



The Post-Covid Economy

Refocusing on the long run...

April 2021

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4 Big Themes



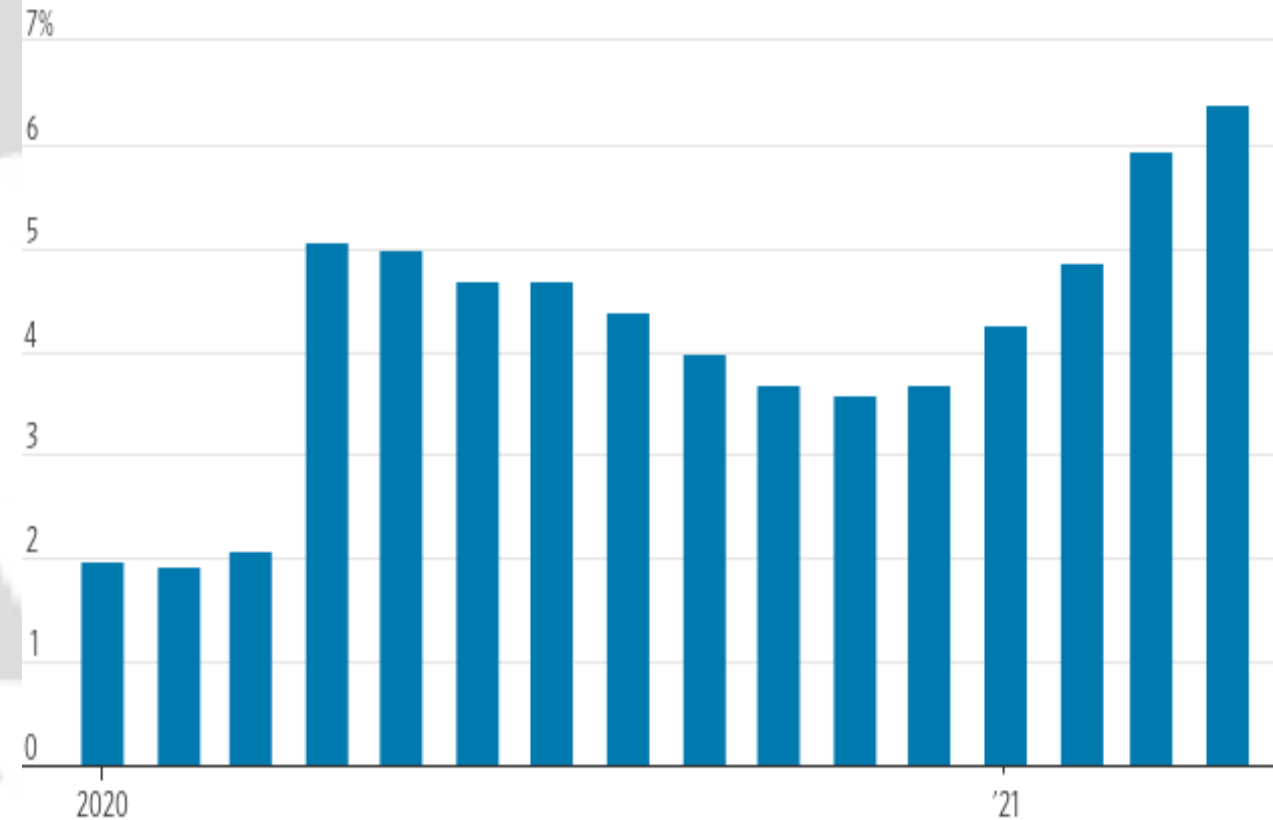
1. The Covid pandemic has been a tragic natural disaster. Yet history suggests such natural disasters have modest long-run economic impacts. A quicker-than-normal recovery was almost certain.
2. The fiscal and monetary policy reactions to the crisis have been overwhelming. As a result, the US economy is in remarkably good shape despite a years of closings and is on a path to an even *more* rapid recovery.
3. It will also introduce dangerous instabilities into the next expansion. Issues include over-heated financial markets, driving up interest rates, and potentially inflation. It is also leaving a massive expansion of the public debt.
4. The pandemic will not create an economic 'new-normal', but it will accelerate trends that were already in place. This will favor urban office and industrial, while having a negative impact on retail and suburban office.

1. Miserabilism and the Pandemic



- Covid-19: A global natural disaster
 - Approaching 120 million cases and 2.5 million deaths, ~20% here in the US
 - Vaccine roll outs in progress
- The Economic Debate
 - The macro debate, “U”, “V”, or whatever... most called “U”—slow recovery
 - Our outlook “V”—This is not the great recession situation
- The Pandemic Business Cycle
 - The recession ended in April
 - 70% recovery in economic activity since trough even with last surge
 - Plenty of dry powder for post-Covid economic surge even without stimulus plans 2 & 3

2021 GDP growth (fourth-quarter, year-over-year), by month of forecast



Source: Wall Street Journal Economic Forecasting Survey

The Great Recession vs Today



Then

Now

The Pre-Recession Economy

Over-heated by sub-prime lending bubble

Slow steady growth due to labor shortages / trade disruptions

Consumer Finances

Record high debt / income, record low savings

Record low FOR, 30 year high in savings rates

Housing

Record high share housing for sale / rent, massive HPI growth

Record low share housing for sale / rent, slowing HPI growth

Recession Driver

Demand shock caused by collapse in wealth, flow-stock issues

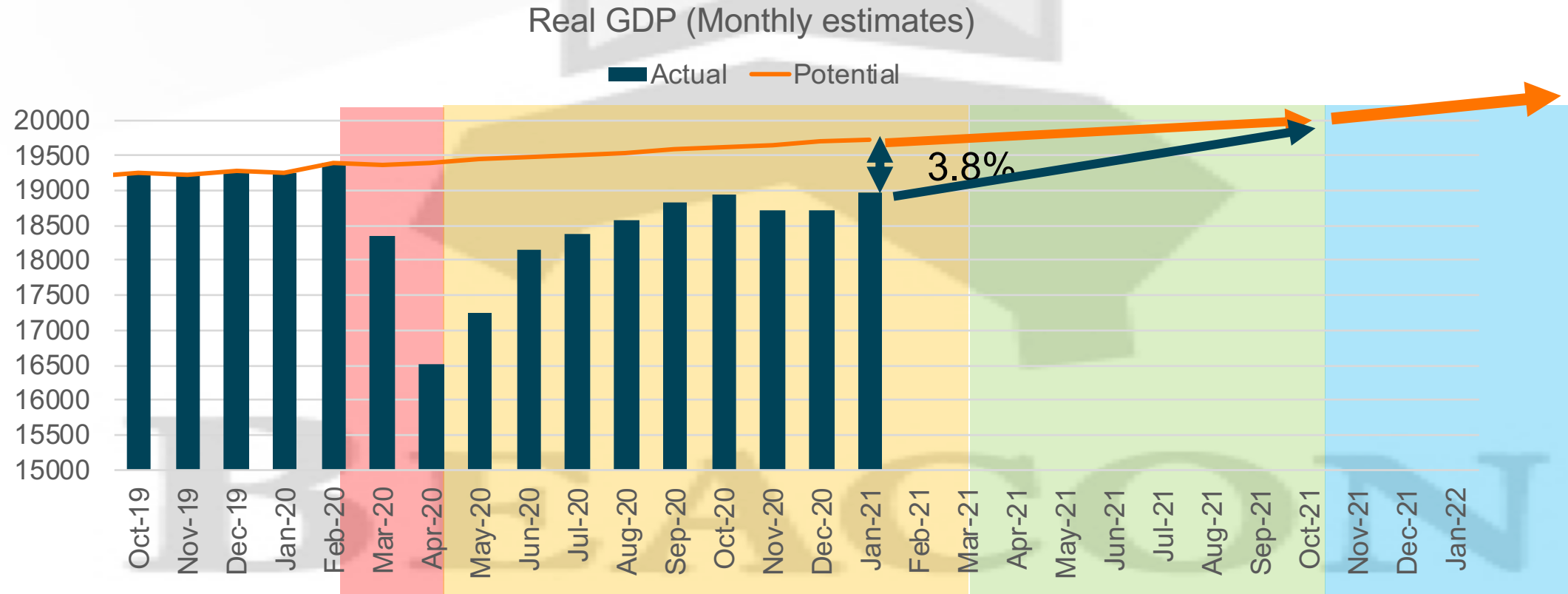
Supply shock driven by fear and health mandates

Government Stimulus

Too little, too late

Too much, too soon

Stages of the Pandemic Business Cycle



1. Recession
Fear of the Unknown

2. Recovery Part 1
Mitigation

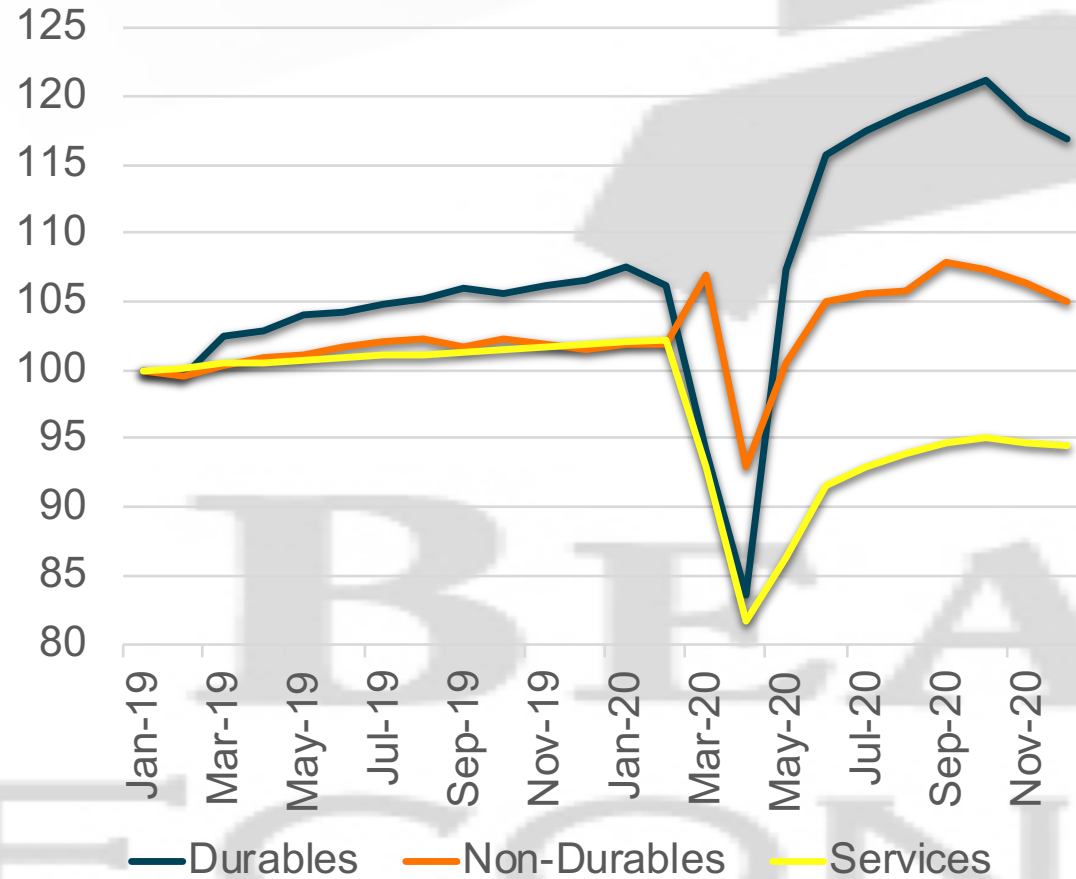
3. Recovery Part 2
Post-COVID

4. Expansion
A New Normal?

A Winner / Loser Recovery



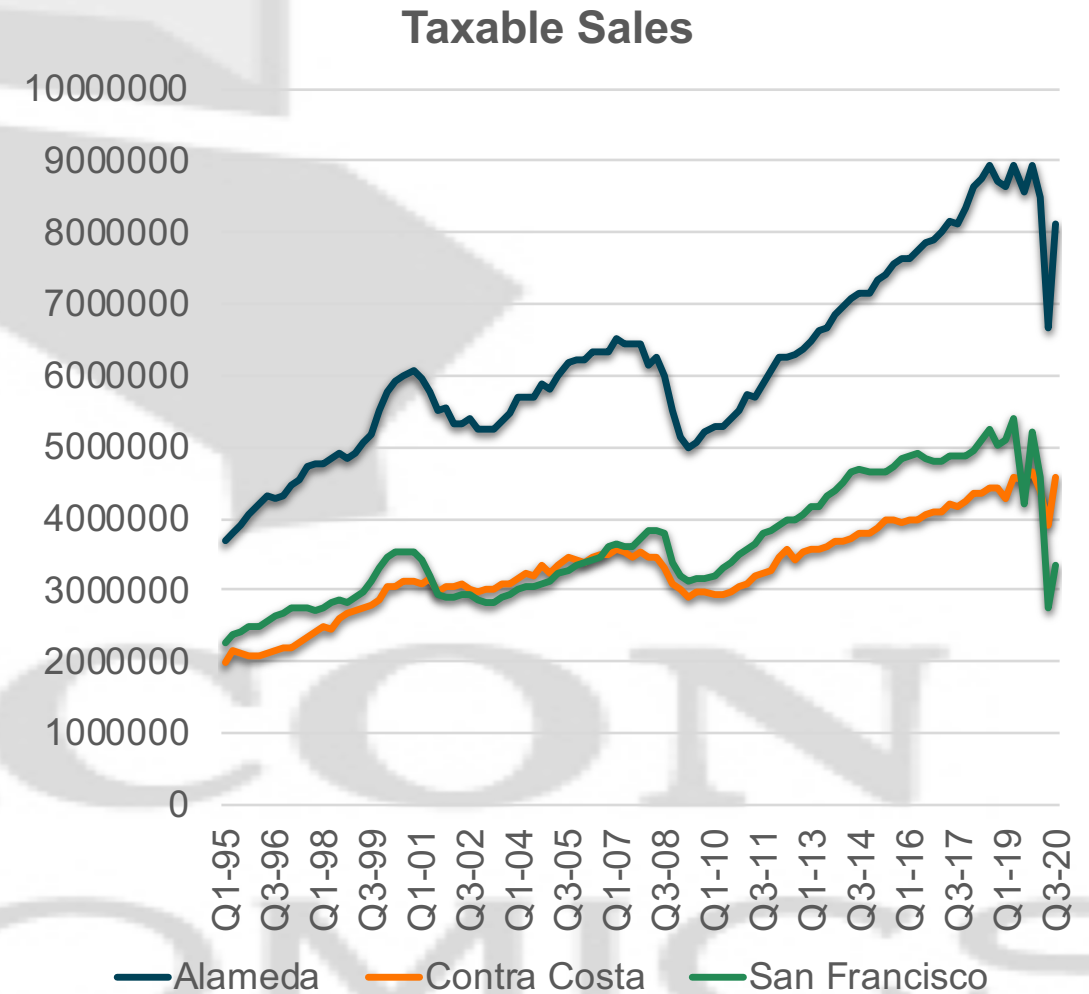
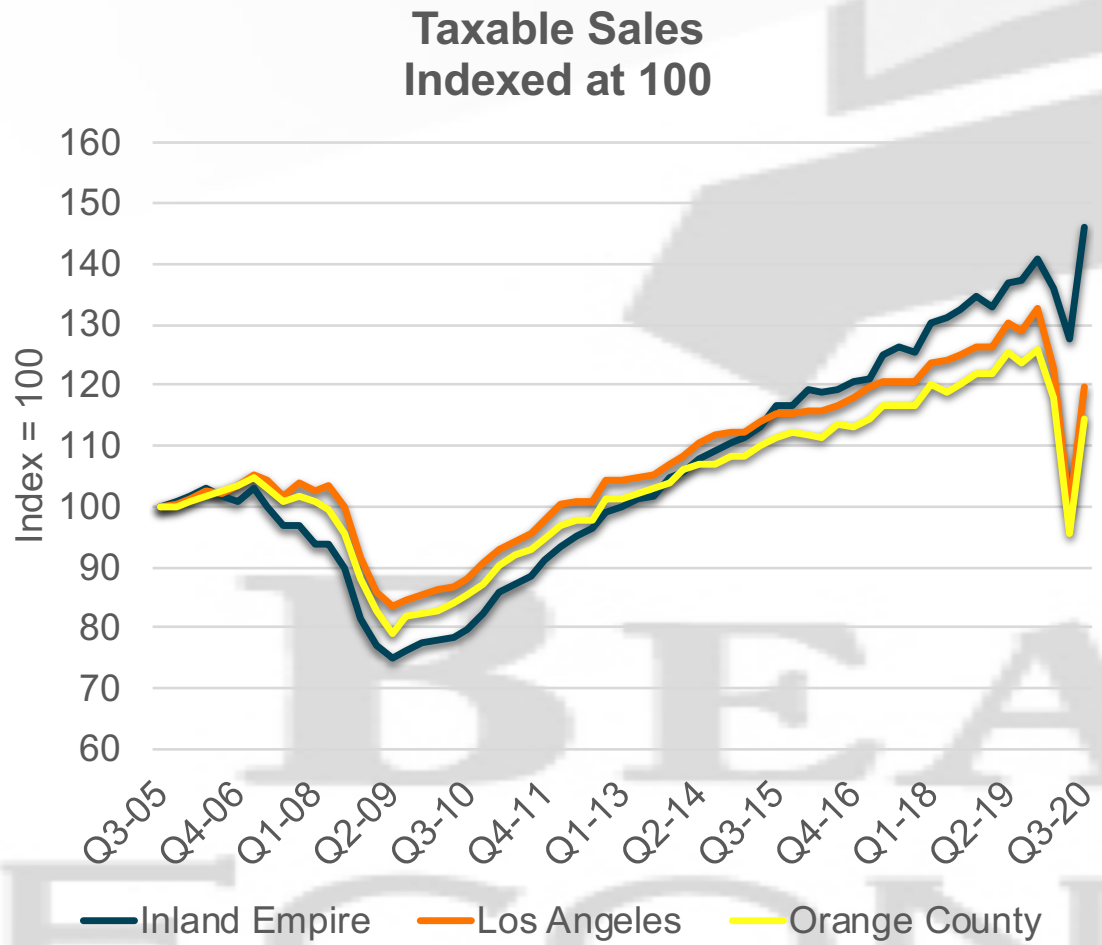
Real Consumer Spending (Indexed)



Retail Sales Numbers

	Jan-21	YoY
Non-store retailers	87897	28.7%
Sporting / Hobby	8165	22.5%
Hardware	40055	19.0%
Motor vehicle & parts dealers	118836	13.0%
Food & beverage stores	72020	11.8%
Furniture & home furn. stores	11348	11.7%
Miscellaneous store retailers	12809	7.3%
Health & personal care stores	31886	6.2%
General merchandise stores	63518	5.9%
Electronics & appliance stores	7801	-3.5%
Gasoline stations	39232	-7.8%
Clothing Stores	20014	-11.1%
Food services & drinking places	54634	-16.6%

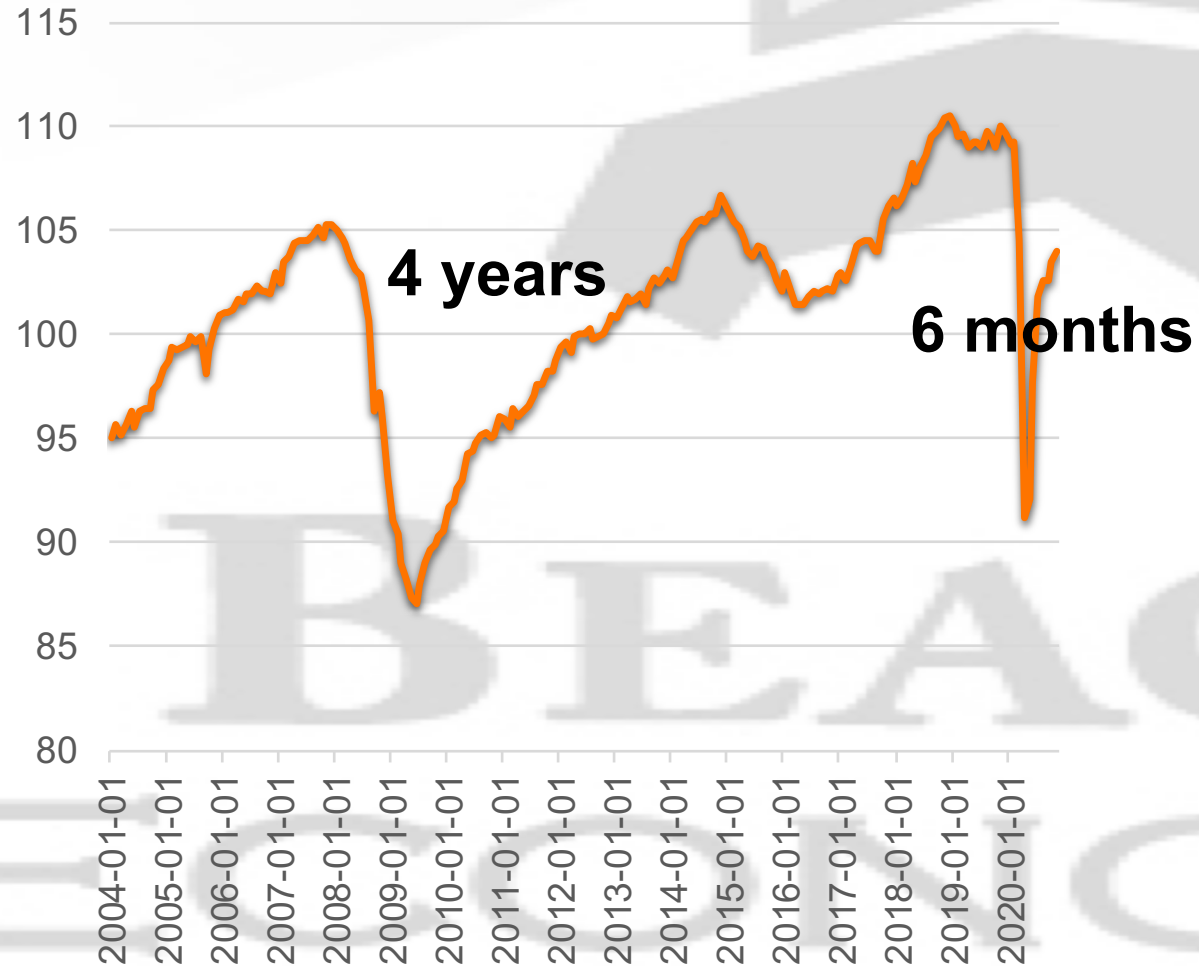
Regional Differences



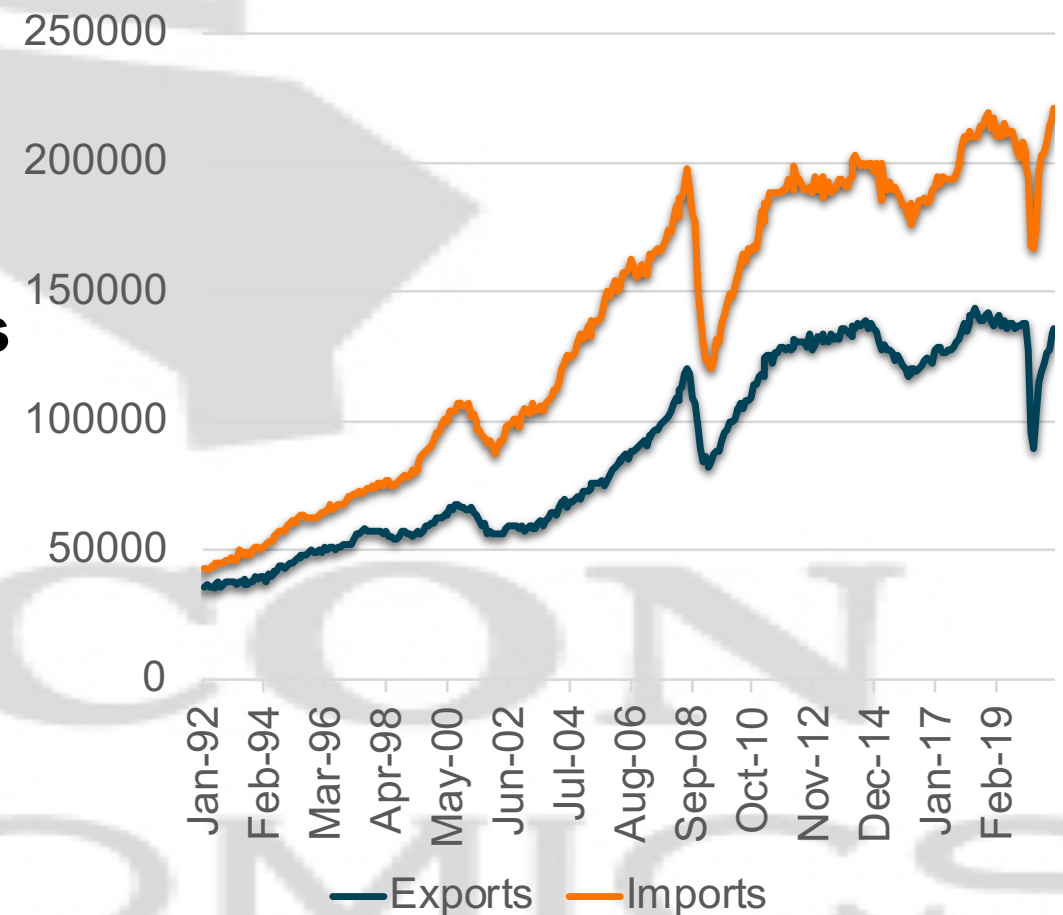
Production Trends



Industrial Production Indexes



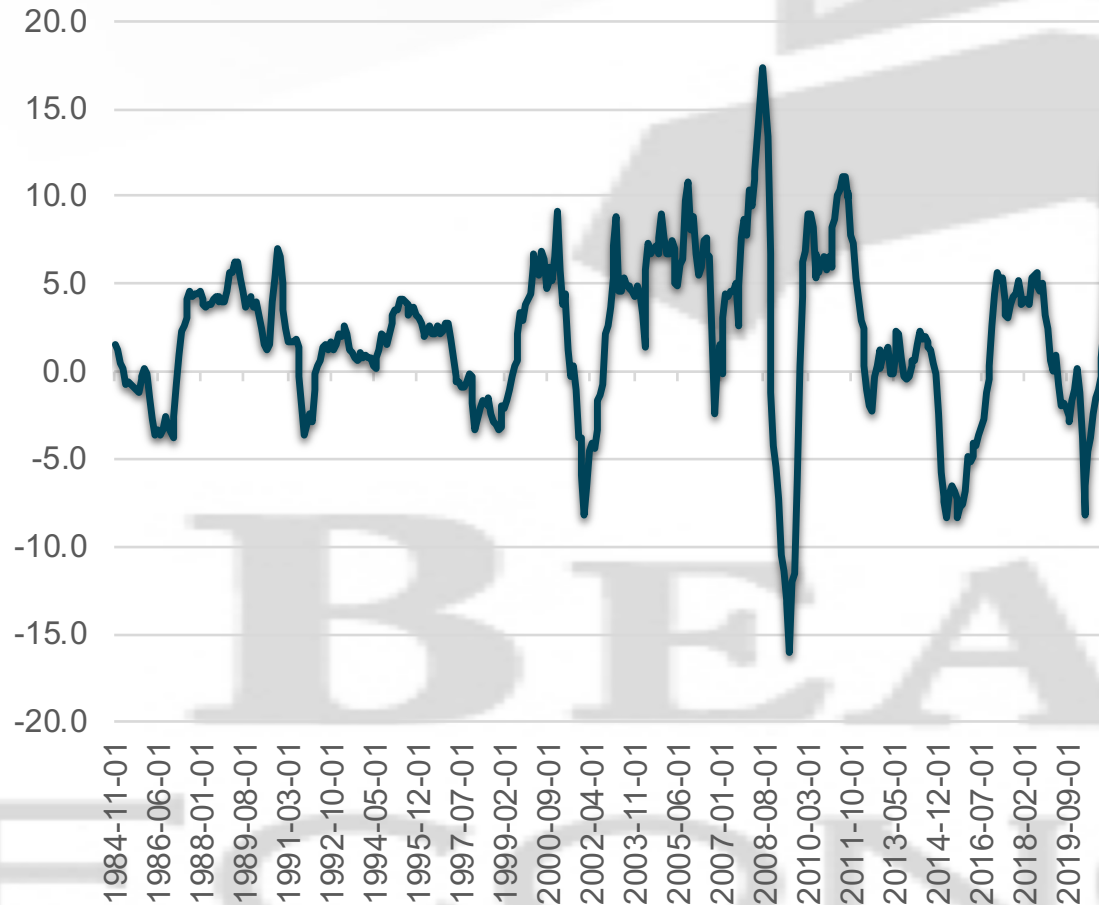
US Goods Trade



Input Prices: Up Up Up...



PPI: Commodities



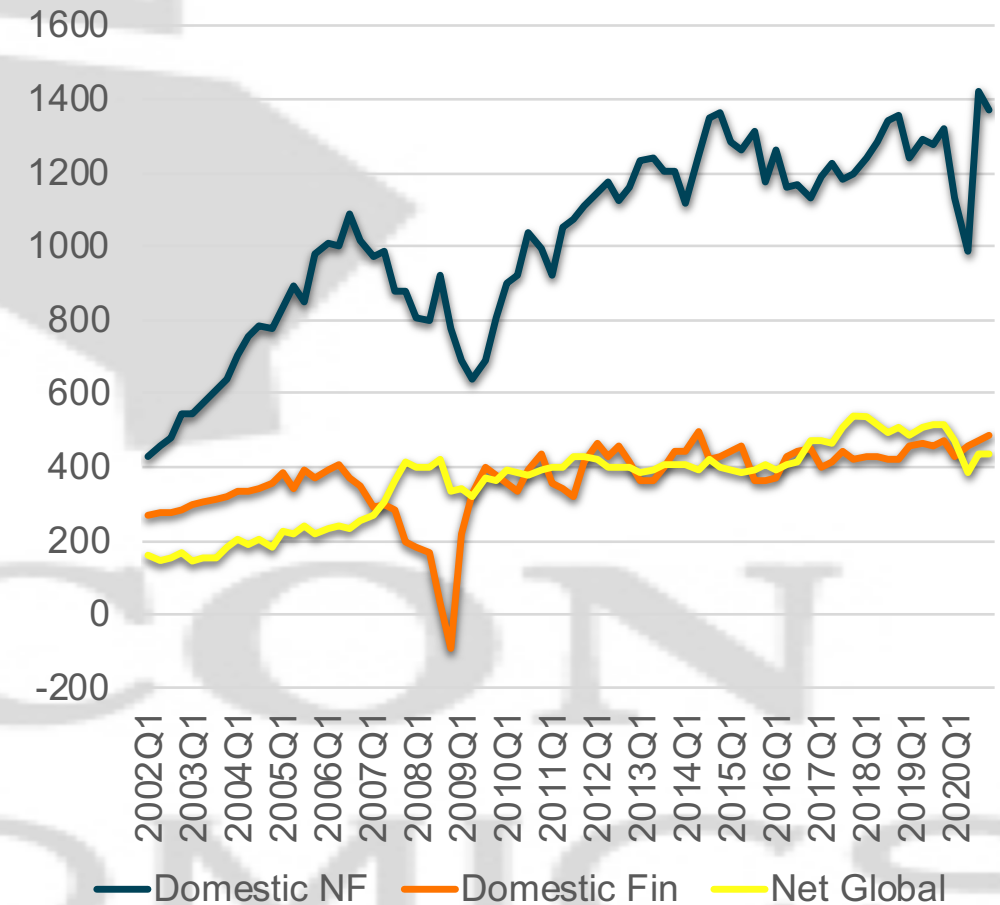
	YoY Change
All commodities	12.0
Lumber	65.3
Petroleum products, refined	53.0
Iron and steel	37.5
Fuels and related products and power	36.2
Lumber and wood products	28.8
Industrial chemicals	20.6
Nonferrous metals	19.4
Metals and metal products	18.6
Farm products	15.6
Industrial commodities	12.9
Hides, skins, leather, and related products	11.1
Investment services	11.1
Chemicals and allied products	11.0
Farm products, processed foods and feeds	8.0
Industrial commodities less fuels	7.0
Wholesale trade services	6.2
Pulp, paper, and allied products	6.0
Processed foods and feeds	5.2

Profits and Investments

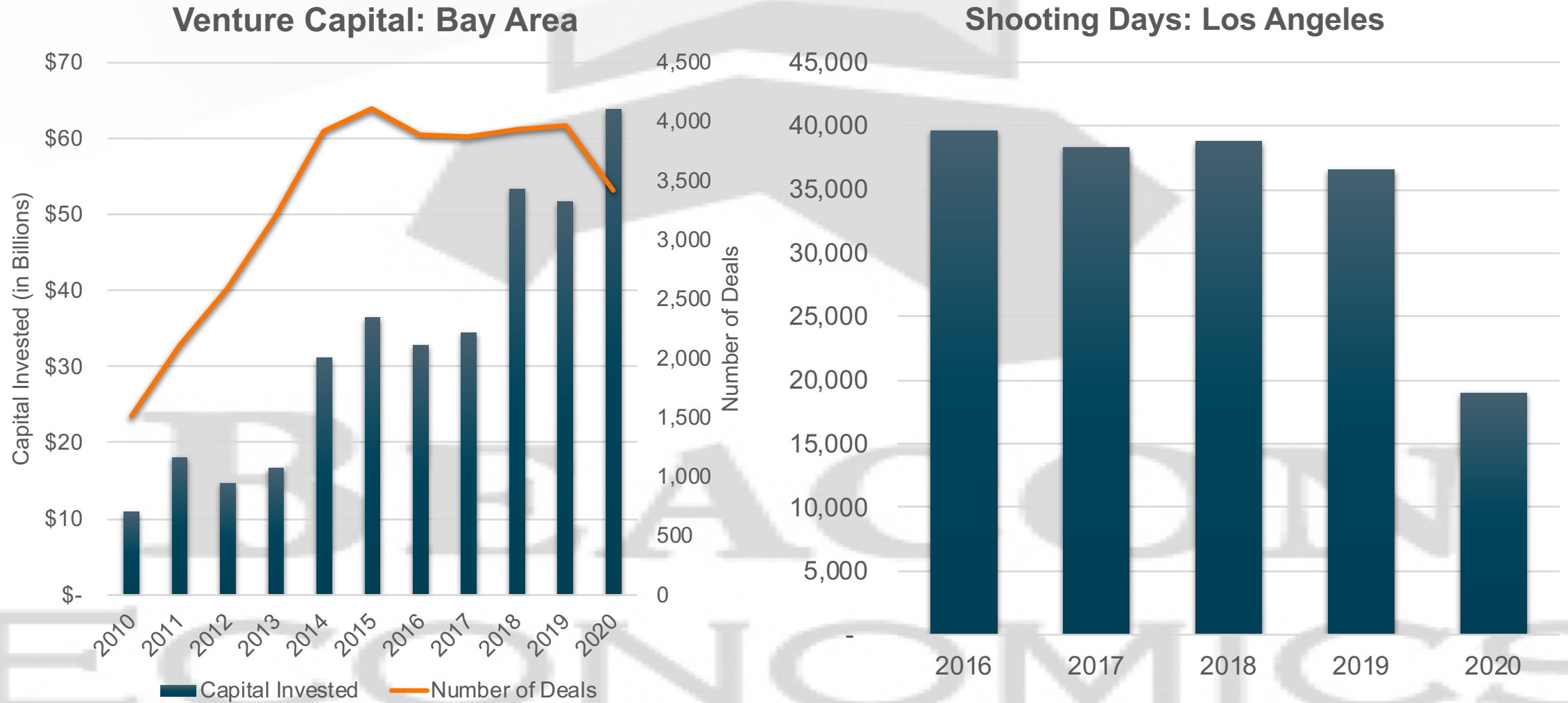


	Q4	Q4 to Q4 Gr
Private fixed investment	3457.8	2.1%
Information equipment	581.9	18.1%
Residential	693.9	13.7%
Software	485.9	5.2%
Industrial equipment	249.5	1.7%
Other equipment	252.2	1.5%
Research and development	448.2	0.7%
Commercial health structures	156.1	-4.5%
Power communication structures	108.8	-9.4%
Entertainment, literary, artistic	74.4	-11.7%
Transportation equipment	249.2	-11.9%
Manufacturing structures	51.6	-15.8%
Other structures	78.1	-19.0%
Mining exploration, shafts, wells	74	-31.4%

Gross Corporate Profits



California Investments



Lagging Sectors

Opportunity Insights Data

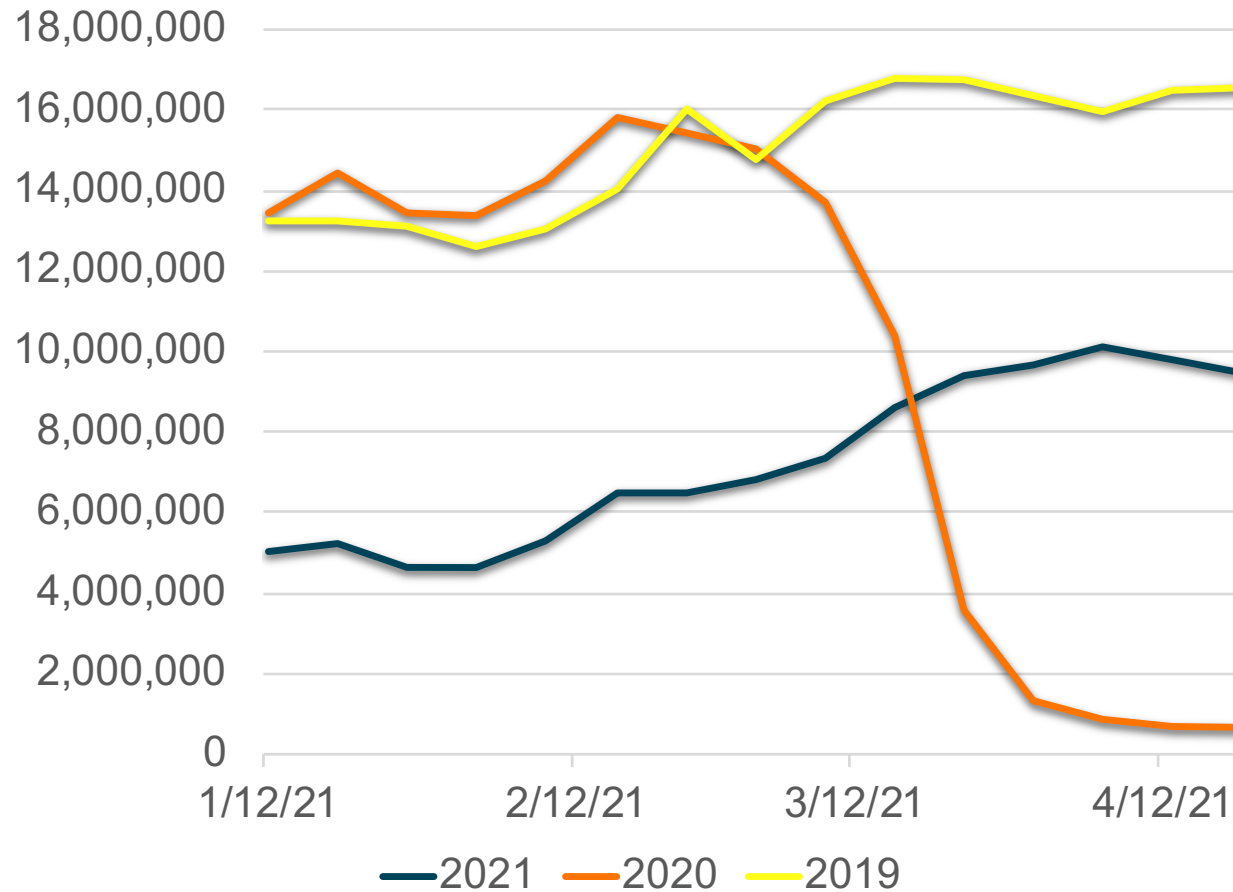


data source: **Affinity**

Hotels and Airports



National TSA Pass-Throughs



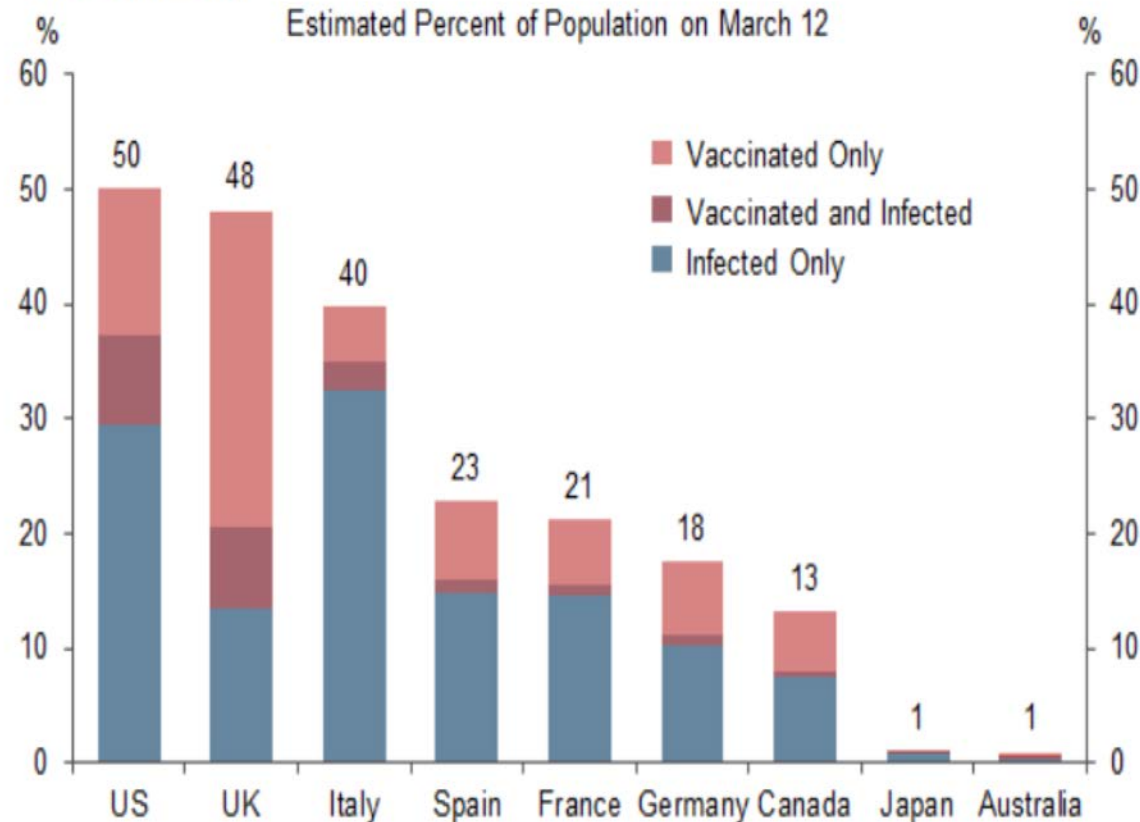
	Current Month - February 2021 vs February 2020			
	Occ %	ADR		
	2021	2020	2021	2020
United States	45.3	61.8	98.3	130.7
California	48.3	72.7	114.2	166.3
Shasta Cascade	52.6	54.9	92.8	94.2
High Sierra	54.2	56.8	183.3	180.3
Inland Empire	68.4	71.6	98.4	107.6
North Coast	53.8	59.8	99.6	95.3
Central Valley	59.1	66.6	88.4	99.6
Gold Country	56.7	70.4	98.6	124
Central Coast	49.4	64.2	151.4	169.7
Deserts	51.4	71.6	119.8	159.7
Los Angeles County	50.1	78.7	118	177.1
San Francisco Bay Area	40.6	72	112.8	207
San Diego County	43.3	77.4	109.3	160.4
Orange County	38.4	78.8	107.5	163.1

Moving Towards Control



Chart of the Day

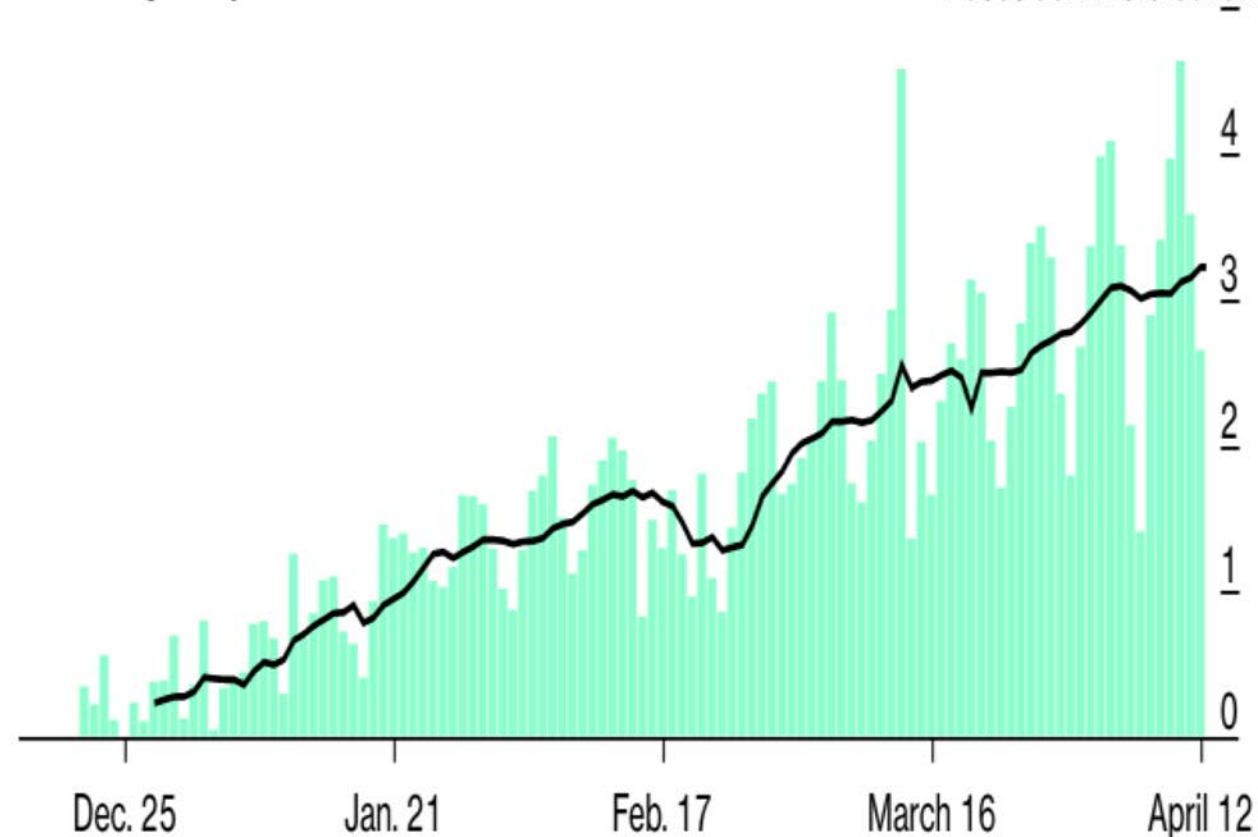
Estimated Percent of Population on March 12



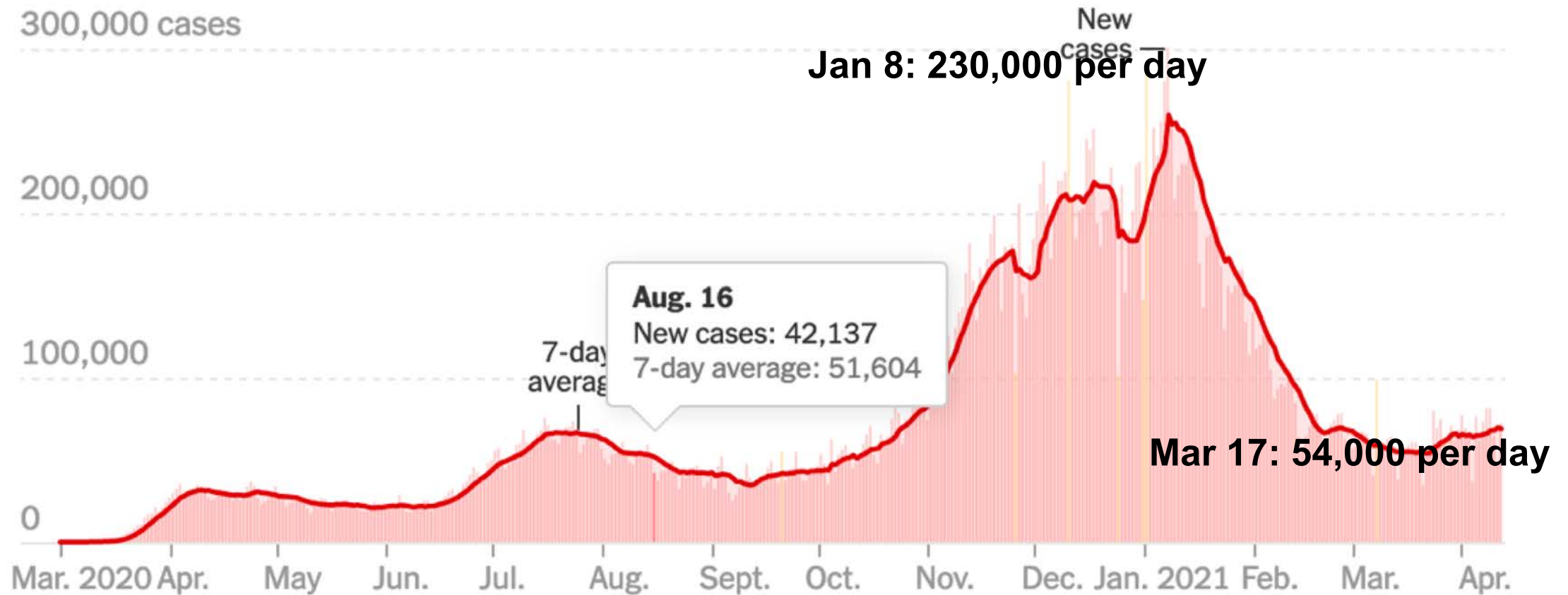
Source: Our World in Data, JHU CSSE, The Economist, Goldman Sachs Global Investment Research

/ Average daily rate estimate

Doses administered: 5M



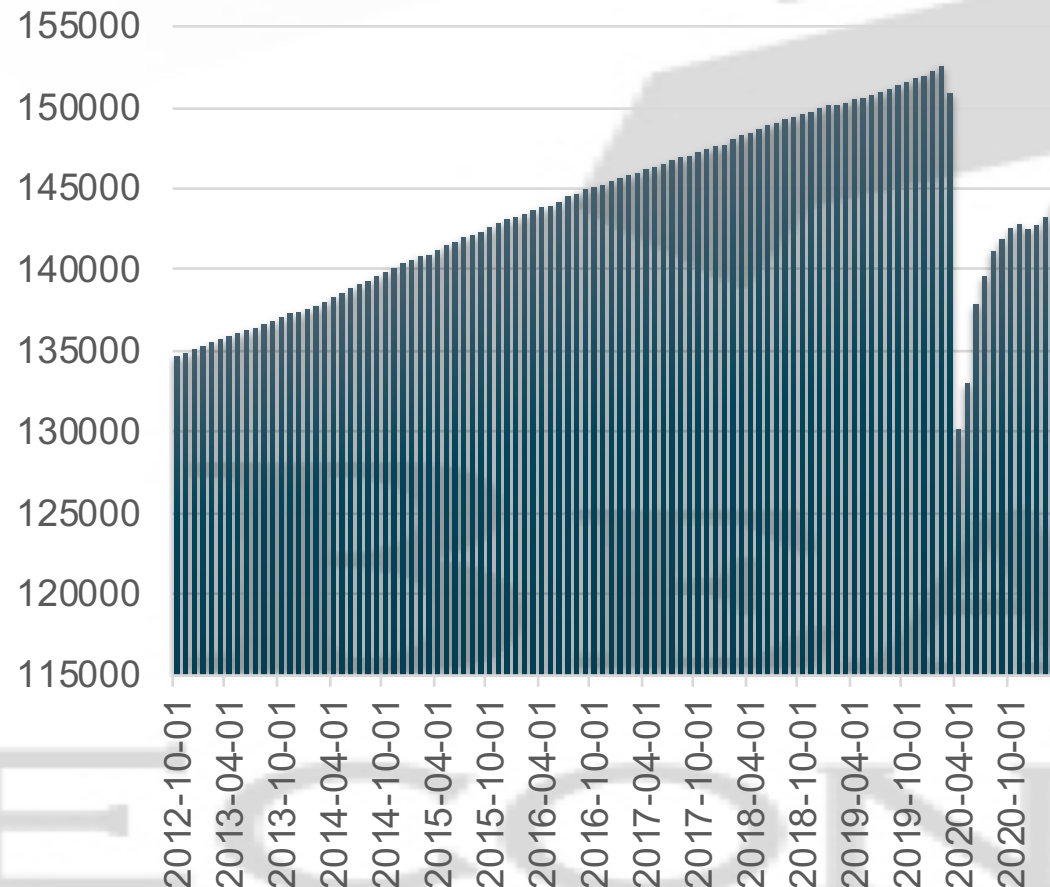
New Cases Dropping Rapidly



Labor Market Blues



US Non-Farm Payrolls

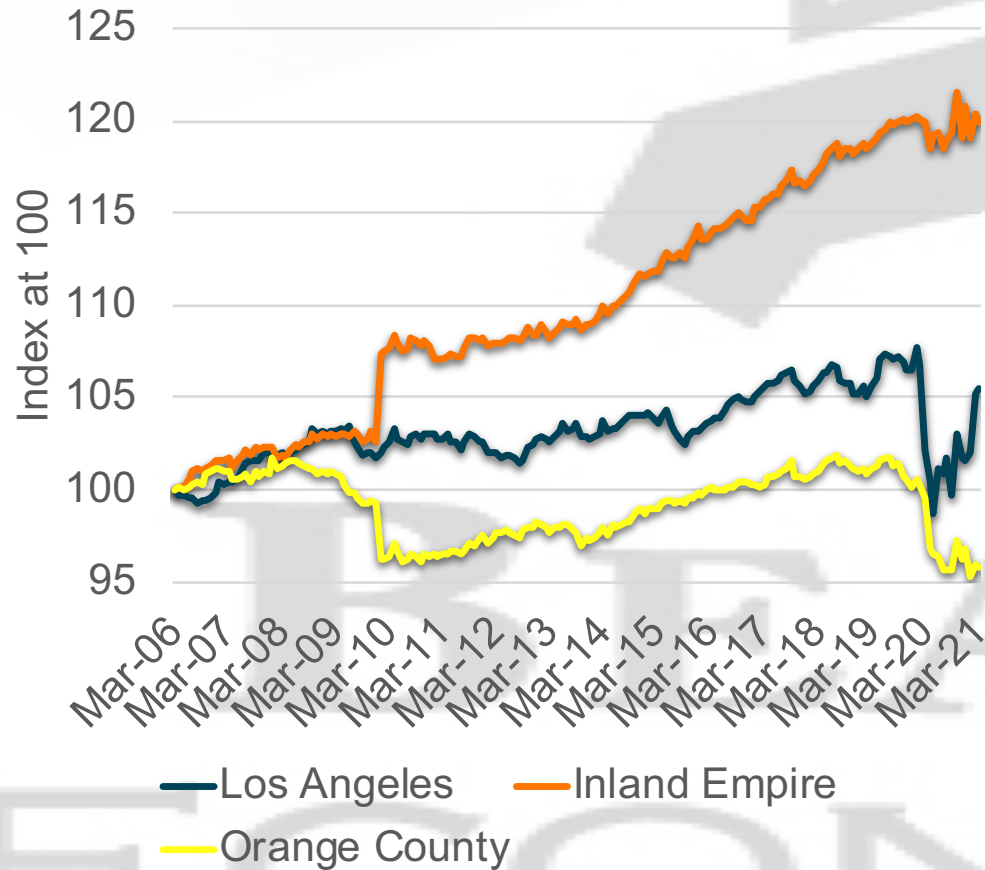


California Payrolls		Feb-21	
Civilian Labor Force		18,944,500	-488,500
Civilian Employment		17,334,300	-1,253,500
Total Nonfarm		15,998,900	-1,662,000
Accommodation & Food Services		1,181,200	-537,800
Local Government		1,640,900	-183,600
Arts, Entertainment & Recreation		178,700	-160,500
Other Services		452,400	-140,900
Administrative & Support		1,066,700	-92,100
Retail Trade		1,566,900	-81,600
Manufacturing		1,251,000	-76,800
Health Care & Social Assistance		2,411,900	-62,600
Educational Services		325,600	-62,400
Information		519,400	-61,700
Professional, Scientific & Technical		1,307,700	-50,400
Wholesale Trade		638,800	-47,500
State Government		503,300	-35,200
Construction		878,300	-35,000
Real Estate & Rental & Leasing		273,500	-32,500
Management of Companies		240,700	-13,700
Finance & Insurance		533,600	-9,200
Mining and Logging		18,300	-4,000
Total Farm		423,100	2,300
Federal Government		254,800	2,500
Transportation, Warehousing		755,200	23,000

Regional Differences

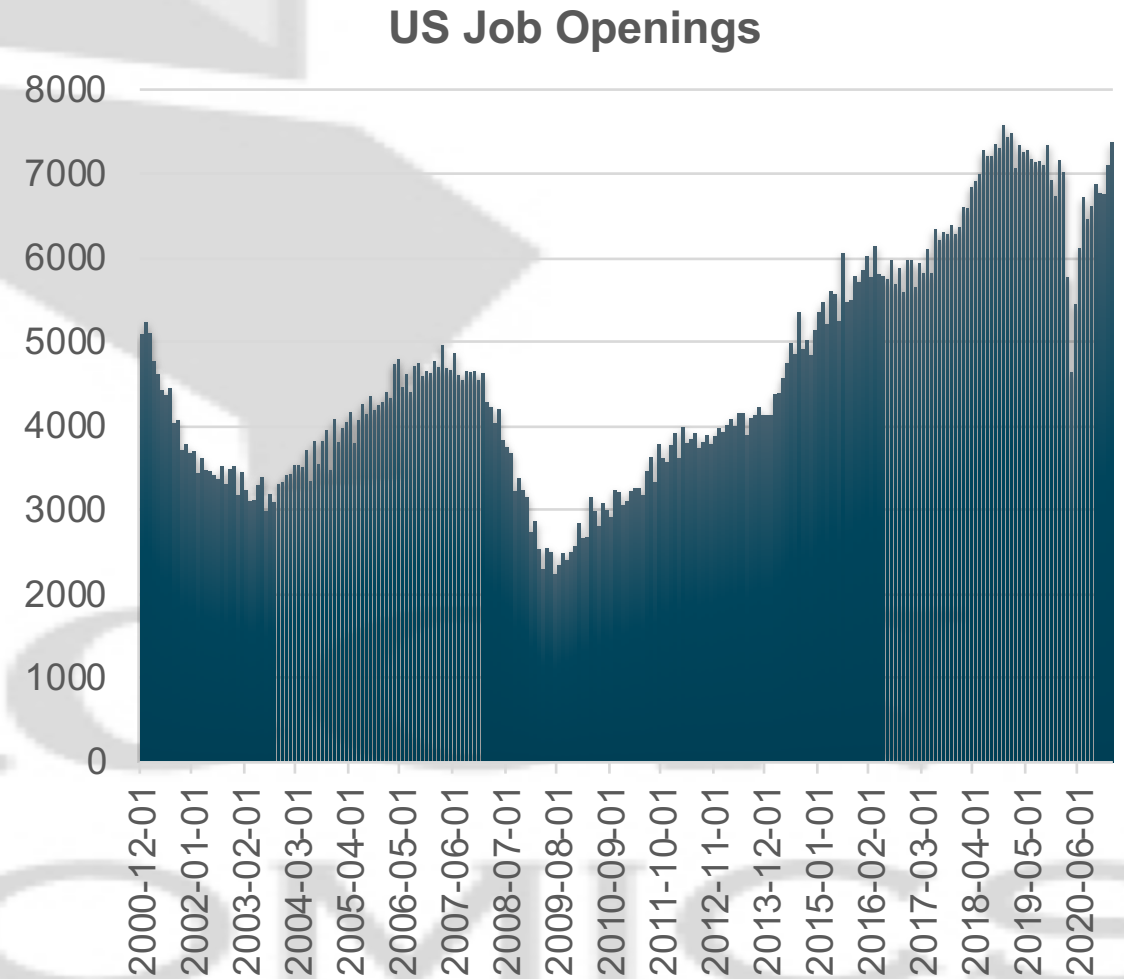
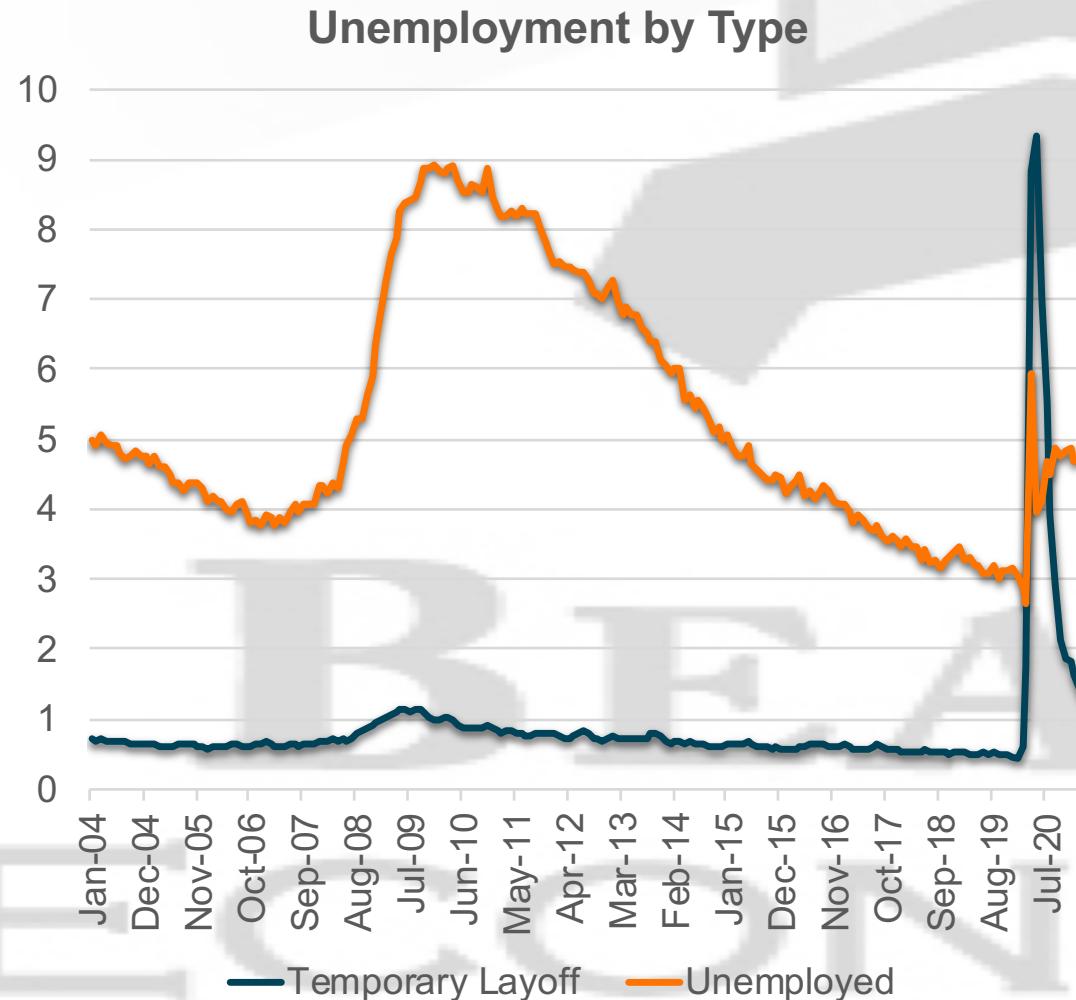


Labor Force Growth



	Payrolls		Unemployment	
	Jan-21	YoY	Jan-21	YoY
Stockton	244.6	-2.9%	9.7	3.2
Fresno	350.1	-5.2%	9.3	1.6
Sacramento	971.7	-6.0%	7.7	3.7
Inland Empire	1483.3	-6.3%	9.1	4.8
Bakersfield	256	-8.0%	10.5	2.0
San Jose	1060.3	-8.9%	6.1	3.2
Ventura	286	-9.6%	7.4	3.5
Oakland	1082.8	-9.7%	7.8	4.5
California	15868	-9.9%	9.0	4.8
San Diego	1363.9	-10.2%	8.4	4.8
Orange County	1487.8	-11.7%	7.9	4.8
Los Angeles	4050	-12.1%	12.6	8.3
San Francisco	1035.7	-13.4%	6.4	4.0

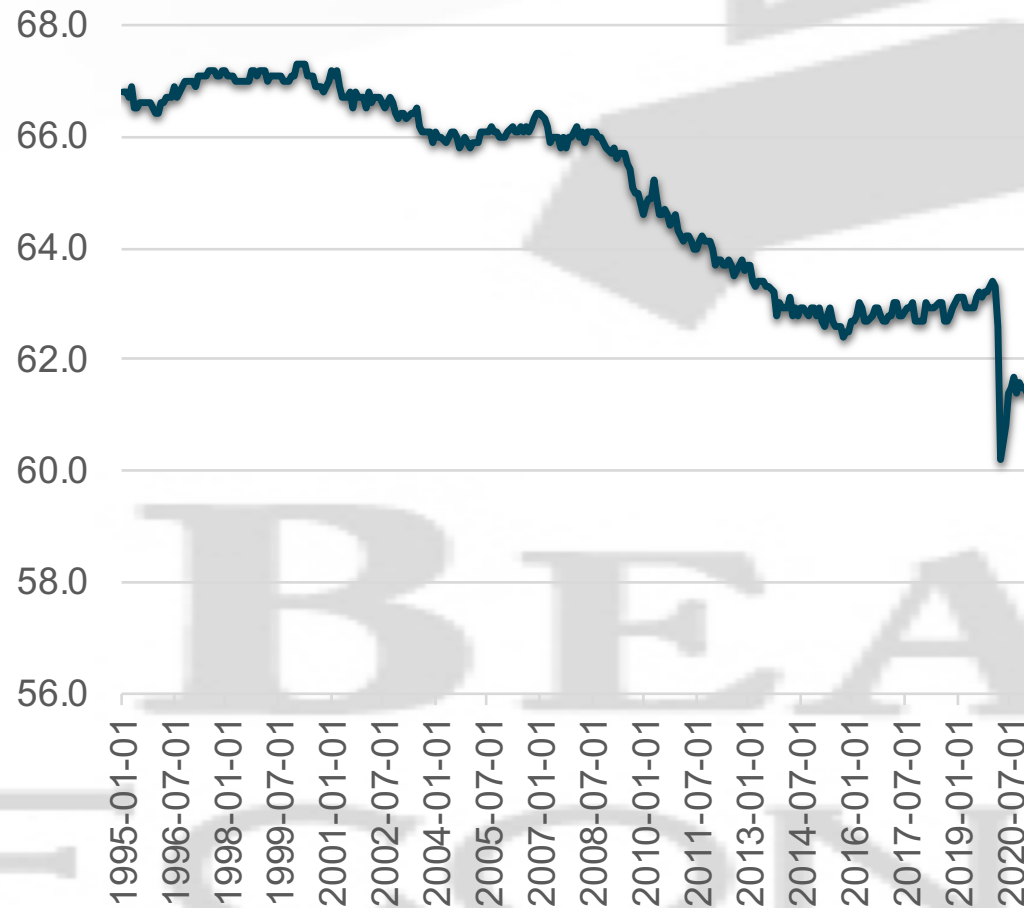
Misreading Unemployment



The Labor Force Issue



Participation Rate



Men, 16 years and over

Mar-20

Mar-21

-1.2

16 to 19 years

35.1

35.3

0.2

20 to 24 years

71.5

72.4

0.9

25 to 34 years

88.7

87.3

-1.4

35 to 44 years

90.7

89.6

-1.1

45 to 54 years

87.4

85.7

-1.7

55 years and over

45.6

43.9

-1.7

Women, 16 years and over

57.1

56.1

-1.0

16 to 19 years

36.0

36.5

0.5

20 to 24 years

68.5

68.2

-0.3

25 to 34 years

76.3

76.0

-0.3

35 to 44 years

76.2

74.5

-1.7

45 to 54 years

76.0

75.1

-0.9

55 years and over

34.5

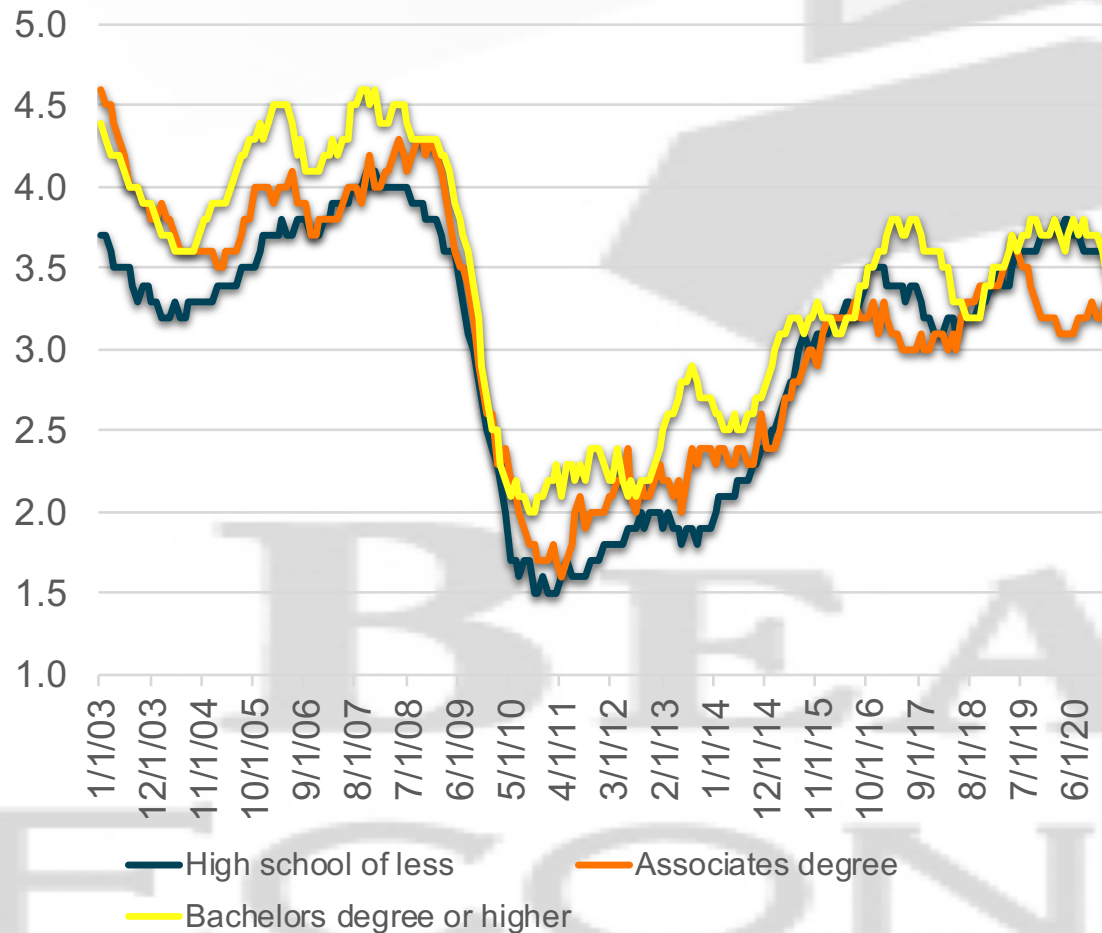
33.4

-1.1

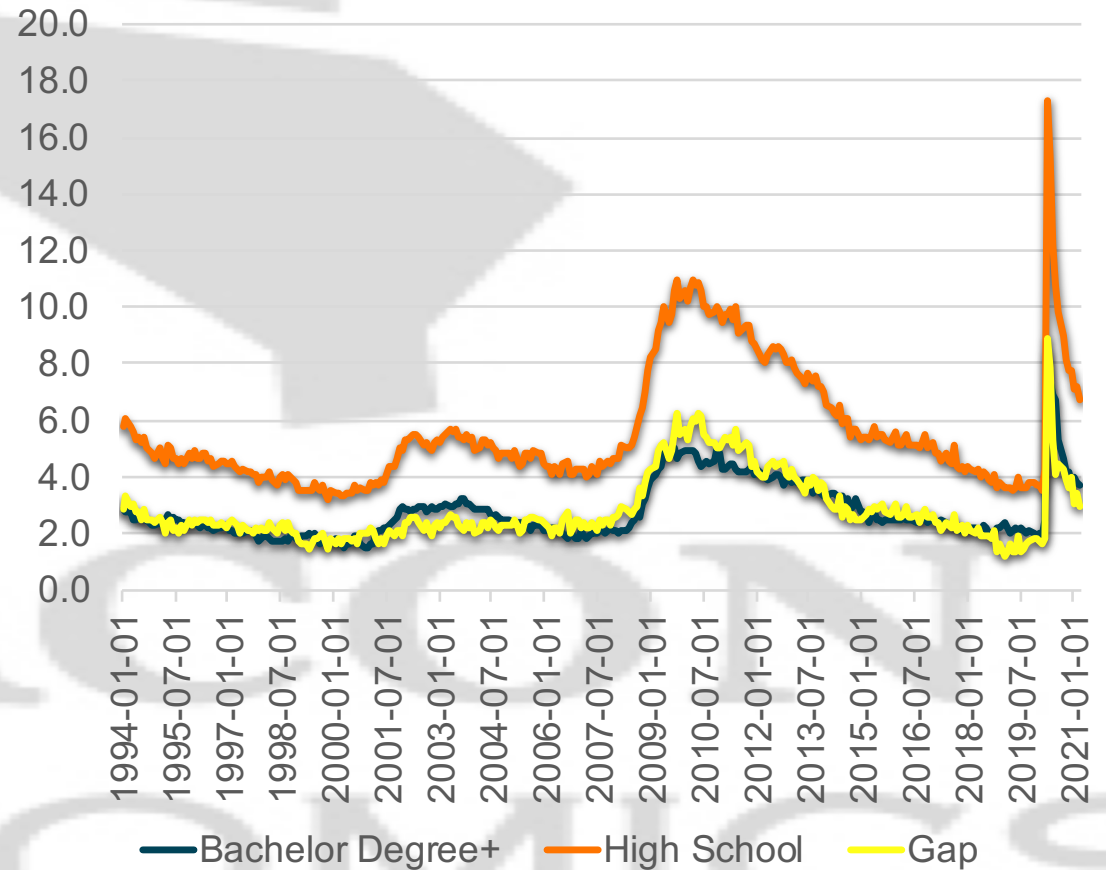
More complicated than “K”...



Earnings Growth by Level of Education



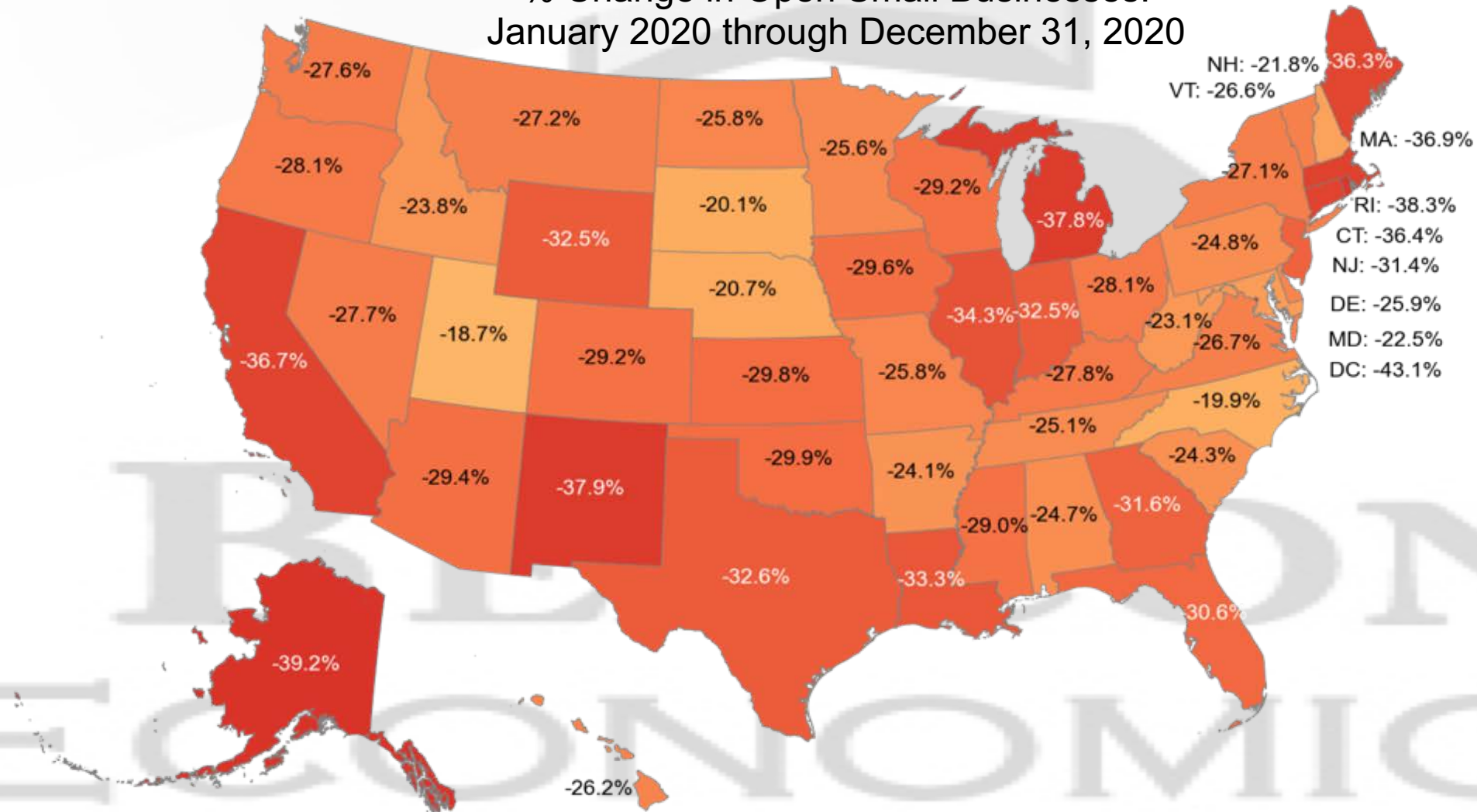
Unemployment by Education



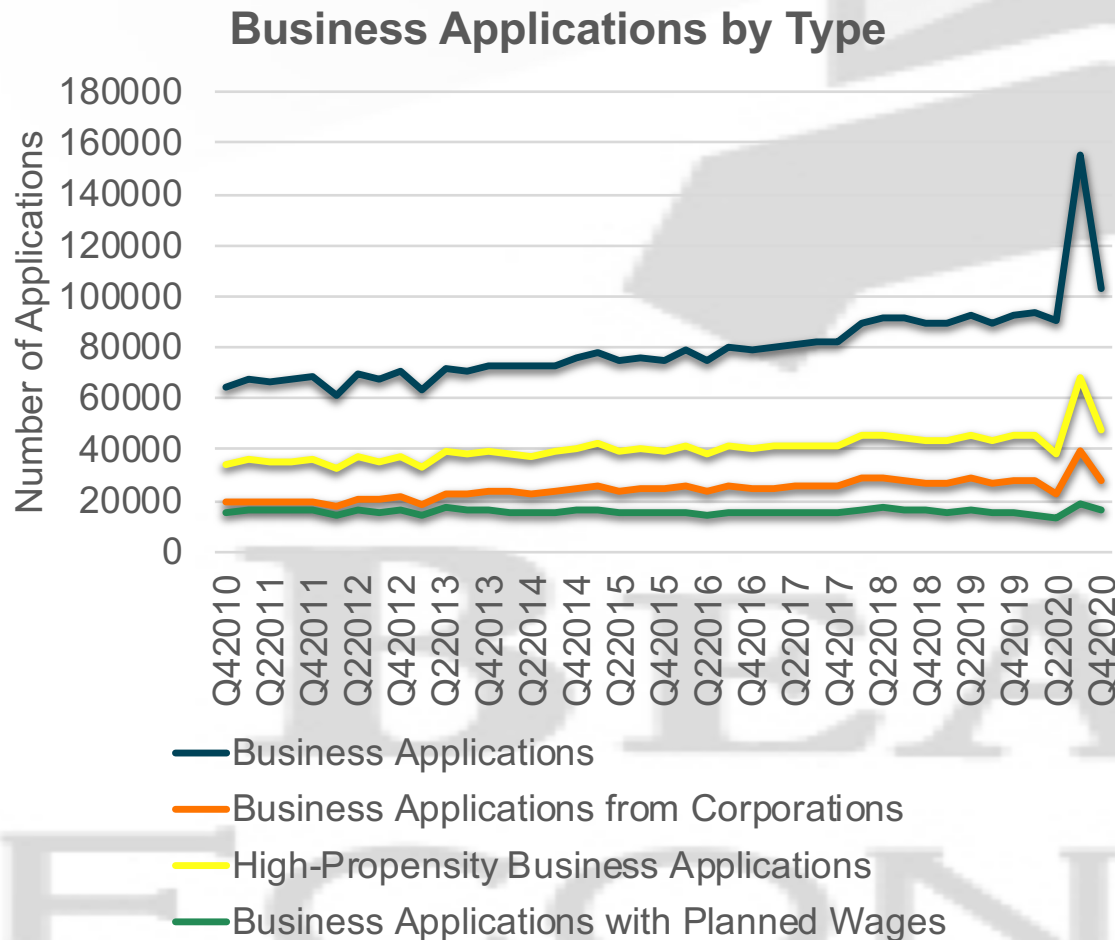
Open Small Businesses



% Change in Open Small Businesses:
January 2020 through December 31, 2020



Business Formation Statistics - California



Application Type	2020	YoY % Growth
Business Applications	442,324	21.7%
Business Applications from Corporations	119,026	7.9%
High-Propensity Business Applications	200,098	12.7%
Business Applications with Planned Wages	63,178	1.7%

Federal Policy (Over)reaction



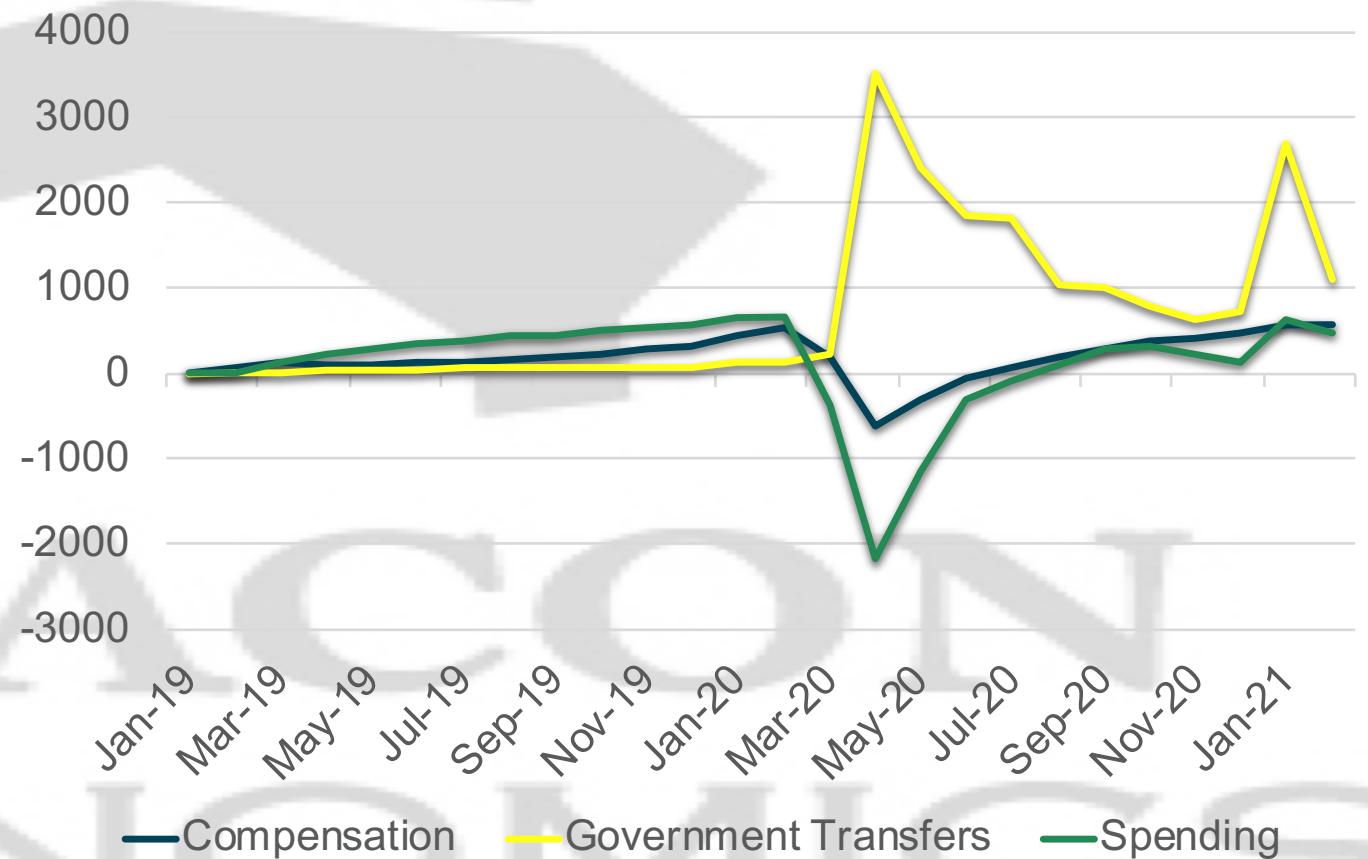
Fiscal Stimulus Plans: \$5.1 trillion

- Unemployment Insurance
- Local Government Support
- PPP Loans
- Direct Transfers to People

Monetary Stimulus: \$3 trillion QE

- Rate Cuts
- Quantitative Easing

Personal Income Trends (2019 = 0)



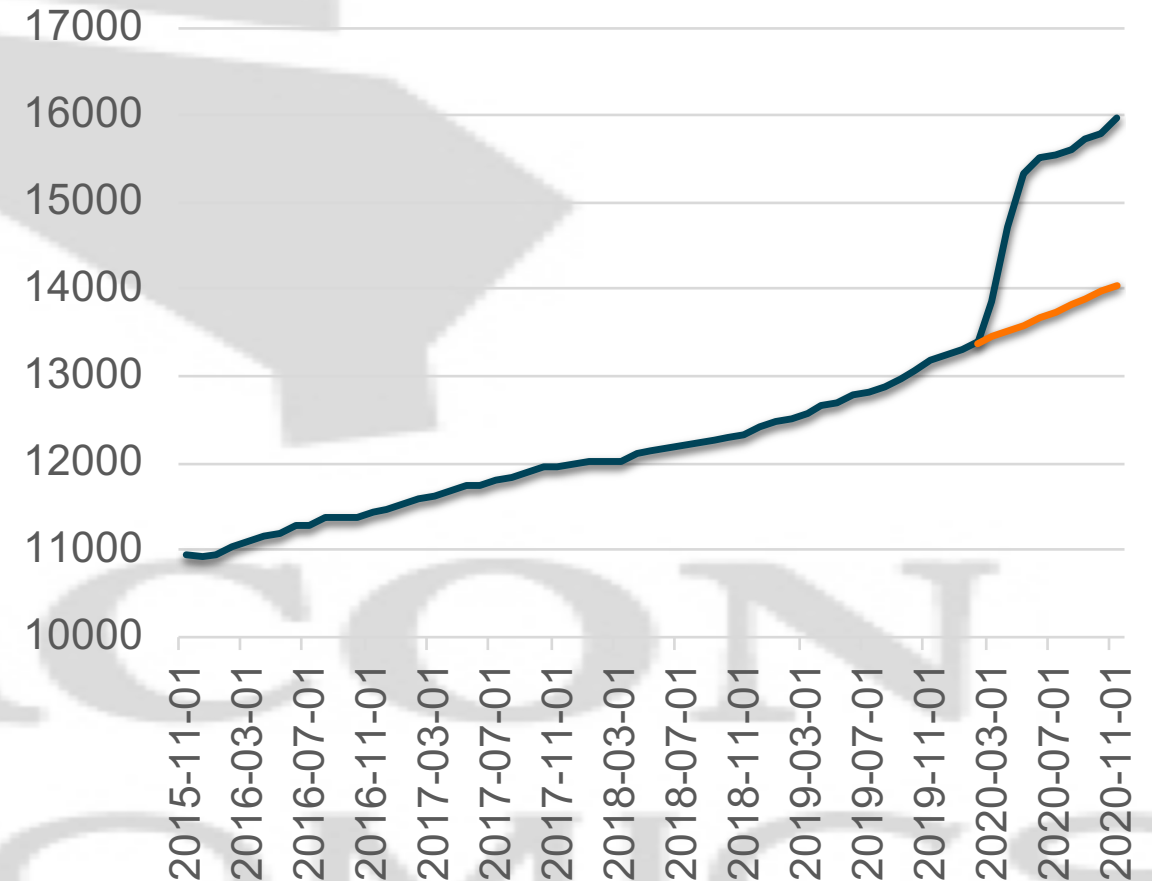
Policy (Over)reaction



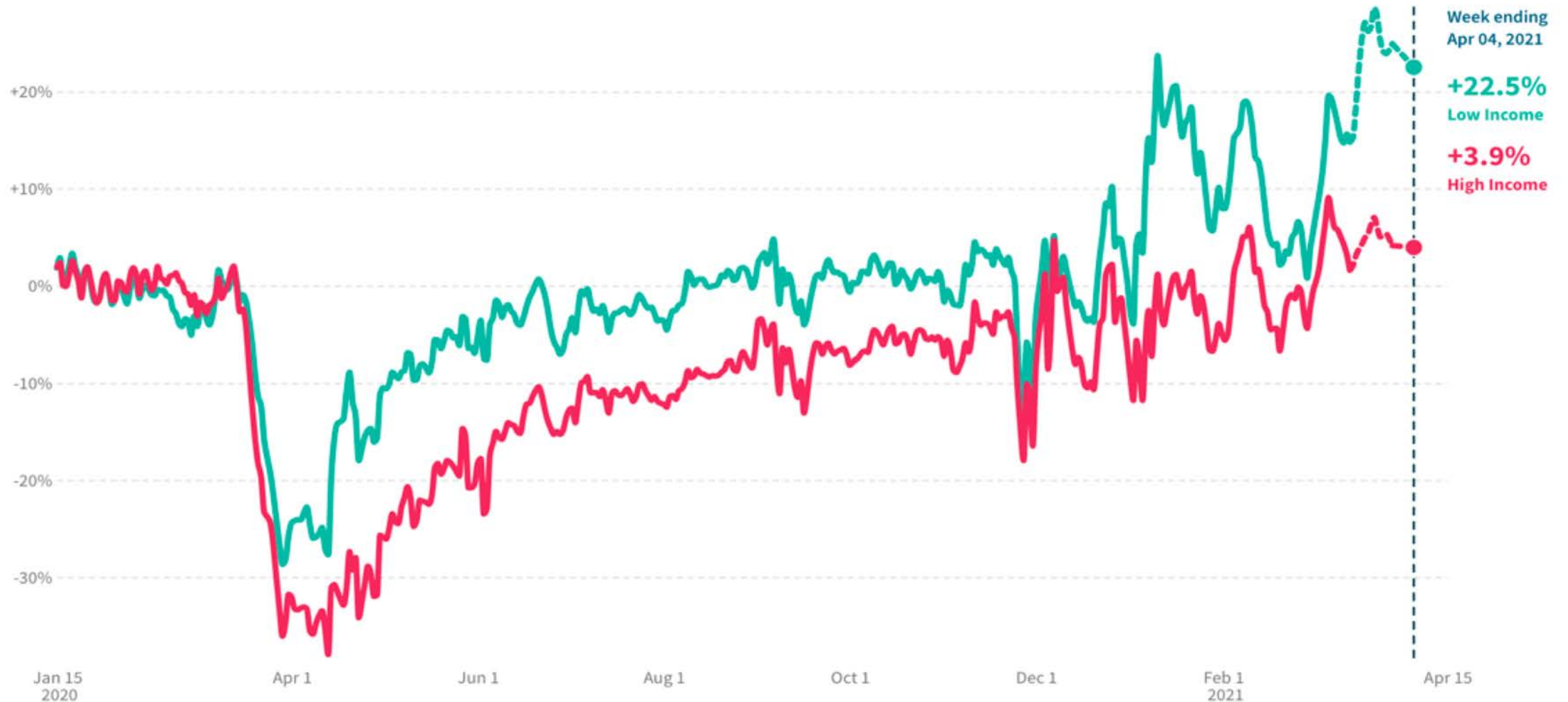
US Personal Income (\$Billions)

	2018	2019	2020
Direct Earnings	9,589	10,013	10,013
Other Income	5,292	5,413	5,409
Gov Transfers	2,923	3,078	4,222
DPI	15,766	16,348	17,497
Outlays	14,530	15,118	14,650
Savings	1,237	1,231	2,848

Commercial Bank Deposits



Consumer Spending by Income



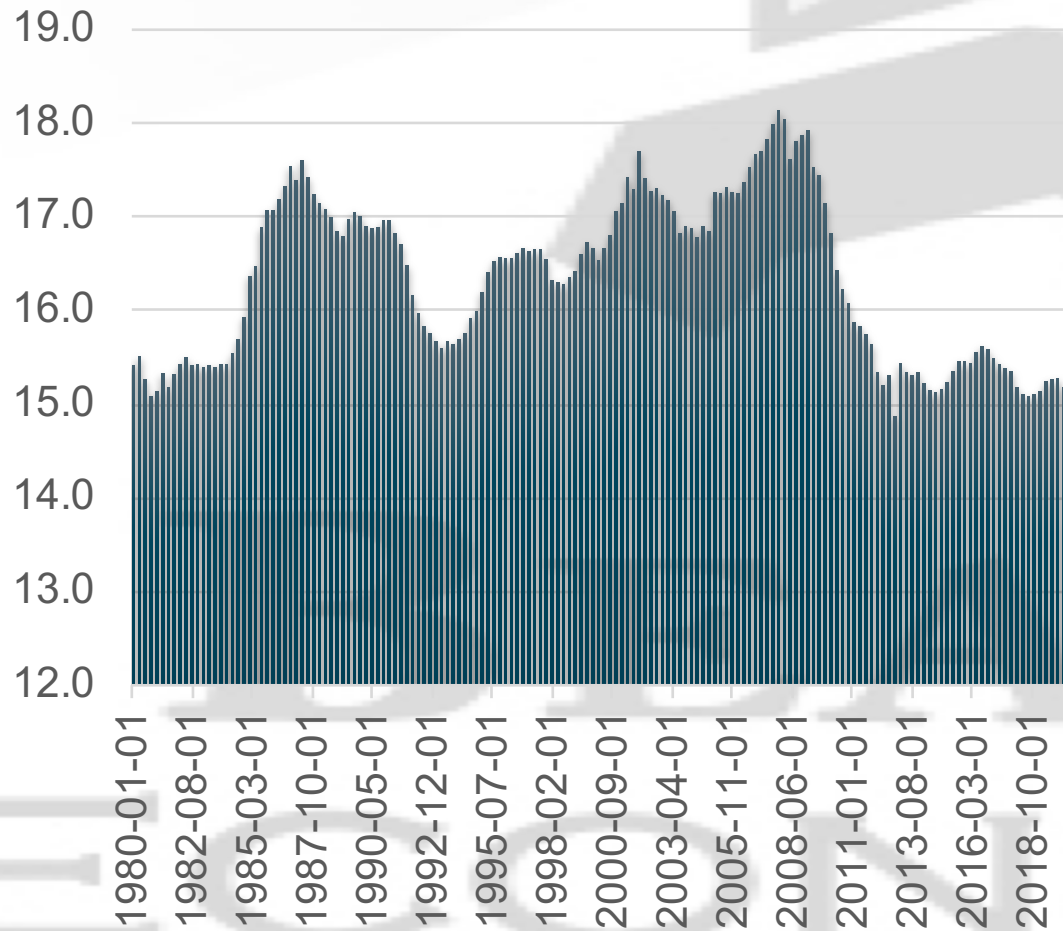
Asset Markets A Bit Frothy?



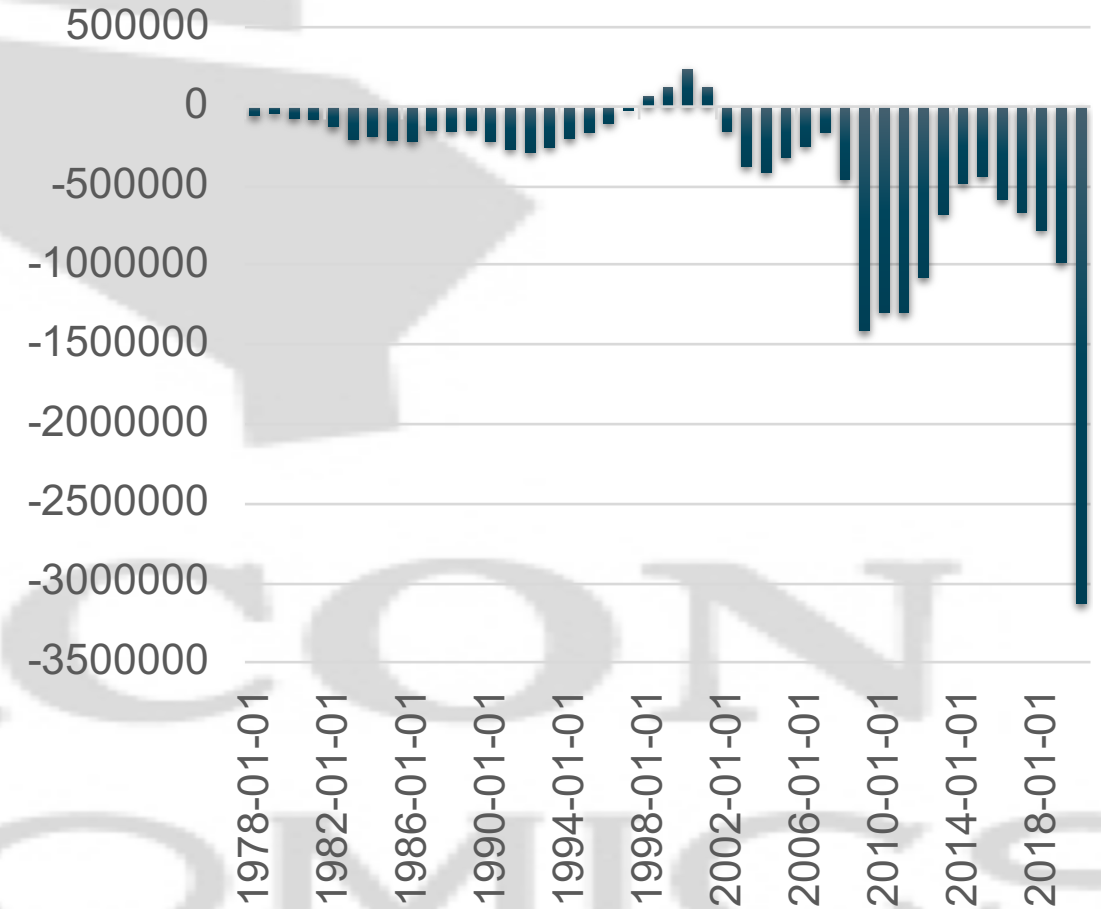
Context

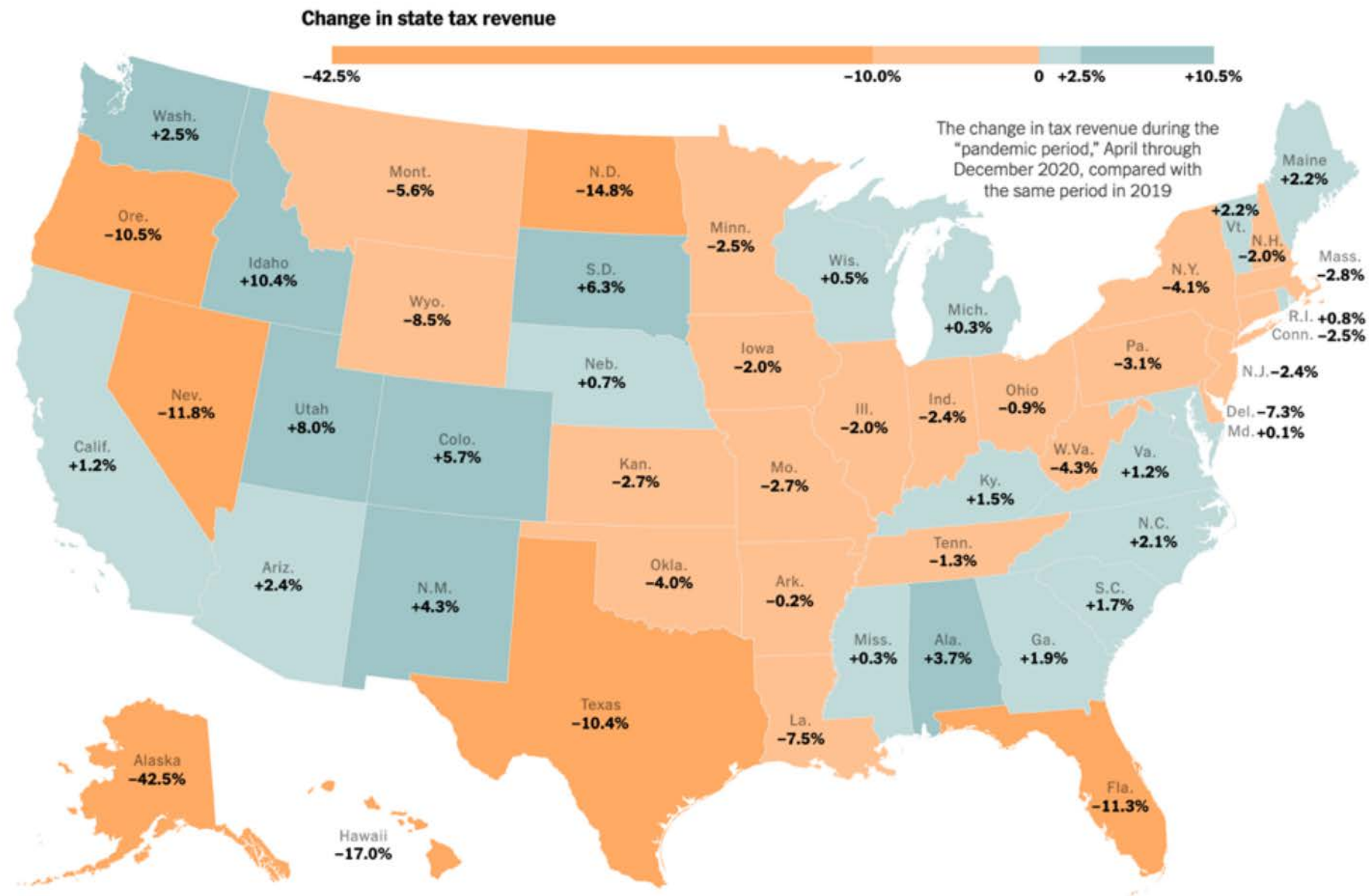


Financial Obligation Ratio



FY Federal Deficit



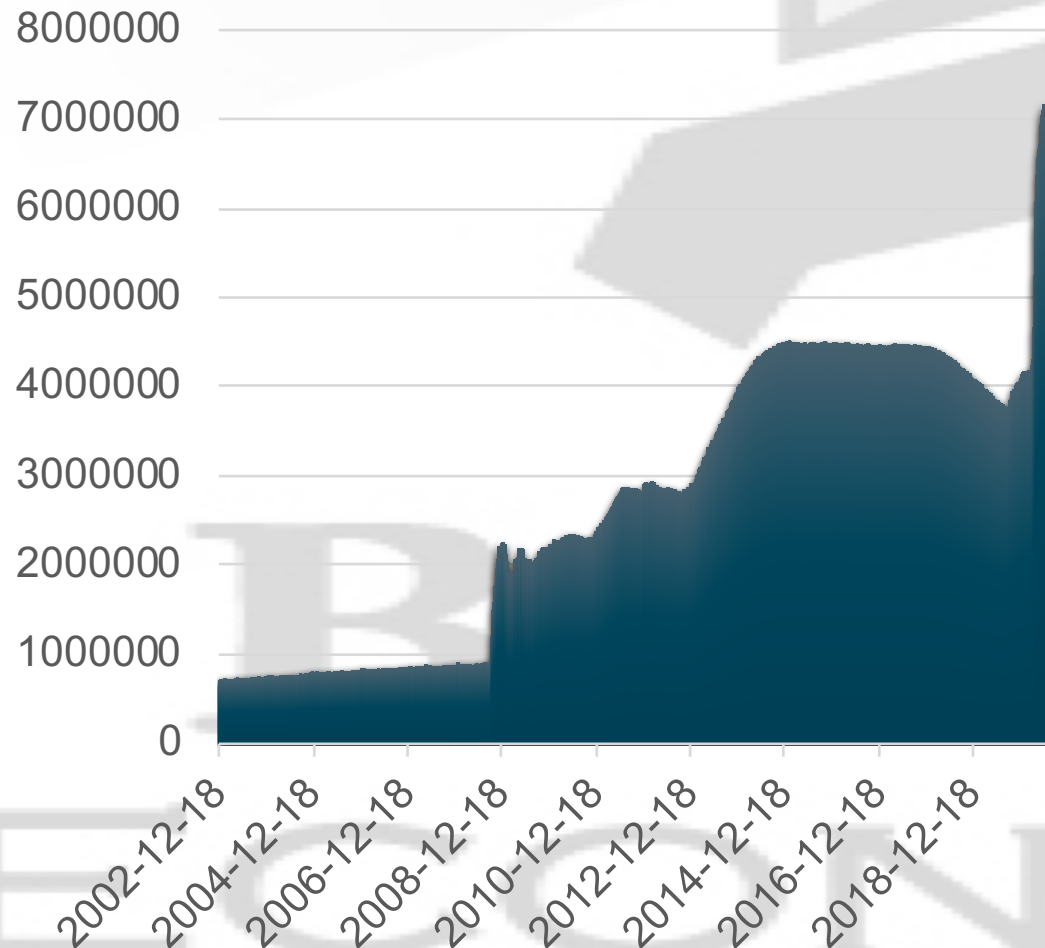


Source: Urban-Brookings Tax Policy Center

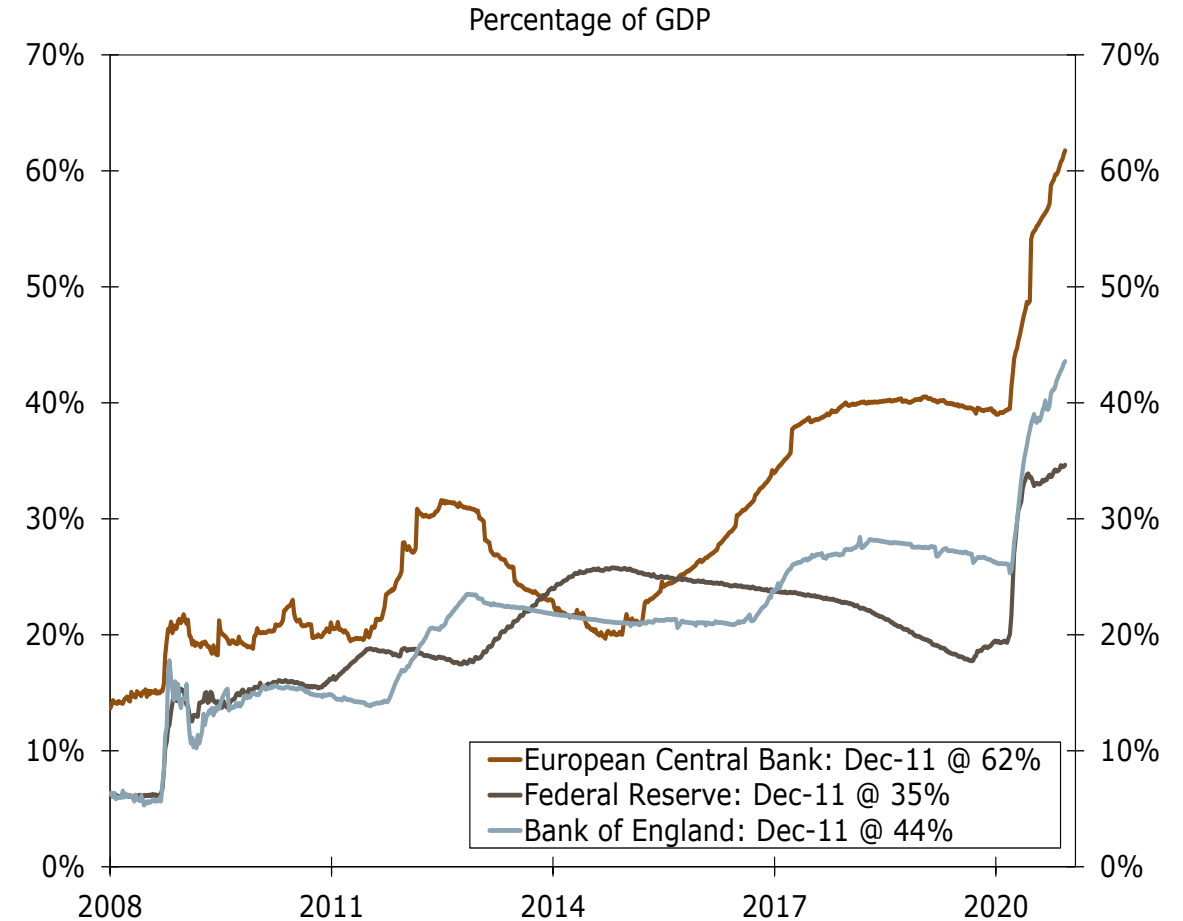
Federal Reserve Policy



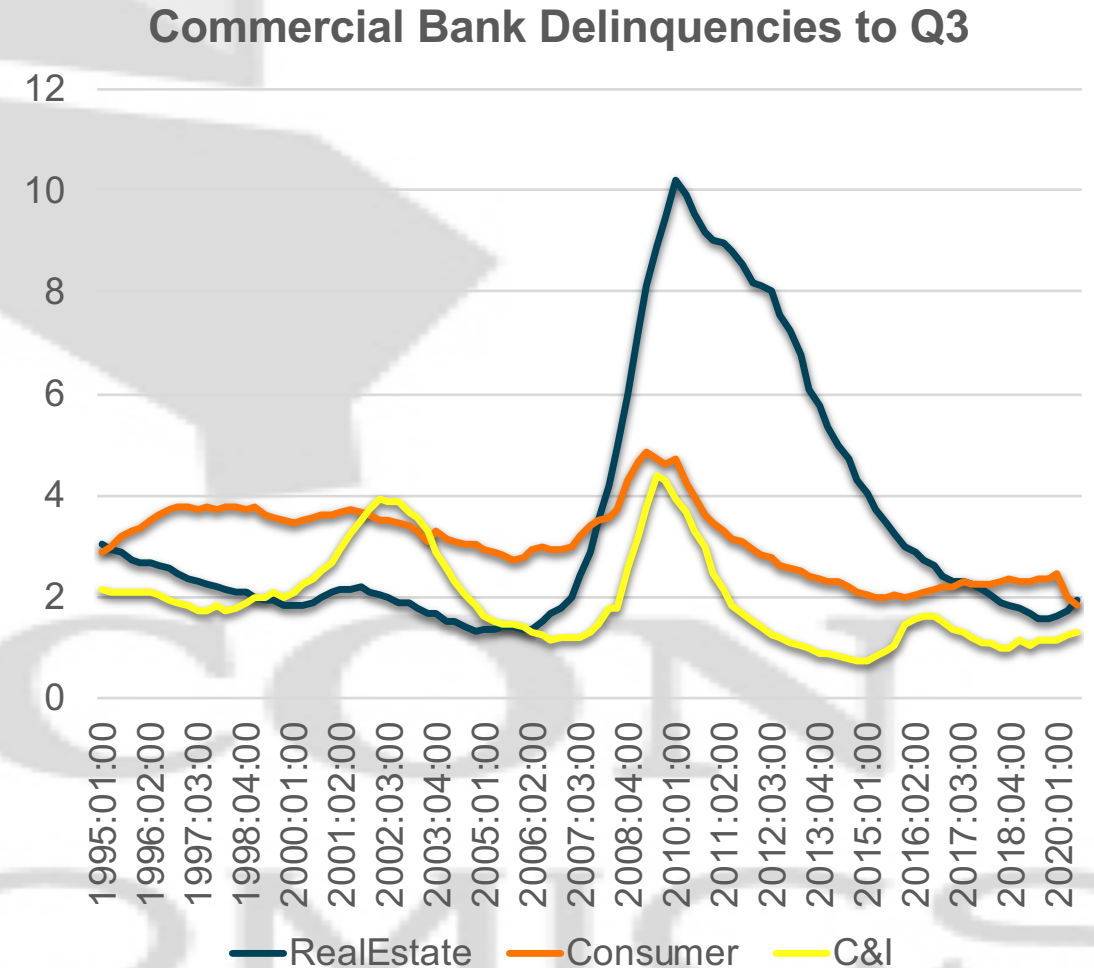
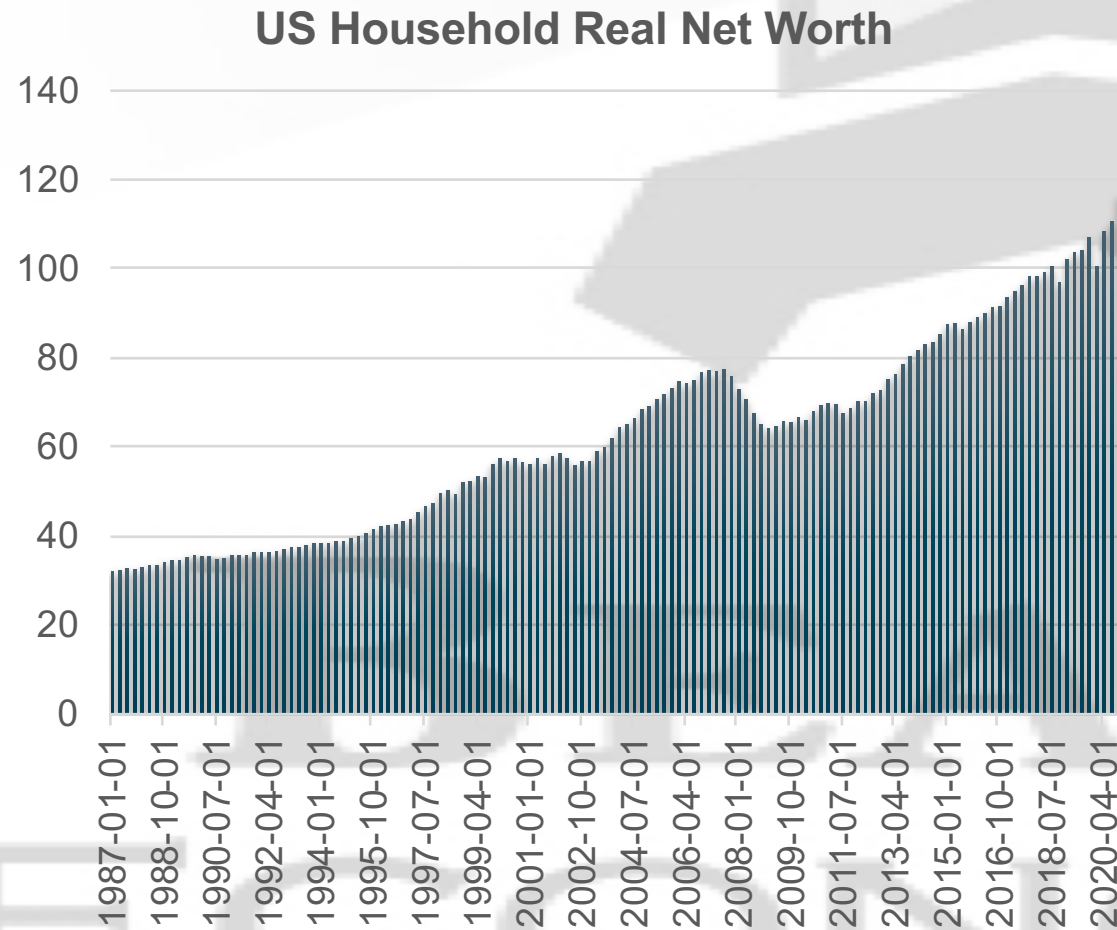
Fed Balance Sheet



Major Central Bank Balance Sheets



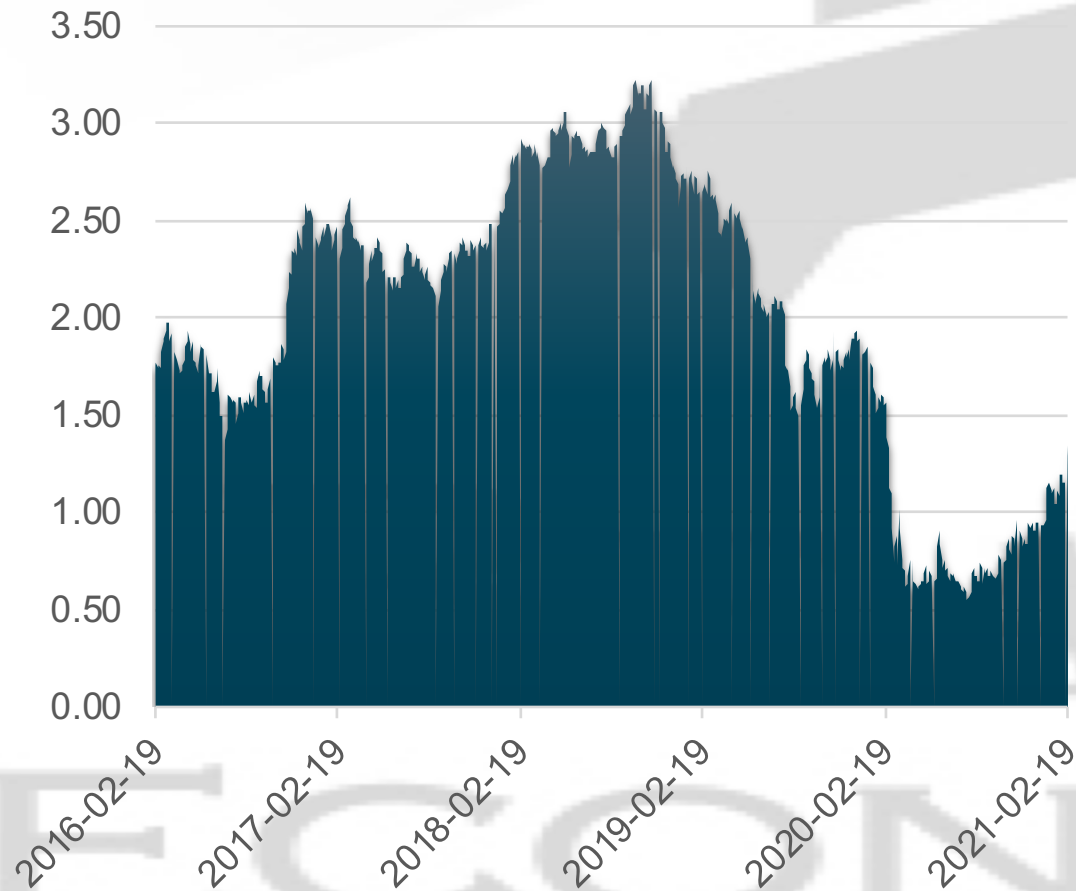
Fighting the Last War...



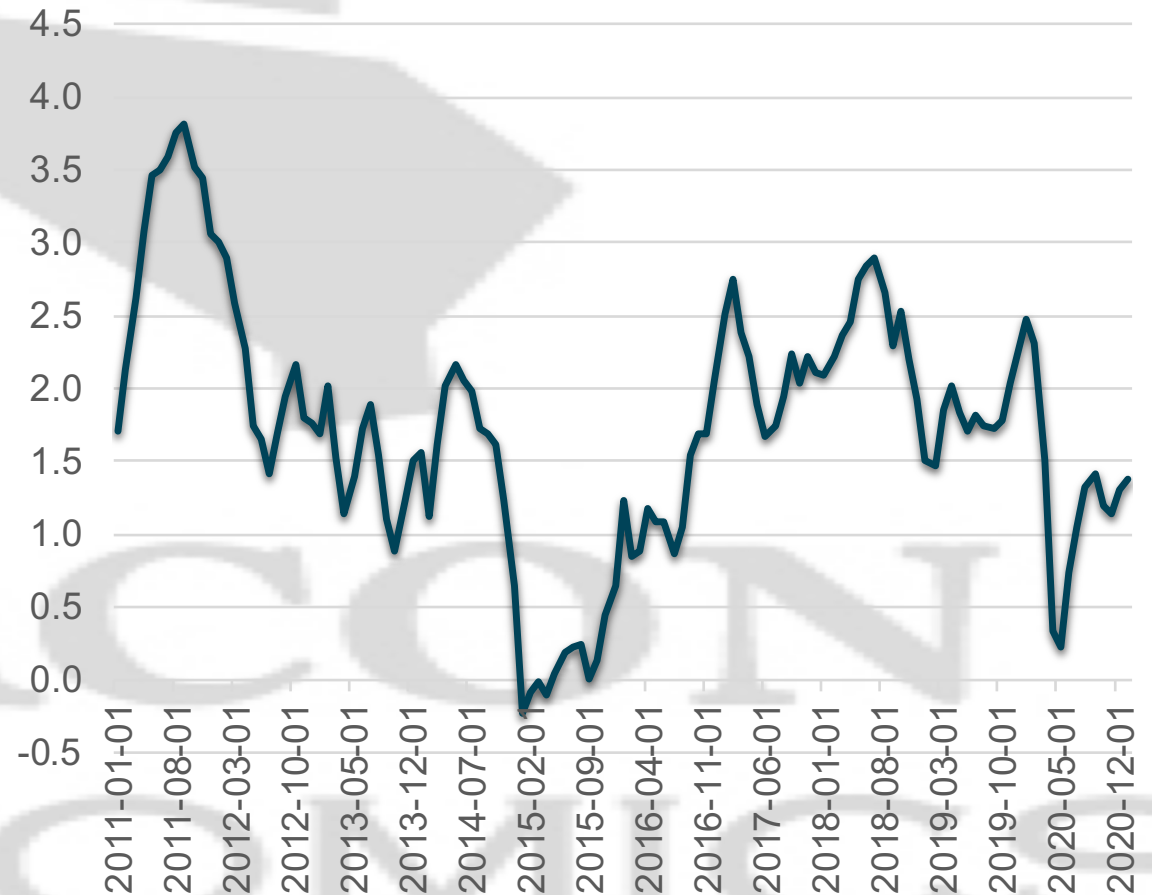
Rates and Inflation



10 year Treasury



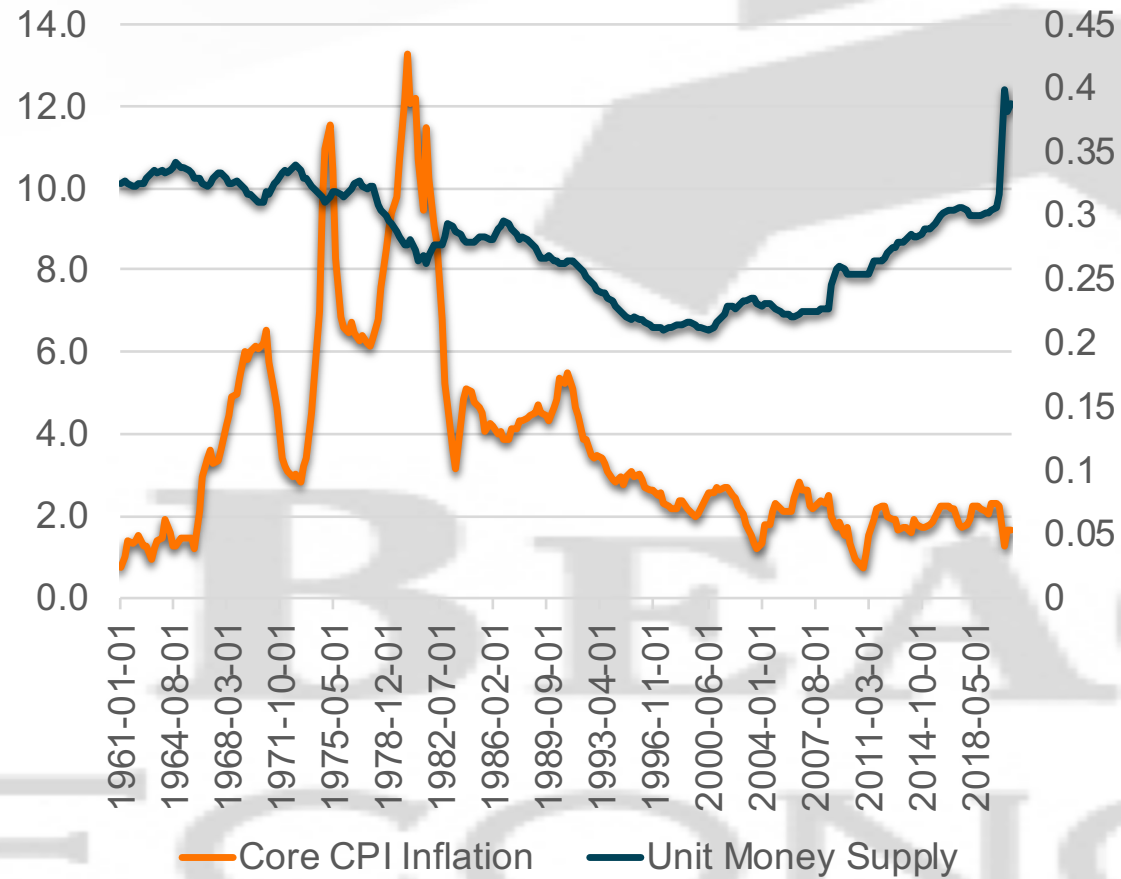
CPI YoY Growth



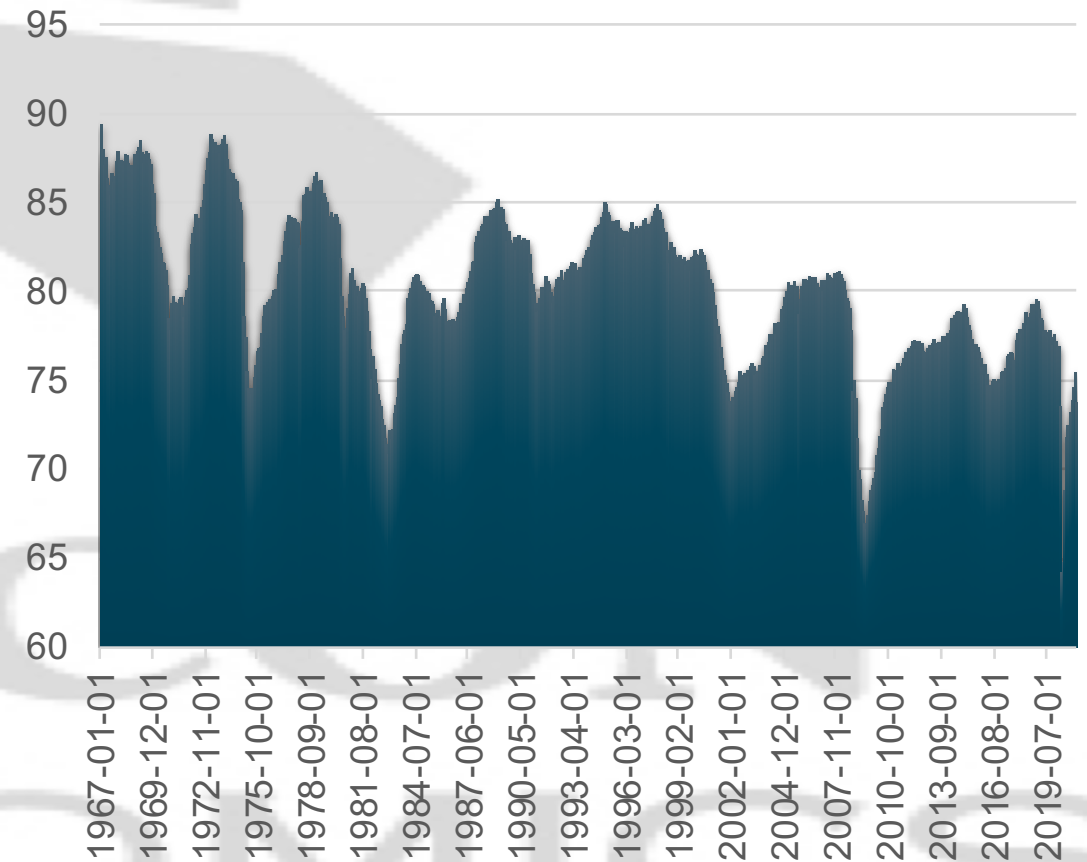
Inflation Potential?



Money and Prices



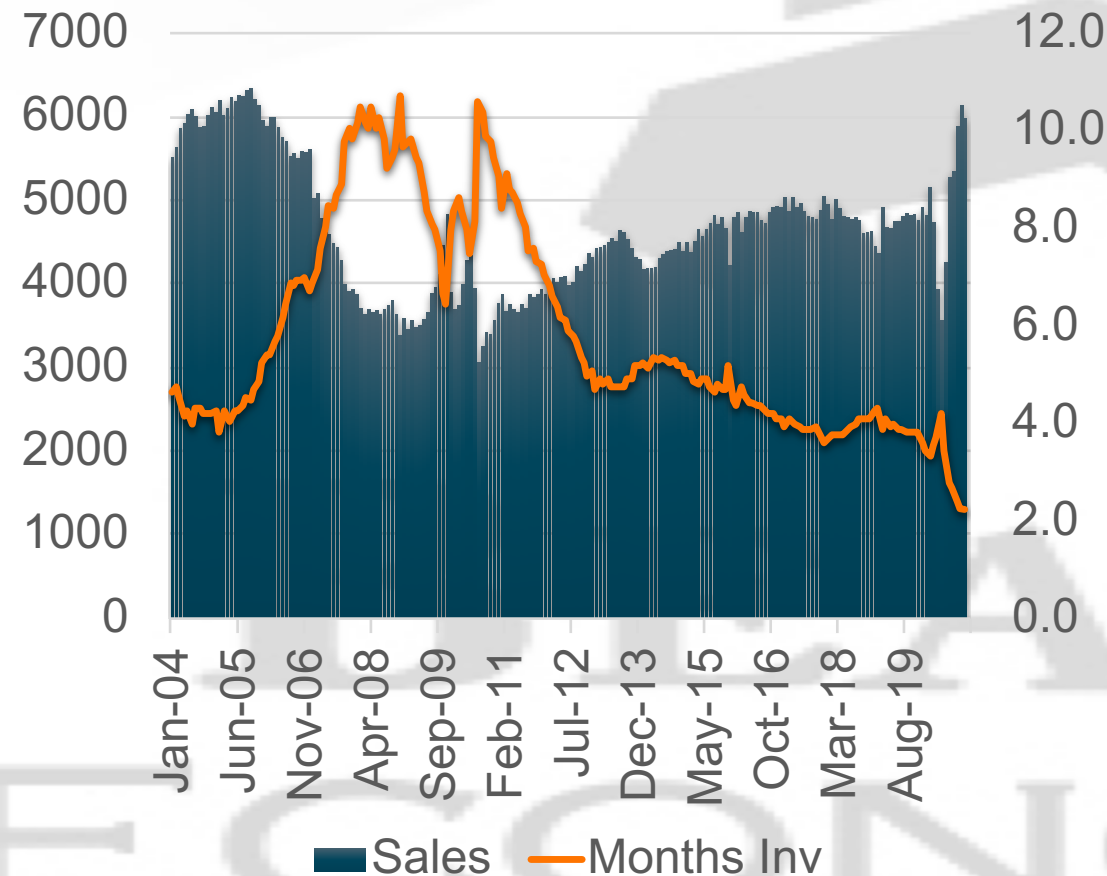
Capacity Utilization



Housing – U.S.



Existing Home Market



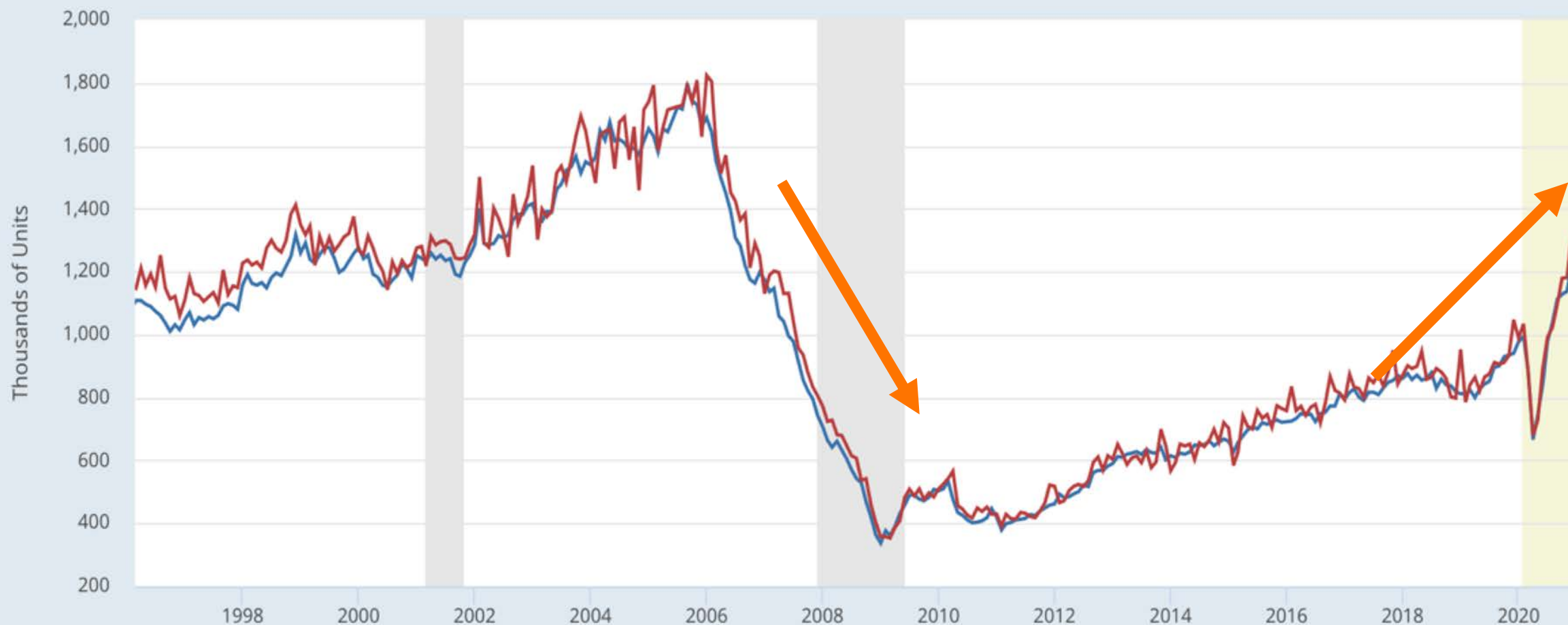
MSA Based Case Shiller HPI

	2019	2020		2019	2020
Phoenix	6.4%	14.4%	Portland	3.7%	9.9%
Seattle	4.1%	13.6%	LA	2.6%	9.9%
San Diego	4.7%	13.0%	New York	0.9%	9.8%
Cleveland	3.5%	11.5%	Detroit	3.3%	9.5%
Boston	4.4%	11.4%	Miami	3.1%	9.2%
Tampa	5.2%	10.7%	Denver	3.7%	9.1%
National	3.7%	10.4%	Atlanta	4.0%	8.9%
Wash DC	3.3%	10.3%	San Fran	2.1%	8.7%
Minneapolis	3.9%	10.2%	Dallas	2.5%	8.4%
Charlotte	5.2%	10.1%	Las Vegas	2.6%	7.9%

Housing Construction

FRED

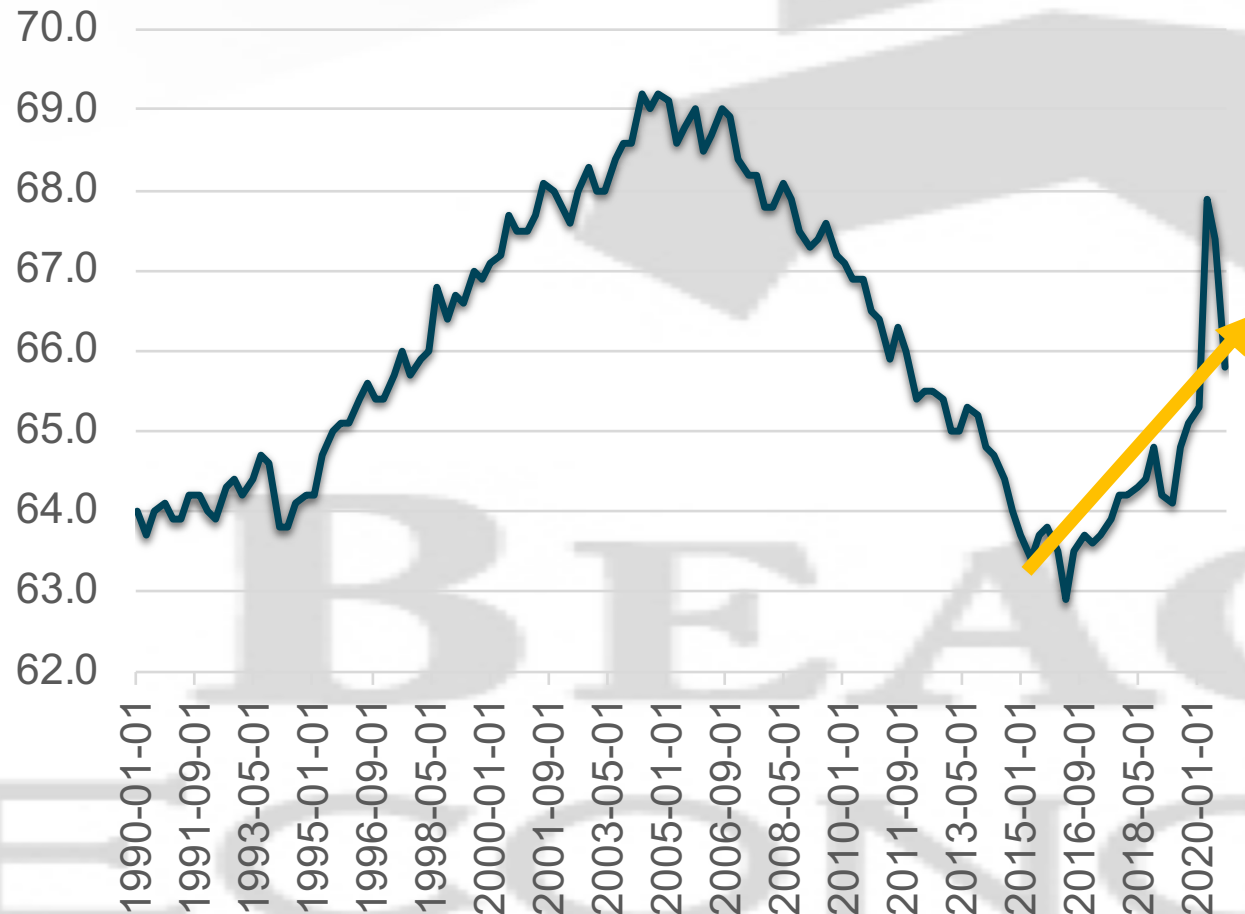
- New Private Housing Units Authorized by Building Permits - in Structures with 1 Unit
- Privately Owned Housing Starts: 1-Unit Structures



The Big Shift



US Home-Ownership Rate

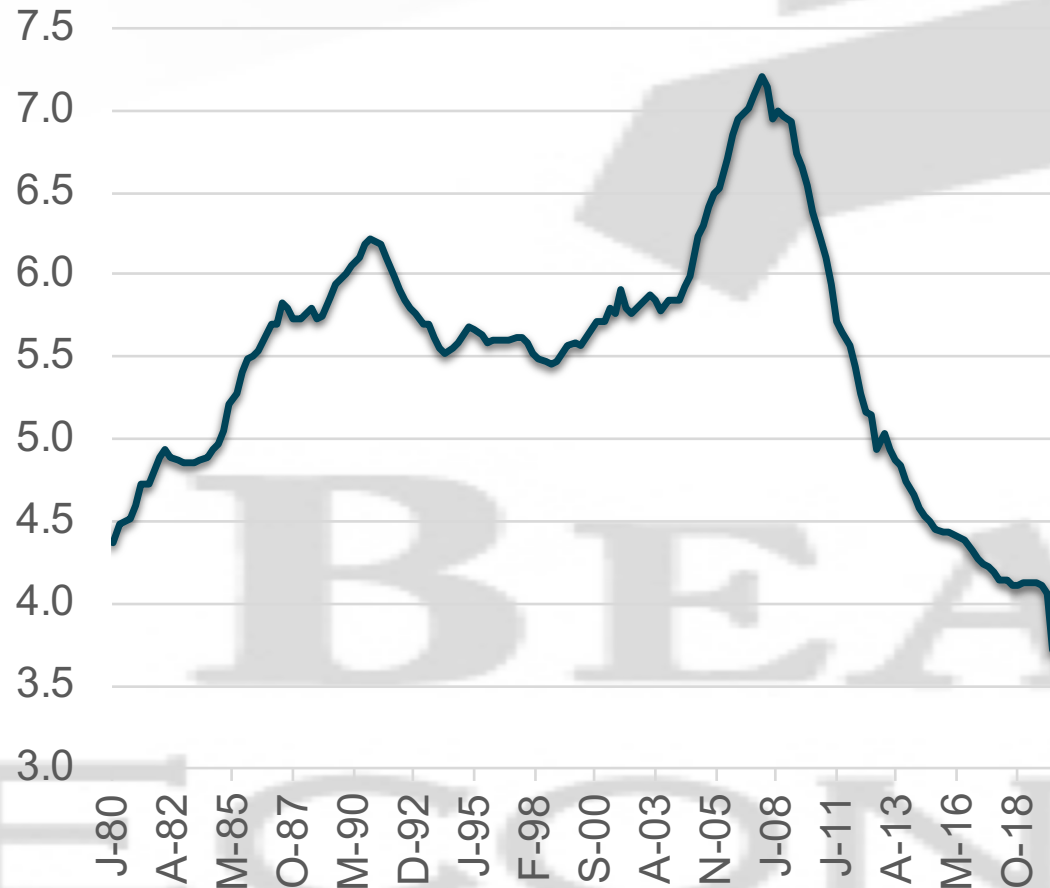


- Drivers of Housing Surge
 - Long Run: Rebound from 2019 lull
 - Long Run: Gains in homeownership
 - Short Run: Desire for more space / Movement to suburbs
 - Short Run: Low interest rates, Cash pumped in system by stimulus
- Fundamentals
 - Tight inventories from slow construction
 - Lots of equity to leverage
 - Low HH debt to income

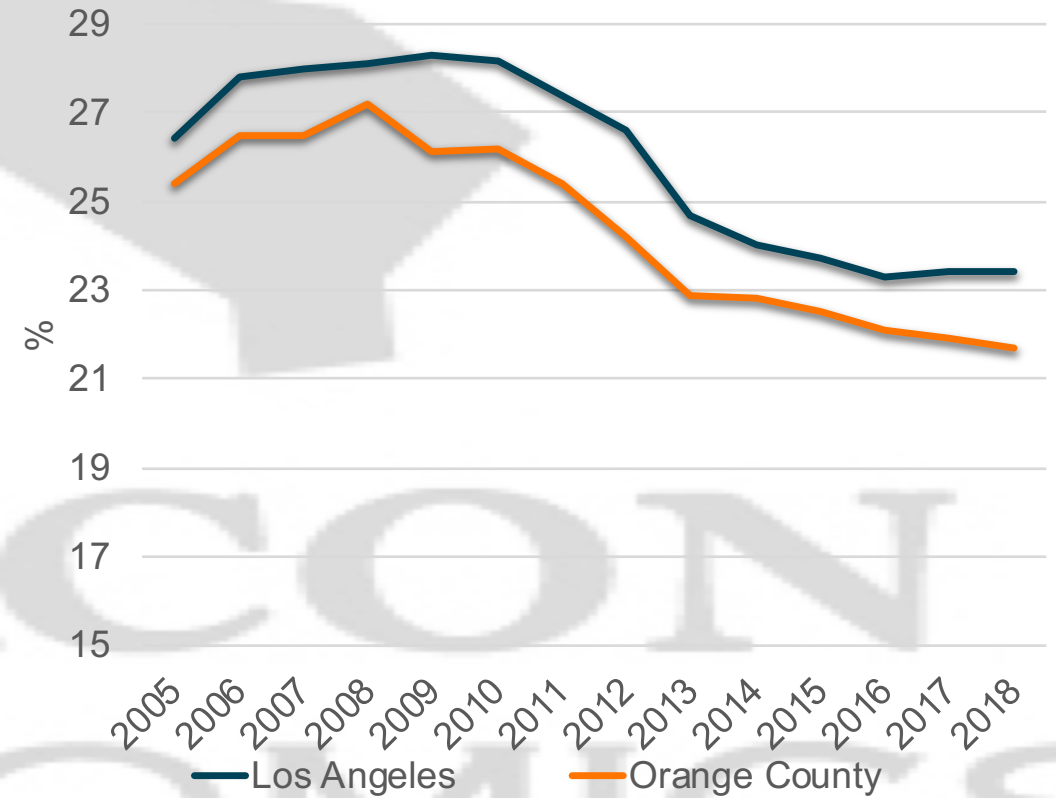
Bubble Alert? Not Yet...



Mortgage Payments as % DPI



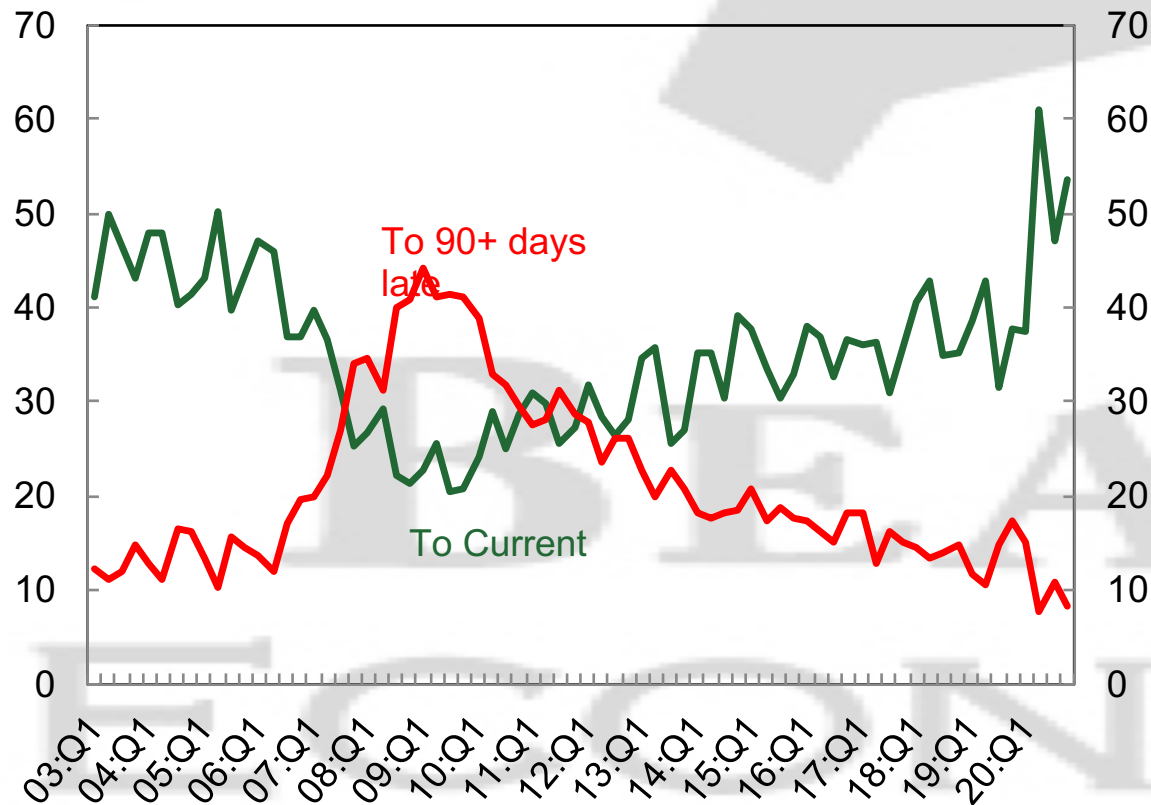
Median Monthly Owner Costs as % of HH Income



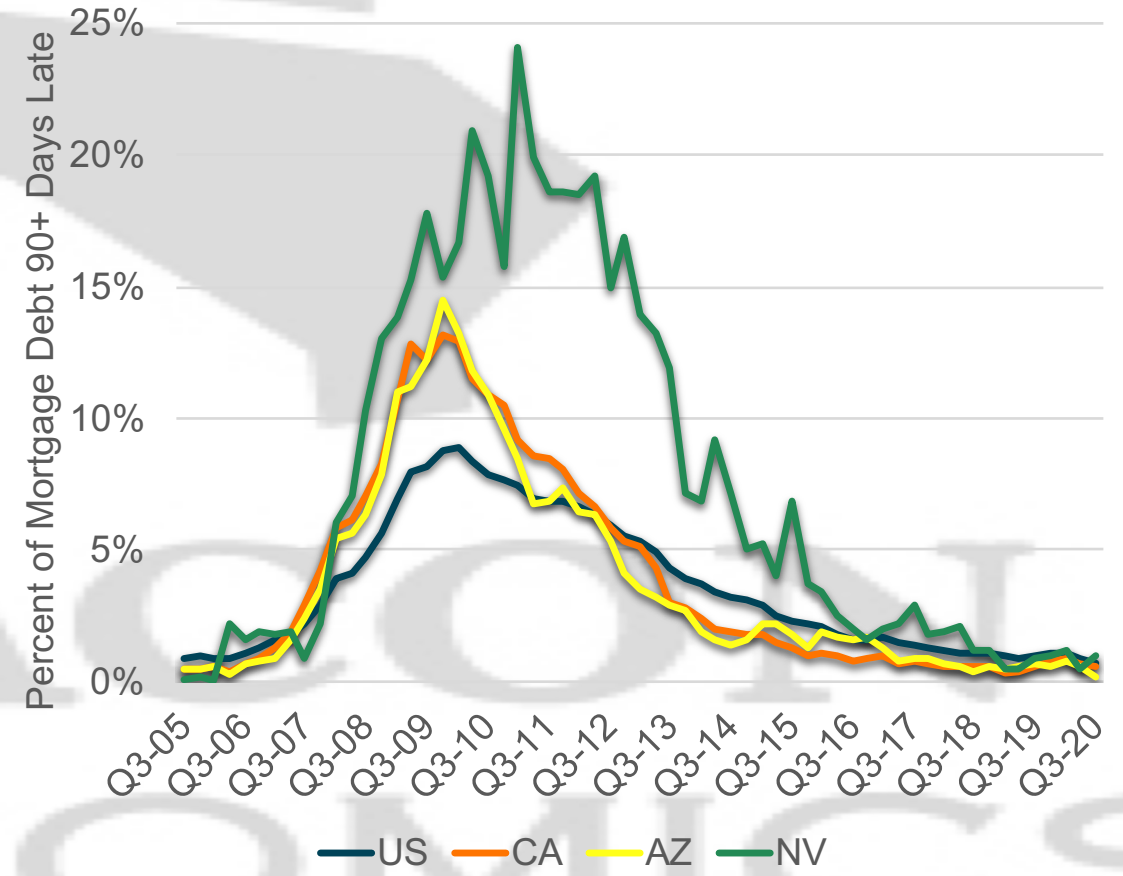
Bubble Alert? Not Yet...



Quarterly Transition Rates for 30-60 Day Late Mortgage Accounts



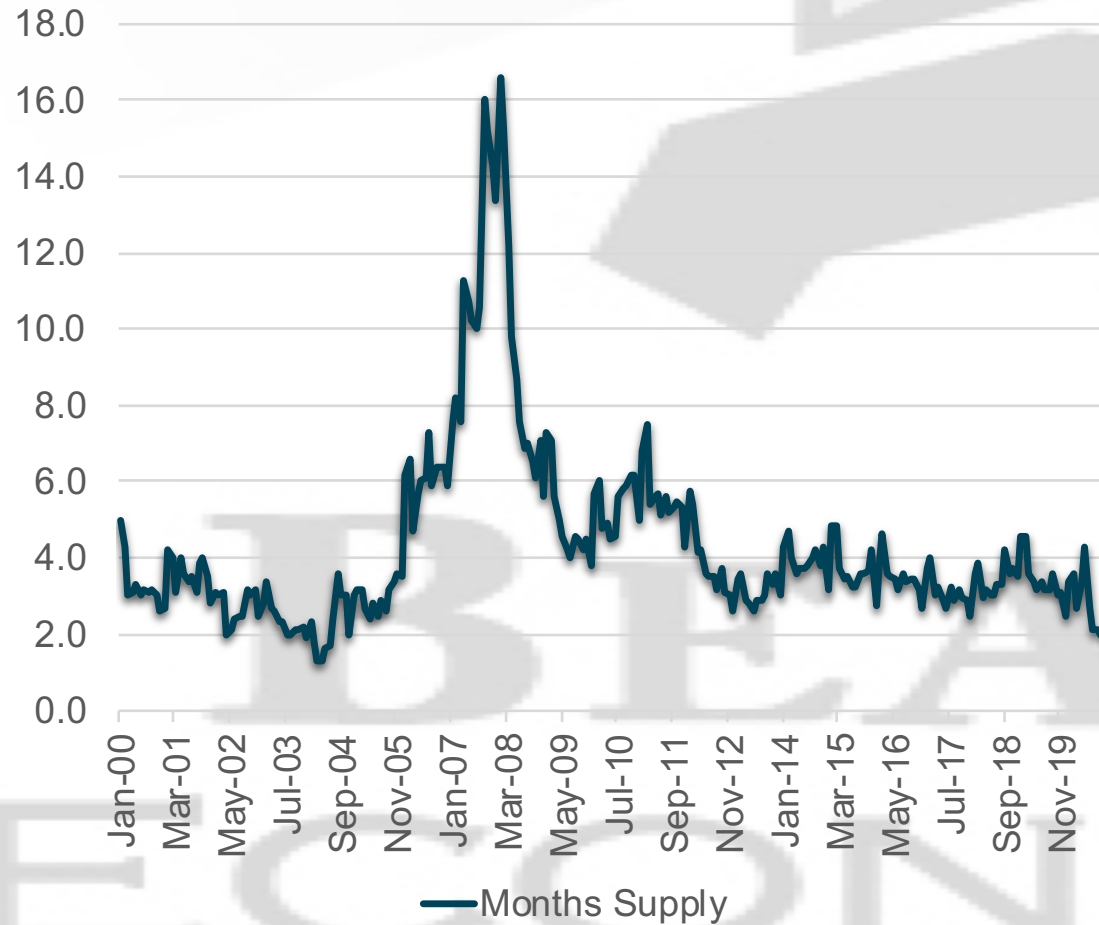
Percent of Mortgage Debt 90+ Days Late



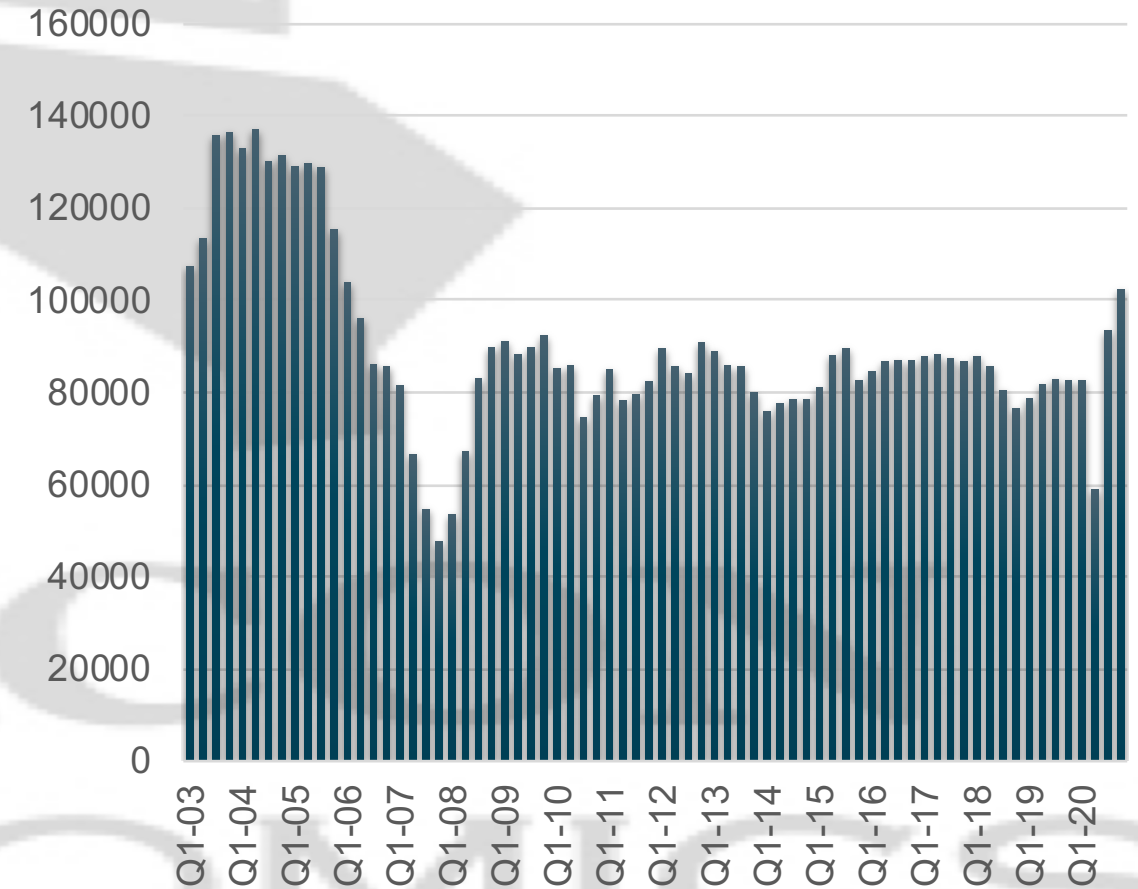
State Trends



California Markets: Record Tight Supply



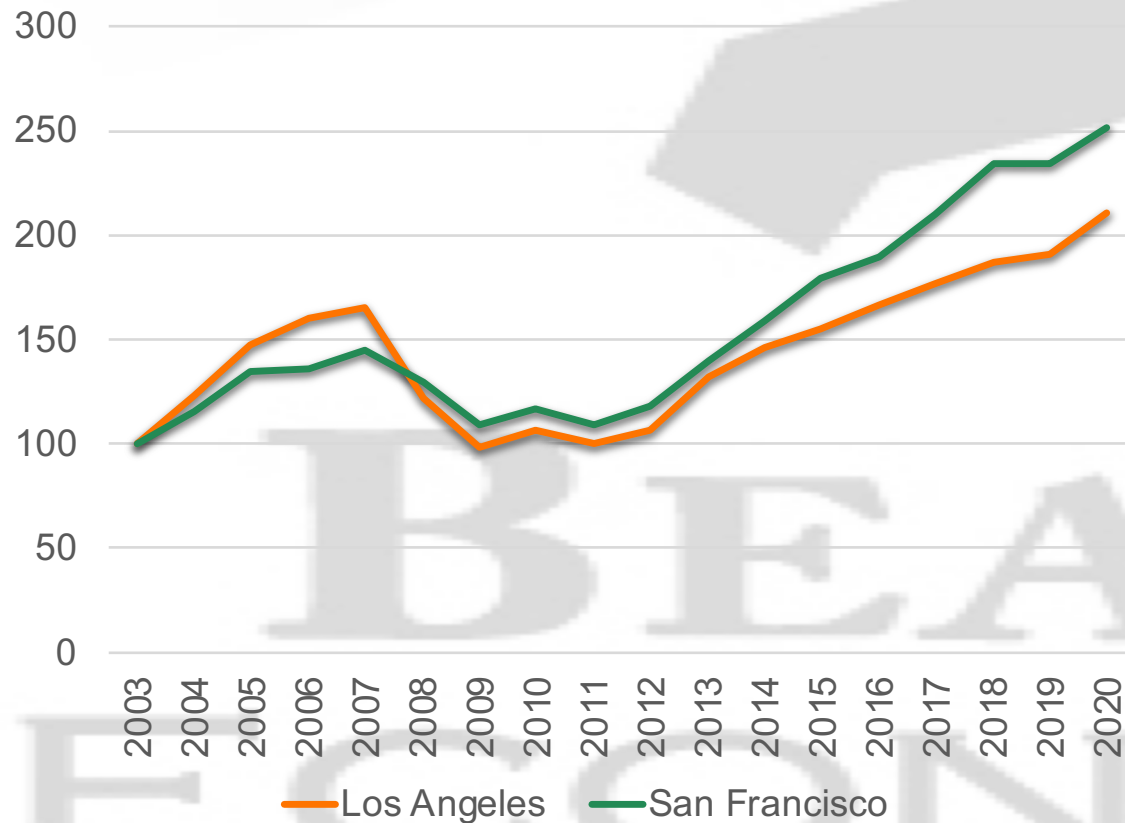
California House Sales



California Home Prices



Select Major Metros in California
Median Home Price Growth (Index at 100)

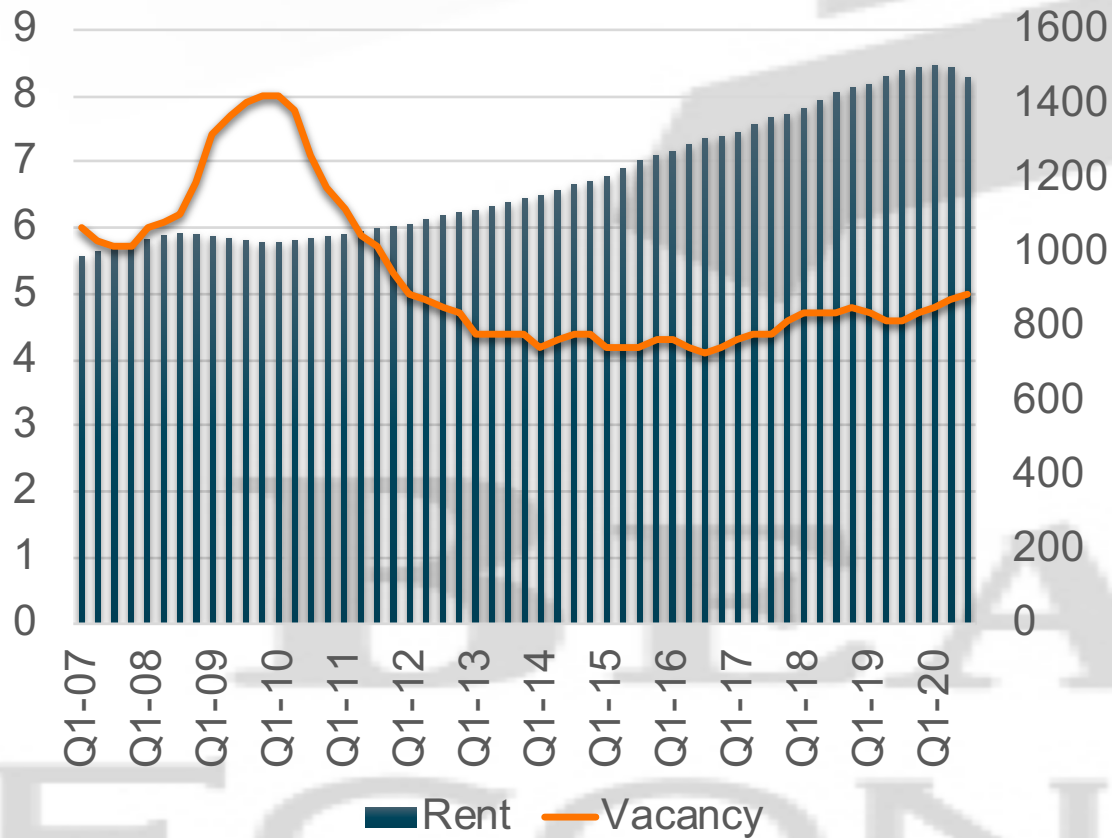


Metro	2020 Median Price	1-Yr % Change
Santa Barbara	651,750	19.3
Salinas	697,500	16.7
Visalia	248,500	10.9
Redding	288,000	10.7
Madera	287,500	10.4
Los Angeles	763,188	10.3
Inland Empire	406,375	10.3
Sacramento	443,000	10.1
Fresno	294,000	10.0
El Centro	253,375	9.7
San Diego	680,750	9.7
Modesto	346,250	9.6
Merced	290,875	9.4
Bakersfield	250,750	9.3
San Francisco	996,250	9.3

Apartments?

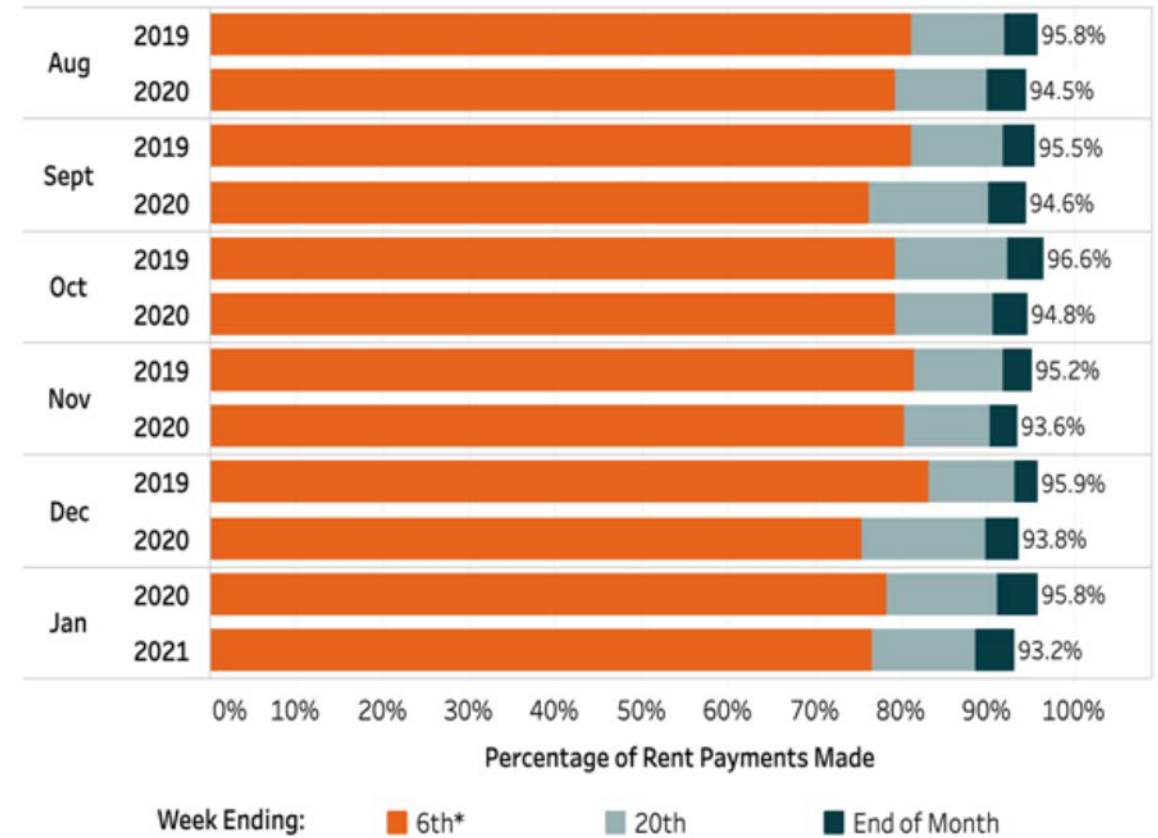


US Apartment Markets



Rent Payment Tracker: Full Month Results

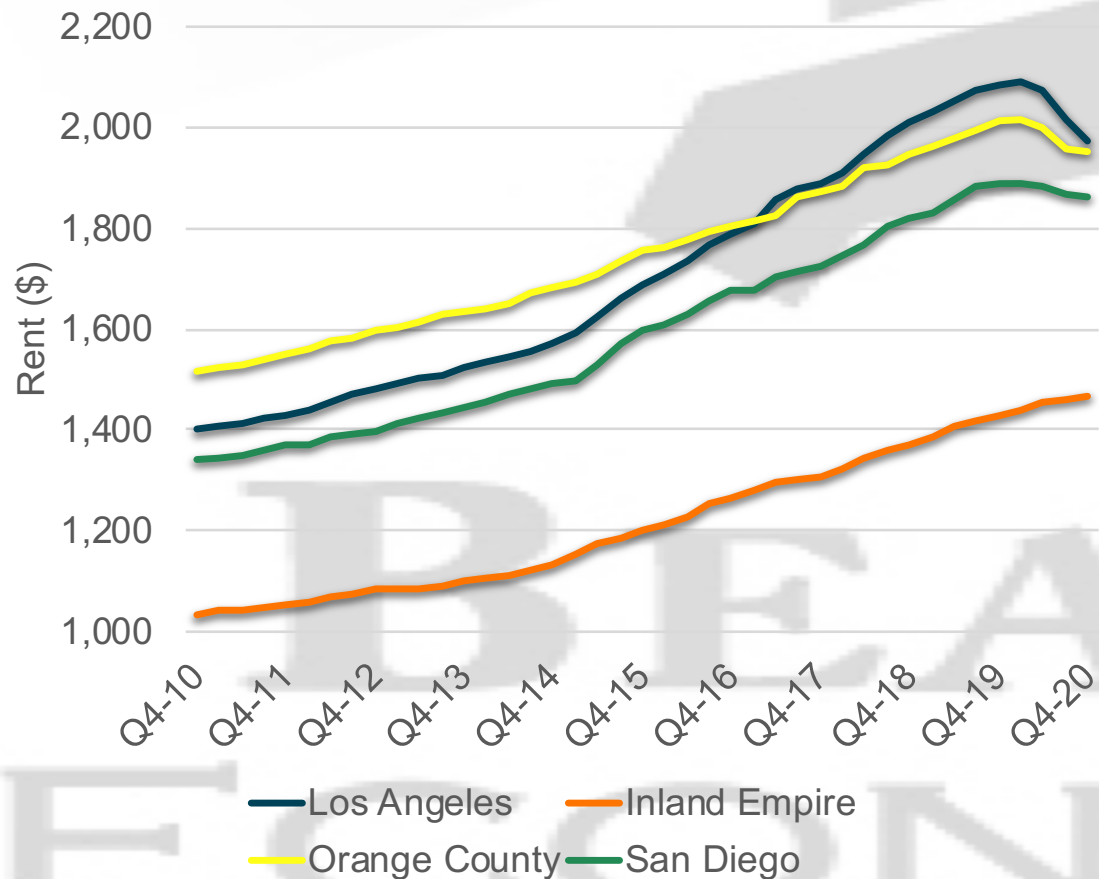
**Data collected from between 11.1 - 11.6 million apartment units each month



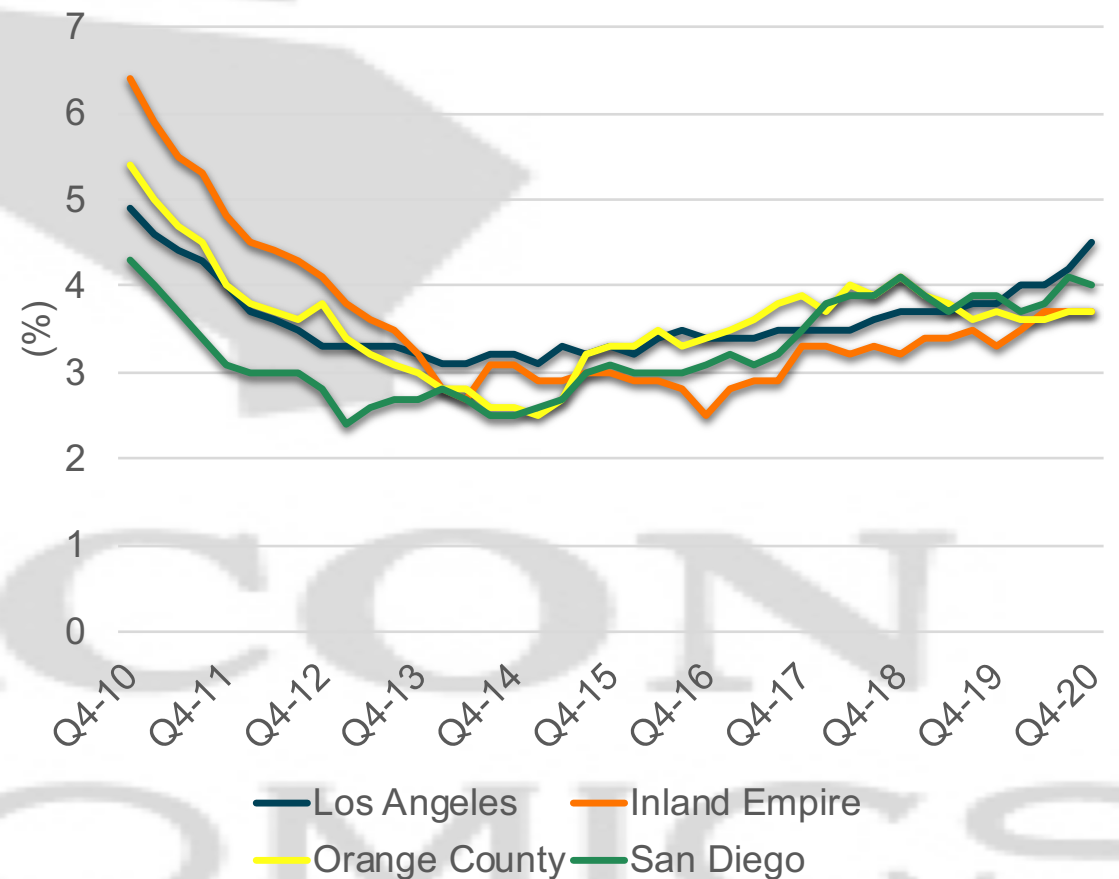
Apartment Market



Cost of Rent



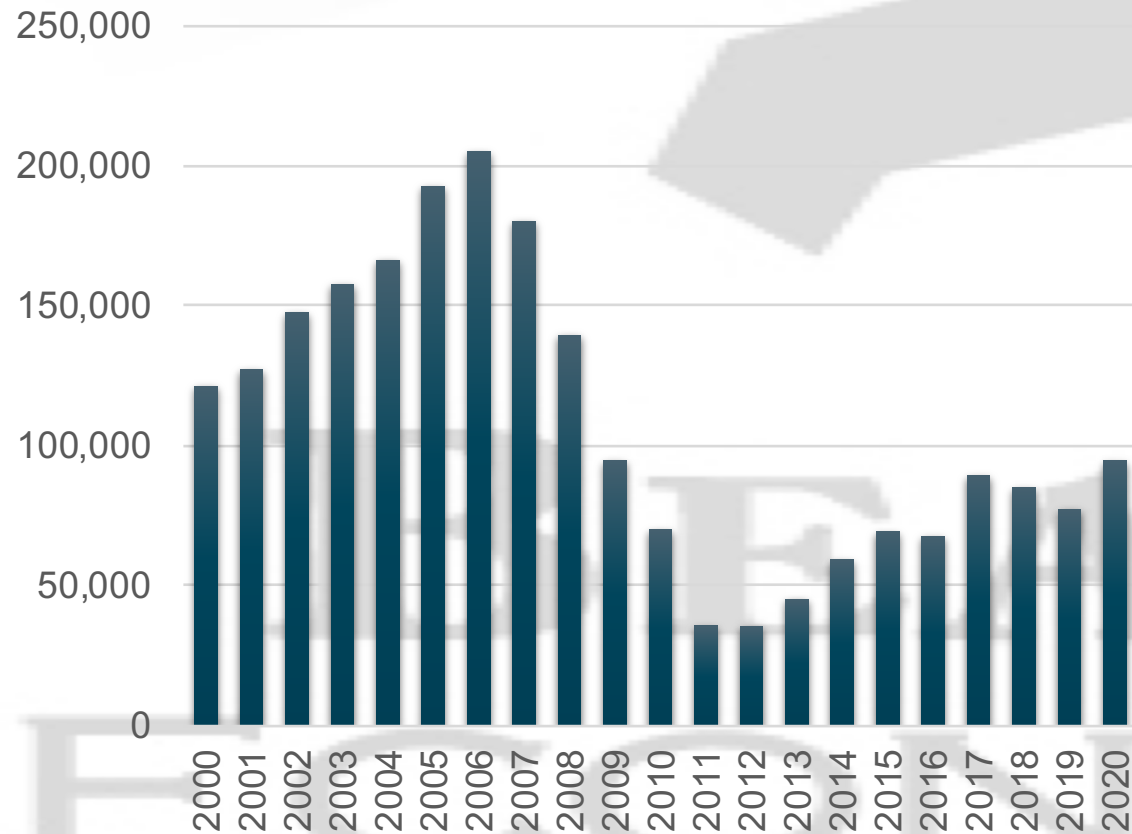
Vacancy Rate



Housing Units



**New Housing Units
California**

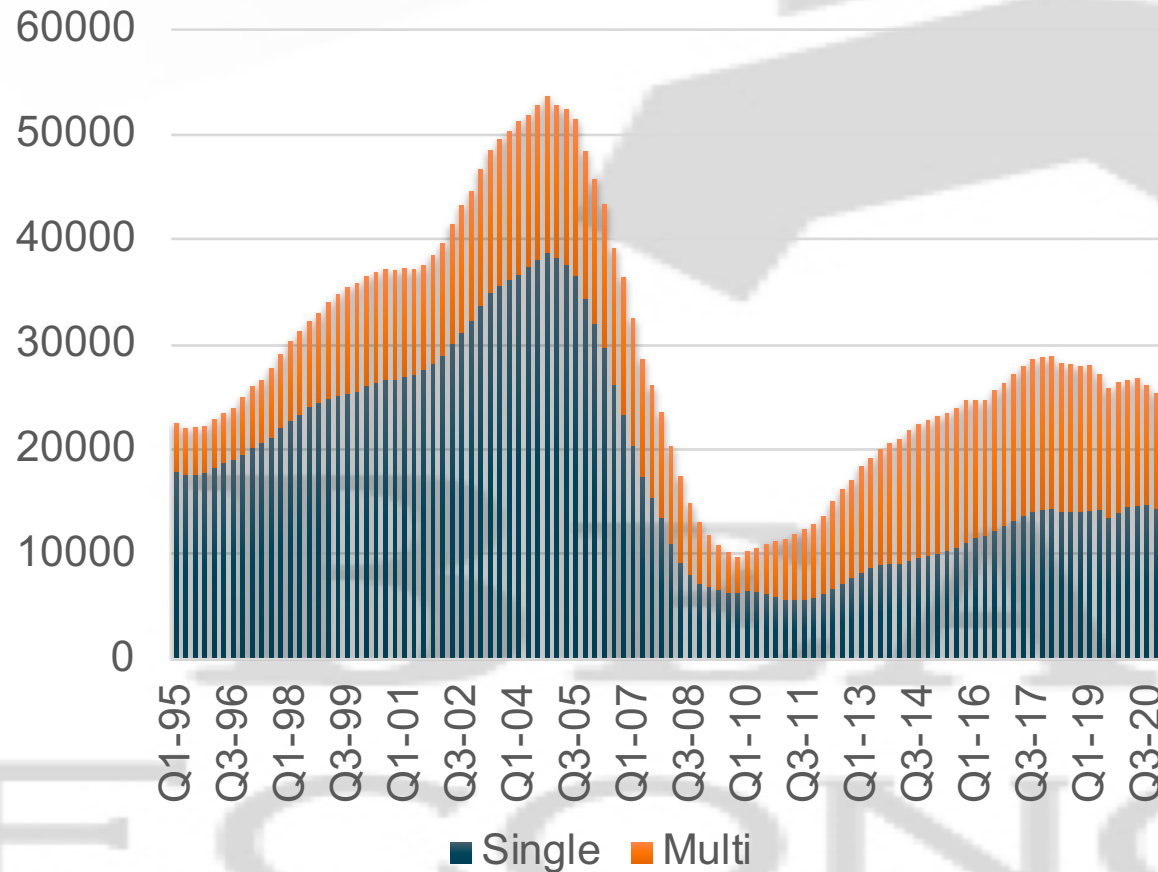


Region	Single-family (000s)		Multifamily (000s)	
	2020	1-Yr Chg	2020	1-Yr Chg
Central	1649.6	14.6	456.0	3.0
Southern Inland	1441.9	10.7	345.7	2.6
Southern Coastal	3796.9	9.0	2539.6	30.6
Bay	1865.4	6.9	849.9	9.9
Superior	349.0	1.3	71.6	0.3

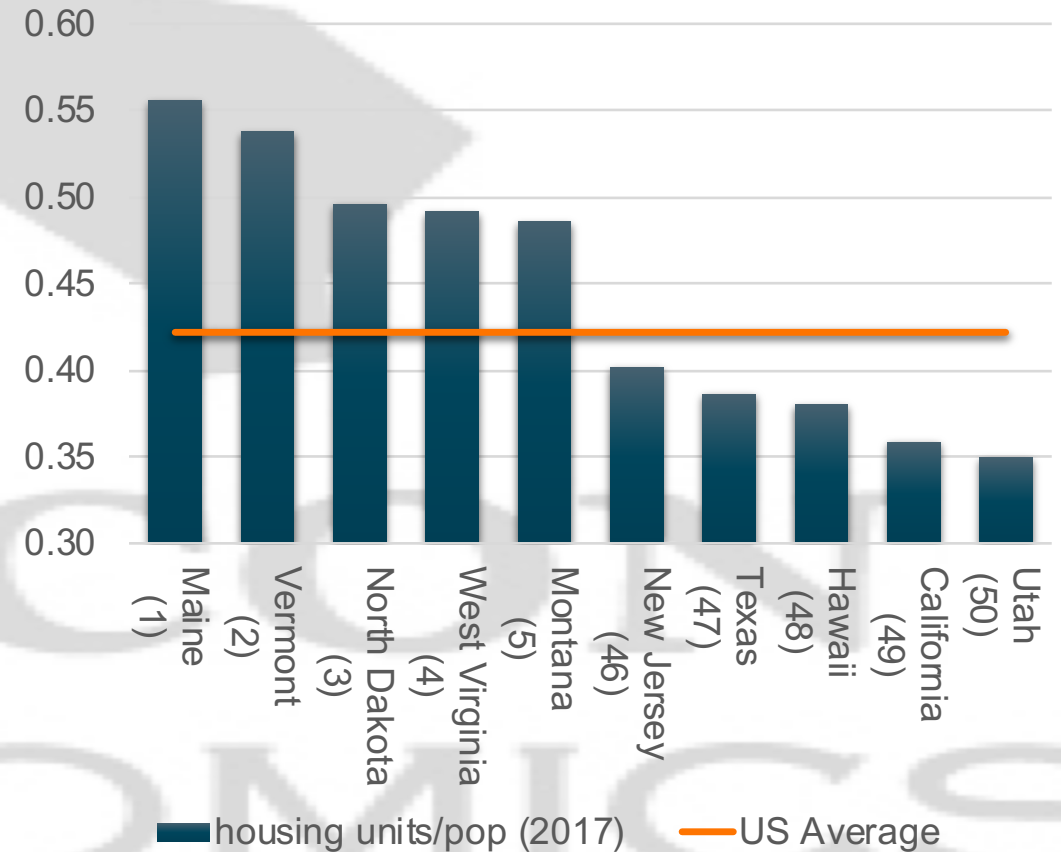
Whither the Housing Crisis?



CA Building Permits



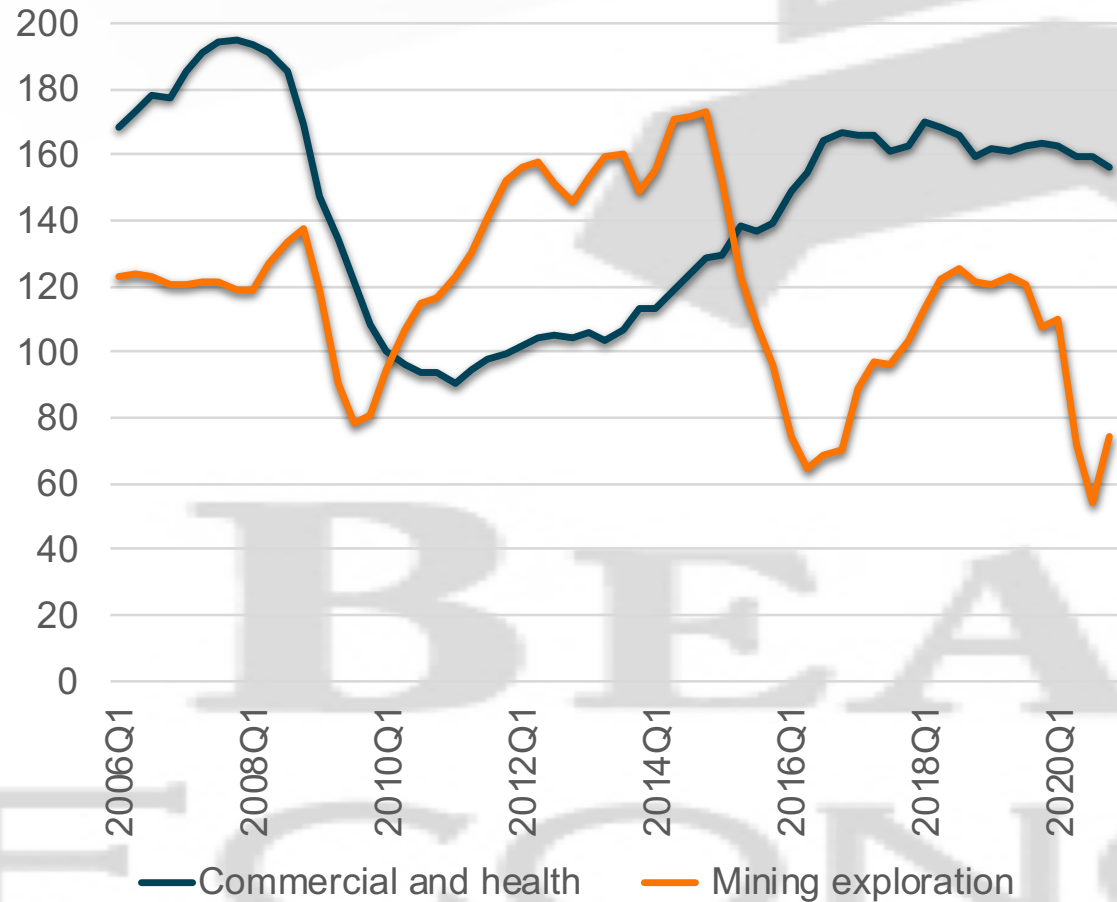
Housing Units per Capita (2017) - Top 5 and Bottom 5 States)



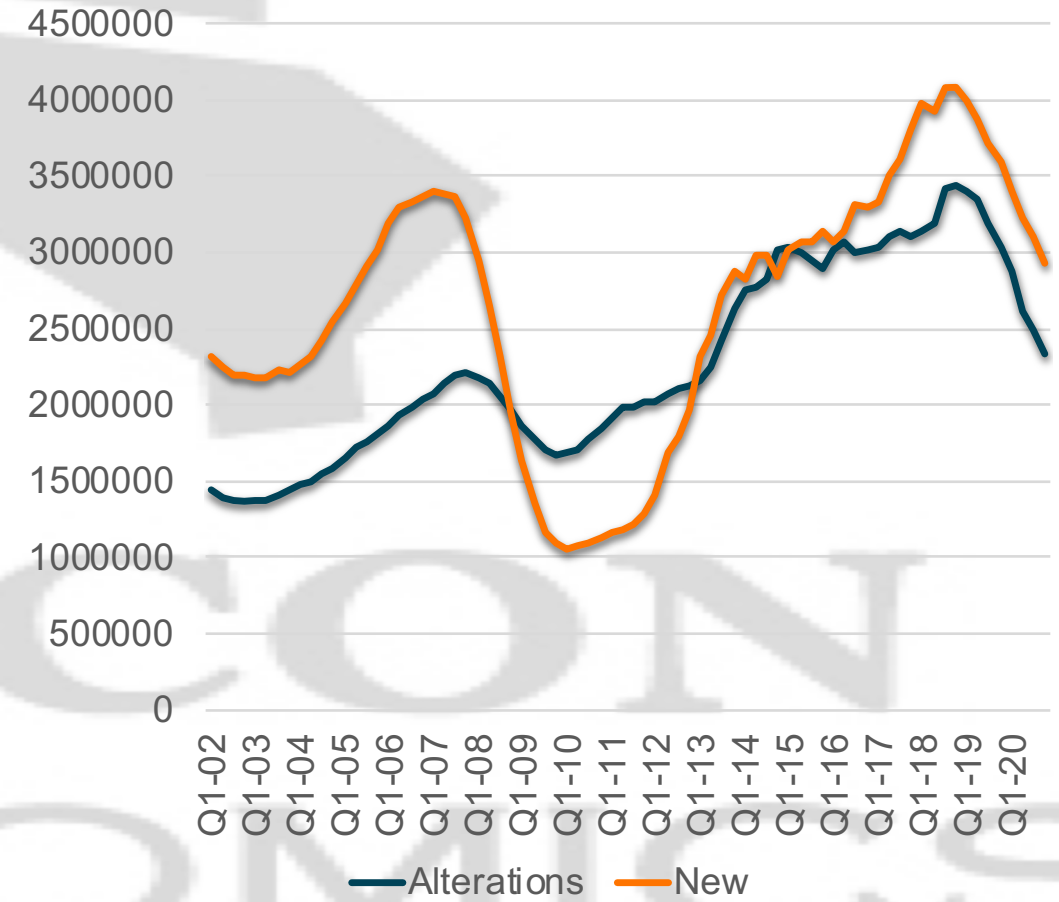
Commercial Construction Trends



National Real Investment \$Bil



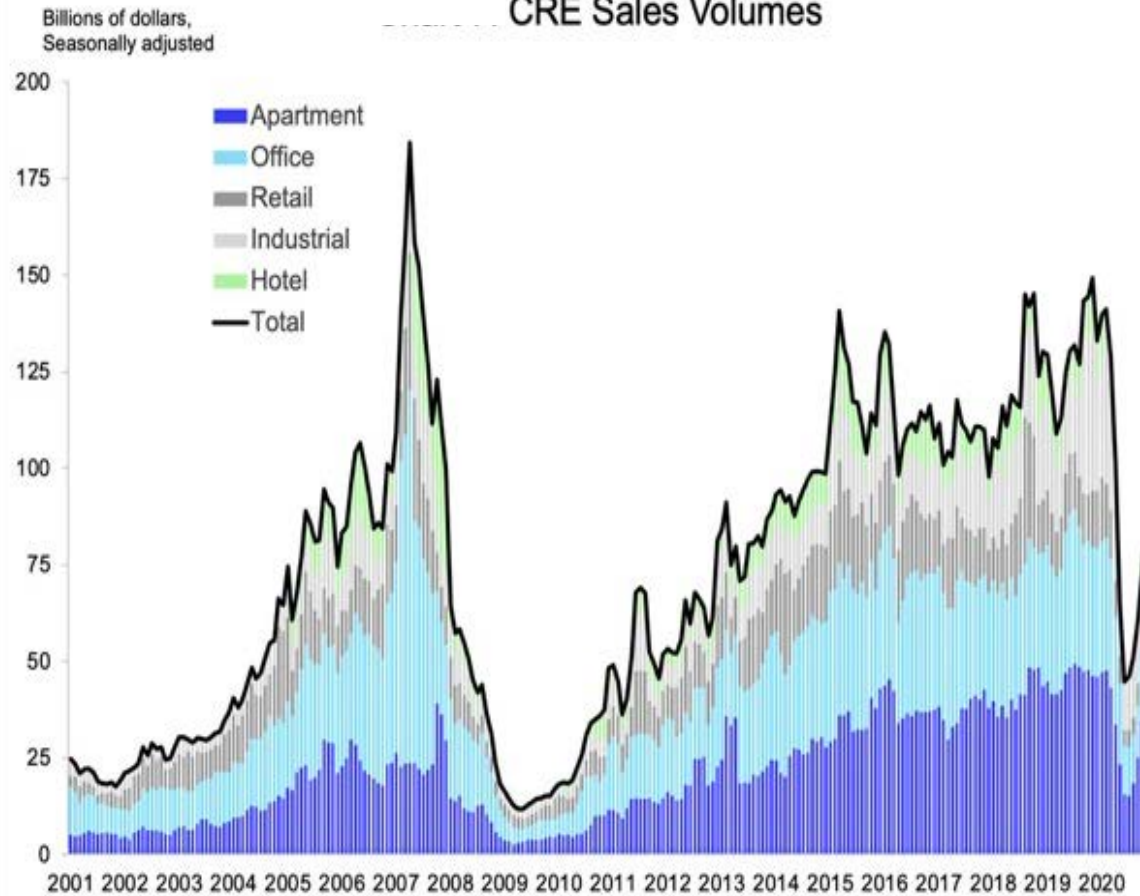
California Non-Res Permits



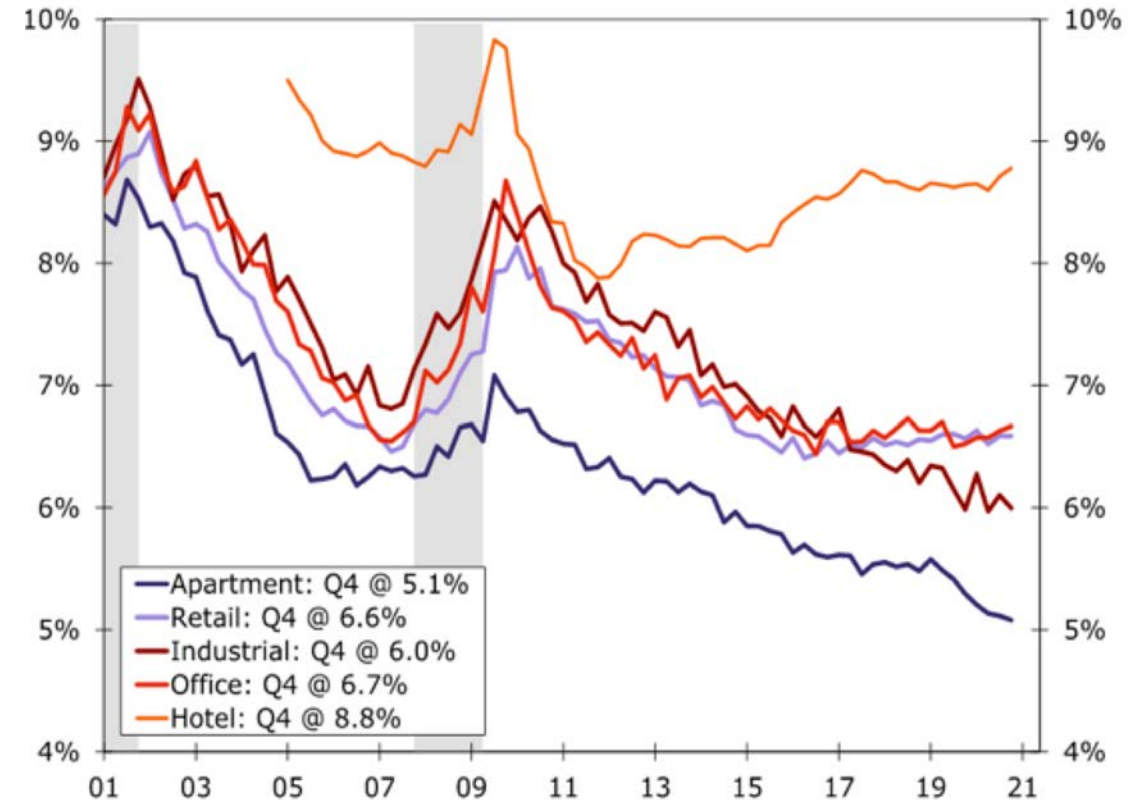
Sales and Price Trends (WF / RCA)



CRE Sales Volumes



CRE Cap Rates by Property Type

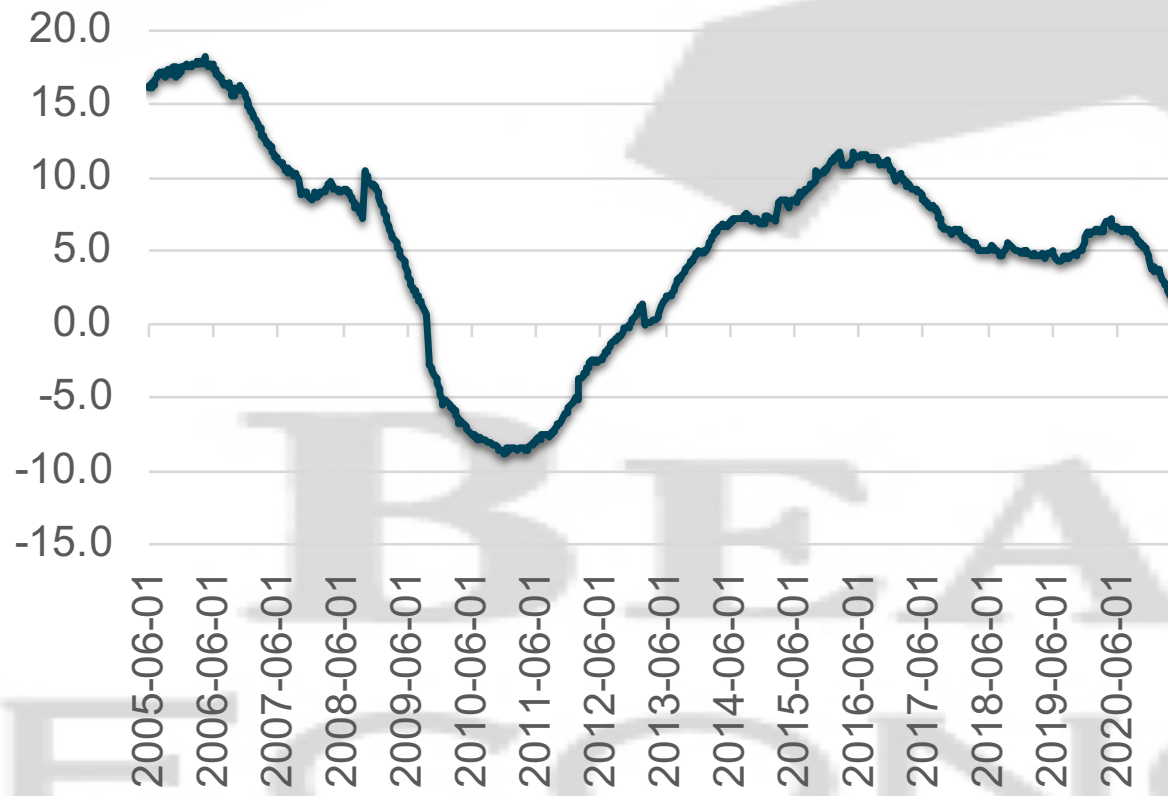


Source: Real Capital Analytics and Wells Fargo Securities

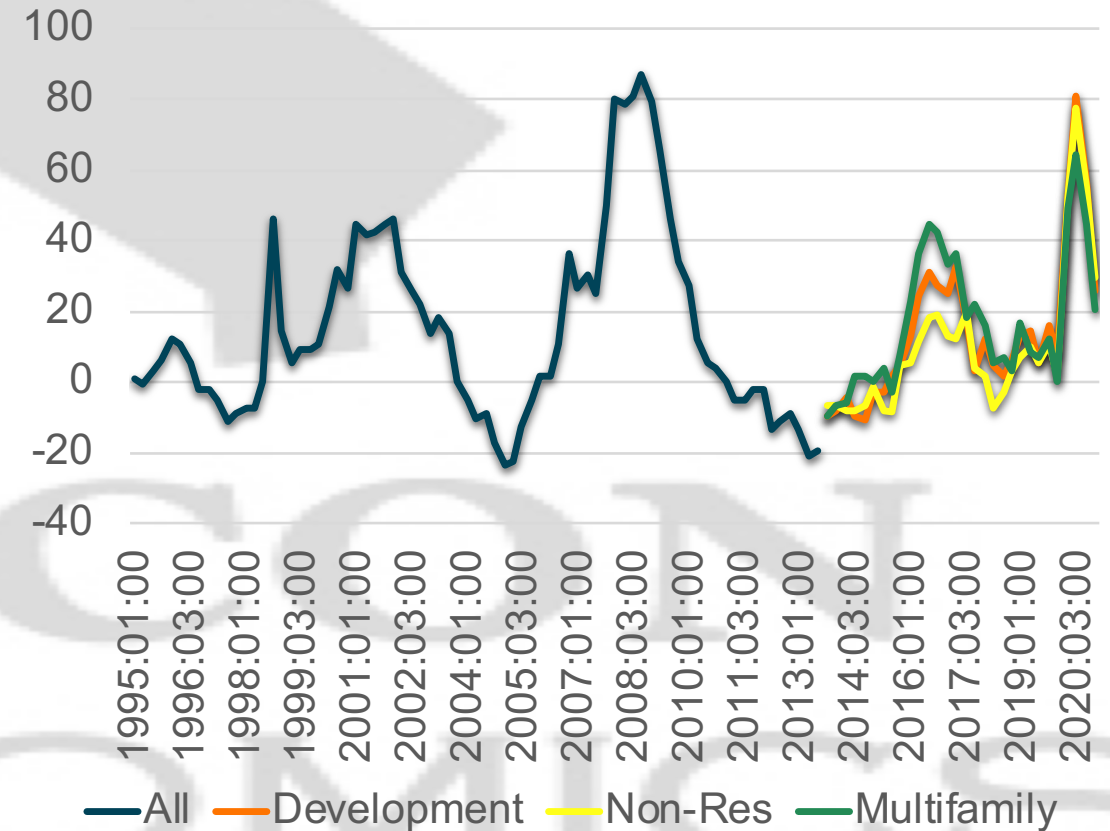
Lending Markets



YoY Growth Commercial Real Estate Loans Outstanding

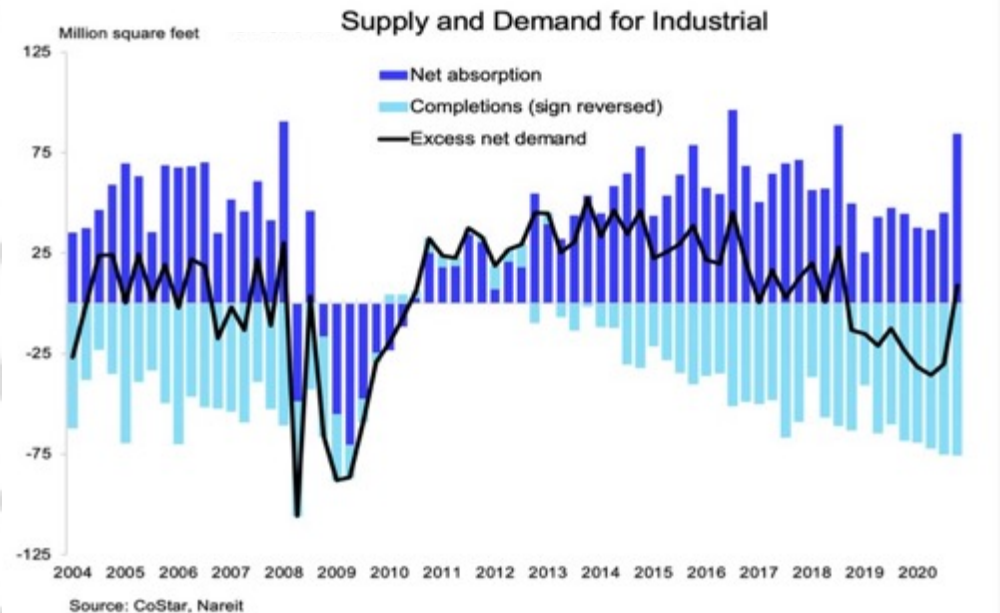
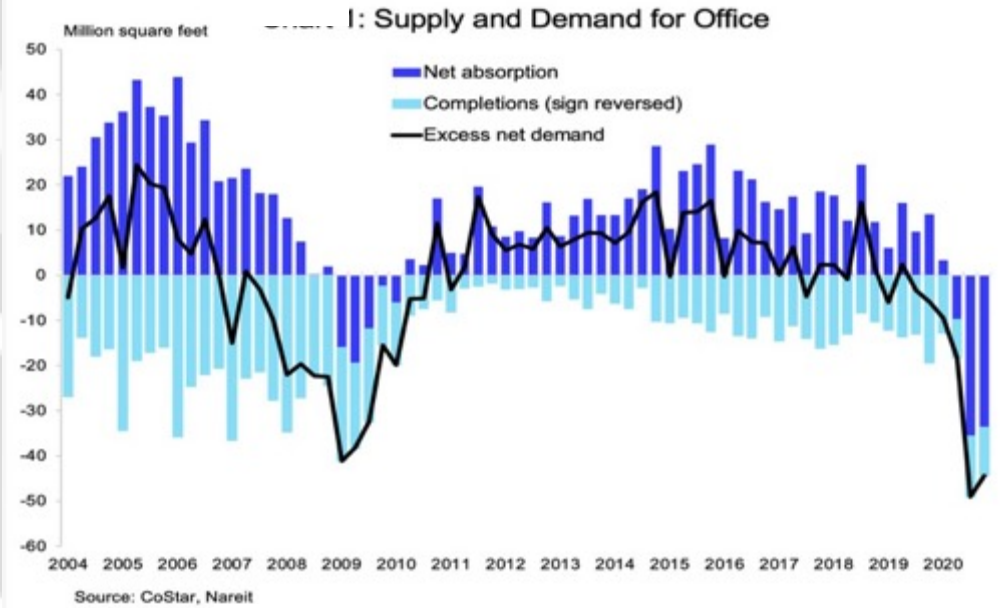
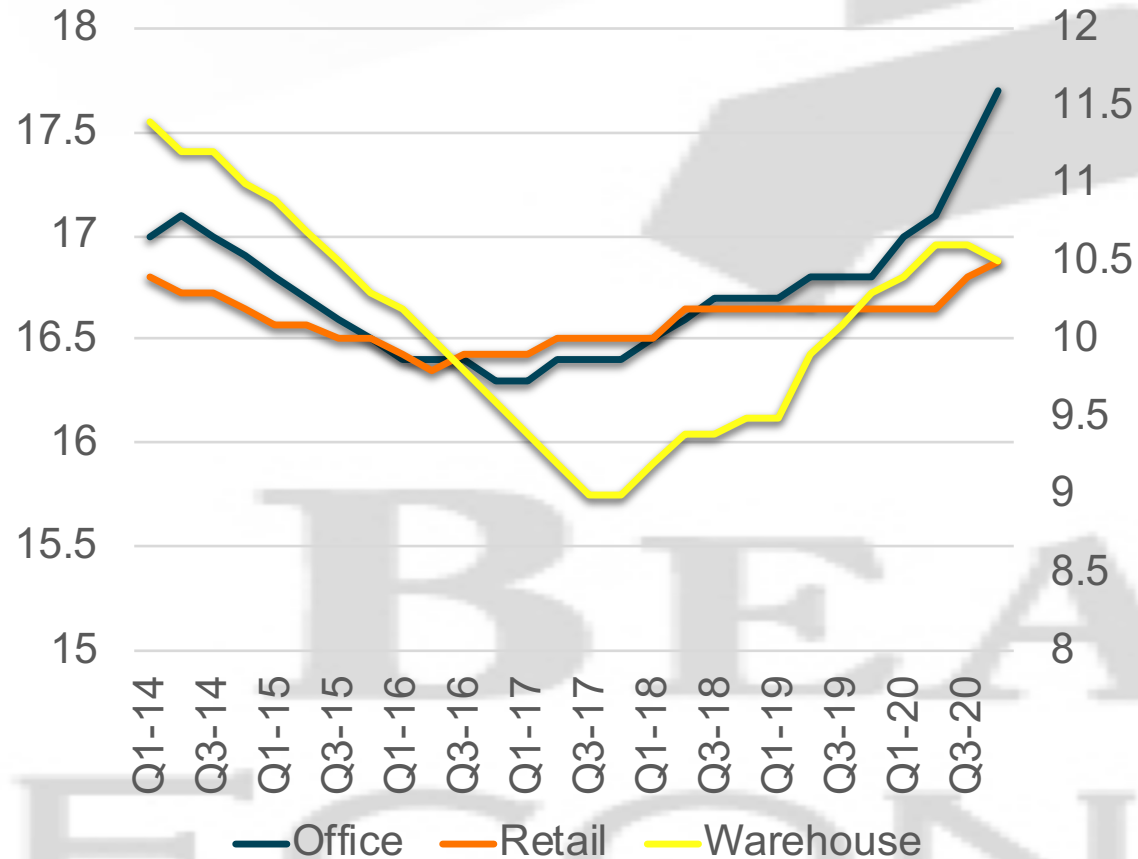


SLOS: Net % Banks Tightening Standards



Commercial Real Estate

Vacancy Rates (REIS)



Local Shifts



	Office				Warehouse			
	Vacancy		Rent		Vacancy		Rent	
	Q4-20	YoY	Q4-20	YoY	Q4-20	YoY	Q4-20	YoY
United States	17.7	0.9	34.5	0.6%	10.5	0.2	5.7	0.0%
Inland Empire	17.1	0.6	23.3	0.4%	9.9	0.1	5.8	0.0%
Las Vegas	23.9	0.8	25.4	-0.4%	7.6	0.8	7.0	1.4%
Los Angeles (MD)	15.3	1.1	40.6	0.2%	6.1	0.6	8.0	1.3%
Phoenix	21.5	-0.6	27.1	0.7%	13.4	-0.2	6.3	1.6%
Reno	23.0	1.4	20.8	-1.4%	10.5	-0.4	4.6	0.0%
Sacramento	19.0	0.5	27.1	0.7%	9.7	-0.1	5.1	0.0%
Salt Lake City	17.4	0.7	20.8	0.5%	5.5	-1.5	6.2	5.1%
San Jose	19.3	1.1	47.5	1.3%	9.1	0.8	8.5	1.2%
Tucson	25.0	3.5	22.1	-0.9%	15.7	0.0	5.6	0.0%

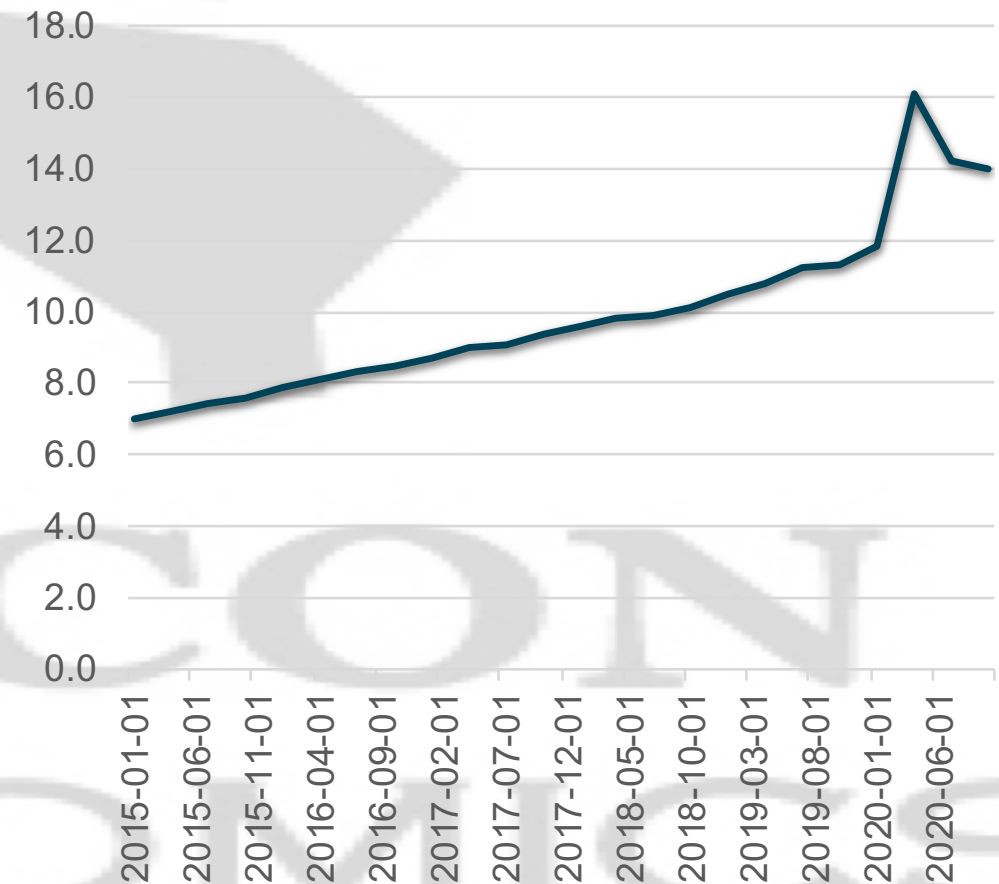
Long Run Consumer / Business Behavior



How does Covid change us?

- This is not a “new normal”
 - Polio, smallpox, plague, Spanish flu, MERS, SARS
 - No permanent change in consumer behavior seen
 - “[B]usiness travelers expect that conferences, conventions and trade shows will be offered in a virtual or hybrid format in 2021, a majority (77%) would prefer attending in person in the future.”
- Acceleration of Trends that were already there
 - Retail shifting to online
 - The WFH explosion
 - The future of location

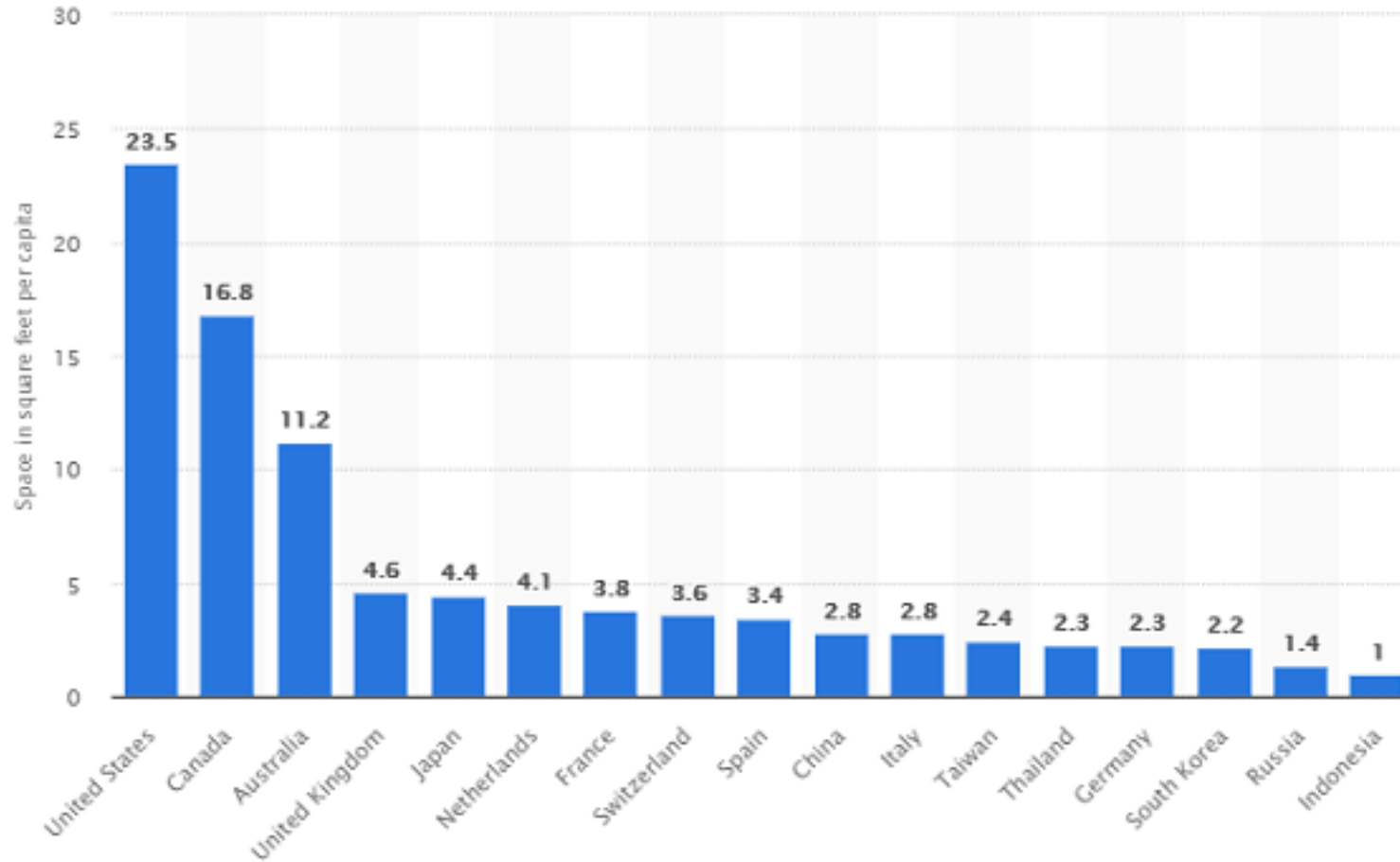
E-Commerce Share Retail Sales



The Retail Dilemma



Retail space per capita in selected countries worldwide in 2018
(in square feet)



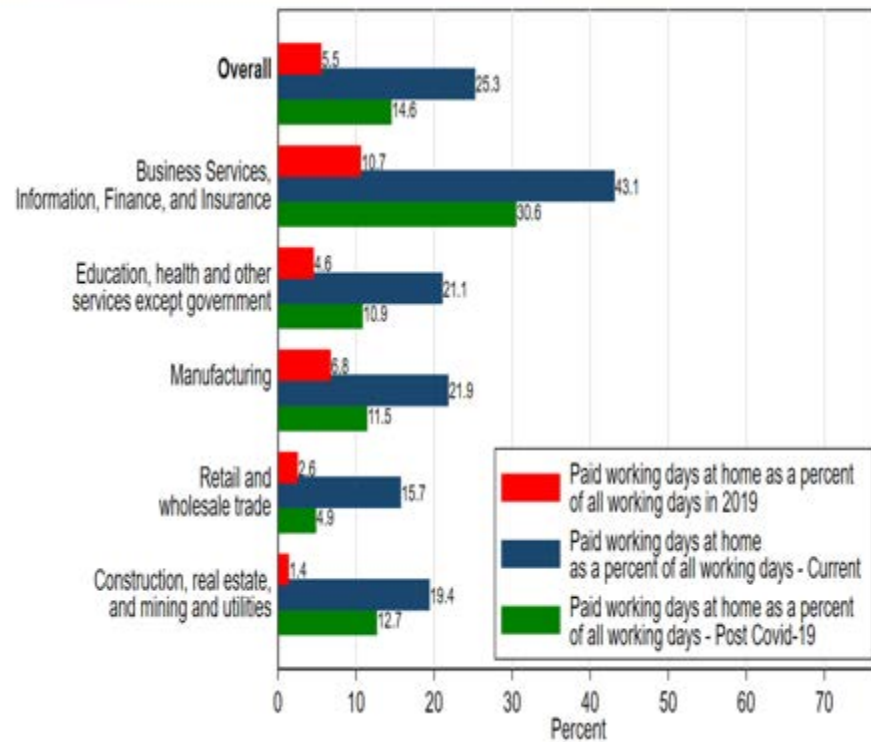
© Statista 2020

- 1) When possible, re-zone retail to mixed use.
- 2) Amend retail zoning to include ecommerce suppliers.
- 3) Look to create work / live spaces
- 4) State should review how local cities can fund themselves

Work From Home?

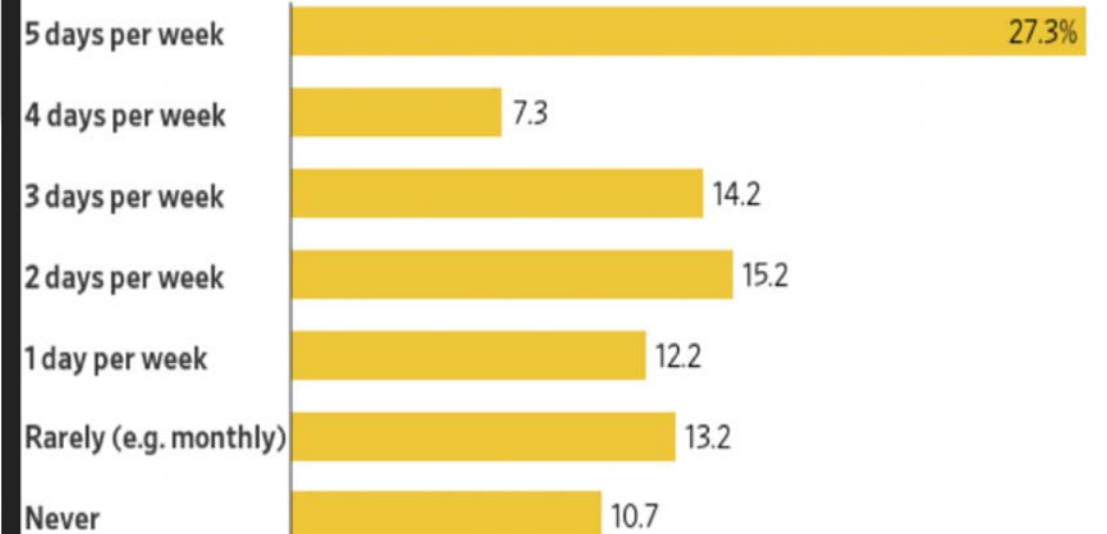


Chart 2: Paid WFH Days as a Share of All Working Days before, during, and after the Pandemic



How often would you like to work from home?

Percentage of respondents* who would like to have paid work days at home after the pandemic



* Respondents reported they are able to work from home or did at some point during Covid

Note: From a survey conducted by Inc-Query and QuestionPro of U.S. residents aged 20-64, earning more than \$20,000 per year in 2019. Data are from 15,000 survey responses collected between May and Oct. 2020.

Source: Stanford University

WFH?



- Businesses will still be downtown
 - Forces of agglomeration vs cost of density
 - More telecommuting leads to less space per worker
 - Look for consolidation effects
 - Oakland downtown to have to compete to be the “downtown of choice”
- More workers willing to Commute
 - Movement of folks from expensive west to relatively cheap East Bay
 - Need for housing to prevent more displacement

	Micro <50	Medium 50-500	Large >500
Fresno	20.573	1.339	0.011
Long Beach	22.514	1.457	0.013
Oakland	24.312	1.418	0.052
Sacramento	32.799	2.192	0.018
San Jose	19.332	1.149	0.060
Tampa	26.140	2.086	0.103
Tulsa	32.543	2.384	0.057
Virginia Beach	23.509	1.246	0.020

The Long Run Still Matters



- It ain't good, but it ain't *that* bad..
 - The "V" was the only logical outcome
 - Parts of economy still in extreme distress, but strong growth will provide quick relief
 - Lucky at some level: Spanish Flu 100x as deadly, record roll out of vaccines
- Baseline Forecast
 - 5.5% Q1, 11%Q2, 5.5% Q3, 6% Q4
 - Unemployment below 5% by year end
 - Global tourism to lag
 - The new roaring 20's?
- Forecast Wildcards
 - New variants of virus vs Vaccine roll outs
 - A new financial bubble?
 - Interest rates, public debt, inflation
- The true enemy: Miserabilism
 - Problem before the pandemic
 - More bad policy driven by a basic lack of context
 - Health needs conflated with culture wars
 - No consideration for tomorrow / the next generation

What can Beacon do for you?



Connect with us.

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Continue the conversation.

Contact **Dr. Chris Thornberg** directly at **chris@beaconecon.com** or **310.571.3399**

Let's discuss your goals and needs.

Beacon has **6 Practice Areas** covering a range of services and products.

Our 6 Practice Areas



*Housing, Land
Use, & Real Estate
Advisory*



*Sustainable
Growth and
Development*



*Economic &
Revenue
Forecasting*



*Economic, Fiscal
and Social Impact
Analysis*



*Regional and Sub-
Regional Analysis*



*Litigation and
Testimony*

Portfolio Spotlight



Regional and Sub-Regional Analysis

Beacon conducts analysis at an international, national, state, county, and city level -- and even down to the zip code, pending data availability. We analyze data on **Employment, Industry, Real Estate, and Consumption**.

Past Clients:

- City and County of Los Angeles
- City and County of Riverside
- East Bay Economic Dev. Agency



Impact (Economic, Fiscal, Social) & EB5 Analysis

Beacon has evaluated the impact of entities **like universities, music festivals, infrastructure projects, and real estate development projects**. Beacon has also conducted impact analyses that combine more than one of the above like that of **L.A's Olympic bid**.

Past Clients:

- University of Southern California
- Metropolitan Water District
- LA 2024 Olympic Bid Committee



Sustainable Growth & Development

Beacon conducts industry and policy analysis on topics like **green innovation, tech and workforce development, and industry sector strategies**. Beacon has strong in-house expertise around **housing policy** and **economic development** support.

Past Clients:

- California Apartment Association
- Long Beach Downtown Dev. Corp.
- Santa Cruz Workforce Dev. Board



Housing, Land Use, & Real Estate Advisory



Economic & revenue forecasting



Litigation and testimony



Thank You

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