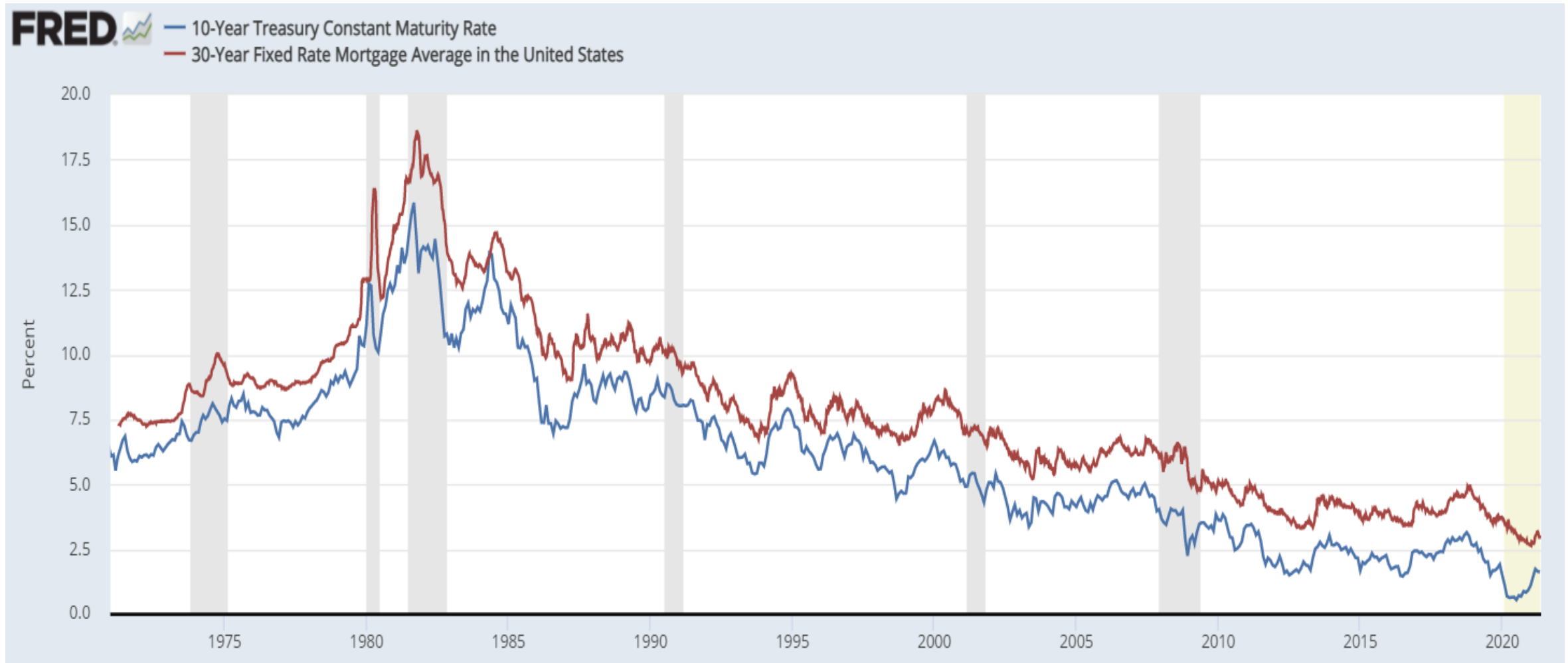
. . . . and business CEOs and CFOs are very confident.

**The Institute for Supply Management's services-sector index, monthly**



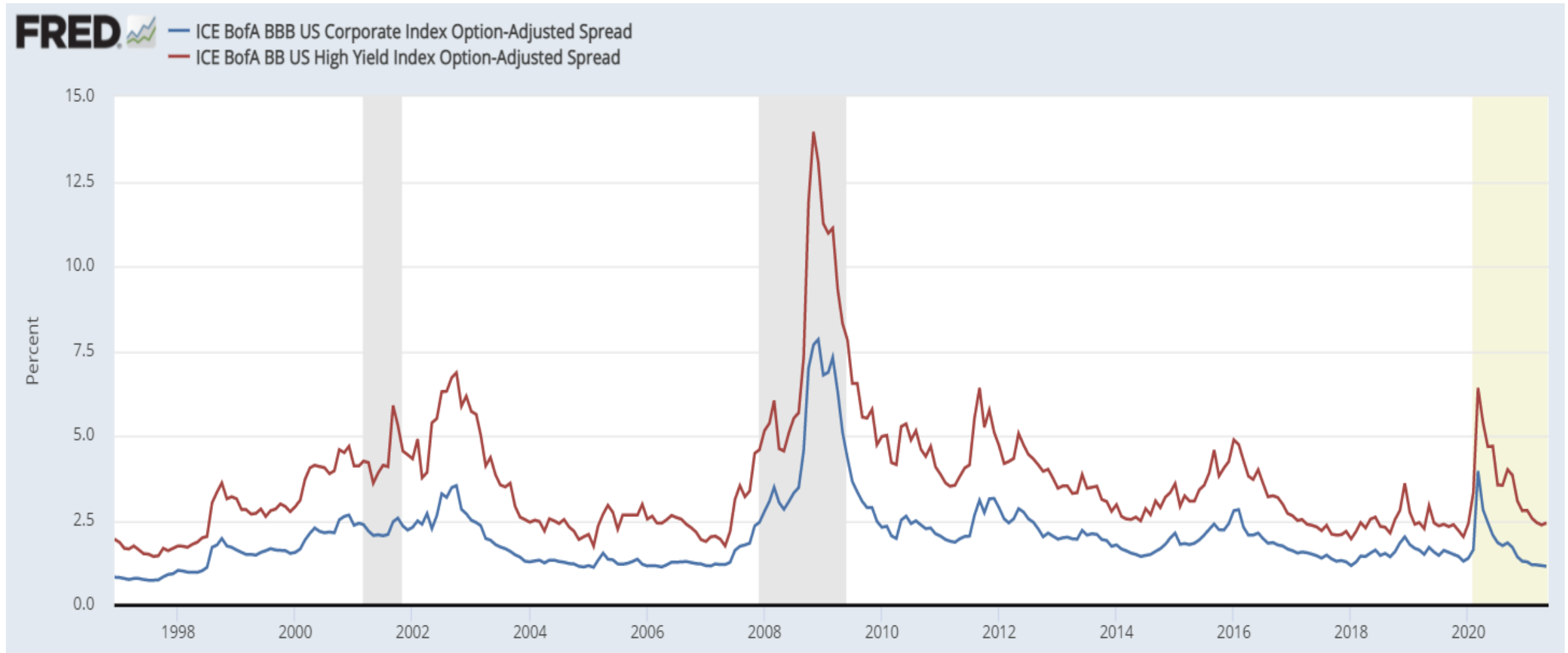
# Monetary Stimulus

# Interest rates and mortgage rates remain at historic lows . . . .

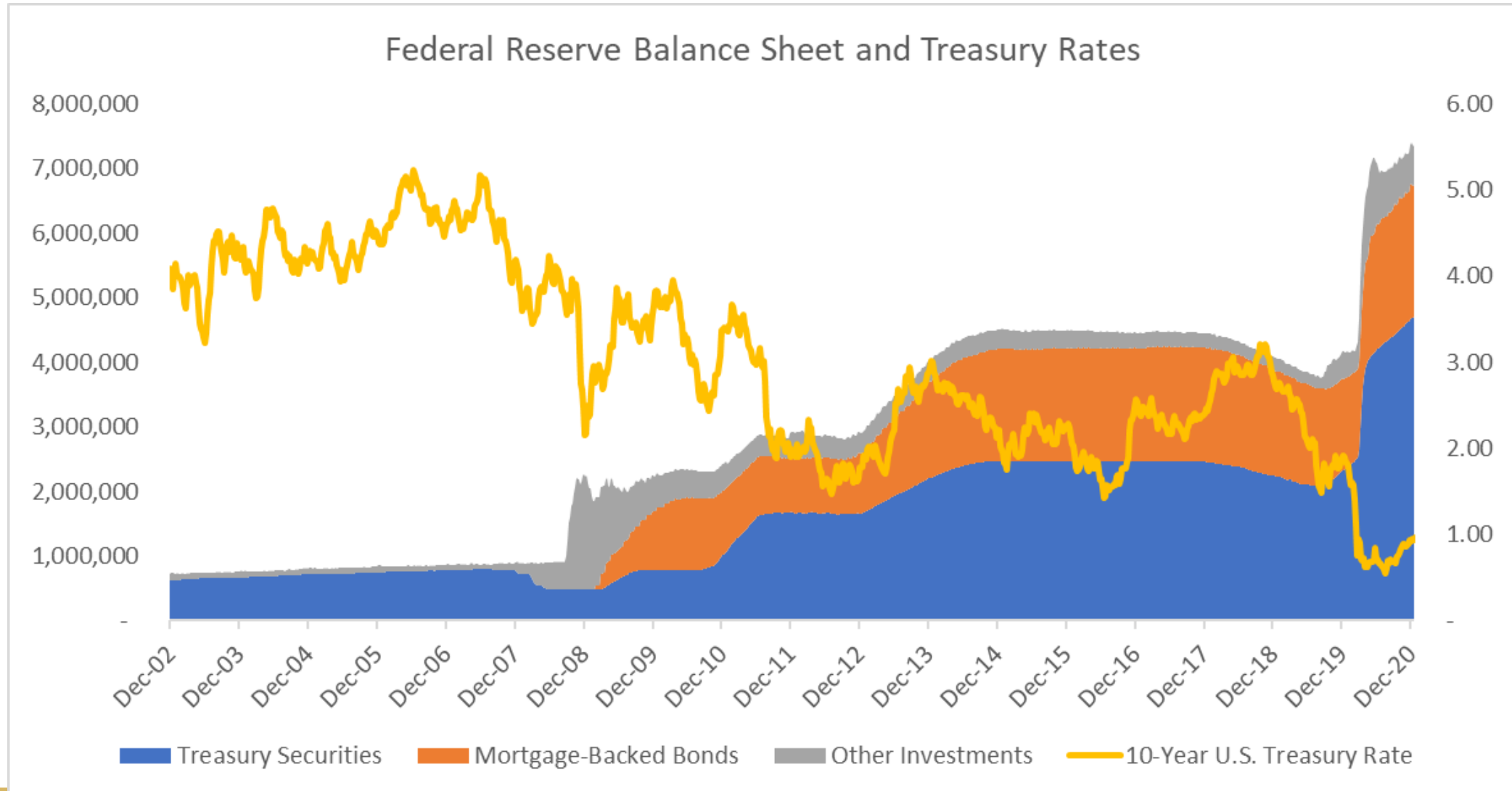




... risk spreads are at or approaching historic lows ...



... monetary stimulus *can* impact on long-term Treasury rates ...



... the Federal Reserve's summary of economic projections.

### Federal Reserve Projections (June 2021 Projections)

	2021	2022	2023	Longer Run
GDP Growth	7.0%	3.3%	2.4%	1.8%
December Projection	4.2%	3.2%	2.4%	1.8%
Unemployment Rate	4.5%	3.8%	3.5%	4.0%
December Projection	5.0%	4.2%	3.7%	4.1%
Inflation (PCE)	3.4%	2.1%	2.2%	2.0%
December Projection	1.8%	1.9%	2.0%	2.0%
Federal Funds Interest Rate	0.1%	0.1%	0.1%	2.5%
December Projection	0.1%	0.1%	0.1%	2.5%

# Macroeconomic Key Takeaways

1. The Covid recession is not driven by the same factors as a financial recession (i.e. The Great Recession)
  - A. Capital markets are healthy
  - B. V-shaped recovery (think 9-11 economic impacts) but Covid comes with a tail
2. Fiscal stimulus (GDP and NOI growth)
  - A. The consumer is “flush” with capital to spend
  - B. The consumer is confident about job prospects
  - C. Businesses will invest in “top line” growth (capital expenditures)
  - D. Businesses have the capital and confidence
3. Monetary stimulus (interest rates and cap rates)
  - A. Rates and risk spread are at or near all time lows, but will increase over the coming years
  - B. Inflation – transitory (think supply chain) versus long-term (think wage inflation)

# (Tangent Alert!) Does presidential administration impact GDP growth?

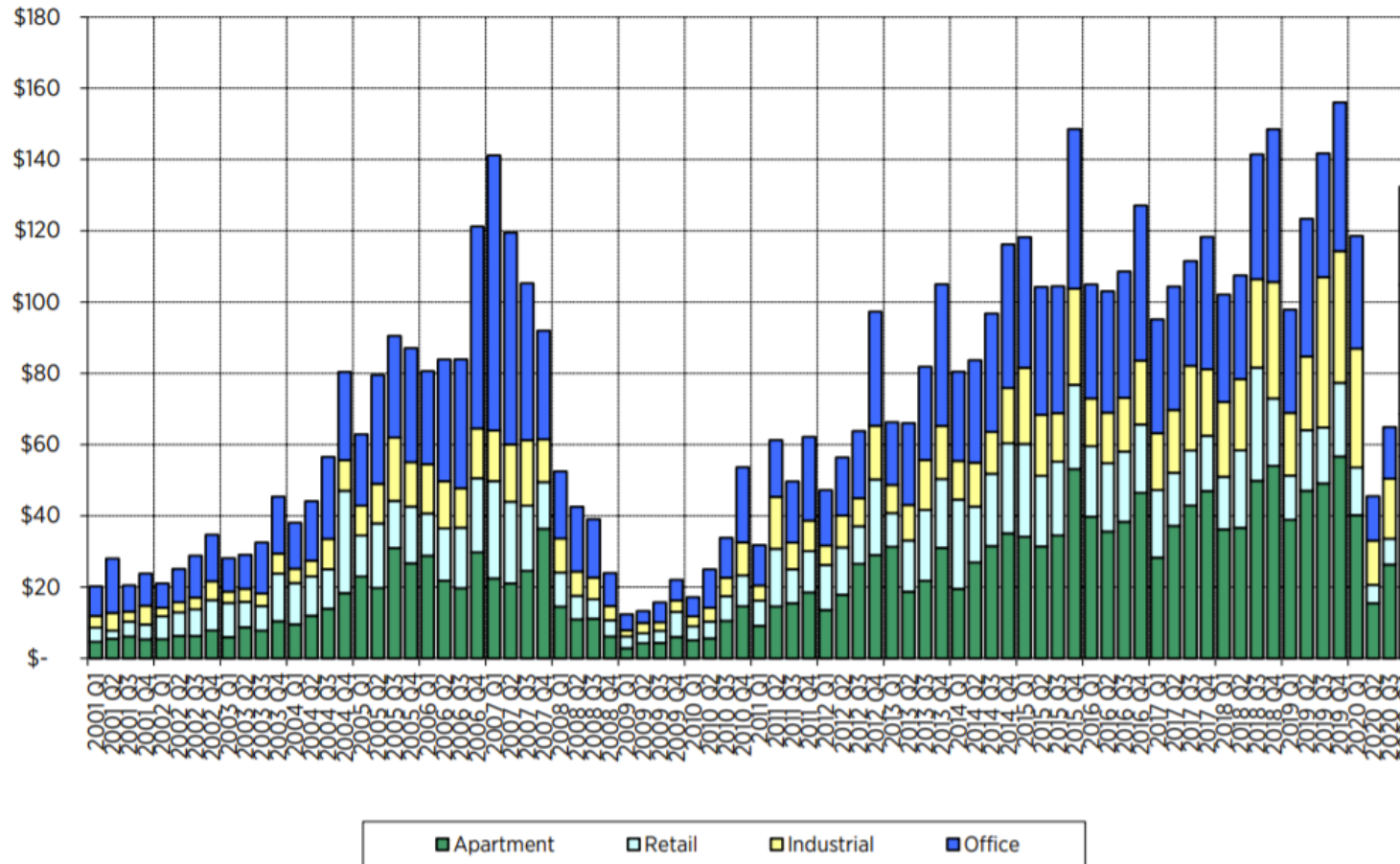
Real Economic Growth by Presidential Party Affiliation					
Presidential Administration	Affiliation	Term	Period (years)	GDP Growth (CAGR)	GDP Growth Lagged 1-Year
Kennedy/Johnson	Democrat	1961-1968	8	5.2%	4.4%
Nixon/Ford	Republican	1969-1976	8	2.7%	3.2%
Carter	Democrat	1977-1980	4	3.4%	1.8%
Reagan/Bush	Republican	1981-1992	12	3.0%	3.1%
Clinton	Democrat	1993-2000	8	3.8%	3.5%
Bush	Republican	2001-2008	8	1.7%	1.8%
Obama	Democrat	2009-2016	8	2.2%	2.3%
Trump	Republican	2017-2000	4	1.0%	0.9%
Republication Average				2.1%	2.3%
Republication Average w/o Trump				2.5%	<b>2.8%</b>
Democrat Average				3.7%	<b>3.0%</b>

# Property and Capital Markets

# Real estate transaction volume is back . . . .

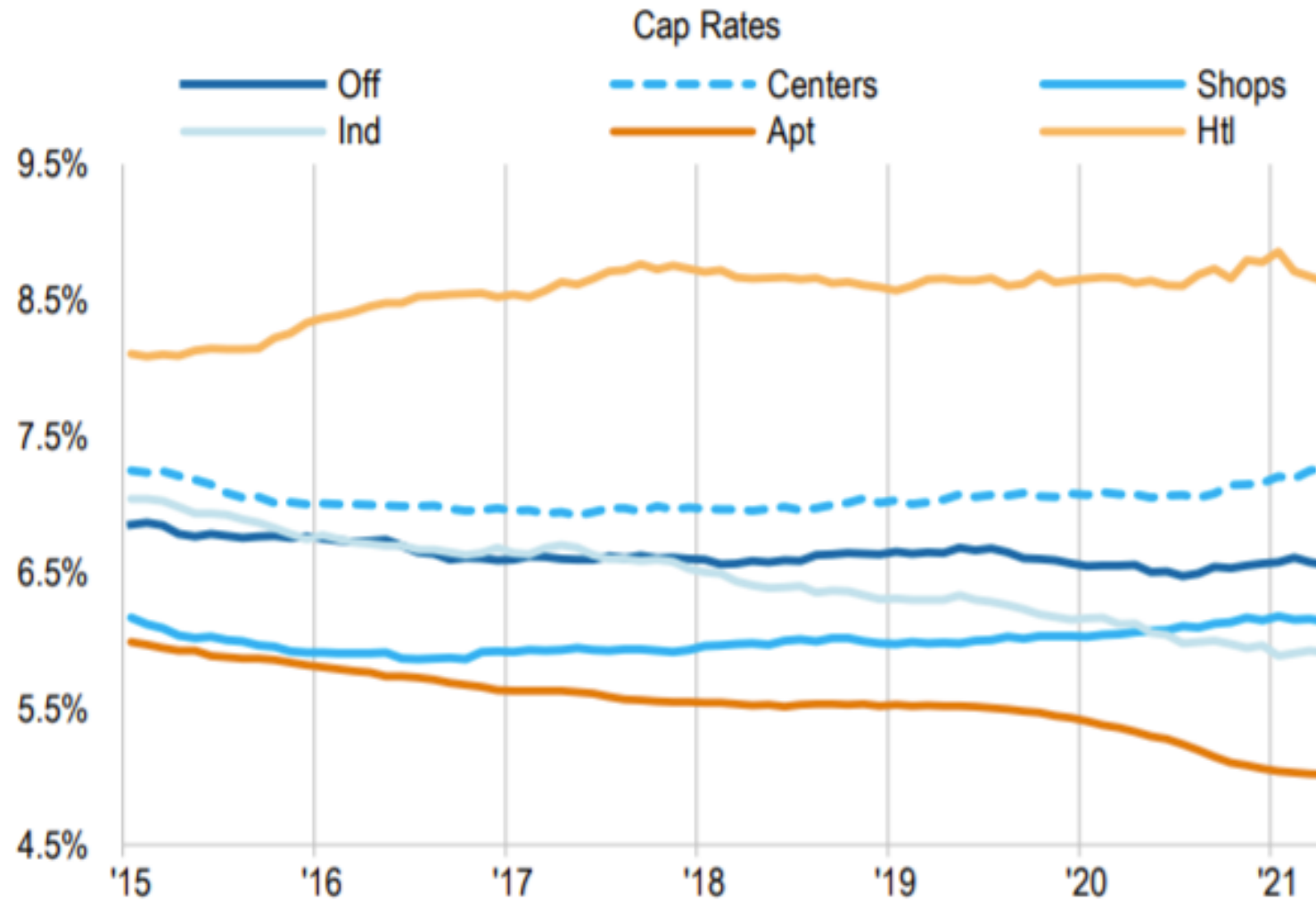
## QUARTERLY SALES OF LARGER (\$2.5 MILLION+) COMMERCIAL/MULTIFAMILY PROPERTIES

Billions of dollars, Properties and portfolios \$2.5 million and greater





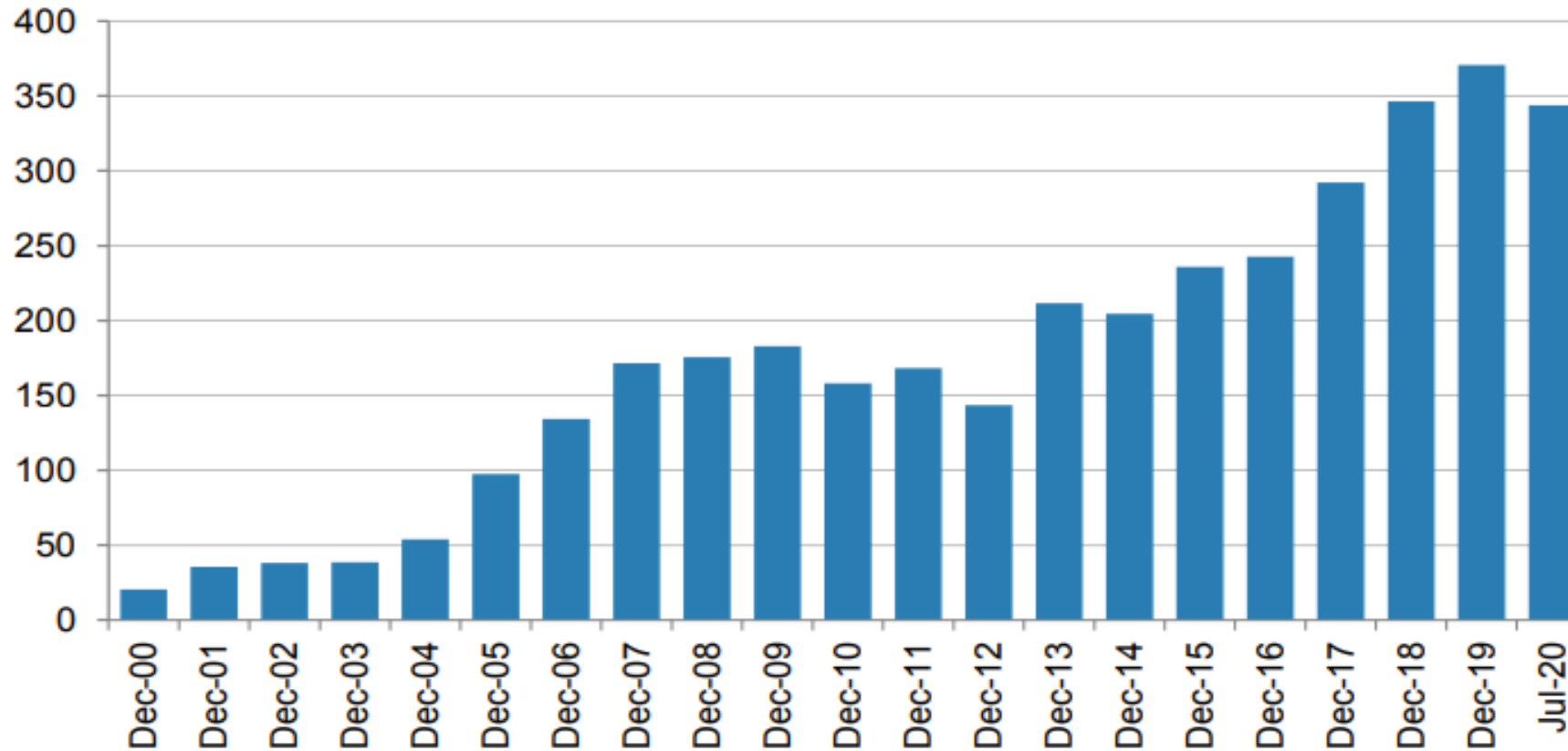
... property cap rates are stable or drifting lower ...



. . . . as equity capital awaits opportunity. . . .

Closed-End Private Real Estate Dry Powder (\$bn)

Total Dry Powder (in \$bn)



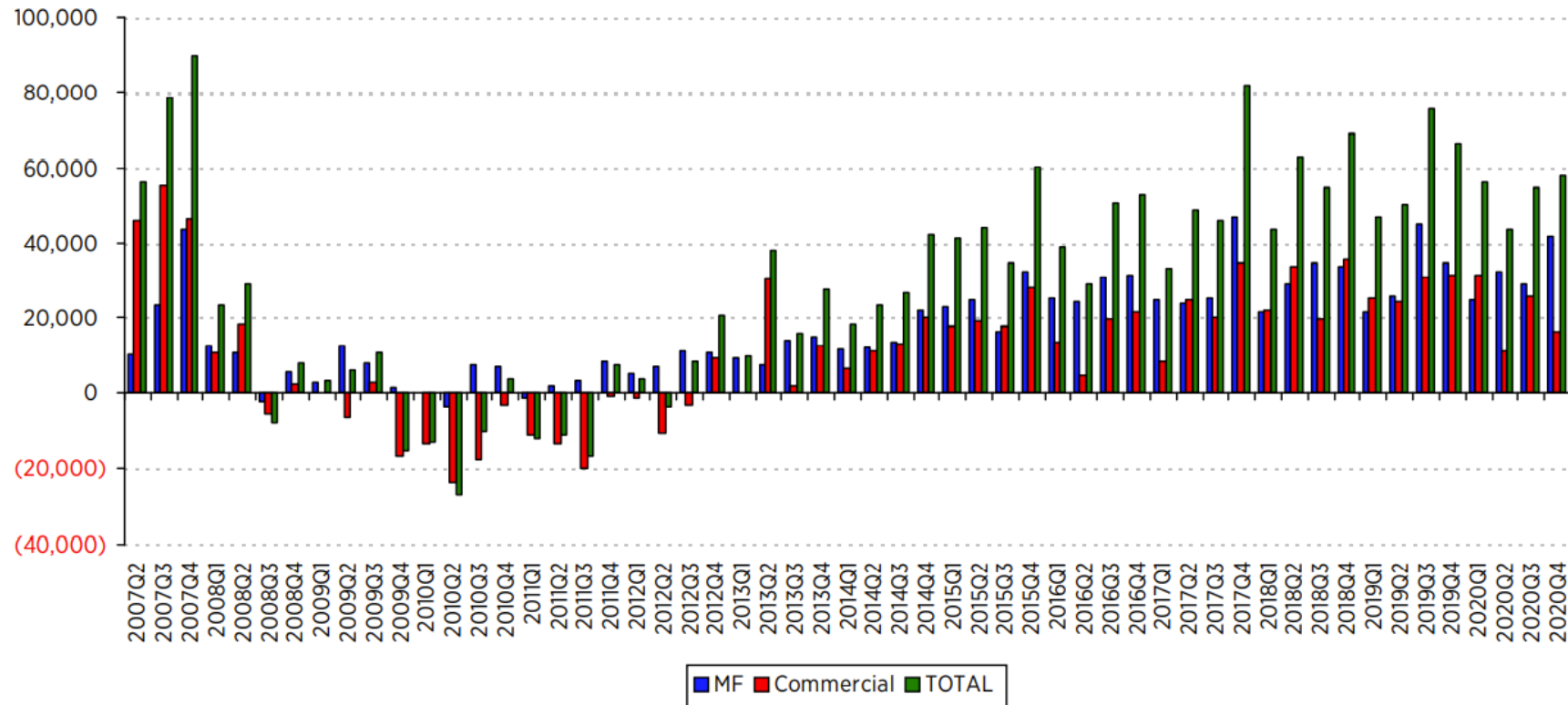
Source: Preqin Real Estate Online, Morgan Stanley Research

... debt markets continue to lend ...

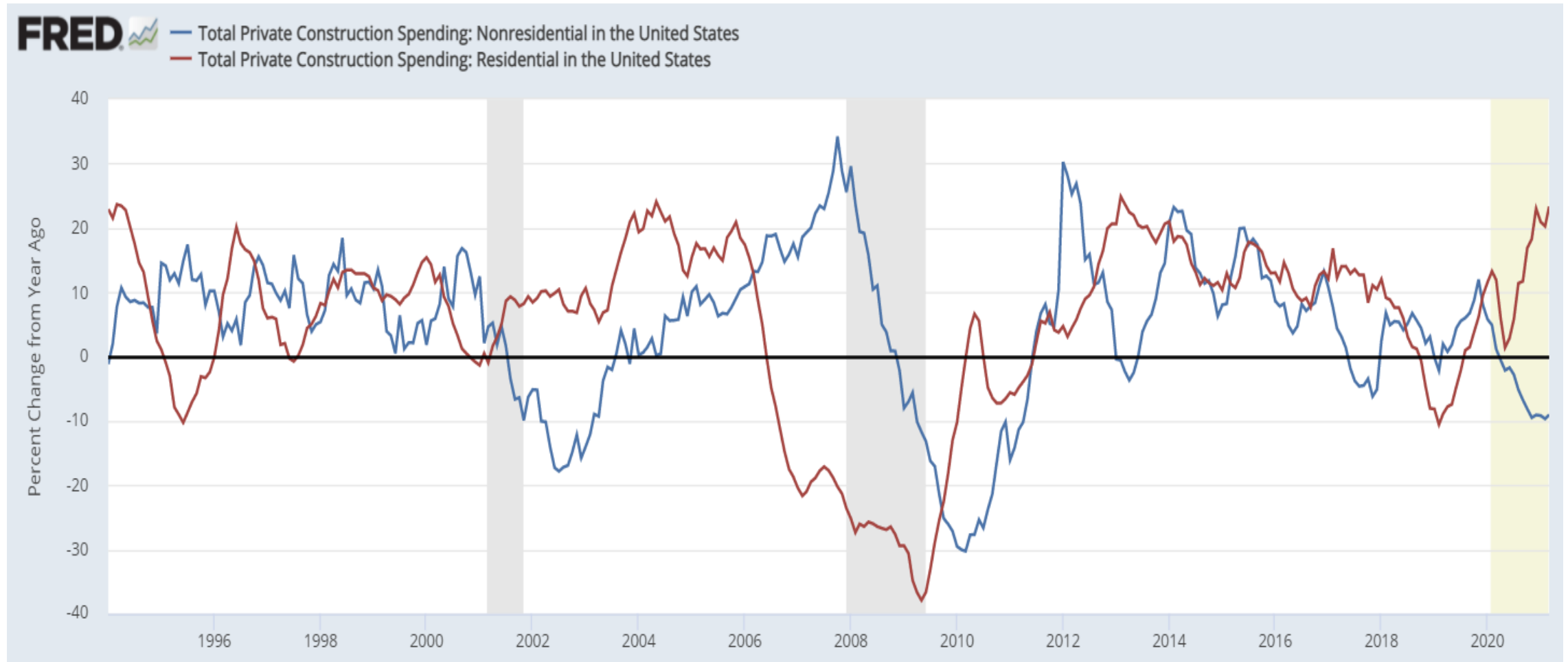
## COMMERCIAL AND MULTIFAMILY MORTGAGE FLOWS

Net Change in Commercial and Multifamily Mortgage Debt Outstanding, by Quarter

(\$millions)

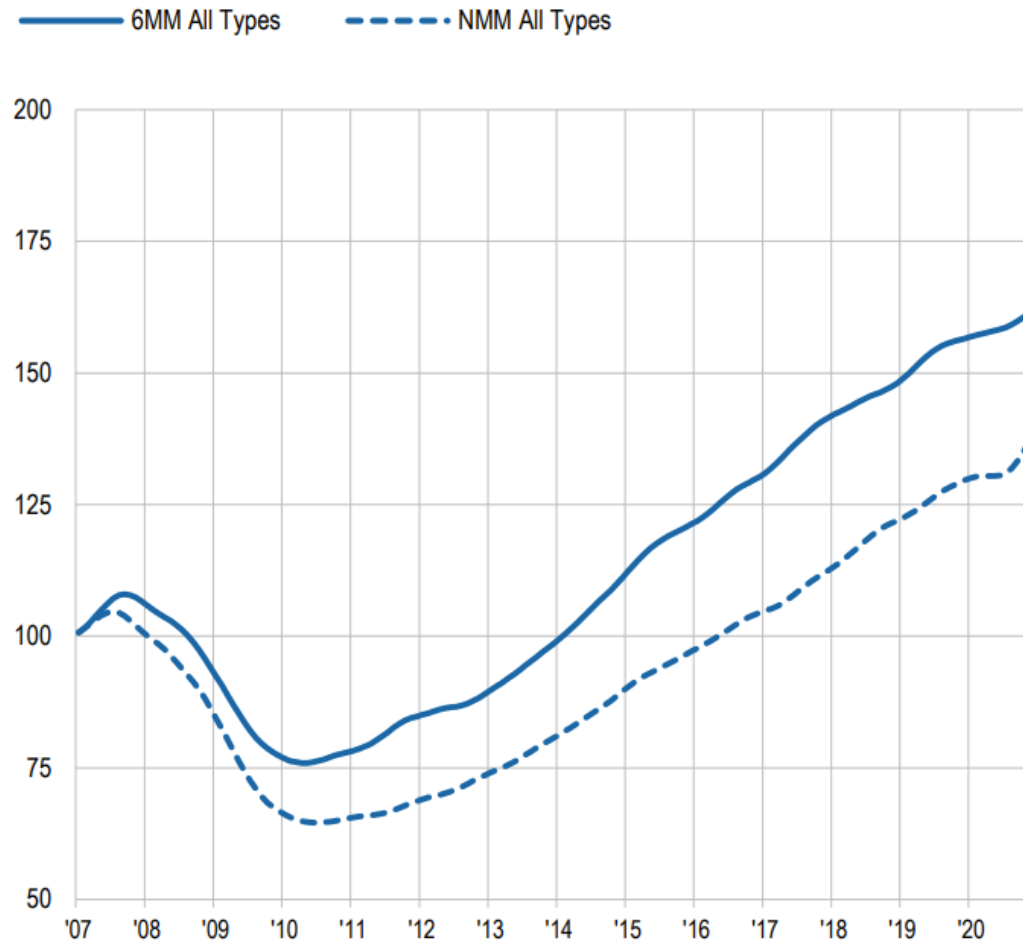


. . . . construction is well-behaved (need more homes). . . .



. . . . smaller metro commercial property markets are outperforming (yield-chasing). . . .

## Major Metros vs Non-Major Metros

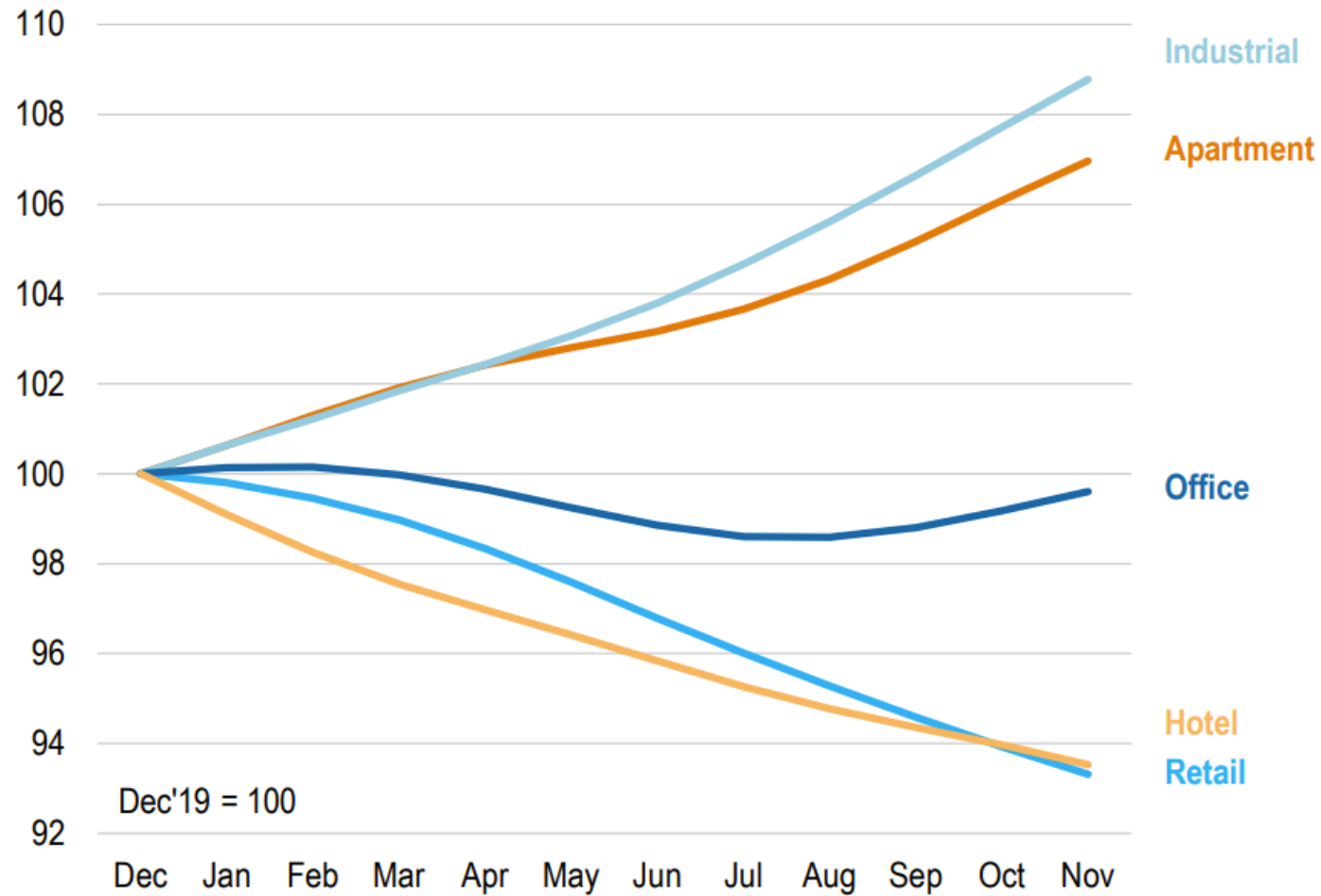


### RCA Commercial Property Price Index

	1-Month	3-Month	1-Year	3-Year	5-Year
6 Major Metros	0.5%	1.3%	3.1%	14.5%	33.6%
Non-Major Metros	1.4%	3.7%	5.8%	22.2%	41.6%

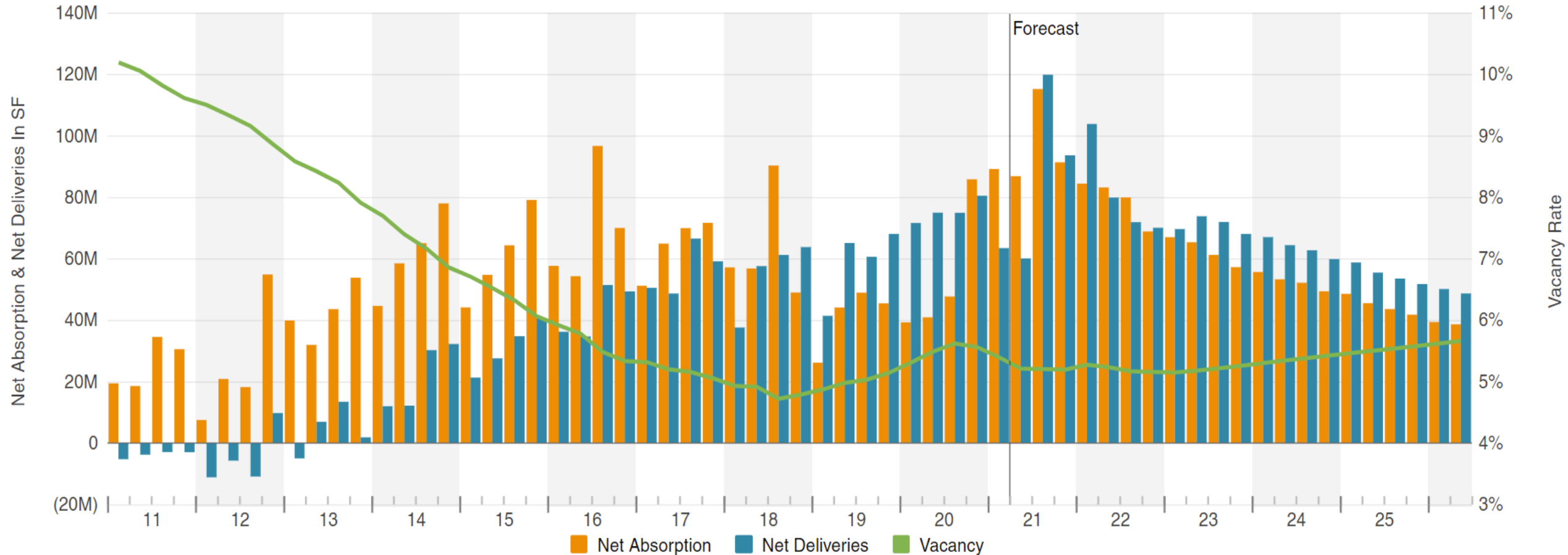
. . . . the property-types are following a K-shaped recovery – which way will office go. . . .

### RCA CPPI Trends in 2020 by Sector



# Industrial (qtrly.): is the strongest property type

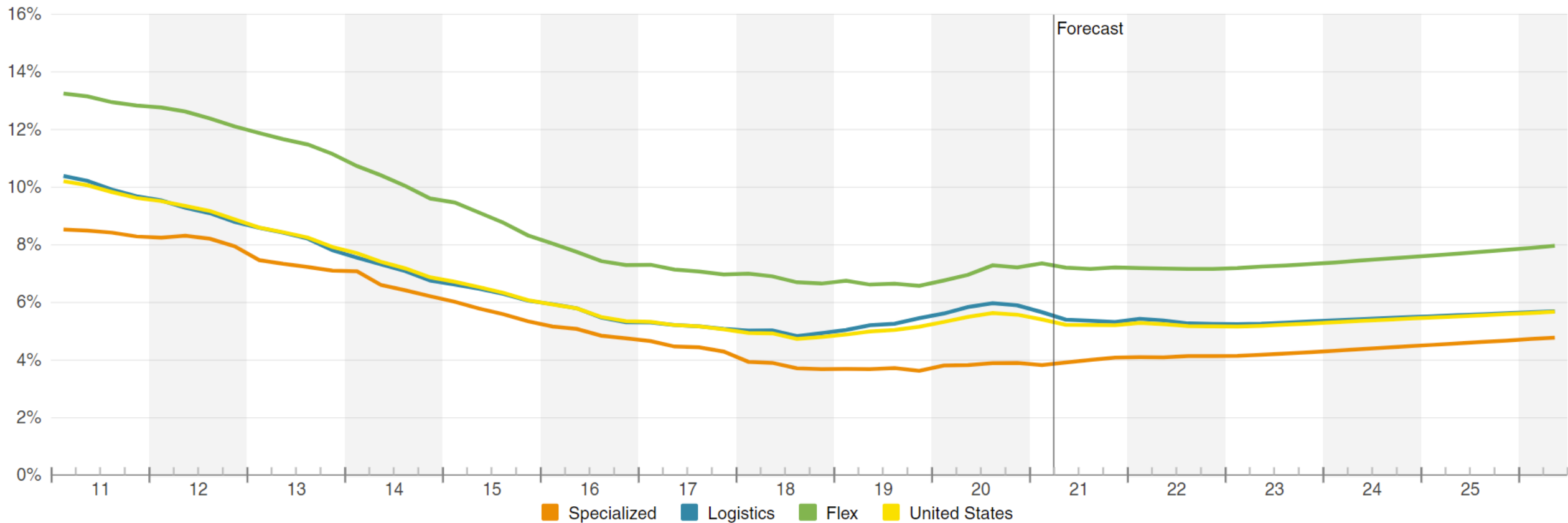
## NET ABSORPTION, NET DELIVERIES & VACANCY





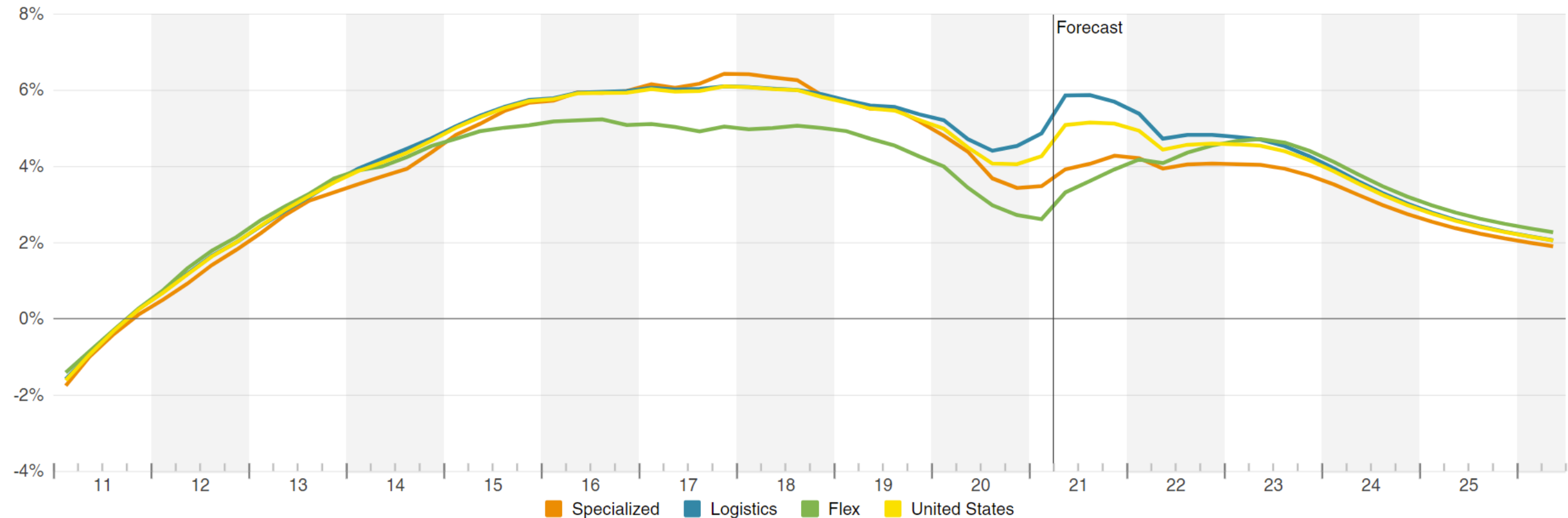
# Industrial: stable and low vacancy rates across industrial uses

## VACANCY RATE



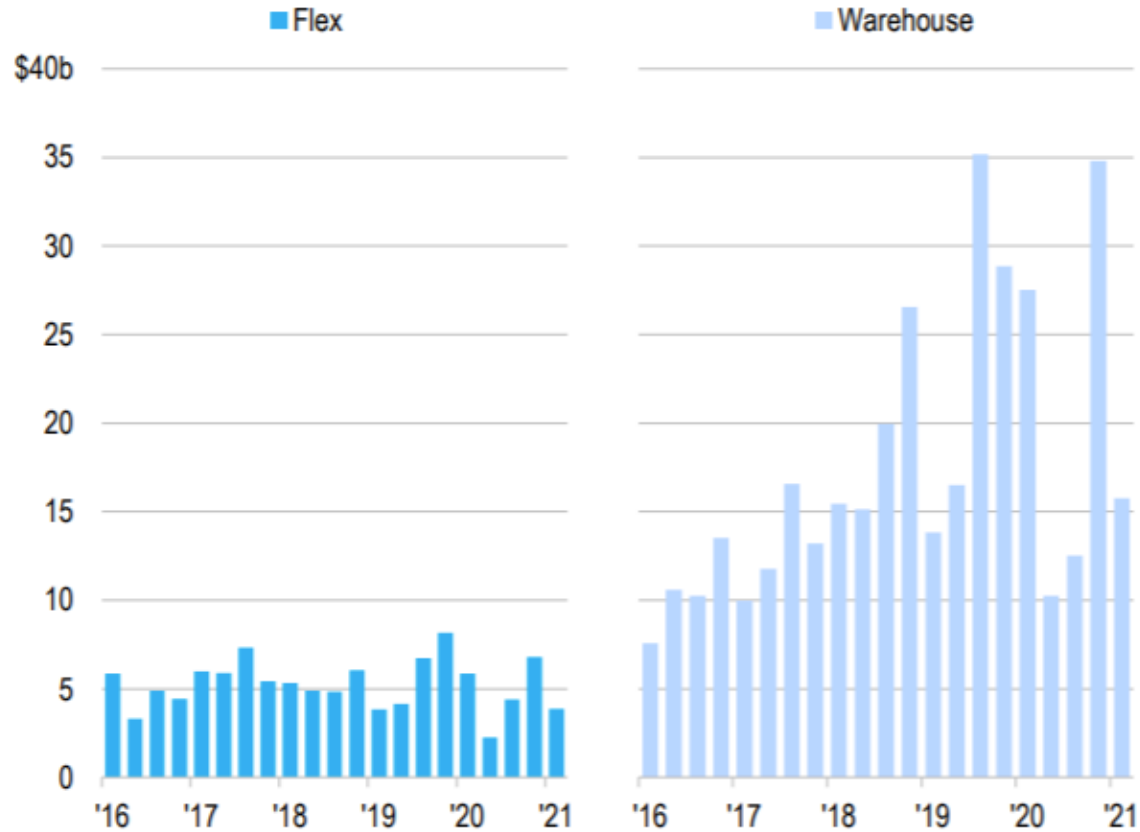
# Industrial: rent growth is anticipated, even with increased deliveries

## MARKET RENT GROWTH (YOY)

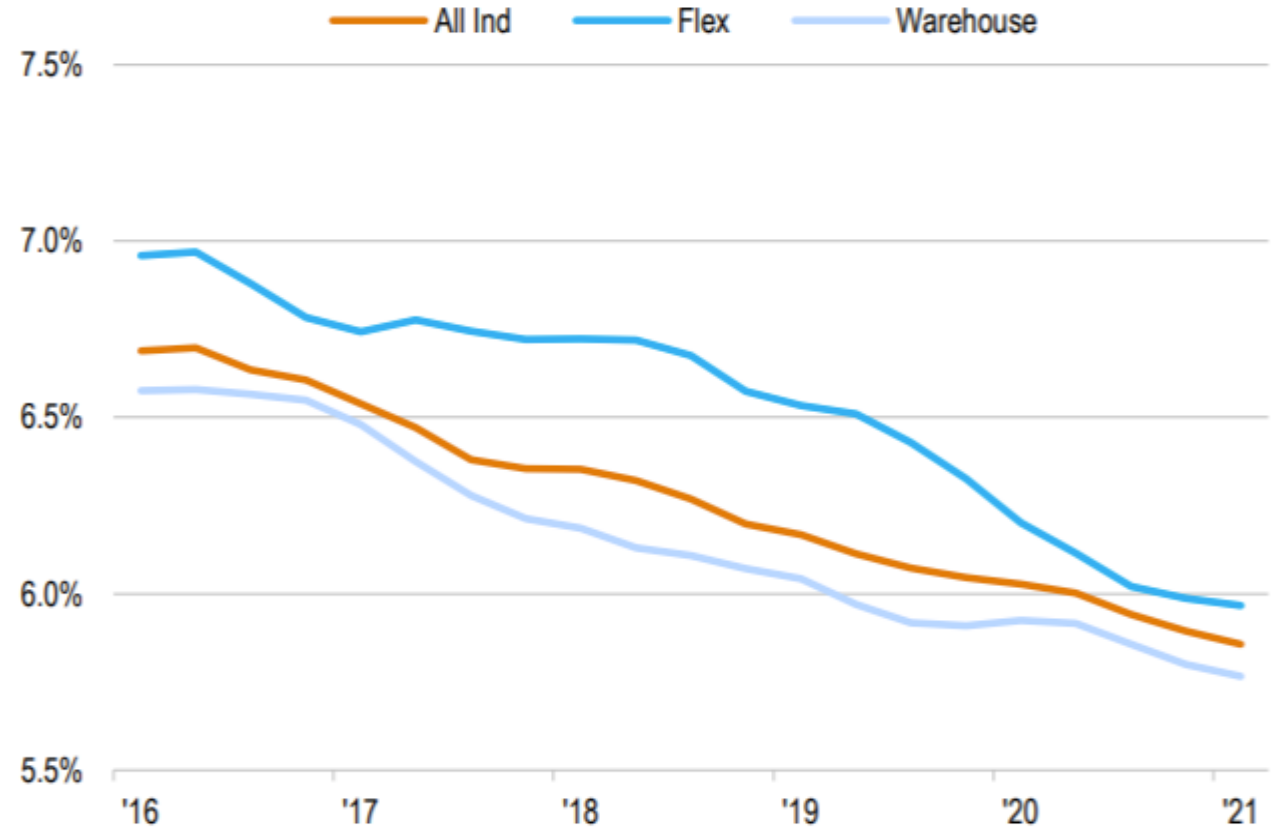


# Industrial: sales volume and cap rate trends are strong

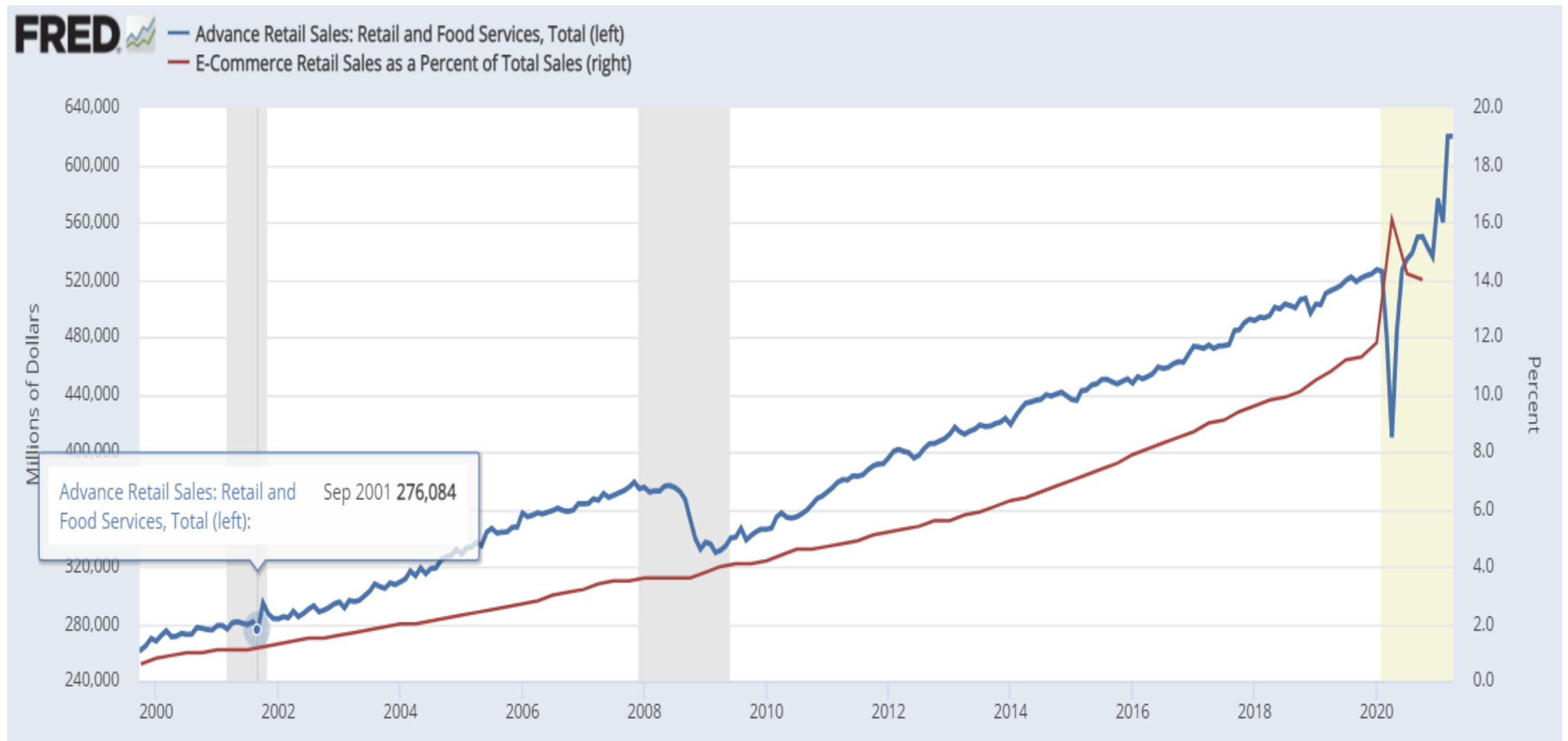
## Quarterly Transaction Volume by Subtype



## Cap Rates

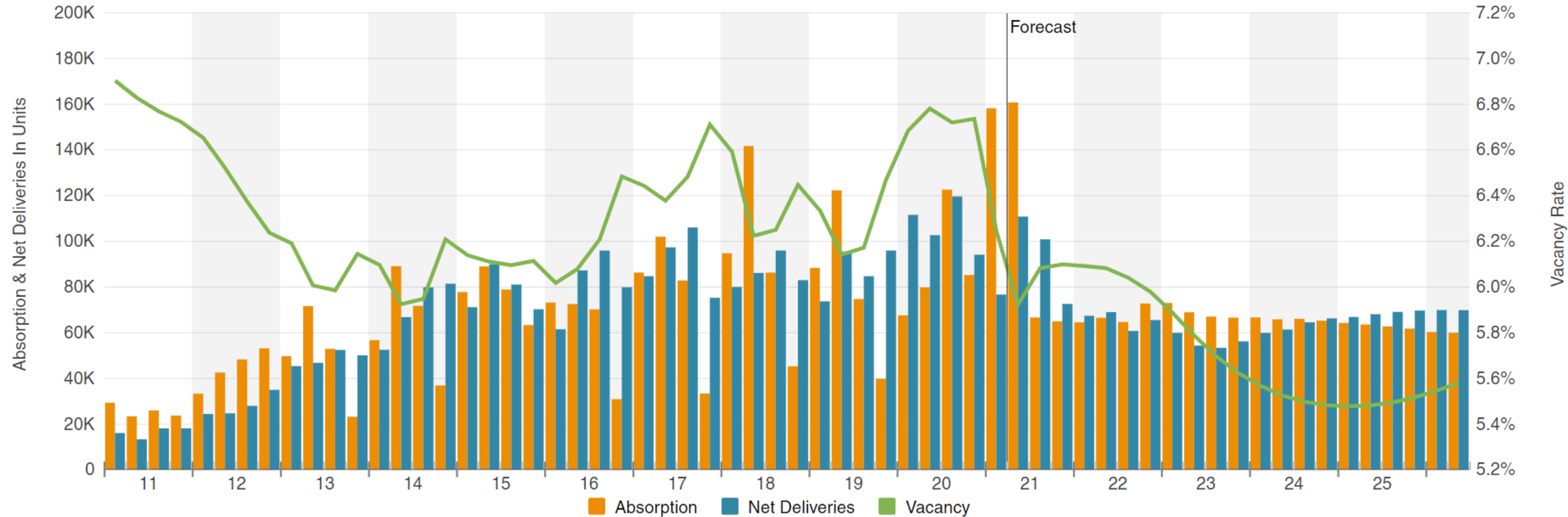


# Industrial: retail sales are strong and shifting to warehouse deliveries



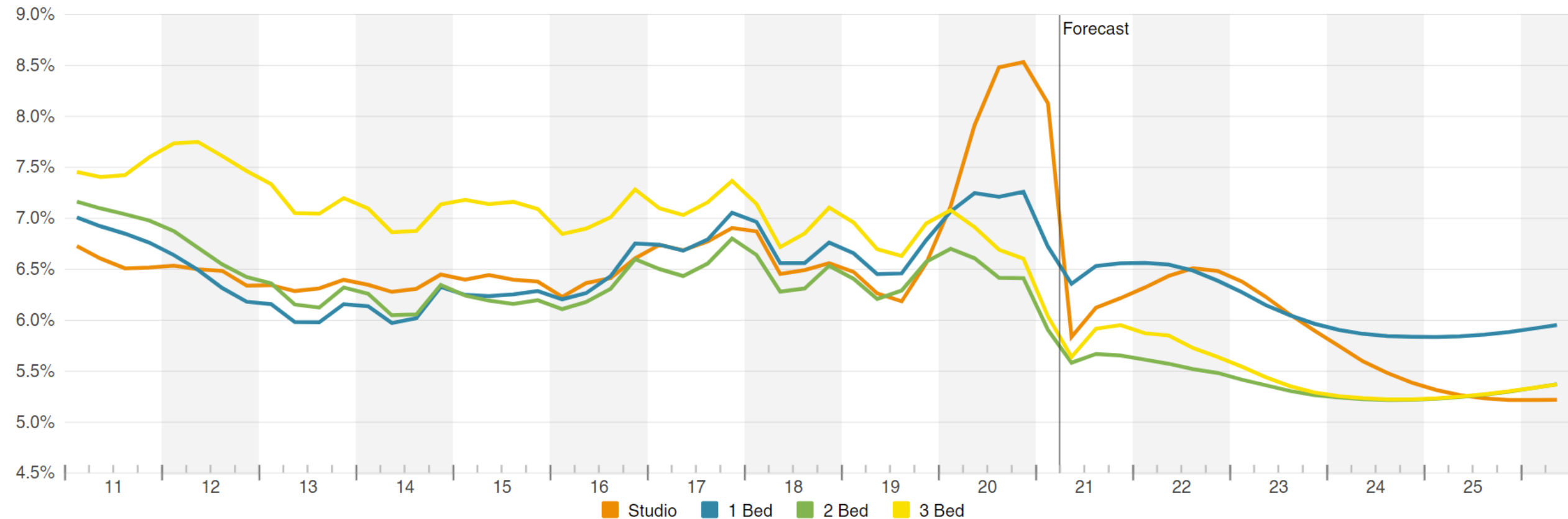
# Multifamily (qtrly.): demand and supply is seeking equilibrium with low vacancy

## ABSORPTION, NET DELIVERIES & VACANCY



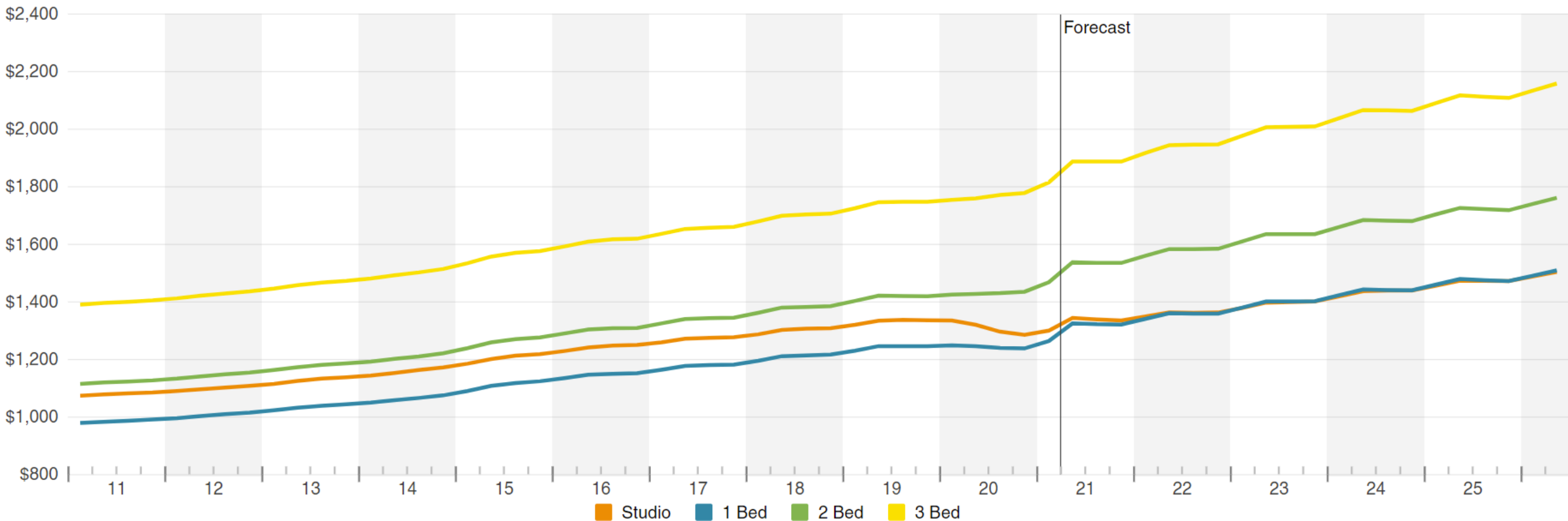
# Multifamily: most new deliveries are one-bedroom units

## VACANCY BY BEDROOM



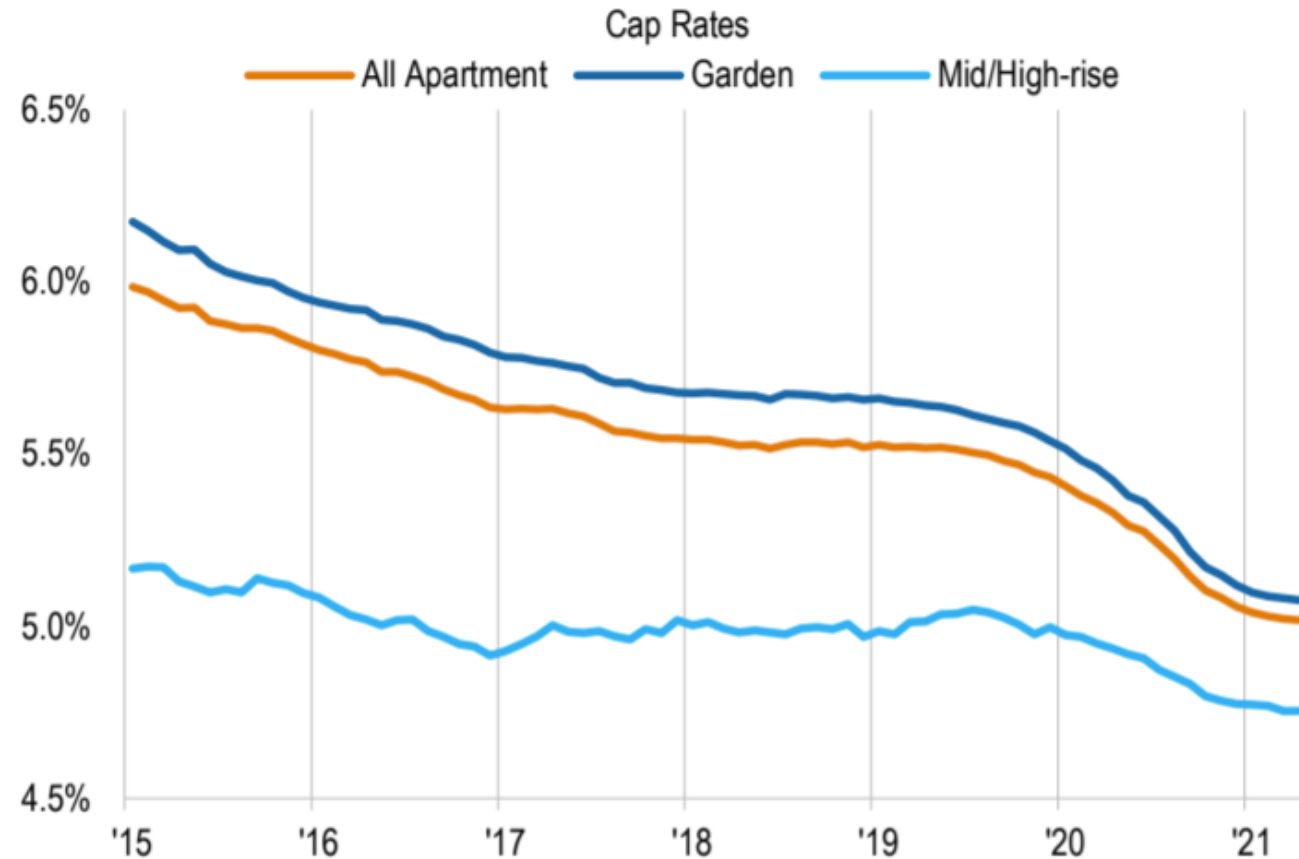
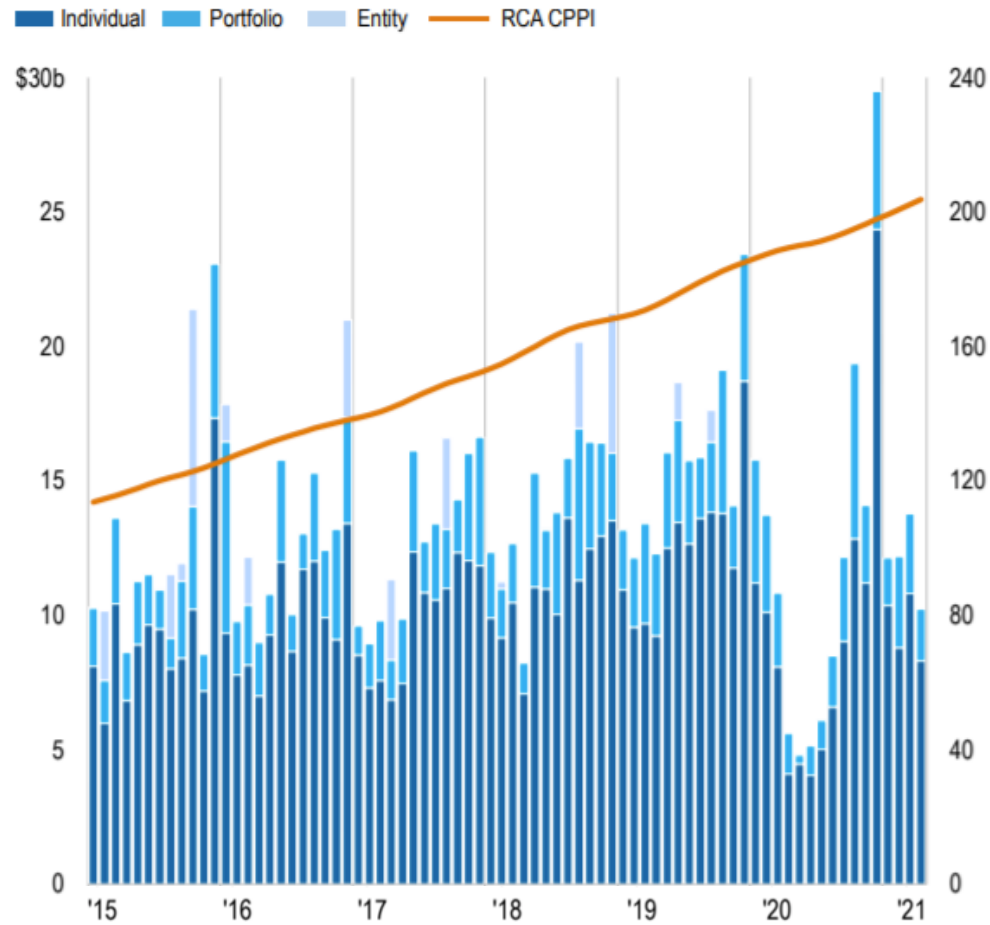
# Multifamily: rents are expected to continue to grow

## MARKET RENT PER UNIT BY BEDROOM

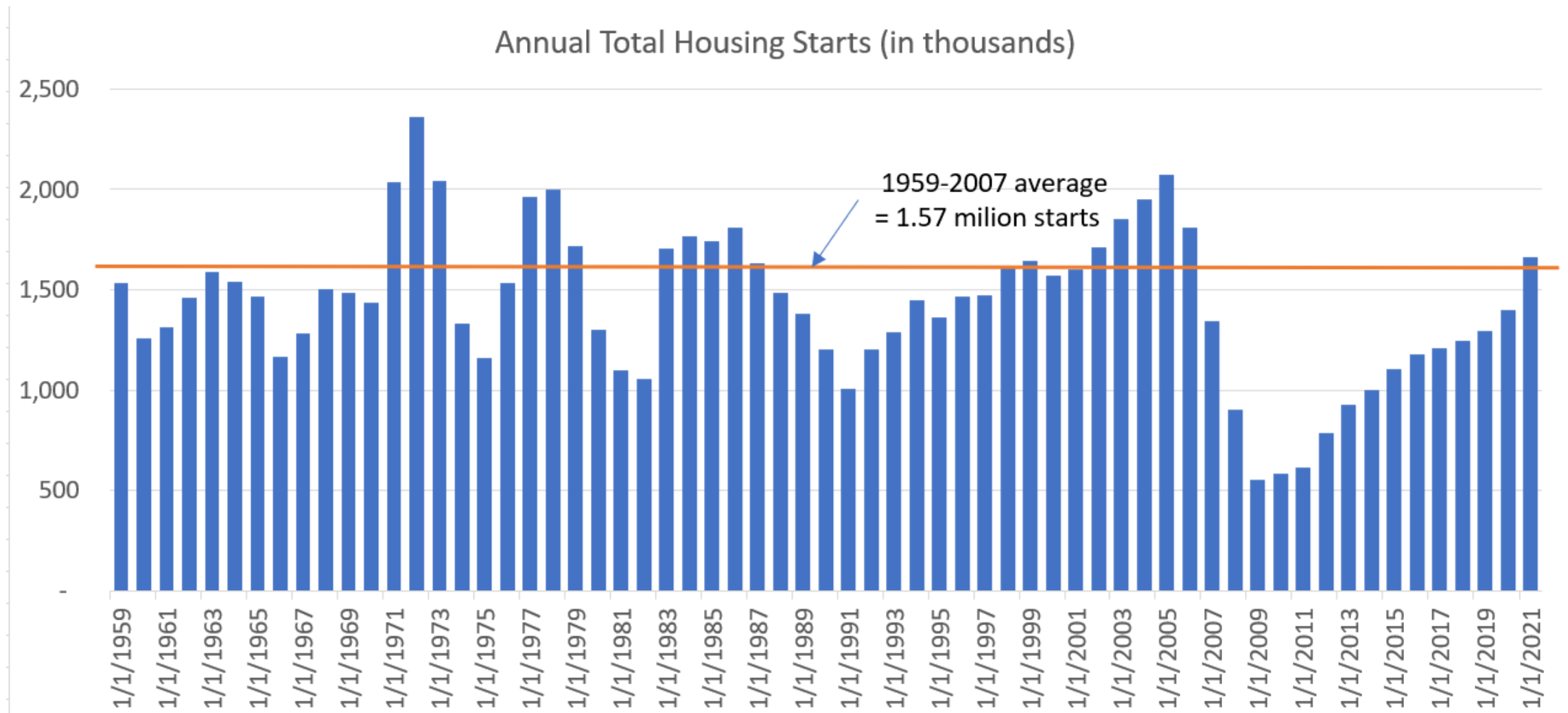




# Multifamily: sales volumes are stable with compressing cap rates



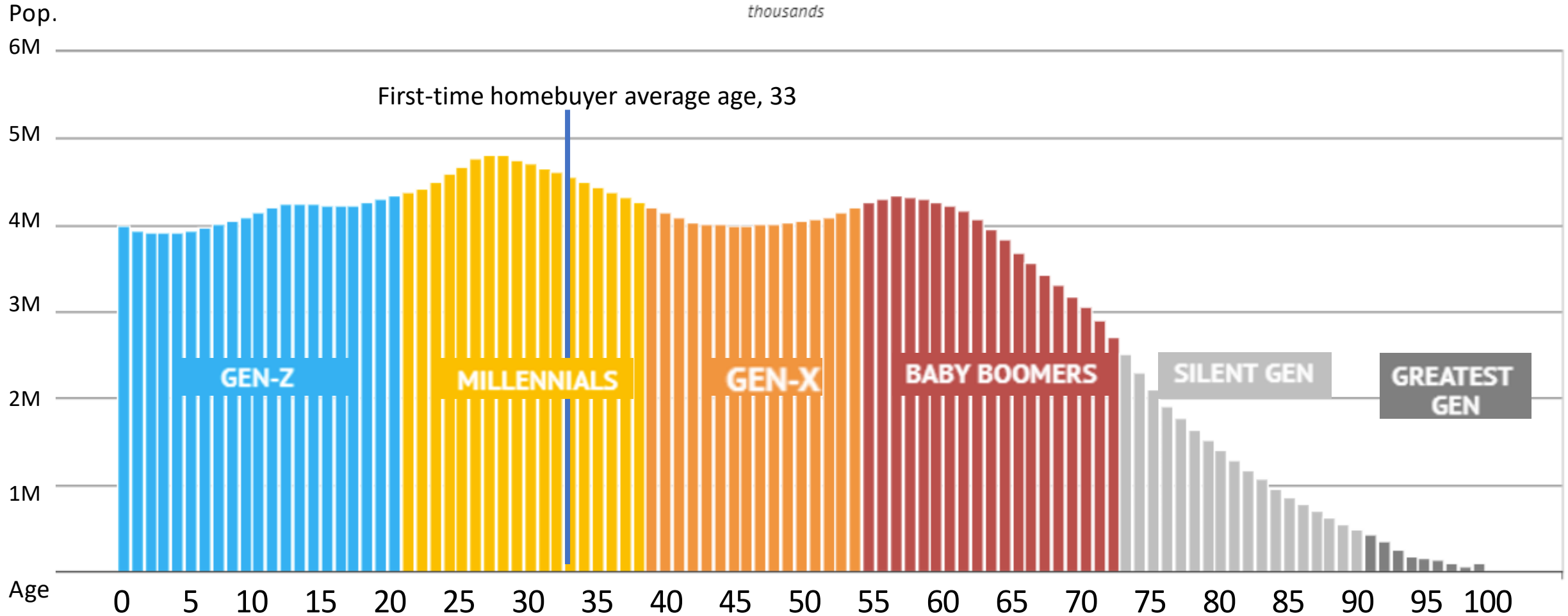
# Multifamily: housing starts are undersupplied by 3.8-5.5 million units



# Multifamily: has very positive demographics.

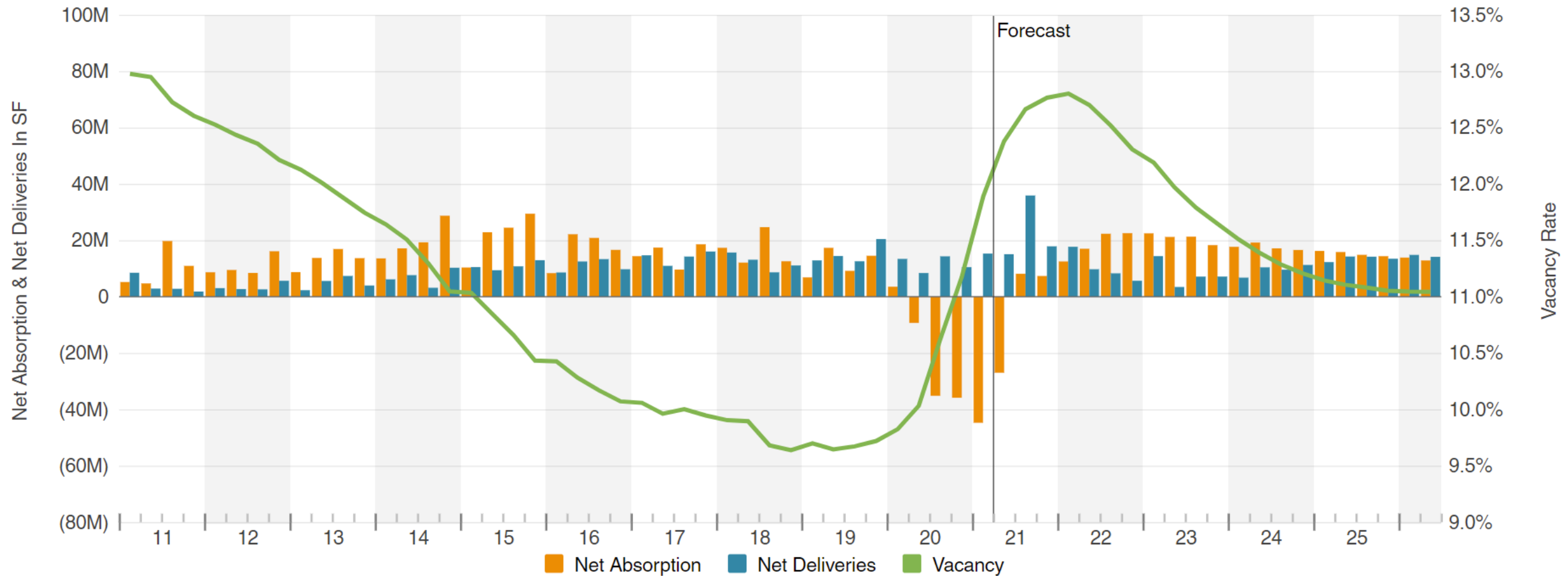
Total US Population by Age in 2020

thousands



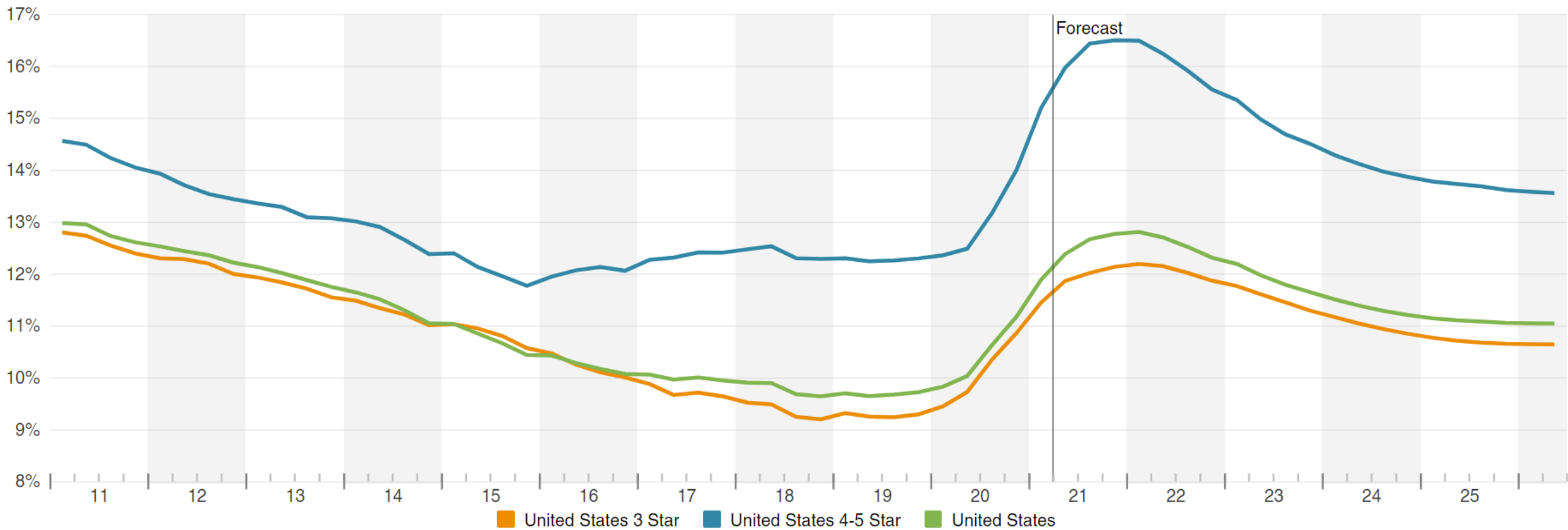
# Office (qtrly.): significant negative absorption with work-from-home uncertainty

## NET ABSORPTION, NET DELIVERIES & VACANCY



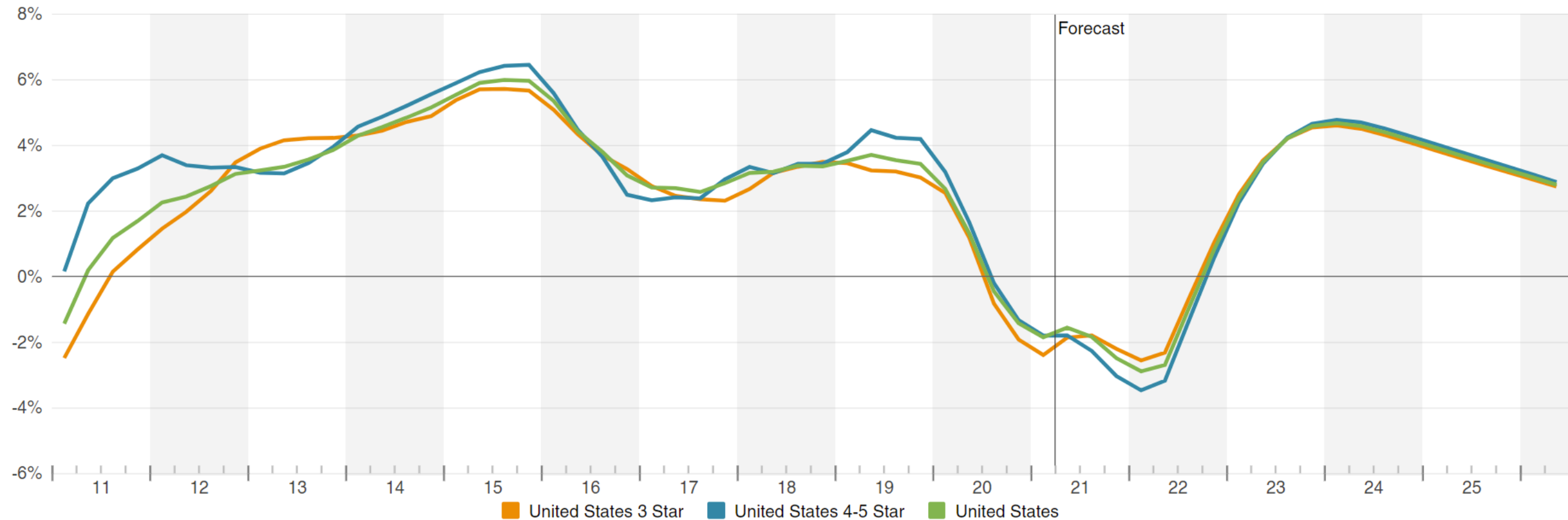
# Office: vacancy increasing especially in high-end properties and urban locations

VACANCY RATE



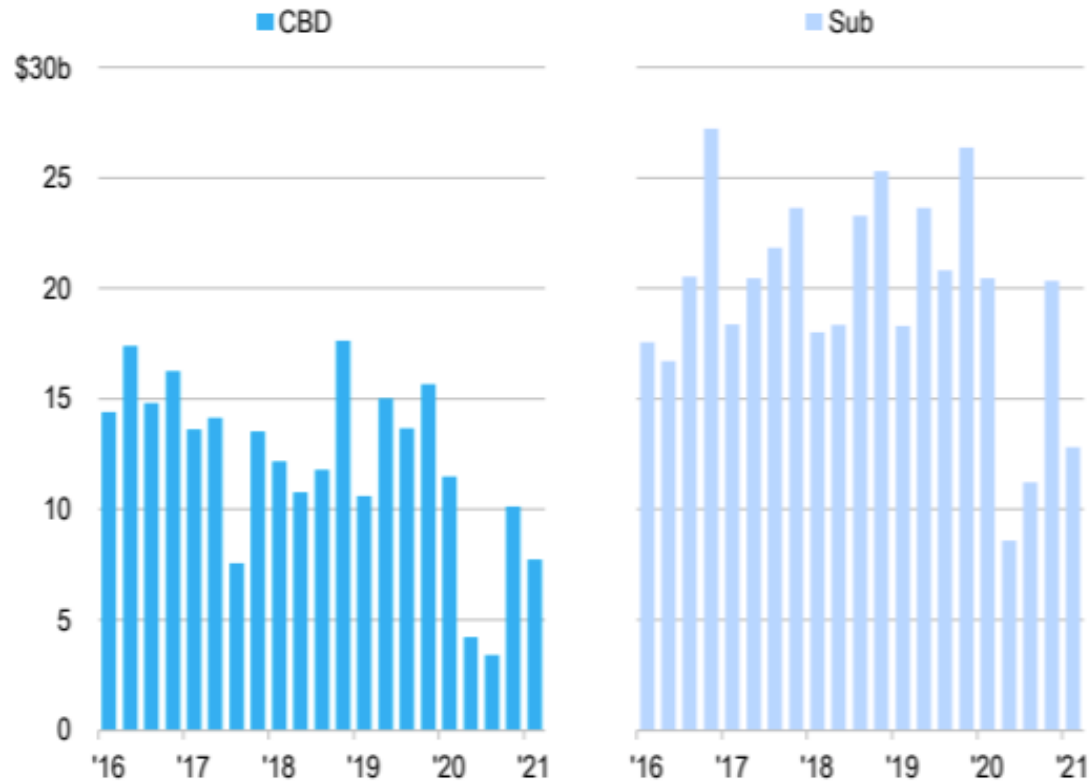
# Office: with negative rent growth

## MARKET RENT GROWTH (YOY)

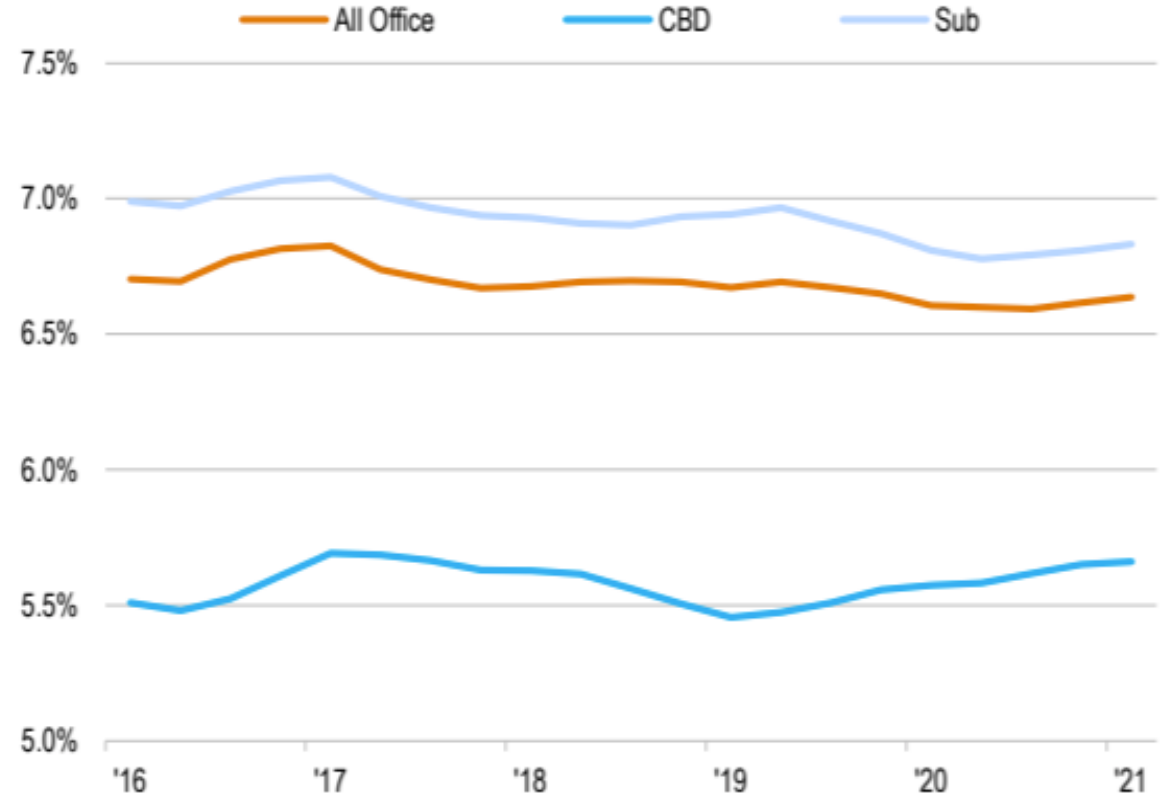


Office: sales volumes are off with cap rates holding -- maybe . . . .

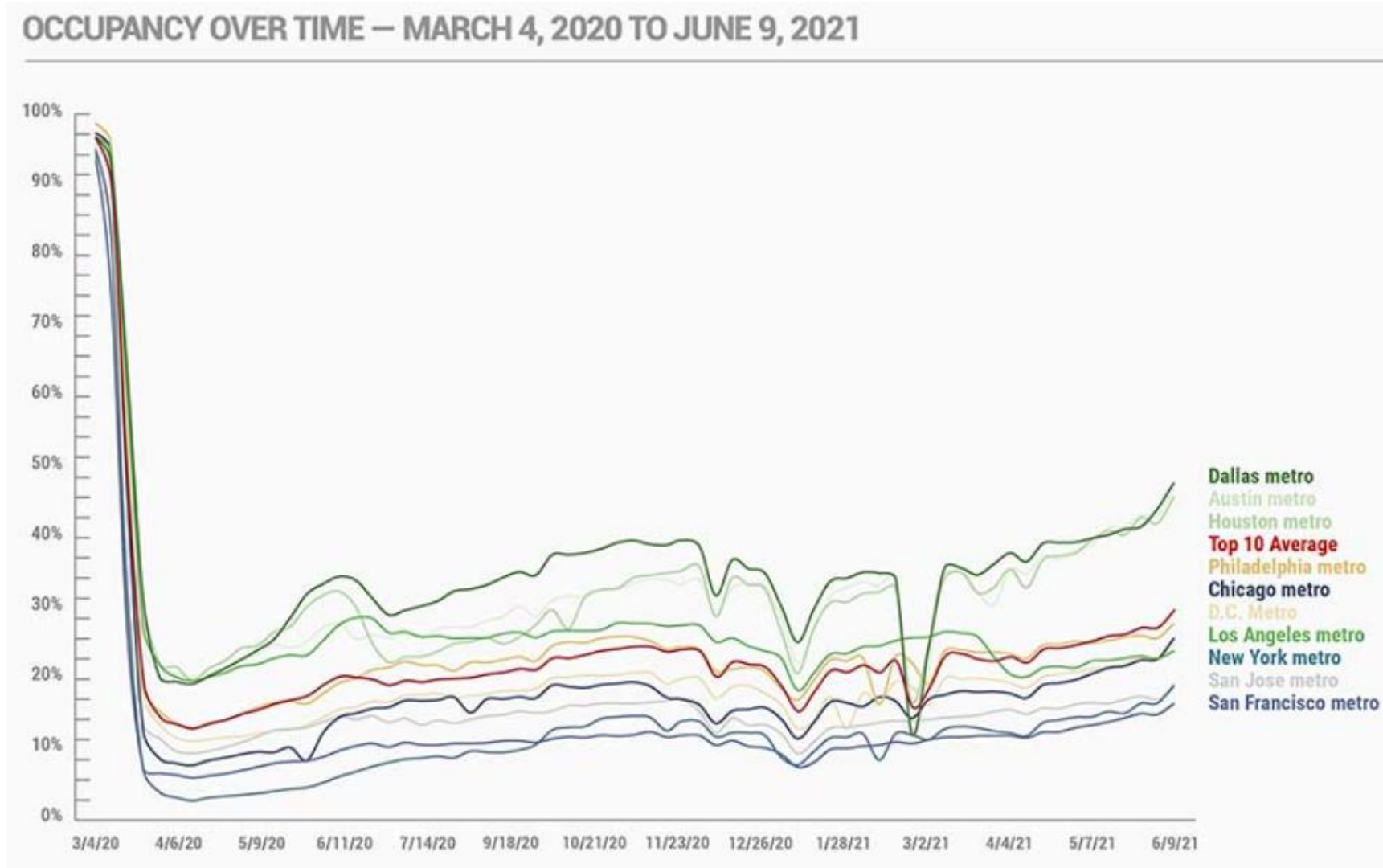
Quarterly Transaction Volume by Subtype



Cap Rates

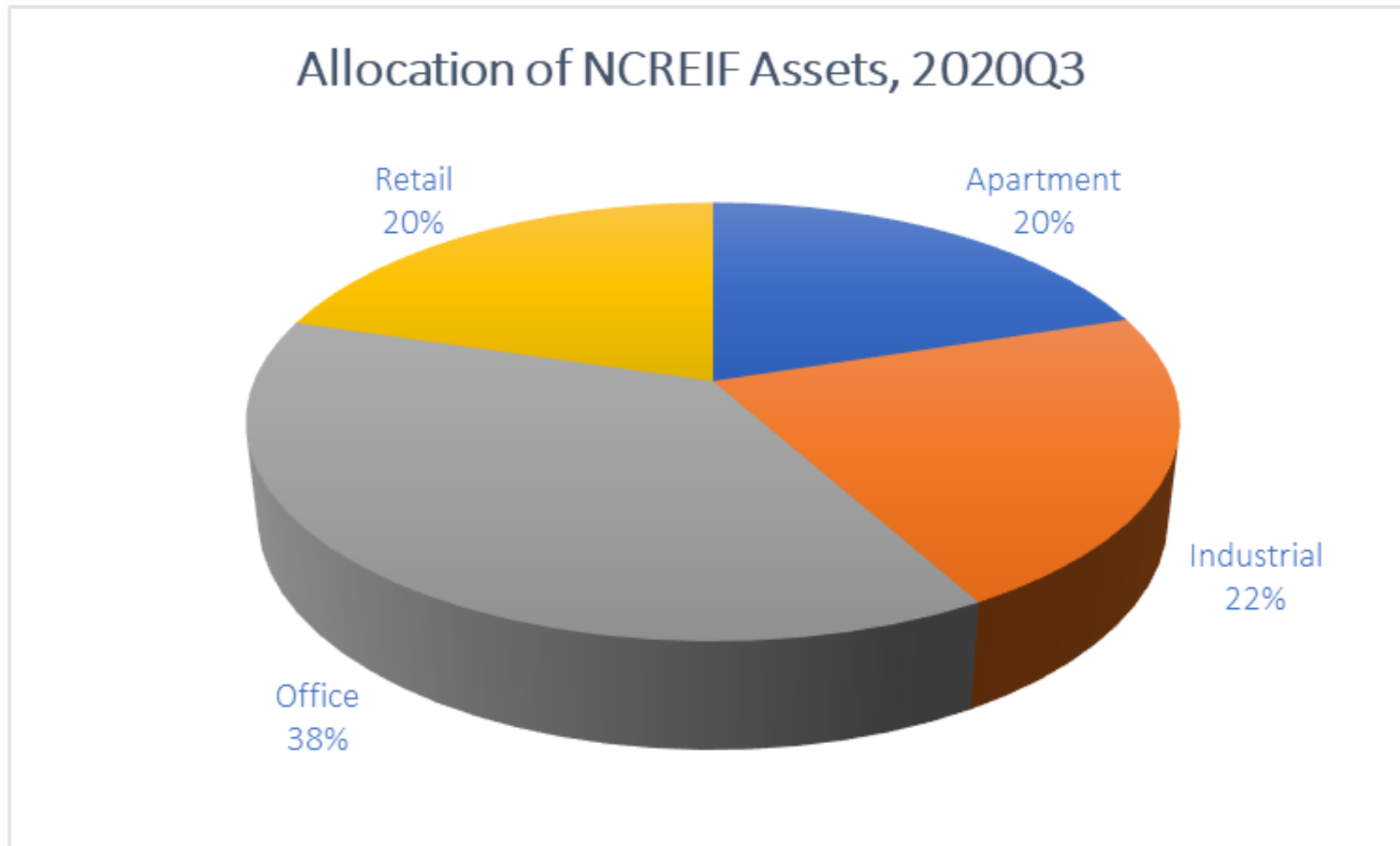


# Office: the slow move back to work in the office.



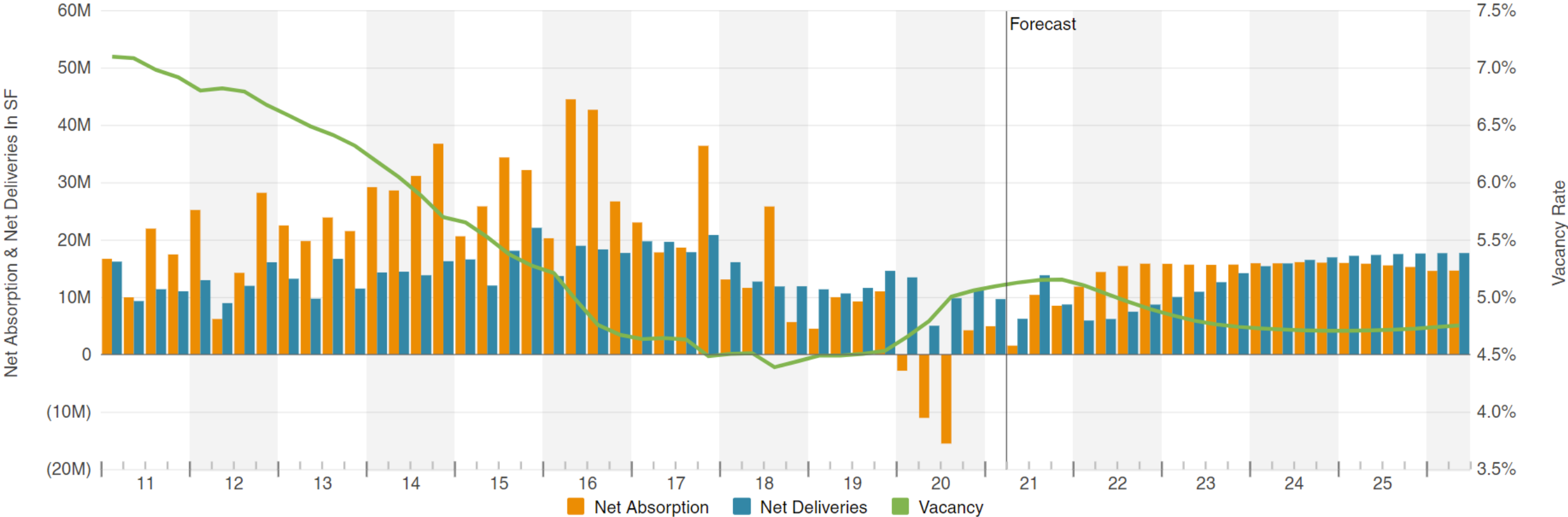


Office: possible weak investor demand for the property type



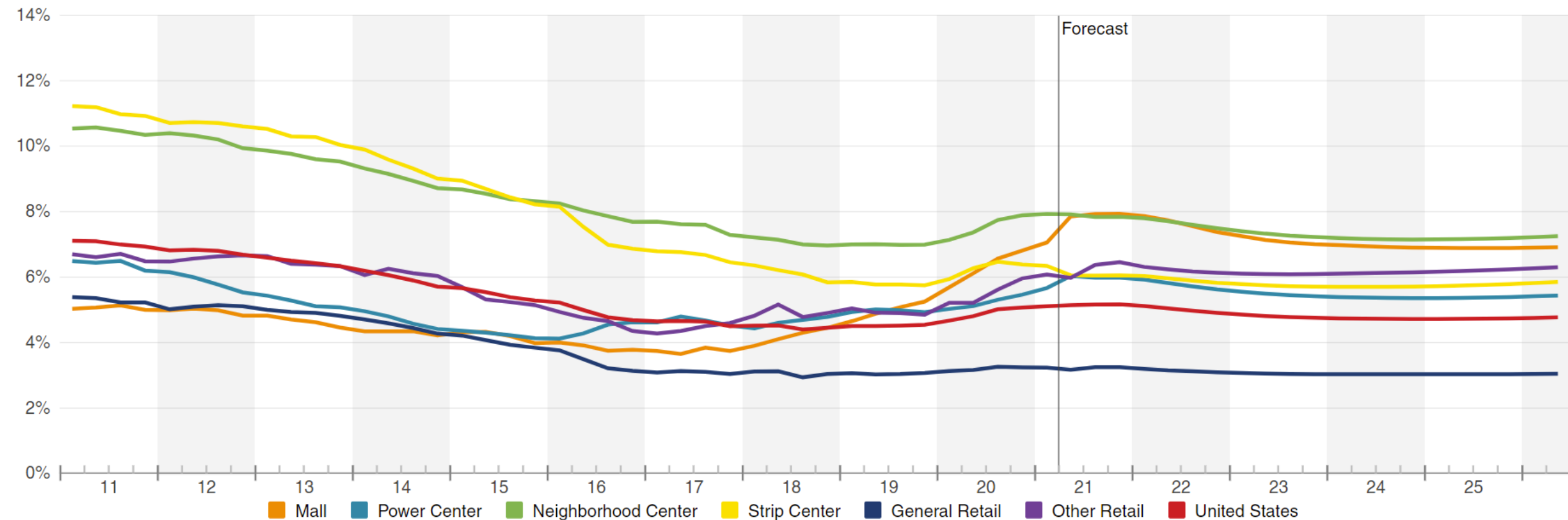
# Retail (qtrly.): back to positive net absorption and narrowly ranged vacancy rates

NET ABSORPTION, NET DELIVERIES & VACANCY



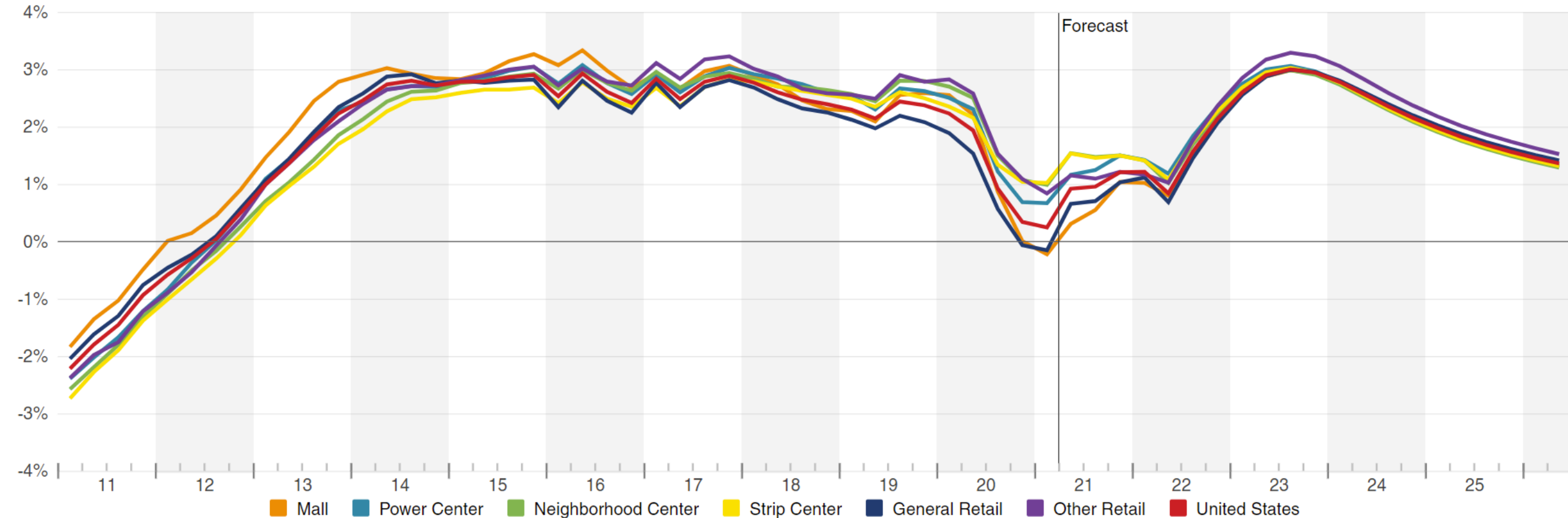
# Retail: a sector within a sector with diverging expected performance

## VACANCY RATE

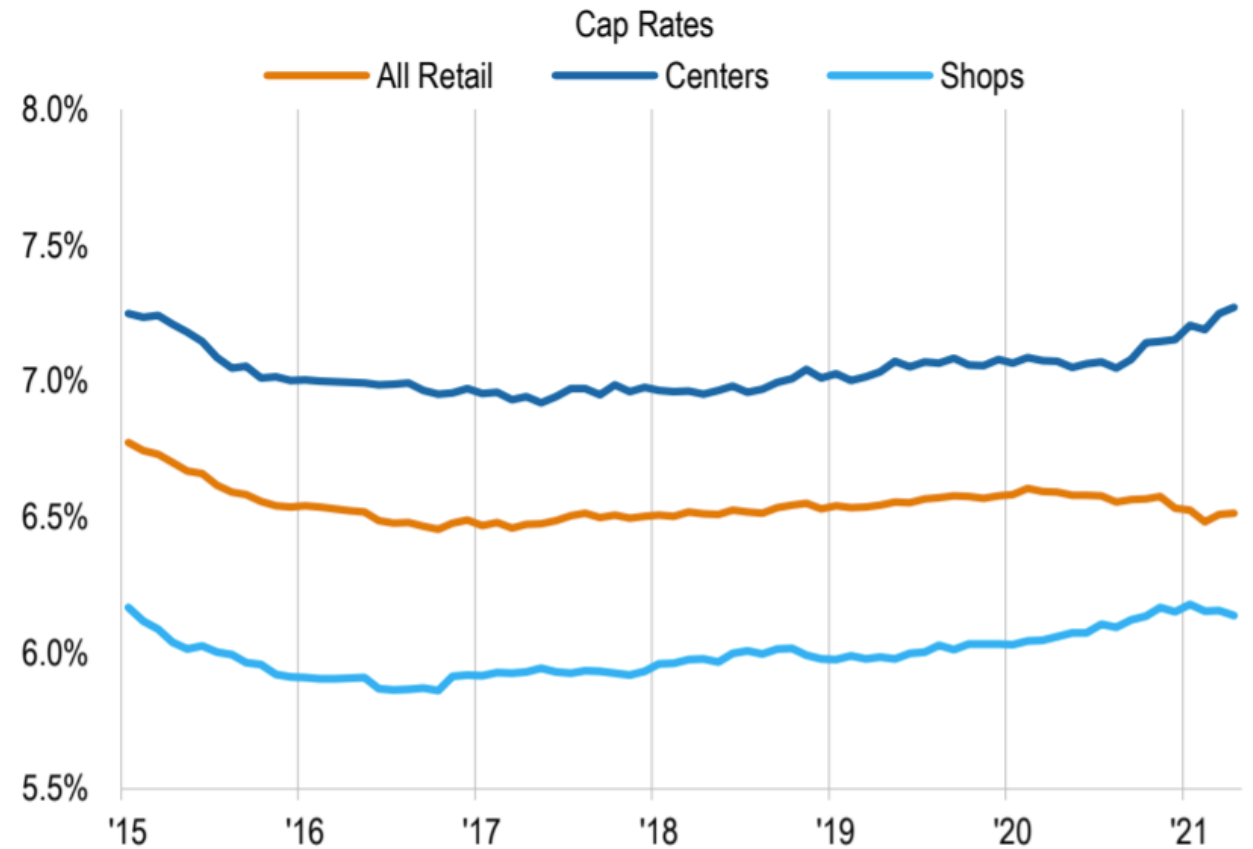
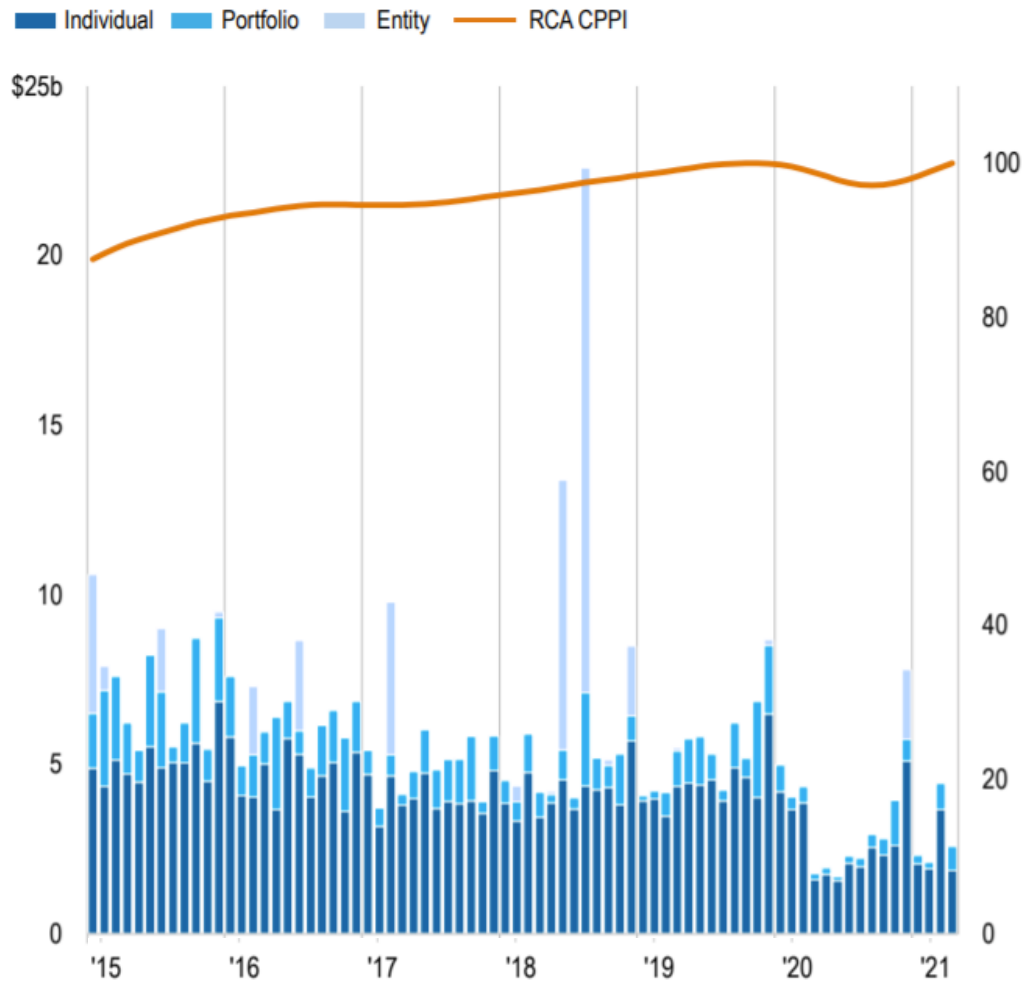


# Retail: rental growth expecting a 2022 bump

## MARKET RENT GROWTH (YOY)



# Retail: sales volumes starting to reveal diverging behaviors



# Real Estate Capital and Space Market Key Take-Aways

## 1. Capital Markets

- A. Transaction volume is approaching longer-term norms with full price discovery
- B. Abundant debt availability with low rates and risk spreads, for now
- C. Plentiful equity with tightening return expectations

## 2. Space Markets

- A. Rapidly growing GDP will lift all property types
- B. Industrial and multifamily remain fundamentally strong
- C. Retail is mixed across retail formats
- D. Office is decidedly risky from both a demand and capital flow perspective

(tangent alert!) . . . . do not rule out the return to the city.

Cities are places of consumption:

- Where we are entertained – sports, theatre, music
- Where a diversity of food is offered
- Where people find a partner

Cities are places of production and innovation:

- Residents of U.S. cities of over one million are 50% more productive than smaller MSAs
- Firms cluster to seek top-notch talent
- Employees seek top-notch firms
- Firms innovate (think Amazon's HQ2, 238 submissions, and 54 states and territories)

The richness of face-to-face experiences and interactions in cities can not be replaced by technology.

# Urban Economics



# Past Influences on the Built Environment

# Top Ten Influences on Metropolitan America:

## 1. The 1956 Interstate Highway Act





## Top Ten Influences on Metropolitan America:

### 1. The 1956 Interstate Highway Act

Unintended consequence:  
suburban sprawl.





# Top Ten Influences on Metropolitan America:

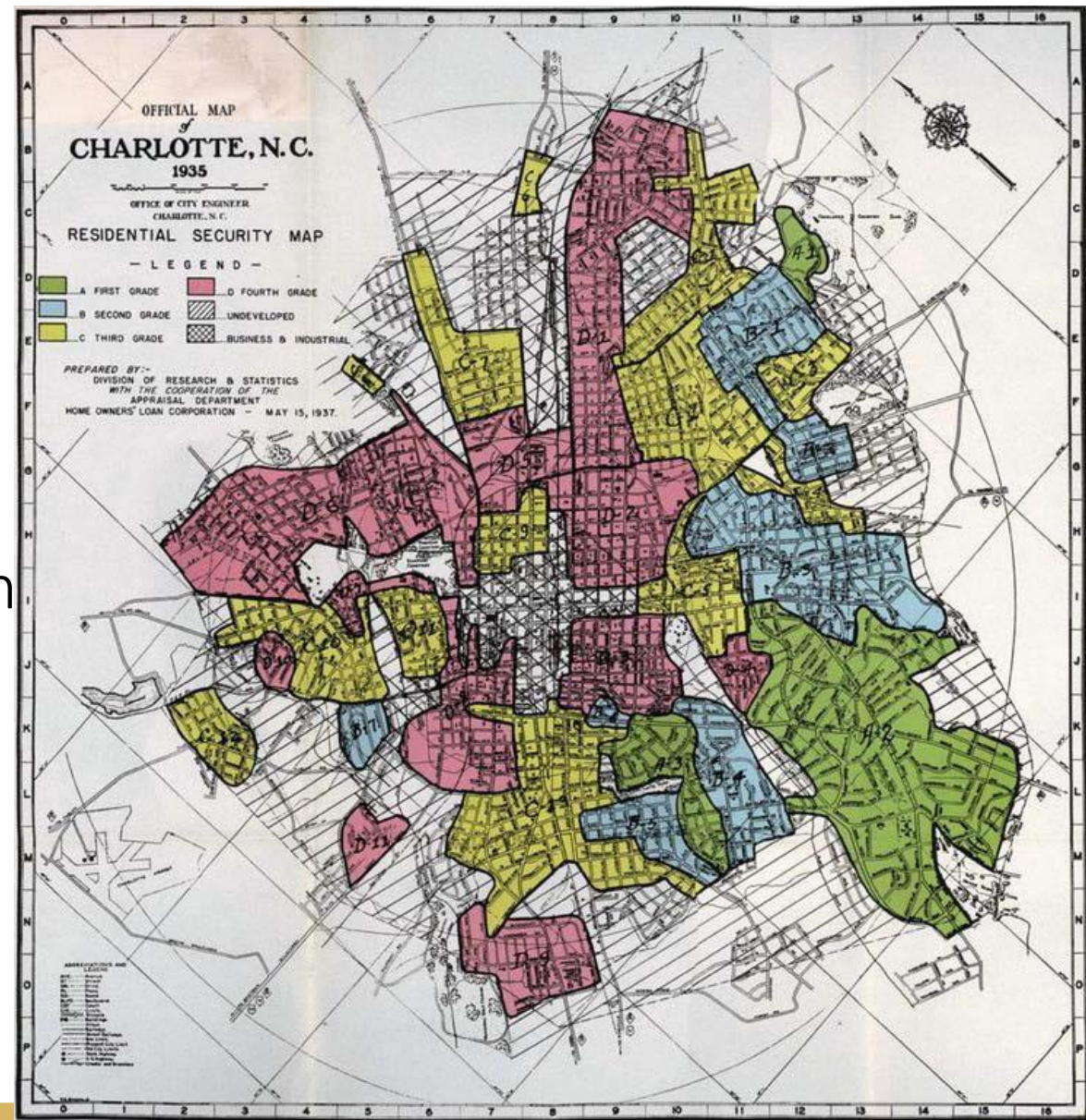
## 2. Federal Housing Administration Mortgage Financing and Subdivision Regulation



# Top Ten Influences on Metropolitan America:

## 2. Federal Housing Administration Mortgage Financing and Subdivision Regulation

Unintended consequence:  
Redlining





## Top Ten Influences on Metropolitan America:

### 3. De-industrialization of Cities

Consequence:  
Urban/suburban wage gap  
and income inequality



## Top Ten Influences on Metropolitan America:

### 4. Urban Renewal: Downtown Redevelopment and Public Housing Projects (1949 Housing Act)





# Top Ten Influences on Metropolitan America:

## 4. Urban Renewal: Downtown Redevelopment and Public Housing Projects (1949 Housing Act)

Consequence: Hyper-  
concentration of the poor





. . . . Other impacts on the built environment.

*The next six:*

5. Levittown (the mass-produced suburban tract house)
6. Racial segregation and job discrimination in cities and suburbs
7. Enclosed shopping malls
8. Sunbelt-style sprawl
9. Air conditioning
10. Urban riots of the 1960s

# Future Influences on the Built Environment

# Future Influences on Metropolitan America:

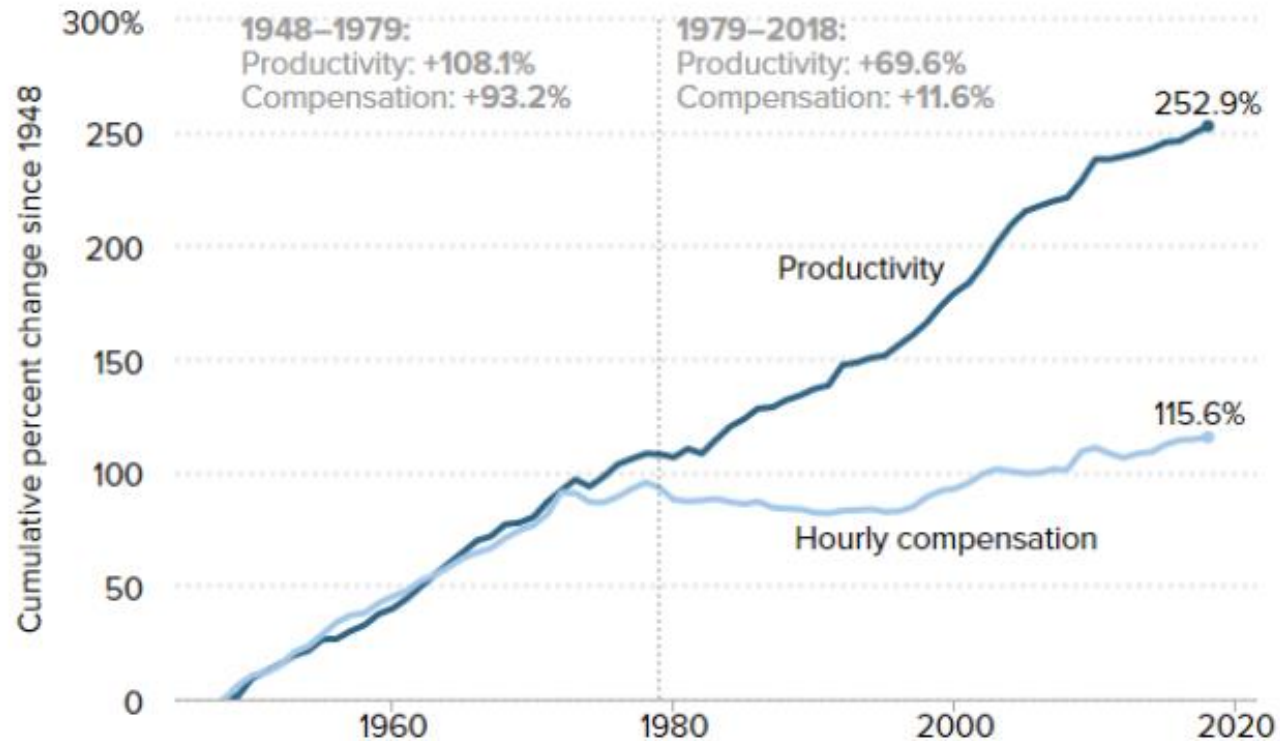
## 1. Income/Wealth Disparity



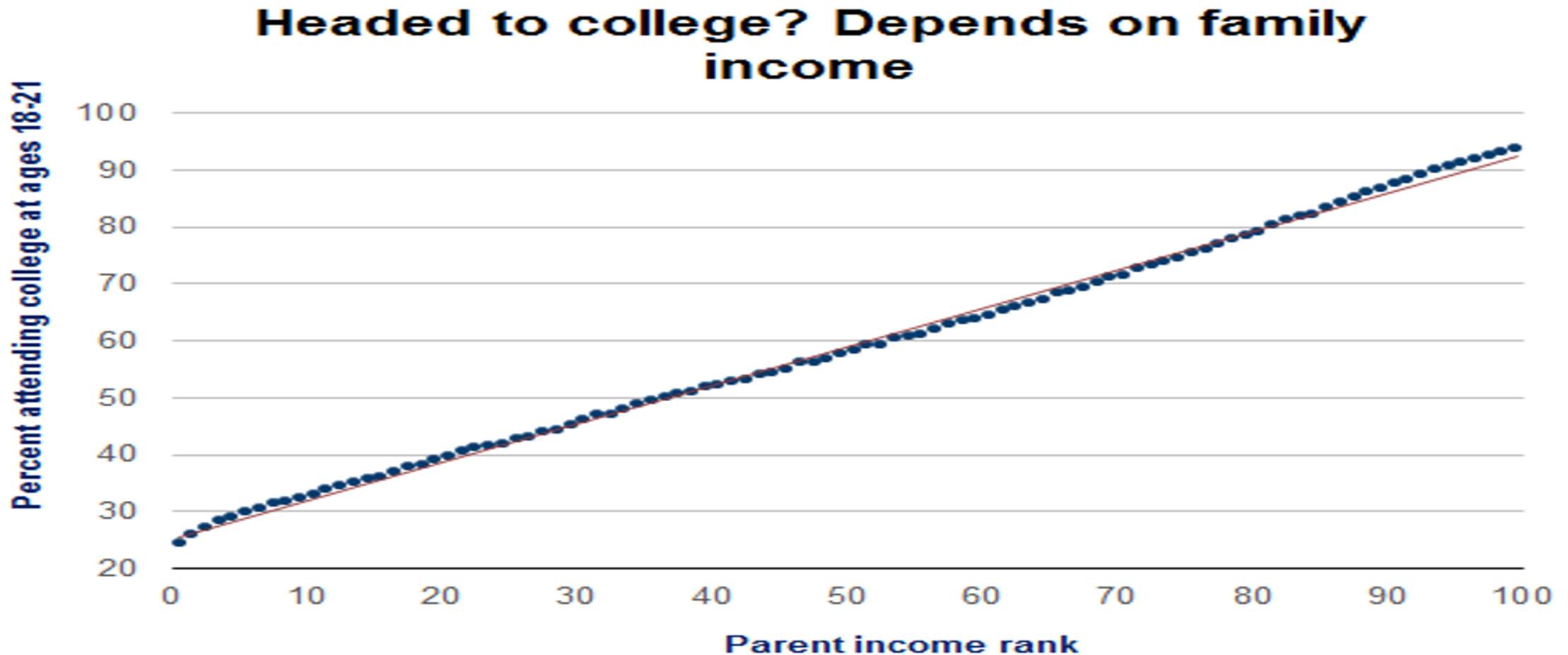
The income-productivity gap began over 40 years ago . . . . .

**The gap between productivity and a typical worker's compensation has increased dramatically since 1979**

Productivity growth and hourly compensation growth, 1948–2018

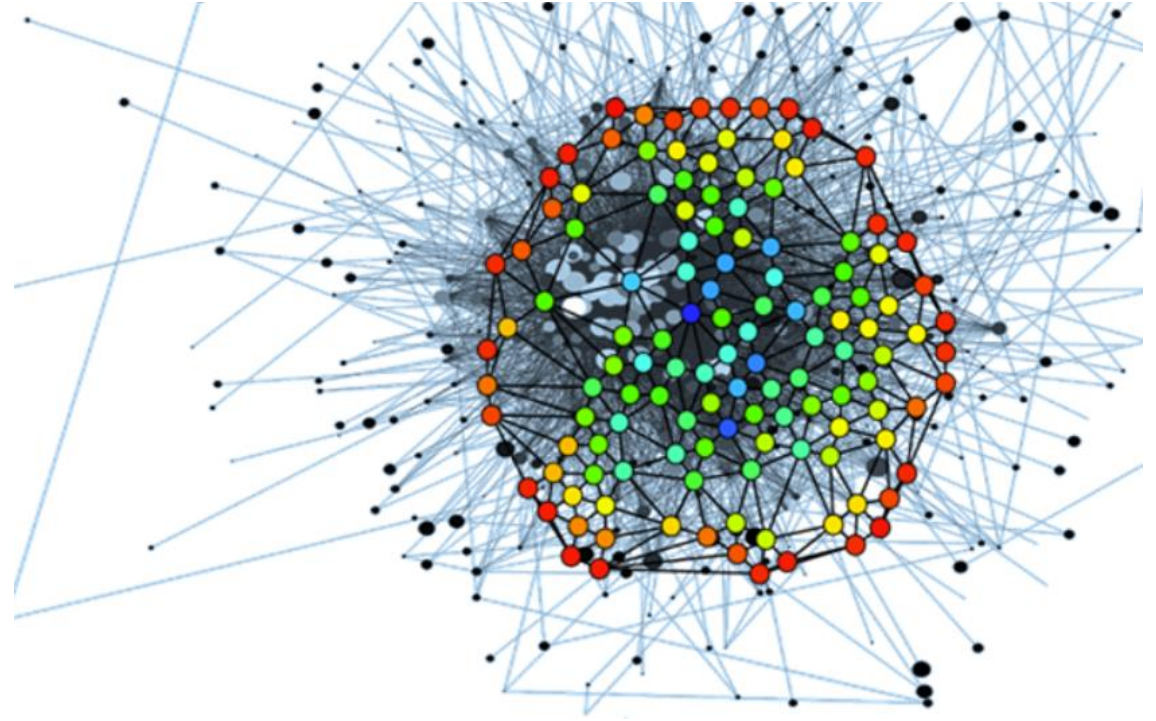


. . . . the income gap is likely to continue as college enrollment is highly correlated with family income . . . . .



# Future Influences on Metropolitan America

## 2. Machine learning and big data



Solving problems differently





# Future Influences on Metropolitan America

## 3. Autonomous vehicles



How is your food being delivered?



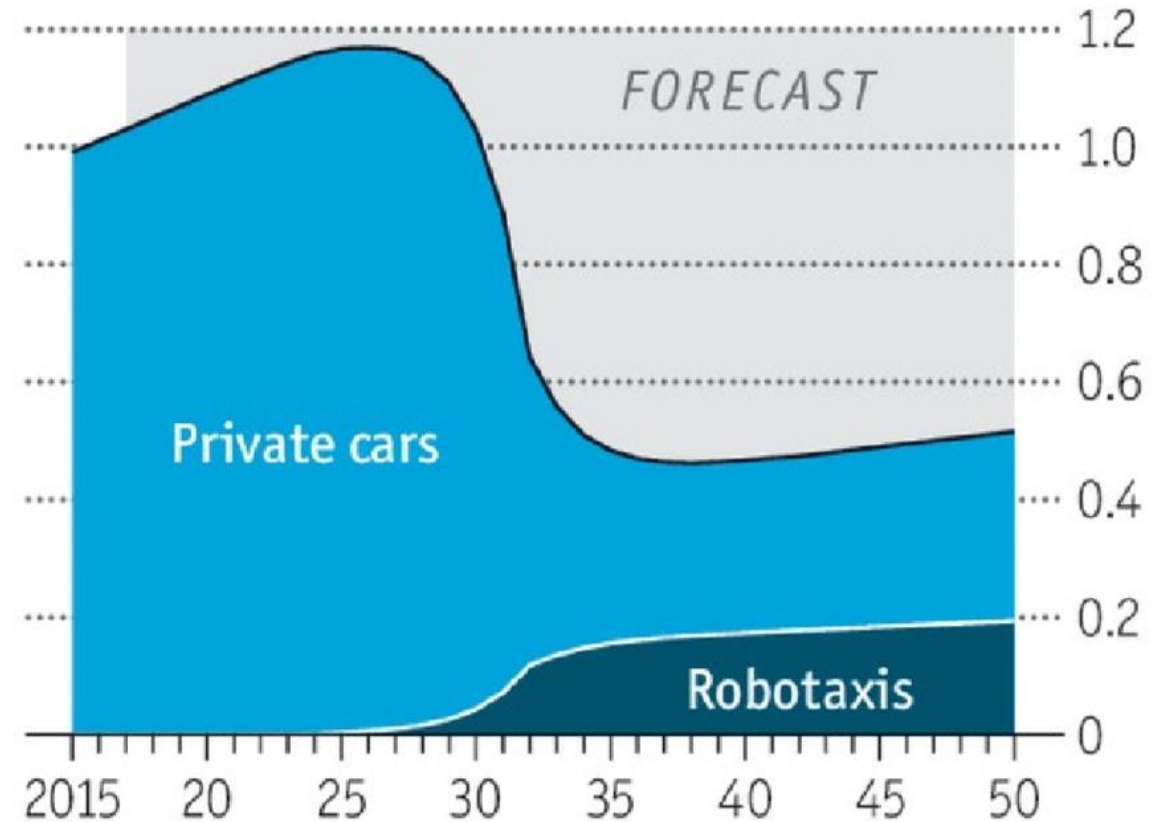
# Autonomous Vehicles

Private automobiles are used 5% of the time – huge cost per use.

1. Will congestion get better or worse, what about congestion pricing?
2. Uber distance or AV distance impact on the built environment?
3. What to do with old parking structures –3-D printing areas? . . . .

## Decongestion charge

Number of urban vehicles worldwide, bn



Source: UBS

Will your family vacation in 2028 look like this . . . .



Getty Images



. . . . or will your drive to work be without a steering wheel, GM's version of an autonomous vehicle



# Real Estate Returns

Property returns are more stable but underperform the S&P 500 in the short/medium term . . . .

### Market Index Comparisons (through 2020)

	1 Year	5 Year	10 Year	20 Year
National Property NCREIF Index, (no leverage)	1.6%	5.9%	9.0%	8.2%
S&P 500 Index	18.4%	15.2%	13.9%	7.5%
NAREIT (averages 35% leverage)	-5.1%	6.6%	9.2%	12.0%
CPI	1.4%	2.0%	1.7%	2.0%

. . . . 20-year Industrial returns outperform the NCREIF index by 1.7% annually, maintaining a 40% cumulative outperformance over the index . . . .

### National Property Index Returns By Property Type (through 2020Q4)

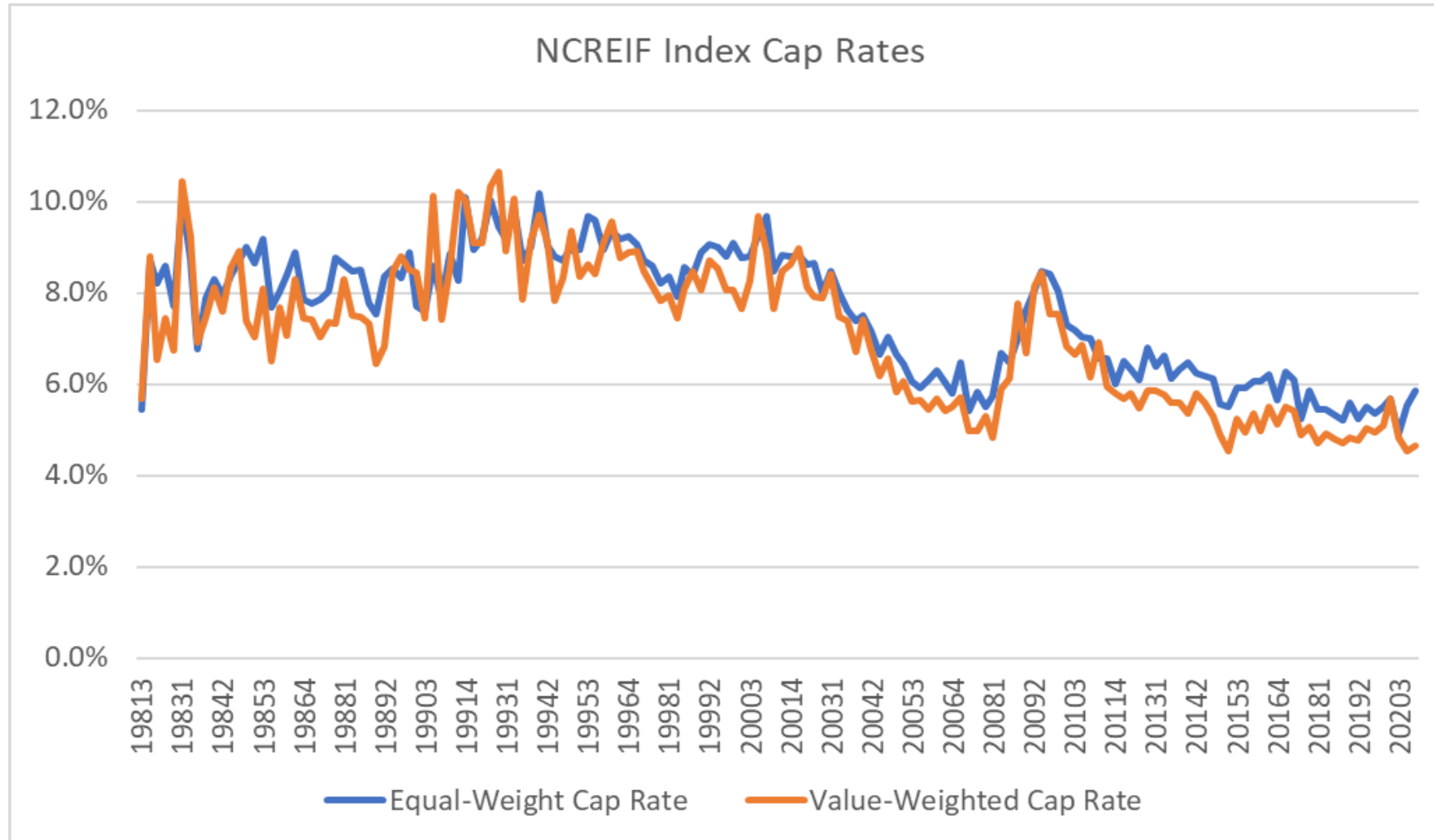
	1 Year	5 Year	10 Year	20 Year
National Property Index	1.6%	5.9%	9.0%	8.2%
Apartments	1.8%	5.4%	8.6%	8.0%
Industrial	<b>11.8%</b>	<b>13.0%</b>	<b>13.1%</b>	<b>9.9%</b>
Office	1.6%	5.4%	8.4%	7.4%
Retail	-7.5%	2.1%	6.5%	8.8%

. . . . 20-year Midwest region property returns are 1.6% less than the NCREIF index maintaining a 37% cumulative lower growth . . . .

### National Property Index Returns By Geographic Region (through 2020)

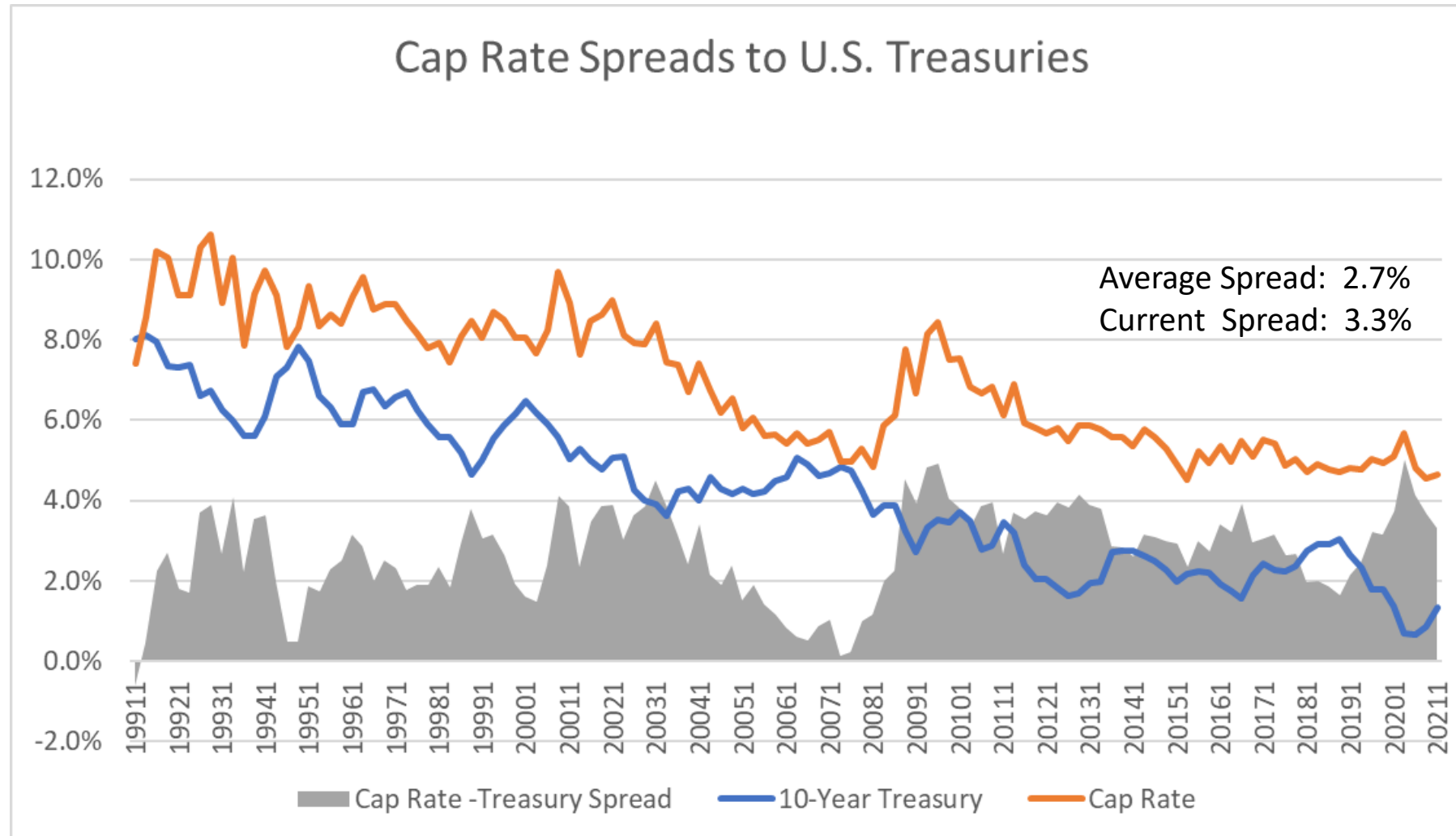
	1 Year	5 Year	10 Year	20 Year
National Property Index	1.6%	5.9%	9.0%	8.2%
East	1.4%	4.5%	7.5%	7.9%
<b>Midwest</b>	<b>-1.3%</b>	<b>3.7%</b>	<b>7.4%</b>	<b>6.6%</b>
South	1.3%	5.8%	9.2%	8.0%
West	2.5%	7.7%	10.6%	9.1%

. . . . cap rates have settled into a relatively narrow return band over the last 7-years . . . .





. . . . real estate maintains solid spreads over U.S. Treasuries (good relative pricing). . . .

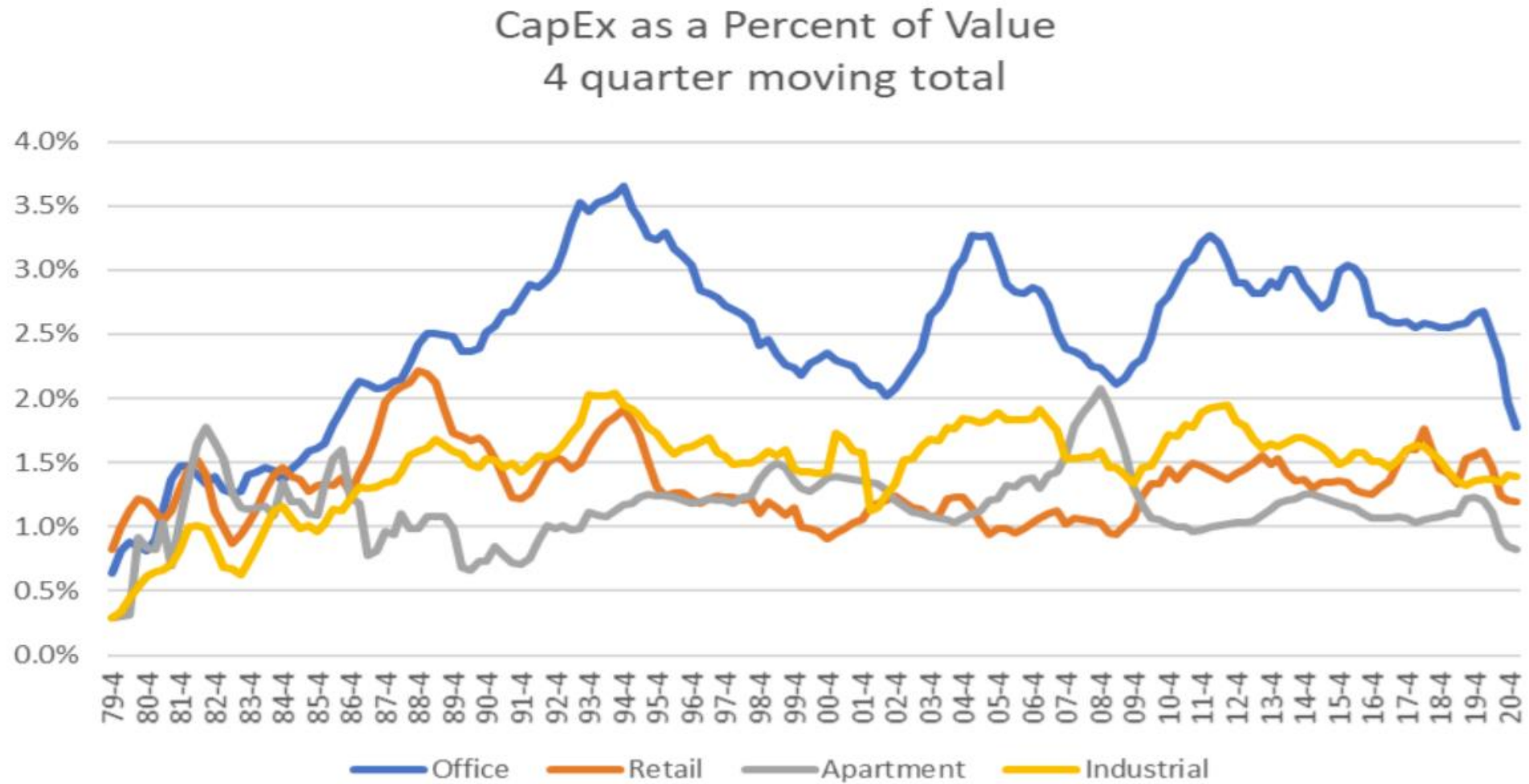


. . . . real estate maintains solid income returns, with more volatile appreciation rates. . . .

**National Property Index Returns for Office by Source of Return (2021Q1)**

	1 Year	5 Year	10 Year	20 Year
Total Return	2.6%	5.8%	8.8%	8.2%
Income Return	4.1%	4.5%	5.0%	5.9%
Appreciation Return	-1.5%	1.3%	3.7%	2.3%

. . . . capital expenditures significantly impact property returns . . . .

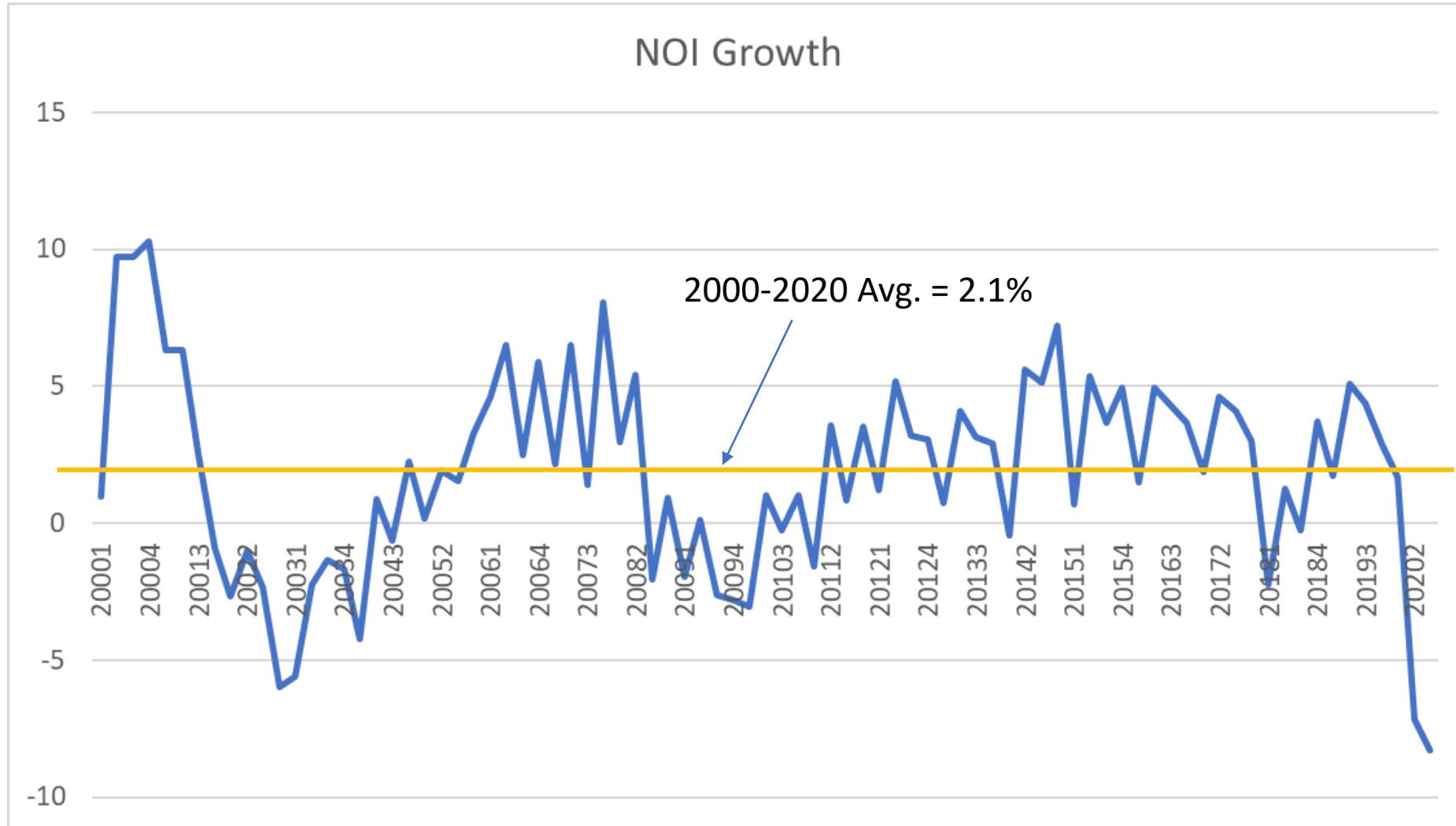


Over the past 20 years . . . .

. . . . 2.1% of the appreciation return came from cap rate compression.\*

\* Based on NCREIF transaction-based cap rates compressed from of 7.5% average in the 2000-2005 period to 5.0% in 2019Q4.

. . . . property NOI growth took a Covid hit . . . .



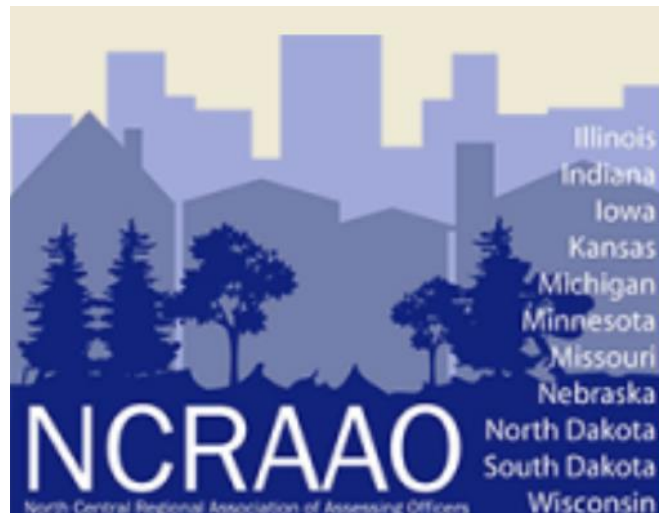
. . . . past (unlevered) real estate returns have exceeded expectations, will future returns exceed expectations too?

Commercial Real Estate Returns -- Past and Expected					
Past Returns 2000-2020	NCREIF	Apartments	Industrial	Office	Retail
Income	6.2%	5.4%	6.5%	6.1%	6.3%
Appreciation	4.4%	4.0%	5.6%	4.0%	3.7%
Less: Capital Expenditures	<u>2.0%</u>	<u>1.3%</u>	<u>2.1%</u>	<u>2.5%</u>	<u>1.5%</u>
Total Return	8.6%	8.1%	10.0%	7.5%	8.5%
Expected Property Returns (2021-2030)					
Income (Cap Rates 2019Q4)	5.0%	4.3%	4.9%	5.1%	5.4%
Appreciation <sup>*</sup>	2.4%	2.0%	3.6%	2.0%	<b>1.7%</b>
Less: Capital Expenditures	<u>2.0%</u>	<u>1.3%</u>	<u>2.1%</u>	<b><u>2.5%</u></b>	<b><u>1.5%</u></b>
Total Return	5.4%	5.0%	6.4%	4.6%	5.6%

\* 2.0% annually appreciation is attributable to cap rate compression. The 2000-2005 cap rates averaged 7.0% and the 2019Q4 cap rate was 5.0%, generating a 2.0% average annual appreciation increase to total returns 2000-2020.

# Key Take-Aways

1. Macroeconomic
  - A. Fiscal stimulus will support solid consumption and business investment growth
  - B. Monetary stimulus will keep rates low, for now, but rates will increase
  - C. Consumer and business confidence will keep the economy strong for much of the 2020s
2. Real Estate Capital and Property Markets
  - A. Low interest rates will keep cap rates low, for the coming years, thereafter . . .
  - B. Solid property market fundamentals for industrial and multifamily will support values
  - C. Retail values are mixed and office properties have significant capital and space market constraints
  - D. Do not write-off large metropolitan areas
3. The Built Environment and Real Estate Returns over the Next Decade
  - A. Government spending, income disparities, and autonomous vehicles will change how we live
  - B. Real estate returns are expected to be modest over the coming year (presuming modest inflation)



## 2021 Macroeconomic and Real Estate Update and Forecast

*Presented to:*

For the North Central Regional Association of Assessing Officers (NCRAAO)

*Presented by:*

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