



Stages of Recovery

The Covid-19 Recession: Where Next?

November 2020

Christopher Thornberg, PhD

Founding Partner, Beacon Economics

Director, UCR SoBA Center for Economic Forecasting and Development



The Pandemic and the Economy



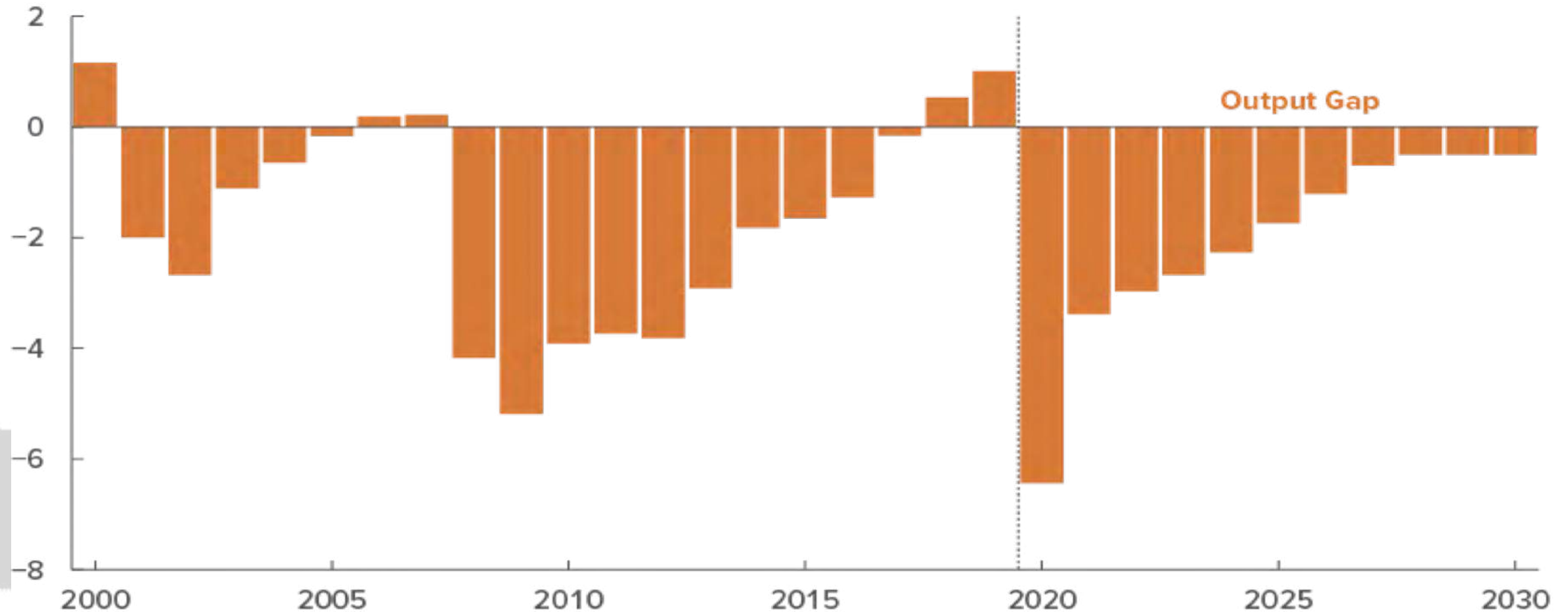
- A global natural disaster
 - 52 million plus cases, with over 1.2 million deaths (20% in the US)
 - Currently in midst of largest surge to date, offset by falling death rates
- The Recession
 - A unique business cycle, driven by consumer fear / health mandates, lessons of past cycles are not applicable
 - Beacon: in the "V" camp—rapid movement back to normality with little LR damage
 - The recession ended in April, well into recovery mode now worst quarter in economic history has been followed by the best
 - Little sign that current surge is causing a new downturn
- The Path Ahead
 - Winner / Loser economy with some sectors struggling while others prosper
 - Remainder of recovery a function of controlling Covid-19, vaccine progress being made
 - The real risks: inflation and higher interest rates driven by excessive government intervention

Miserabilism and the Pandemic



CBO Forecast: Gap between actual and potential US output

Percentage of Potential GDP



The Great Recession vs Today



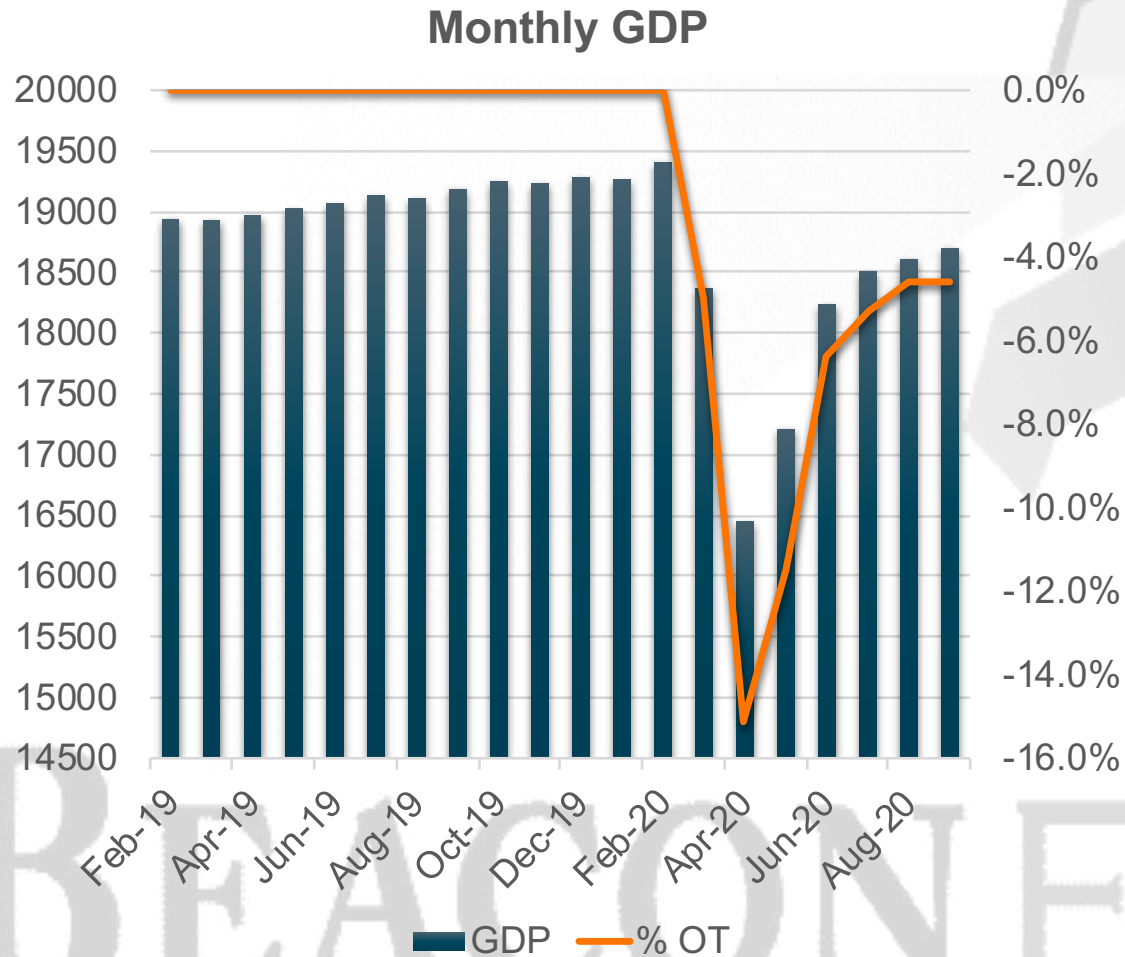
- Subprime Lending Bubble
 - \$15 trillion in borrowing 01-07
 - Collapse of lending standards
- Caused massive imbalances in economy
 - Housing and consumer spending bubbles
 - Record low savings, massive trade deficit, consumer debt levels
- 8 years to recovery
 - Truly lost jobs, rebuilding incomes, careers
 - Flow-Stock problems (housing, cars)
 - Balance sheet issues
 - Financial markets digging out of bad debt
- The Pandemic Recession
 - Driven by consumer fear
 - Very large, rapid, but not sustained
 - No reason for structural shift
- Harm to economy is building now
 - Loss of revenue / incomes
 - Supply chain effects
- Broad range of possible outcomes
 1. How healthy the economy?
 2. How much of the economy was closed?
 3. What has the government done to intervene?
 4. How long will the pandemic impact economic activity?
 5. Will there be a major shift in post-pandemic spending patterns

Stages of the Pandemic Recession

- The Recession
 - Driven by panic / health mandates
 - Peak in February, trough in April, deepest / shortest ever
- Recovery Stage 1: Learning to Live With Covid-19
 - Mitigation / adaptation of businesses and consumers
 - Winners and Losers with shift in spending to less impacted sectors
- Recovery Stage 2: Containing the Disease
 - Certain sectors impacted by Covid-19; travel, recreation, hospitality
 - Accepting the Inevitable: moving down the resistance curve
 - Policies that protect vulnerable / minimize impact on economy
- Recovery Stage 3: Return to Normality
 - Modest long run damage to economy
 - Massive government stimulus has supercharged potential demand
 - Big issues are with Covid-19 response: The federal debt / inflation

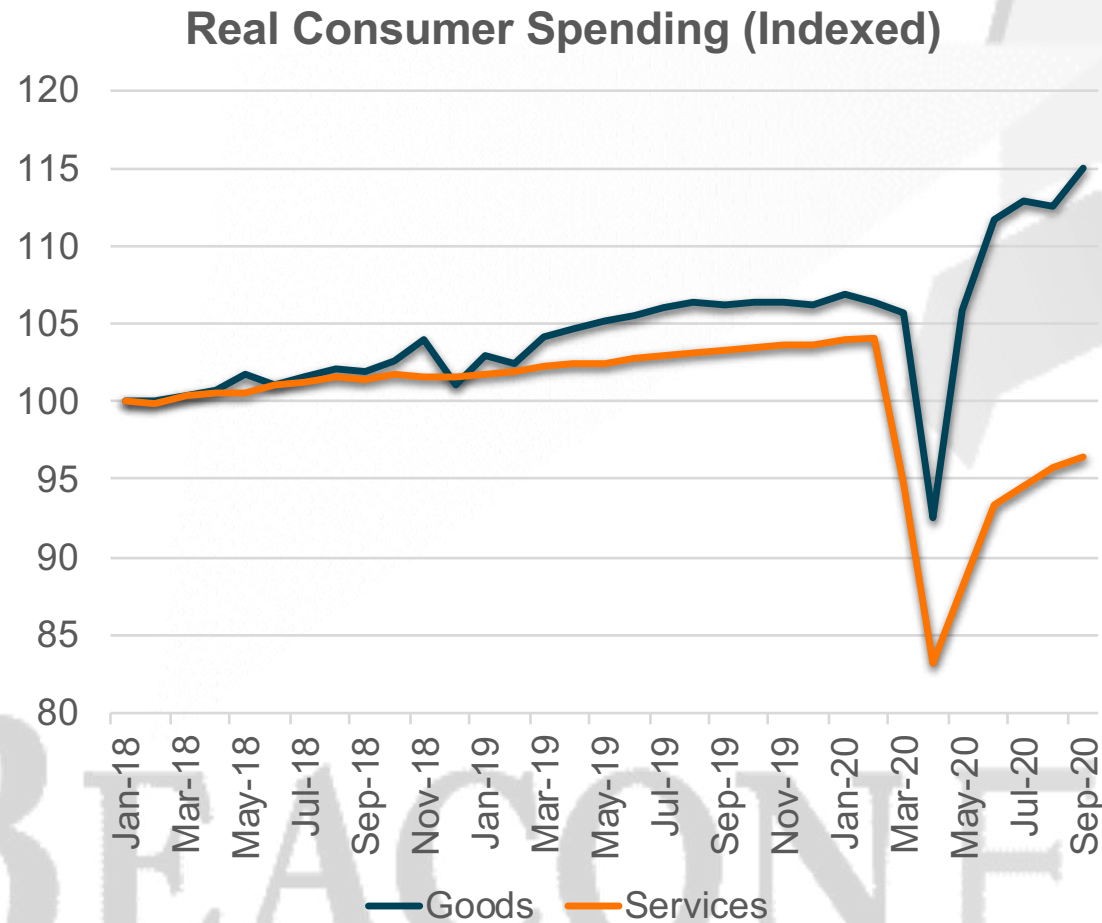


Where are we now?



	2020			Diff from 19Q4
	Q1	Q2	Q3	
GDP	-5	-31.4	33.1	-3.5%
Consumption	-4.75	-24.01	25.27	-3.3%
Goods	0.03	-2.06	9.24	6.7%
Services	-4.78	-21.95	16.04	-7.7%
Fixed investment	-0.23	-5.27	4.96	-2.7%
Structures	-0.11	-1.11	-0.43	-14.0%
Equipment	-0.91	-2.03	3.34	-1.9%
Intellectual property	0.11	-0.53	-0.03	-2.6%
Residential	0.68	-1.6	2.09	5.1%
Change in inventories	-1.34	-3.5	6.62	
Net exports	1.13	0.62	-3.09	
Exports	-1.12	-9.51	4.9	-15.3%
Imports	2.25	10.13	-7.99	-7.1%
Government	0.22	0.77	-0.68	-0.2%
Federal	0.1	1.17	-0.39	2.6%
State and local	0.12	-0.4	-0.3	-1.9%

Consumers Leading the Way



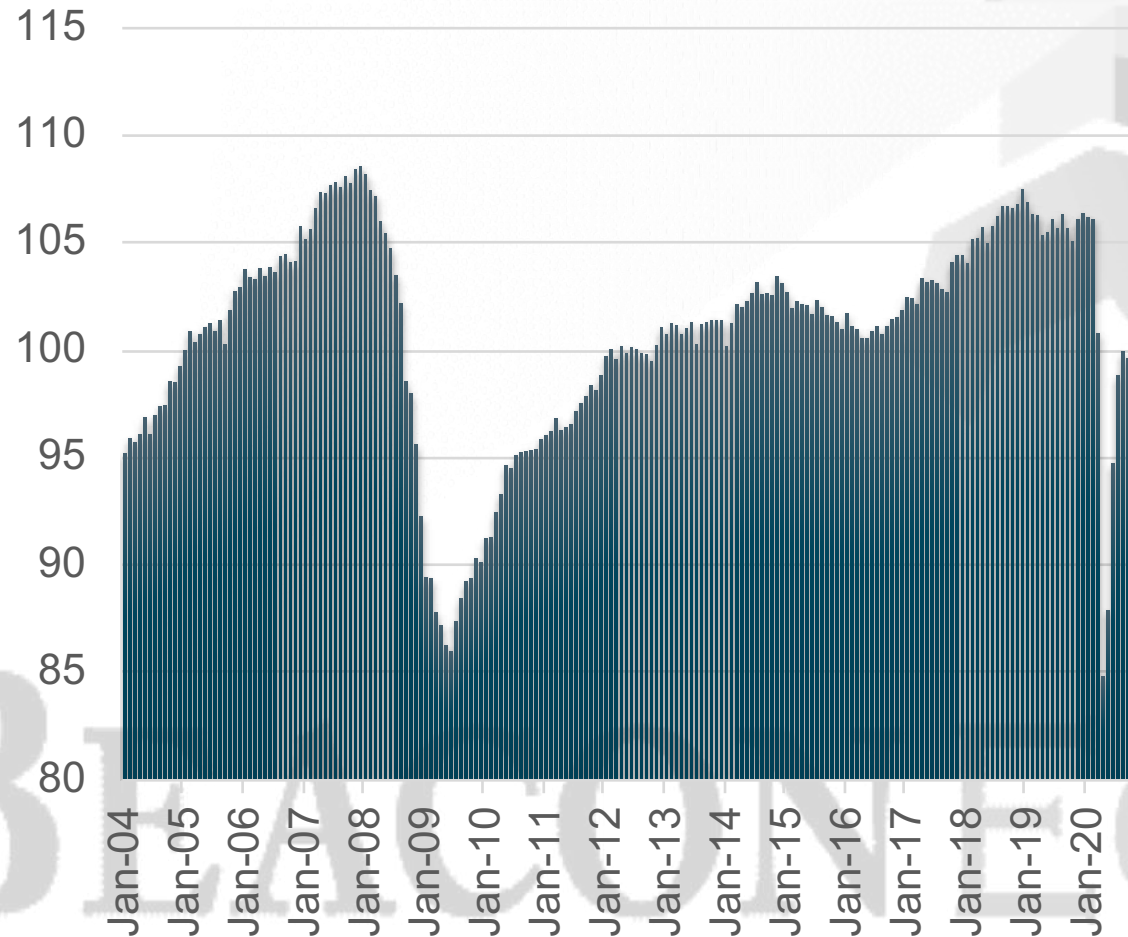
Sept-Sept Change

	Sept	YoY Ch
Total	549256	5.4%
Non-store retailers	83781	23.8%
Hardware	37825	19.1%
Sports / Hobbies	7710	14.4%
Motor vehicle & parts	114803	10.9%
Food & beverage stores	70794	10.5%
Health & personal care stores	31425	5.3%
Furniture & home furn. stores	10407	4.6%
General merchandise	62055	4.3%
Clothing	19478	-12.5%
Gasoline	35909	-13.3%
Restaurants / Bars	55595	-14.4%

Production Trends



Industrial Production



	Weight	YoY
Total industry	100	-7.3
Energy	25.94	-12.1
Consumer products	5.02	-3.7
Commercial products	2.38	-12.5
Oil and gas well drilling	0.55	-68.4
Converted fuel	4.71	-9.1
Primary energy	13.27	-14.1
Non-energy	74.06	-5.6
Selected high-technology	1.83	5.8
Motor vehicles and parts	5.5	0.4
Consumer goods	19.69	-2.7
Business equipment	7.96	-12.7
Construction supplies	5.44	-6.4
Business supplies	6.08	-8.7
Materials	25.21	-6.9

Leading Indicators



Manufacturing Inventory / Sales Ratio



Retail Sales: Inventory to Sales Ratio



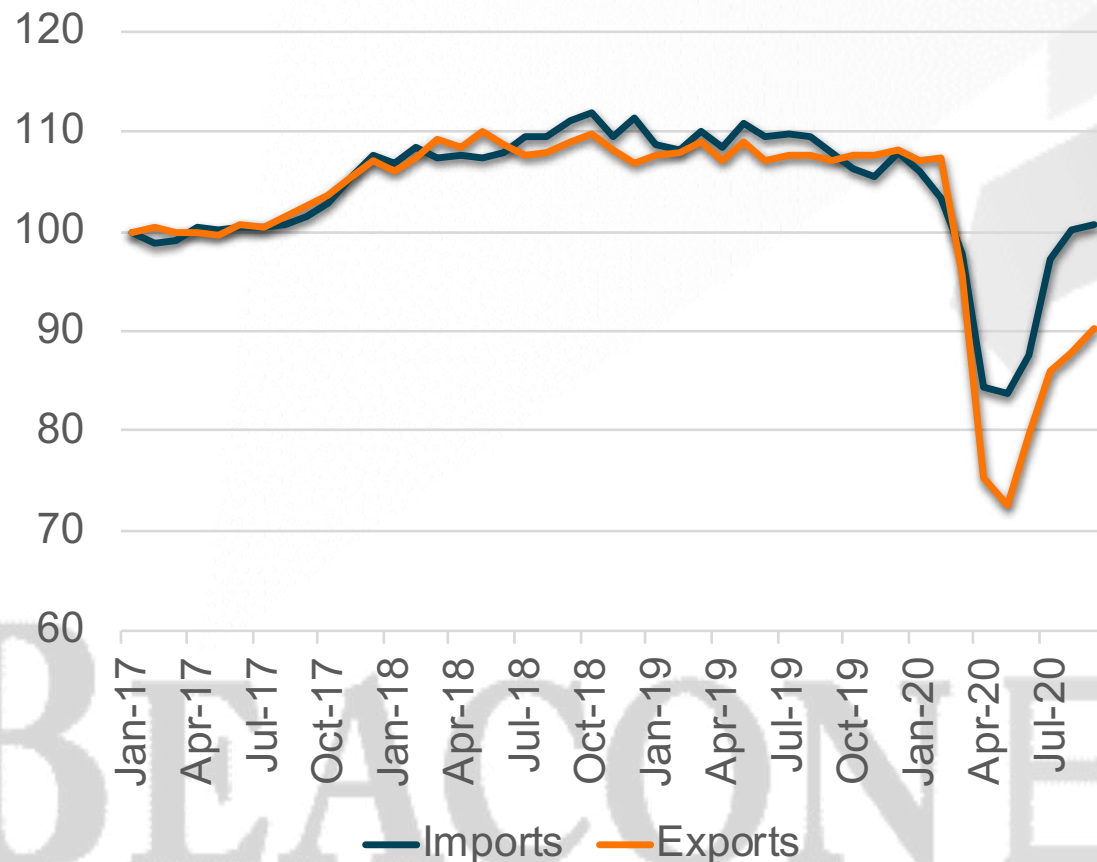
Non-Defense, Non-Aircraft New Durable Orders



The Bounce in Trade



**Nominal Imports and Exports
(Indexed)**

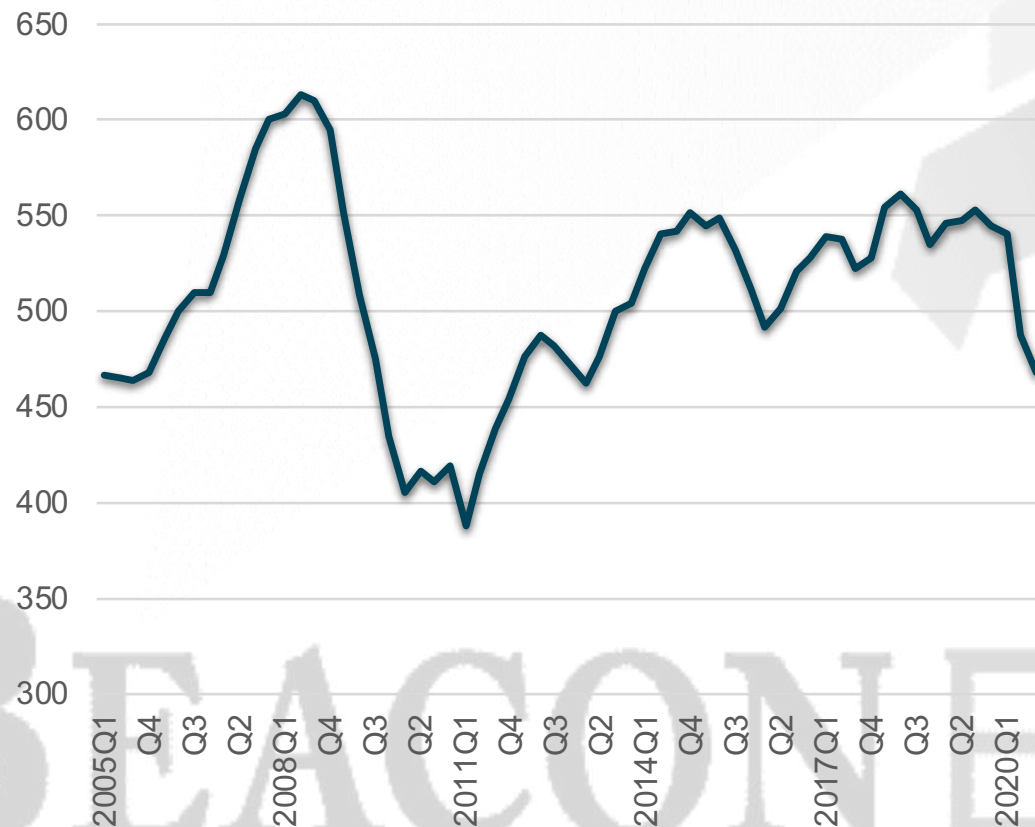


California Exports	SEP 2020 YTD	%2017 -2018	%2018- 2019	%2019- 2020
TOTAL ALL COMMODITIES	113.16	3.63	-2.32	-12.82
Dairy Prods; Birds Eggs; Honey; Ed Animal Pr Nesoi	1.31	1.72	2.78	28.05
Pharmaceutical Products	3.39	-8.9	8.16	8.85
Oil Seeds Etc.; Misc Grain, Seed, Fruit, Plant Etc	0.97	-6.46	1.00	6.74
Miscellaneous Edible Preparations	1.63	-1.74	16.1	5.12
Miscellaneous Chemical Products	2.62	19.74	5.79	2.71
Industrial Machinery, Including Computers	18.25	5.86	-12.36	-1.59
Edible Vegetables & Certain Roots & Tubers	1.13	-0.70	3.85	-1.99
Edible Fruit & Nuts; Citrus Fruit Or Melon Peel	7.04	-1.03	3.43	-4.99
Beverages, Spirits And Vinegar	1.19	-2.97	-3.78	-6.44
Electric Machinery Etc; Sound Equip; Tv Equip; Pts	19.60	3.02	-11.42	-7.44
Plastics And Articles Thereof	3.10	4.82	-3.34	-9.06
Optic, Photo Etc, Medic Or Surgical Instrments Etc	11.64	9.55	0.48	-12.57
Essential Oils Etc; Perfumery, Cosmetic Etc Preps	1.12	5.16	2.58	-14.63
Iron And Steel	1.22	17.58	-10.11	-15.01
Articles Of Iron Or Steel	1.02	5.24	-0.66	-19.67
Aluminum And Articles Thereof	1.11	13.93	-8.98	-21.44
Aircraft, Spacecraft, And Parts Thereof	5.10	-6.27	3.94	-25.07
Vehicles, Except Railway Or Tramway, And Parts Etc	7.90	-1.36	28.98	-26.43
Nat Etc Pearls, Prec Etc Stones, Pr Met Etc; Coin	3.90	6.21	-9.43	-40.42
Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	2.56	11.29	4.82	-43.42

Non Residential Markets

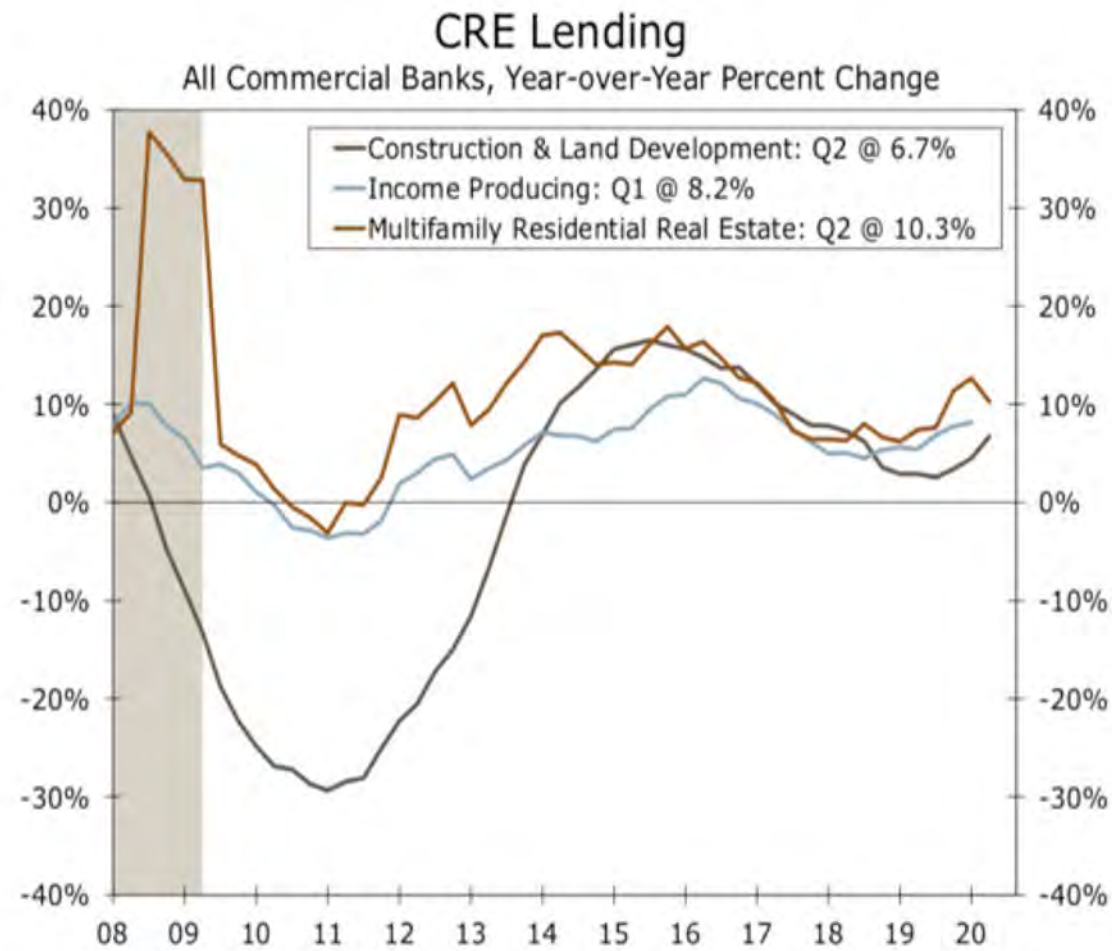
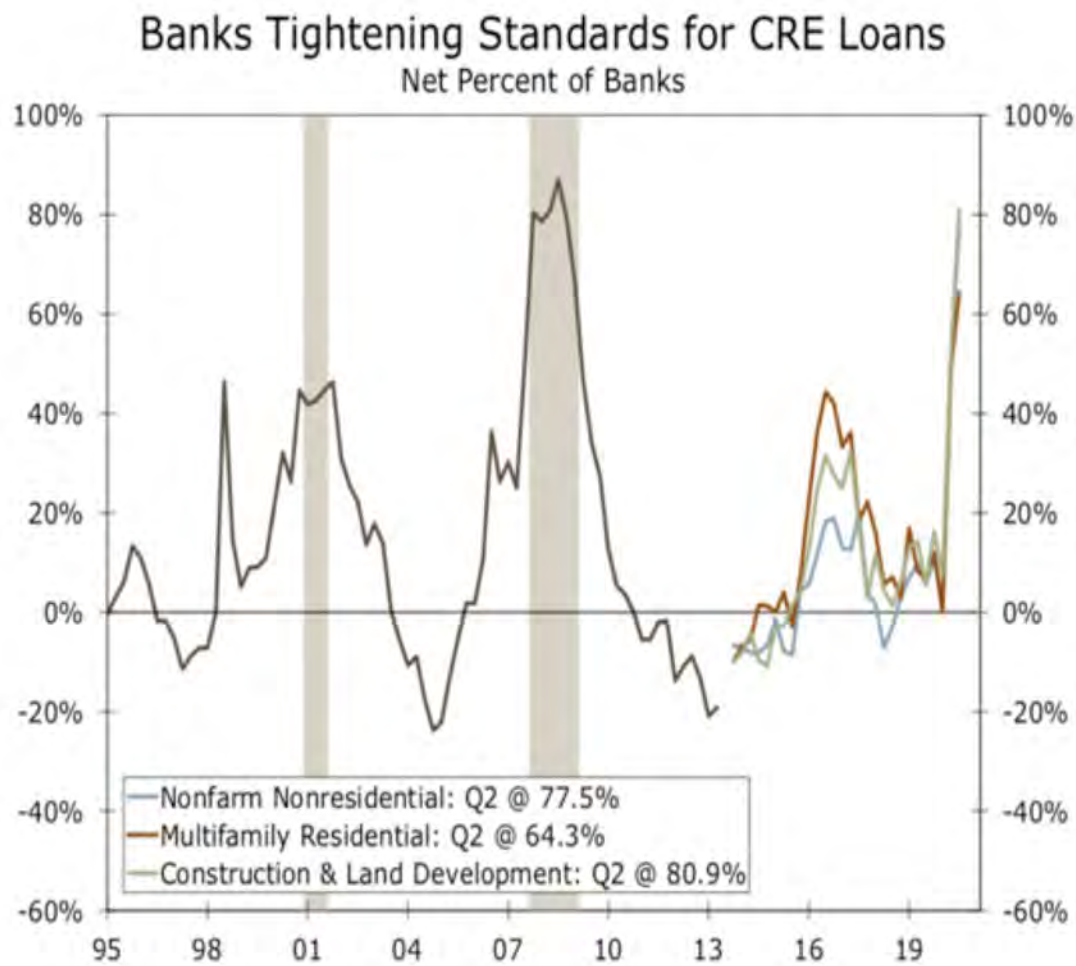


Real Investment in Structures



Structures	-15.2%	468.6
Commercial and health care	-3.7%	156.6
Manufacturing	-10.4%	55.8
Power and communication	0.2%	114.4
Mining exploration, shafts, and wells ¹	-55.2%	54.2
Other structures ²	-15.0%	83.3

CRE Lending – U.S.



Nonresidential Rents and Vacancies



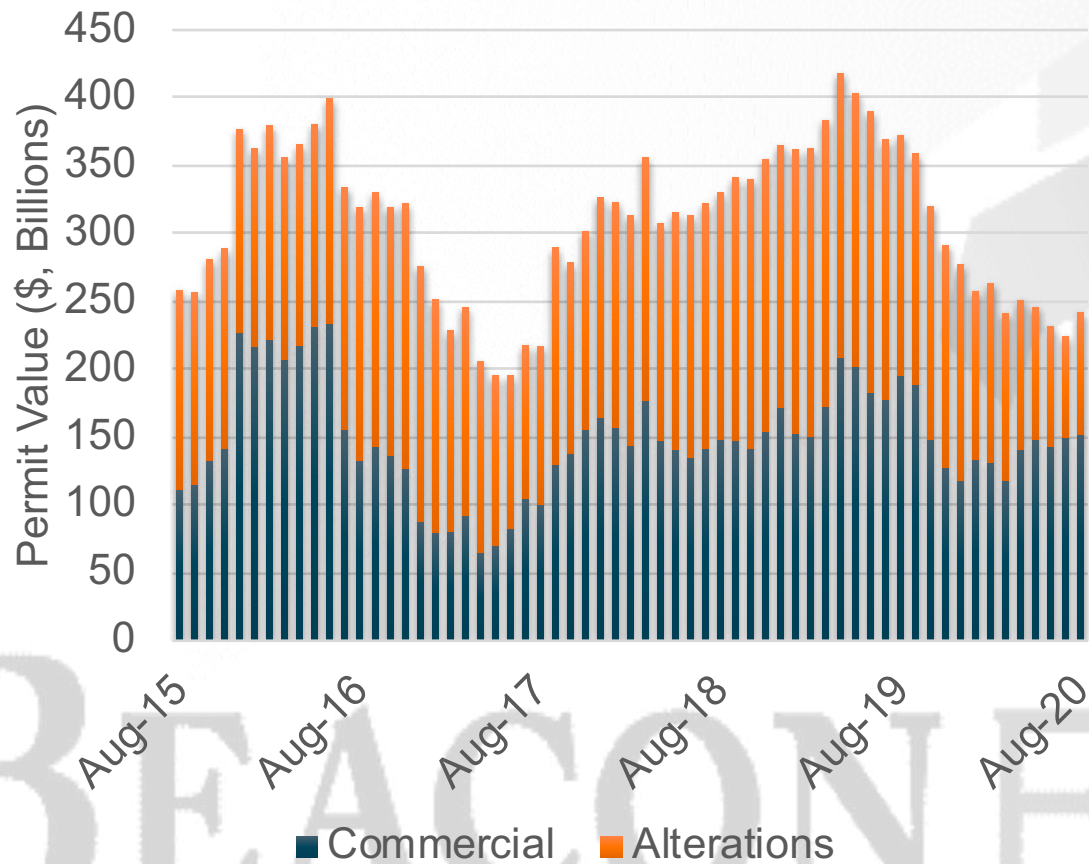
Office	Cost of Rent		Vacancy Rate	
	Q3-2020 (\$)	1-Year % Growth	Q3-2020 (%)	1-Year Change
San Francisco	65.8	2.5	9.9	1.1
East Bay	35.5	2.2	16.4	1.1
South Bay	47.0	0.9	18.3	0.1

Retail	Cost of Rent		Vacancy Rate (%)	
	Q3-2020 (\$)	1-Year % Growth	Q3-2020 (%)	1-Year Change
San Jose	37.6	0.3	5.7	0.3
San Francisco	41.3	-0.6	4.8	0.6
South Bay	31.9	-0.7	8.3	0.3

Nonresidential Permitting



Permits – Santa Clara County

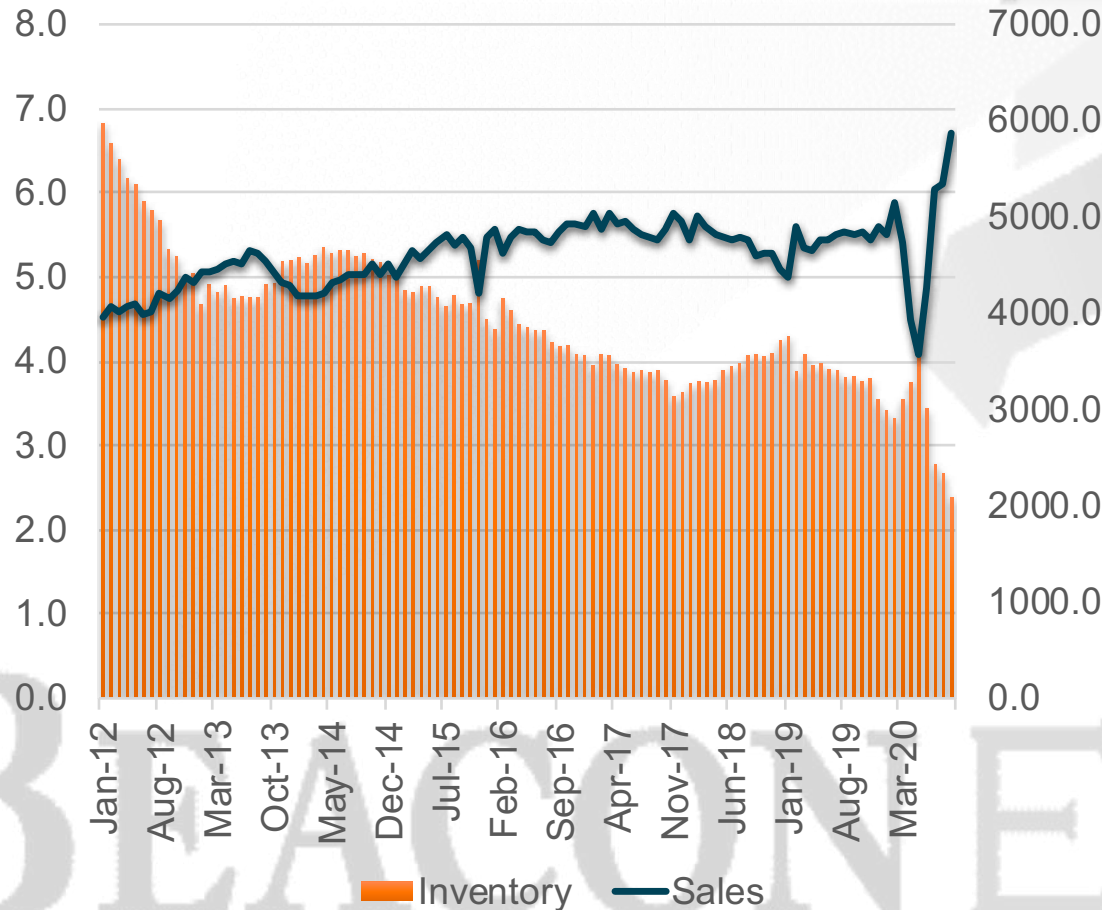


Permit Type	YTD Q2-2020 (\$, Mil)	1-Yr Chg. (\$, Mil)
Total	1,352.1	-1,552.3
Office	381.1	34.9
Industrial	3.2	-38.7
Hotel	40.0	-124.3
Retail	52.5	-157.9
Commercial	555.2	-473.9
Alterations	775.1	-582.7

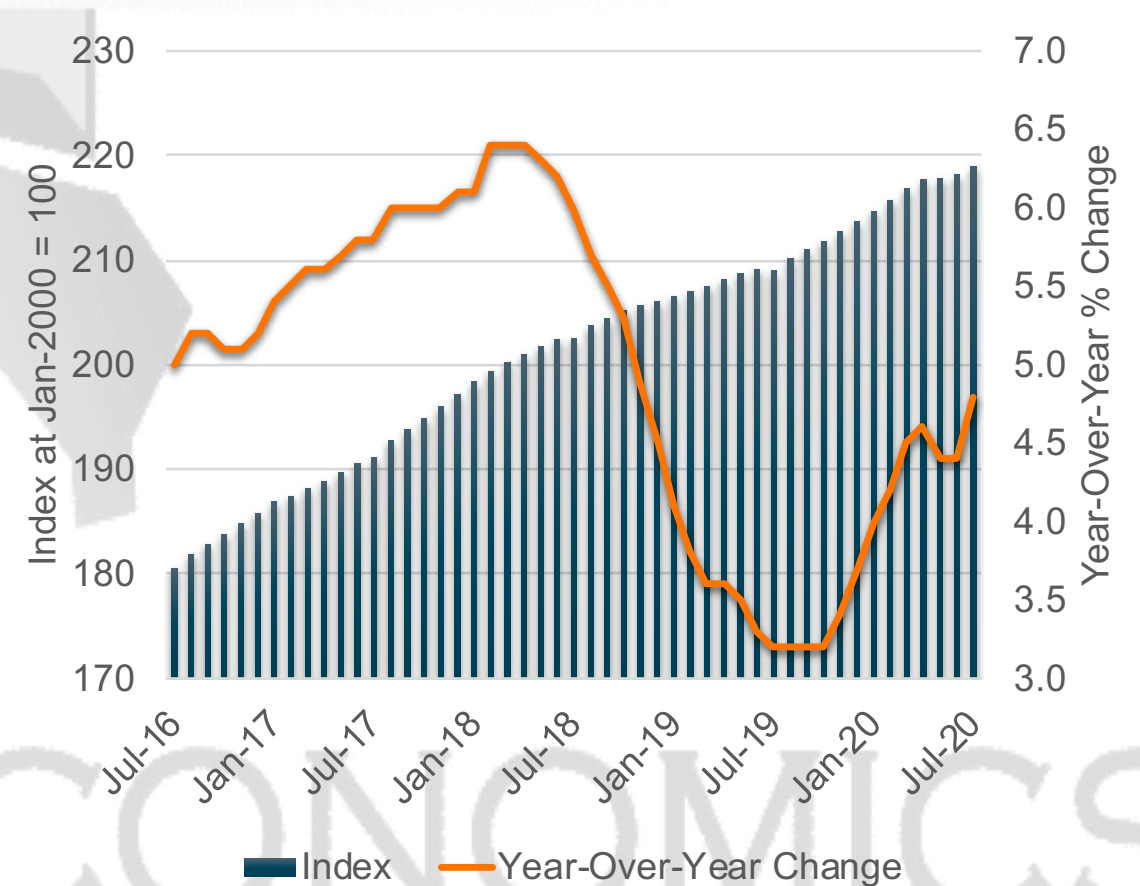
Housing – U.S.



US Single Family Market



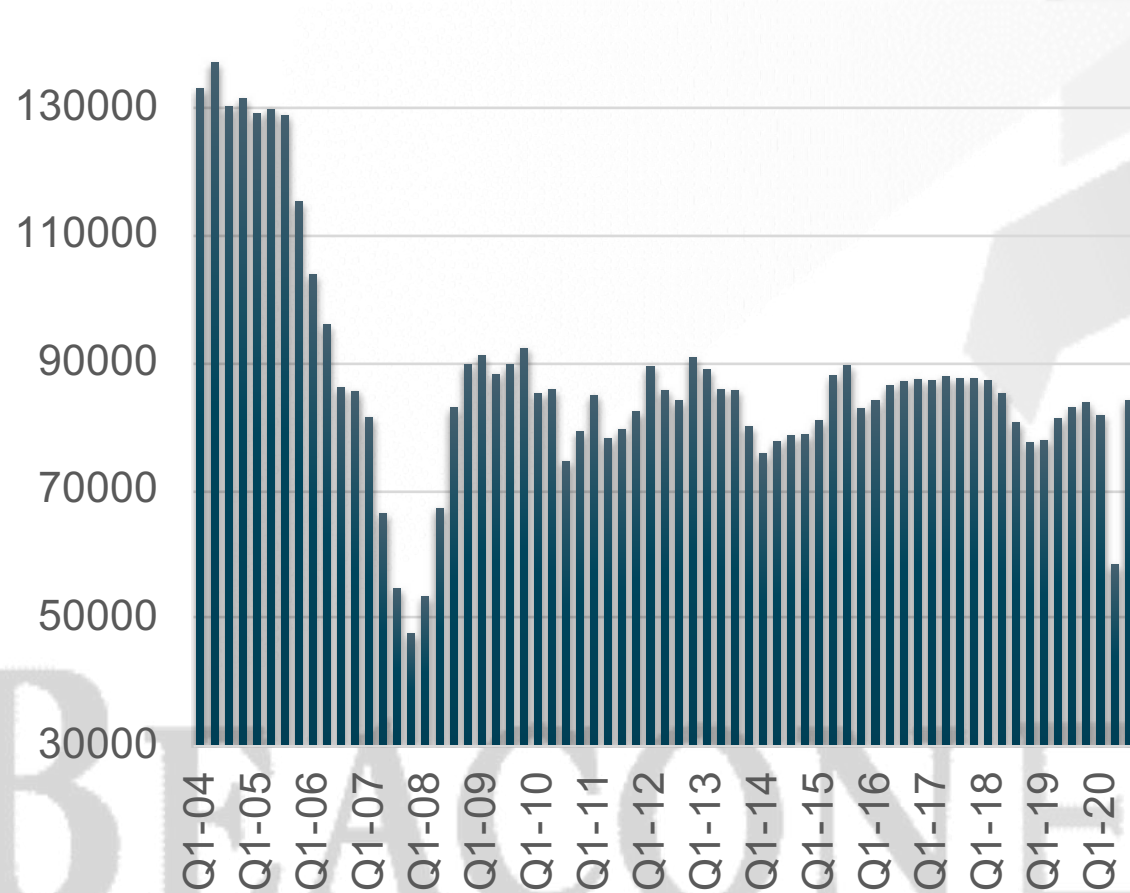
S&P/Case-Shiller National Index



State Sales



Home Sales



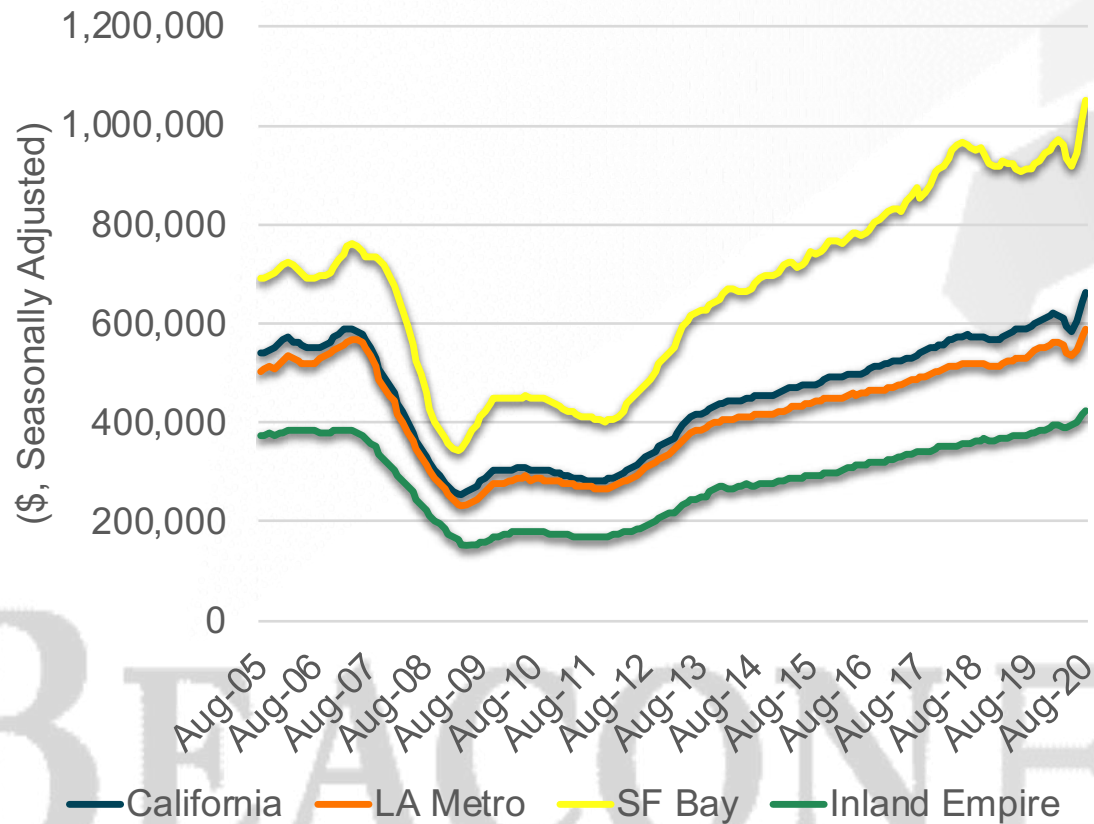
Months Supply of Inventory



California Real Estate



Median Prices of Existing Single Family Homes

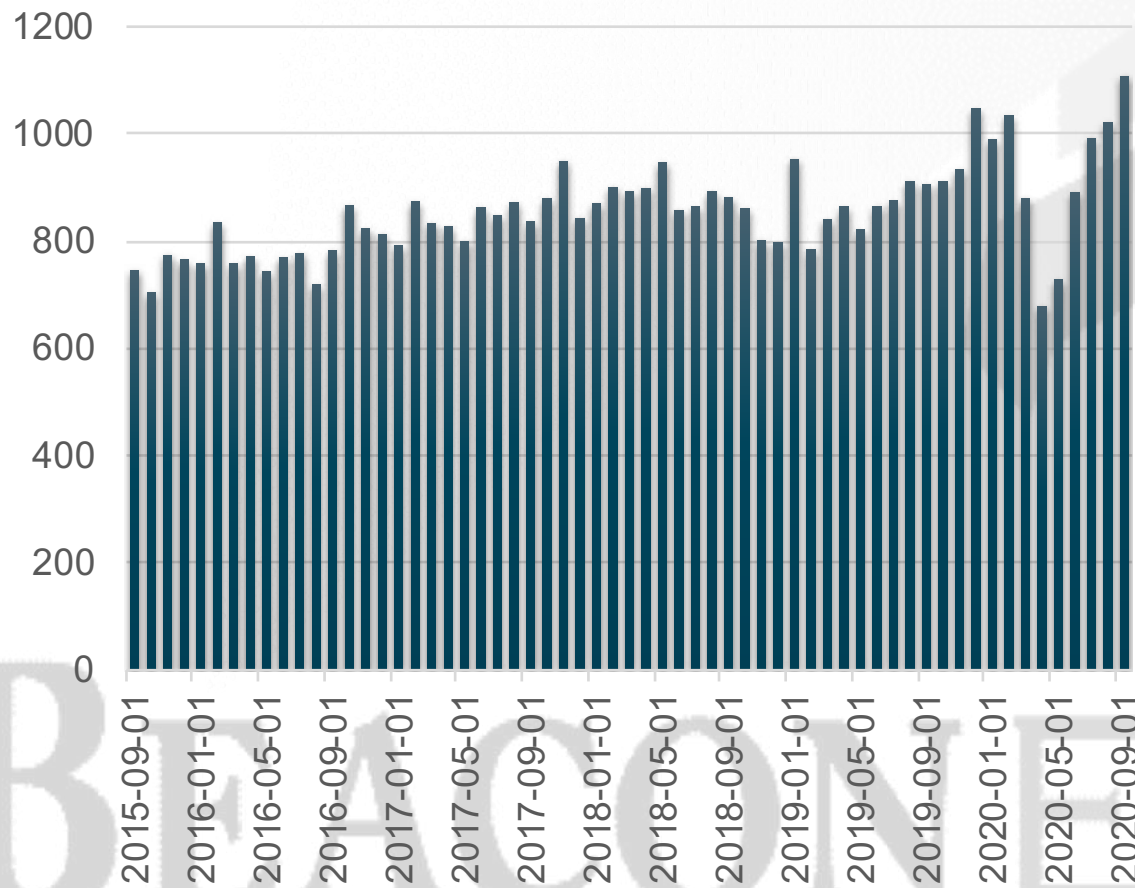


Region	Median SF Home Prices		Home Sales 1-Yr % Change
	Aug-20	1-Yr % Change	
California	\$706,900	14.5	14.6
SF Bay Area	\$1,068,000	18.7	10.8
Inland Empire	\$435,000	14.5	9.0
Los Angeles Metro	\$615,000	12.8	4.4

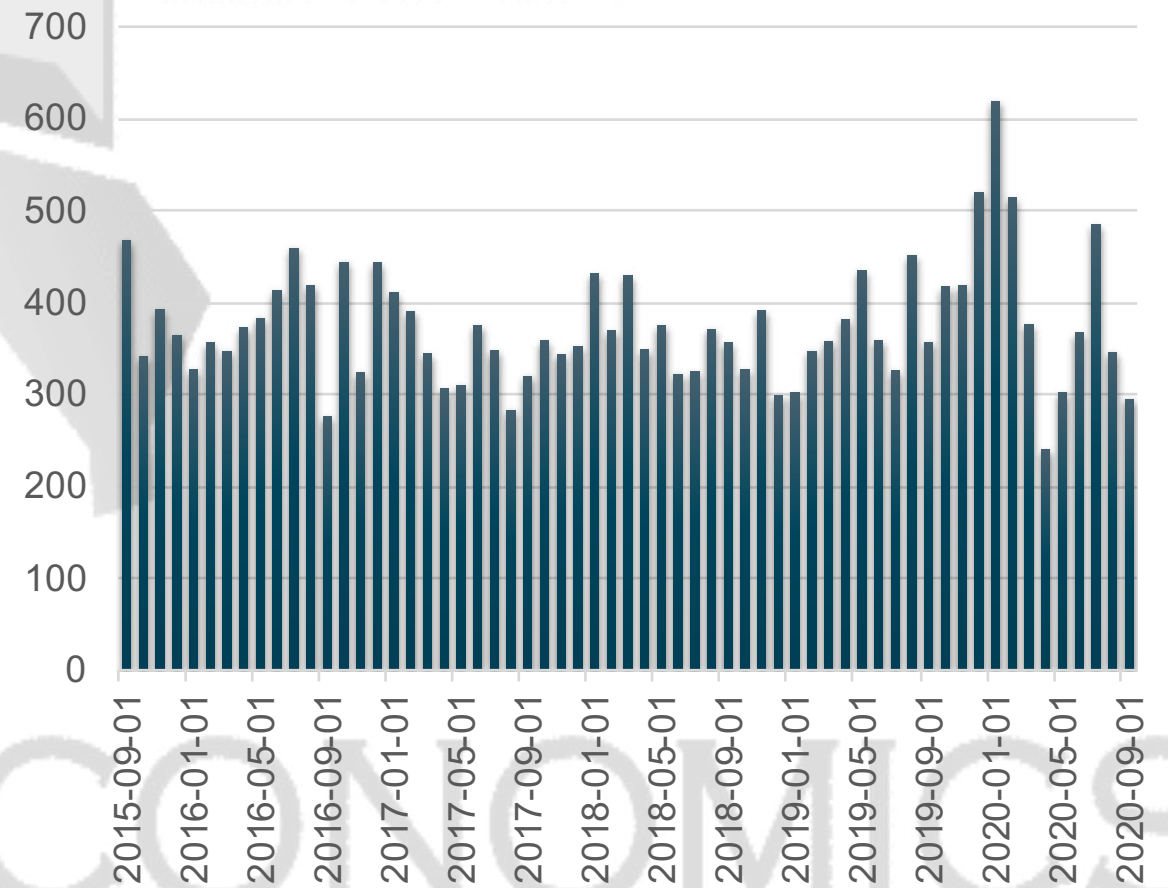
Housing Starts



SF Housing Starts SAAR



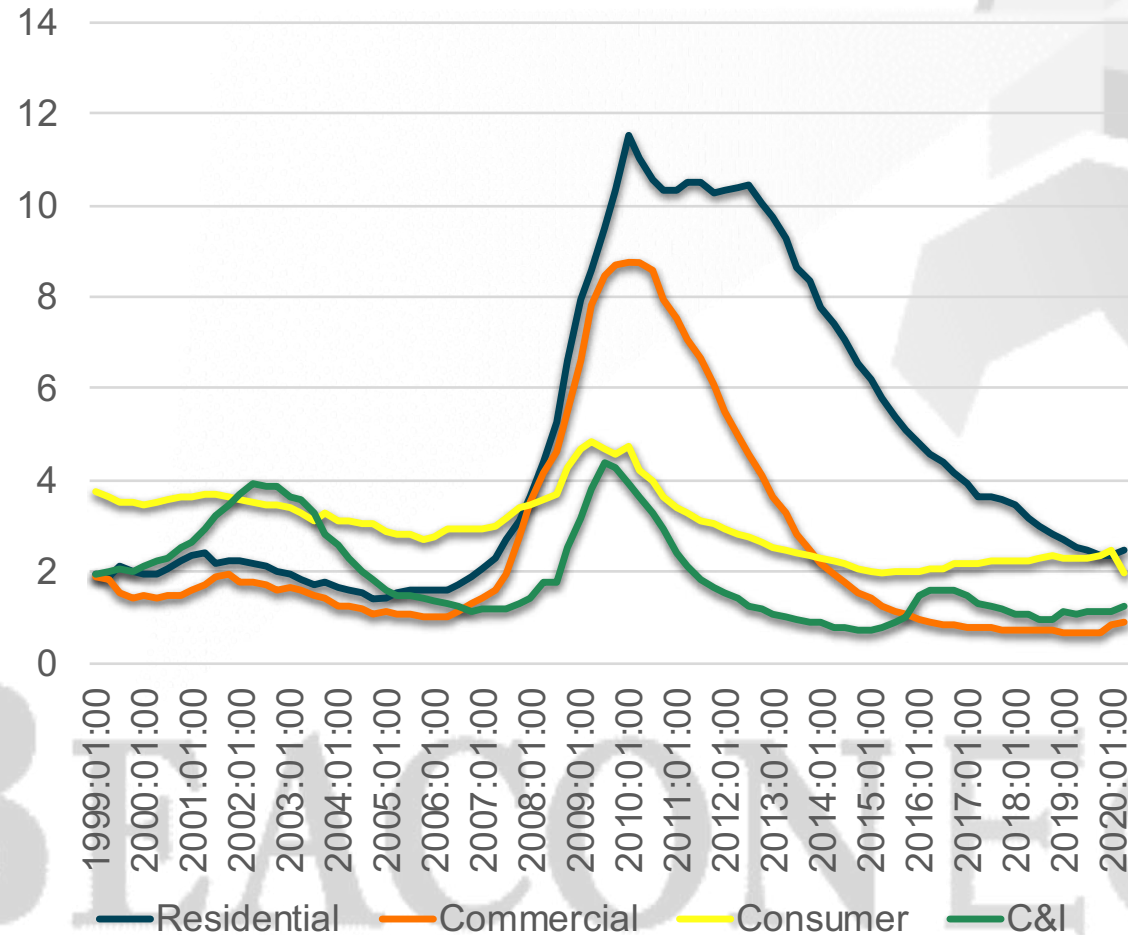
MF Housing Starts



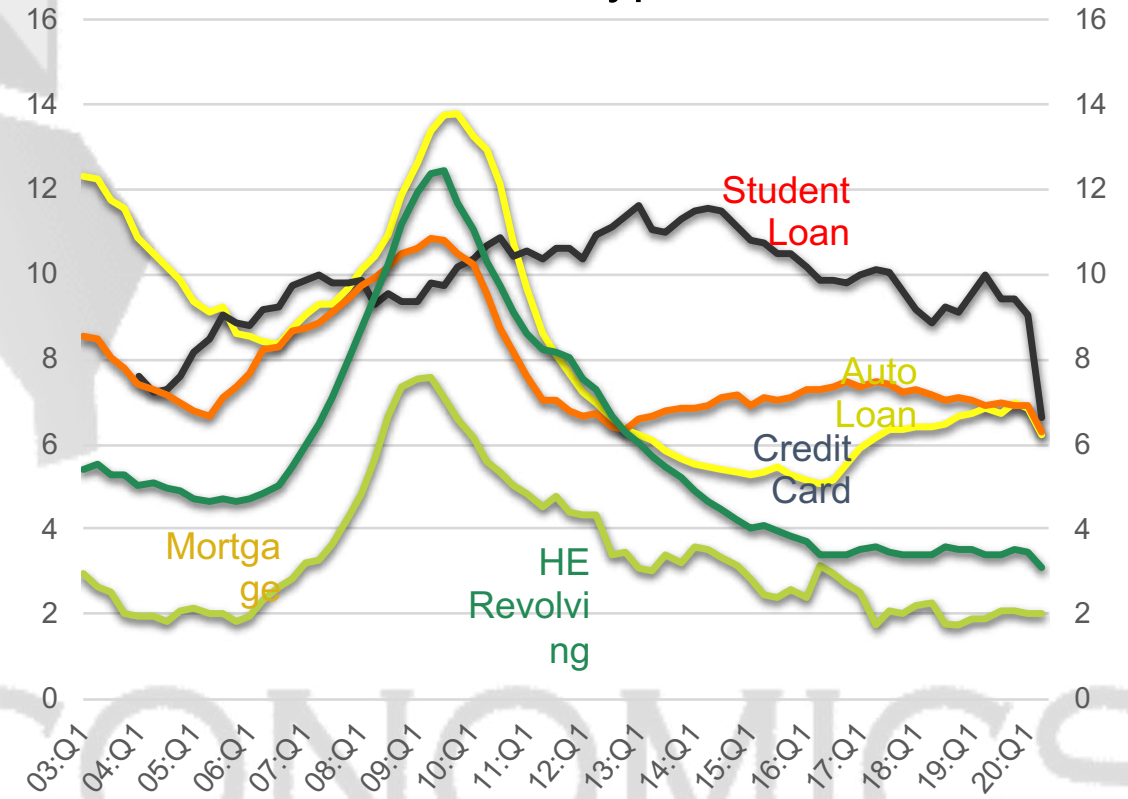
Credit issues?



Bank DQ Rates to Q2



Transition into Delinquency (30+) by Loan Type

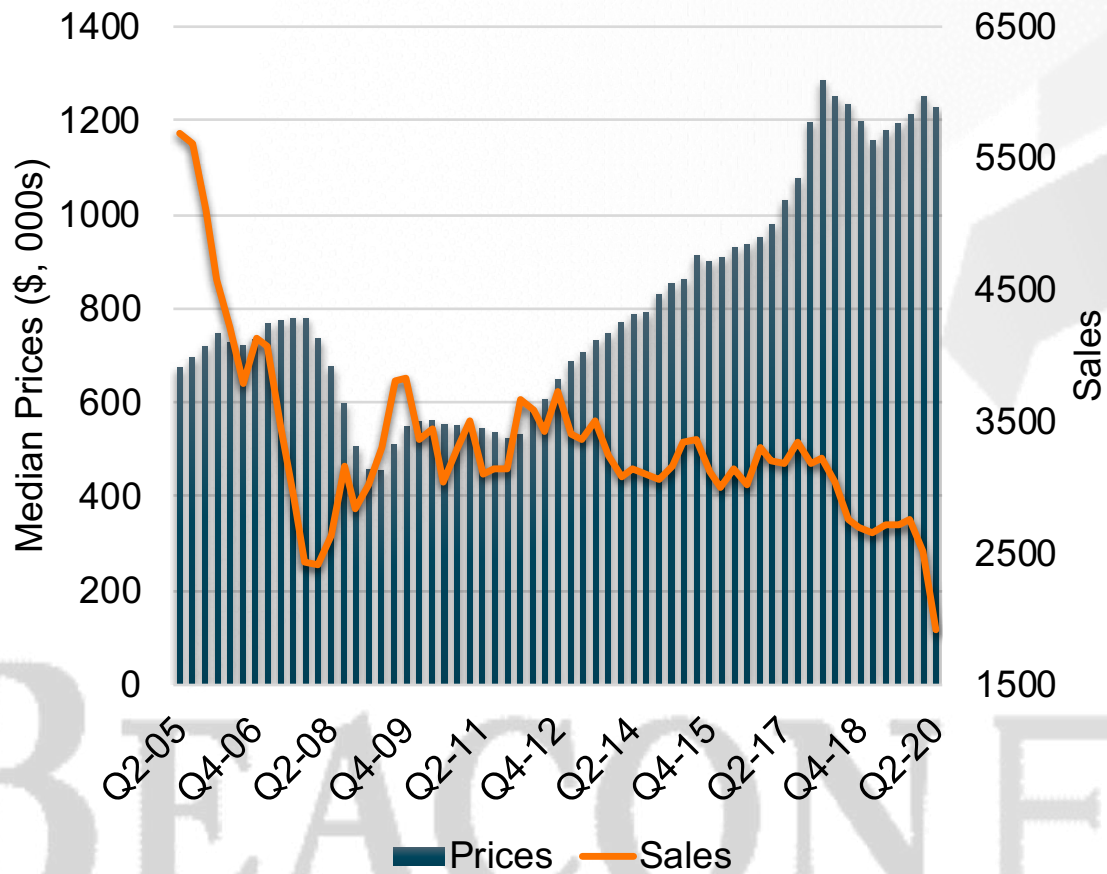


Note: 4 Quarter Moving Sum Student loan data are not reported prior to 2004

Housing Market



Single-family Homes: Santa Clara

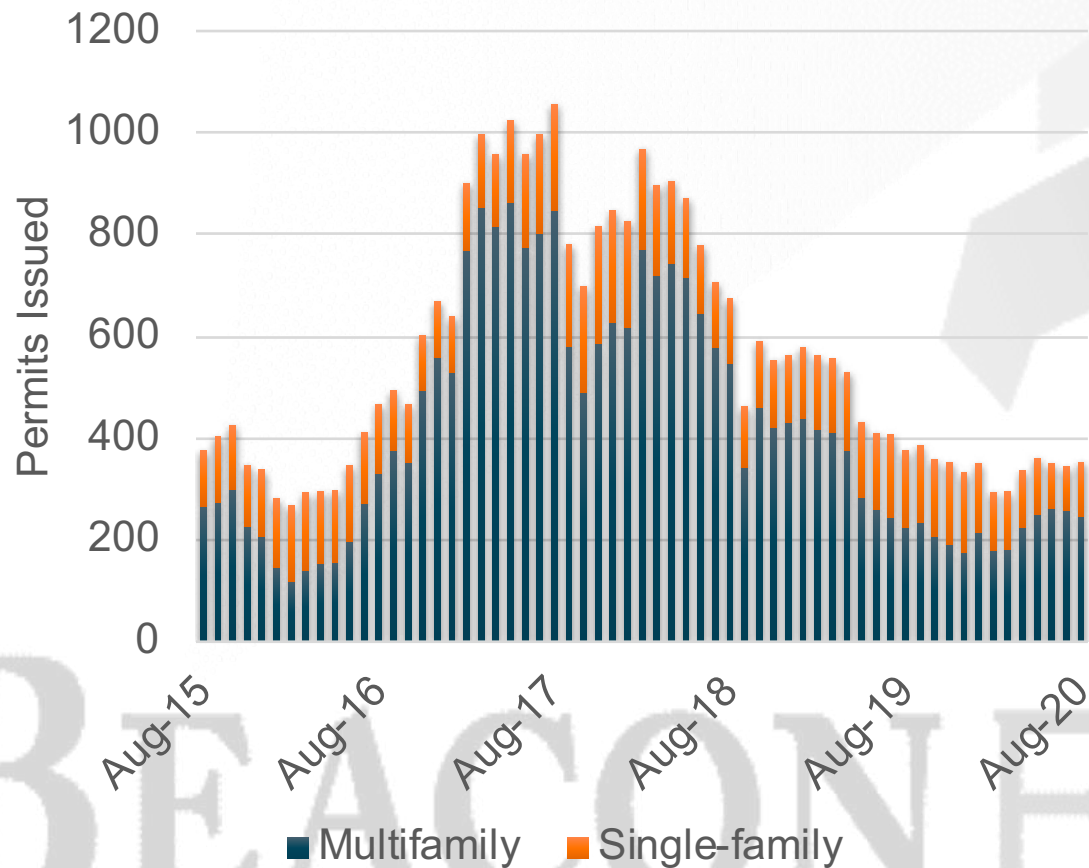


County	Median Prices		Sales	
	Q2-20 (000s)	1-Yr % Chg.	Q2-19	1-Yr % Chg.
Contra Costa	\$645	5.5%	1,982	-34.8%
Santa Clara	\$1,229	4.2%	1,918	-29.5%
San Mateo	\$1,509	3.2%	811	-32.9%
San Francisco	\$1,496	2.0%	395	-39.7%
Alameda	\$866	1.4%	1,859	-35.8%

Residential Permits



Permits – Santa Clara County

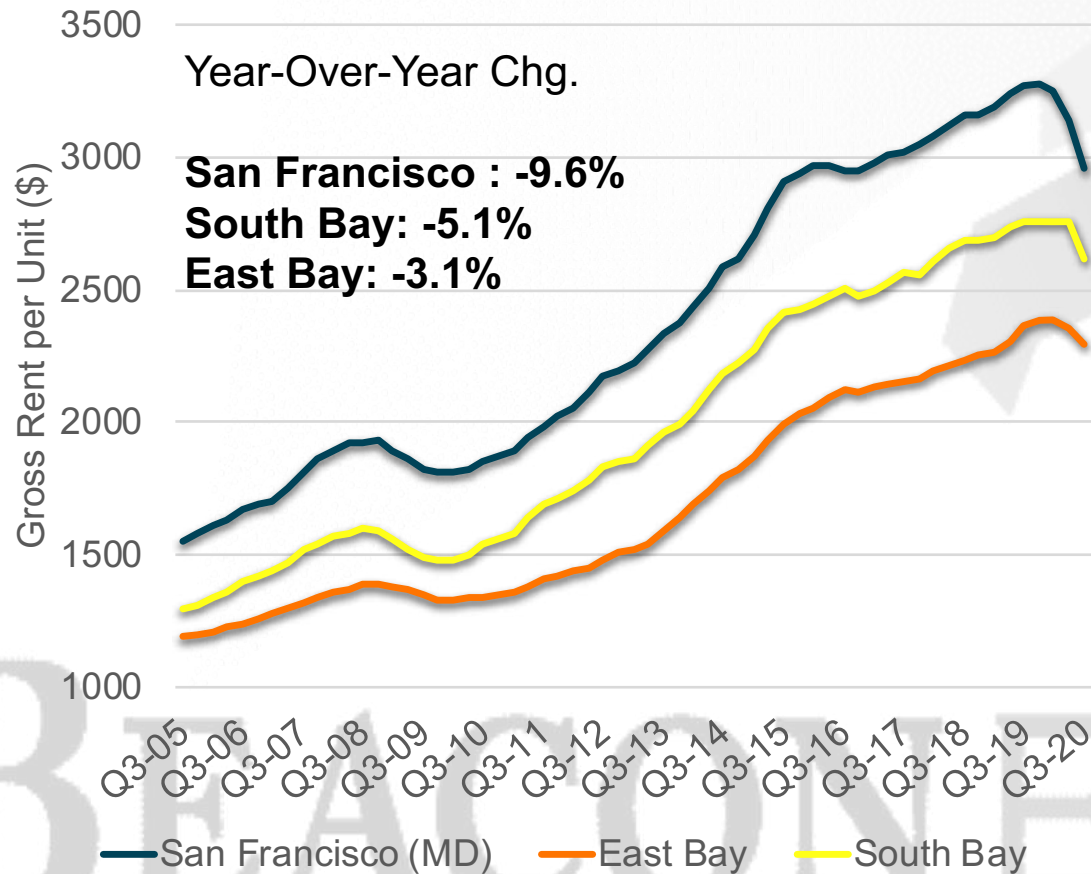


County	Single Family		Multi-Family	
	YTD 2020	1-Yr Change	YTD 2020	1-Yr Change
Contra Costa	814	-230	853	436
San Mateo	258	-54	241	-403
Alameda	847	-258	2,058	-471
Santa Clara	880	-321	1,815	-840
San Francisco	55	-44	2,044	-1,951

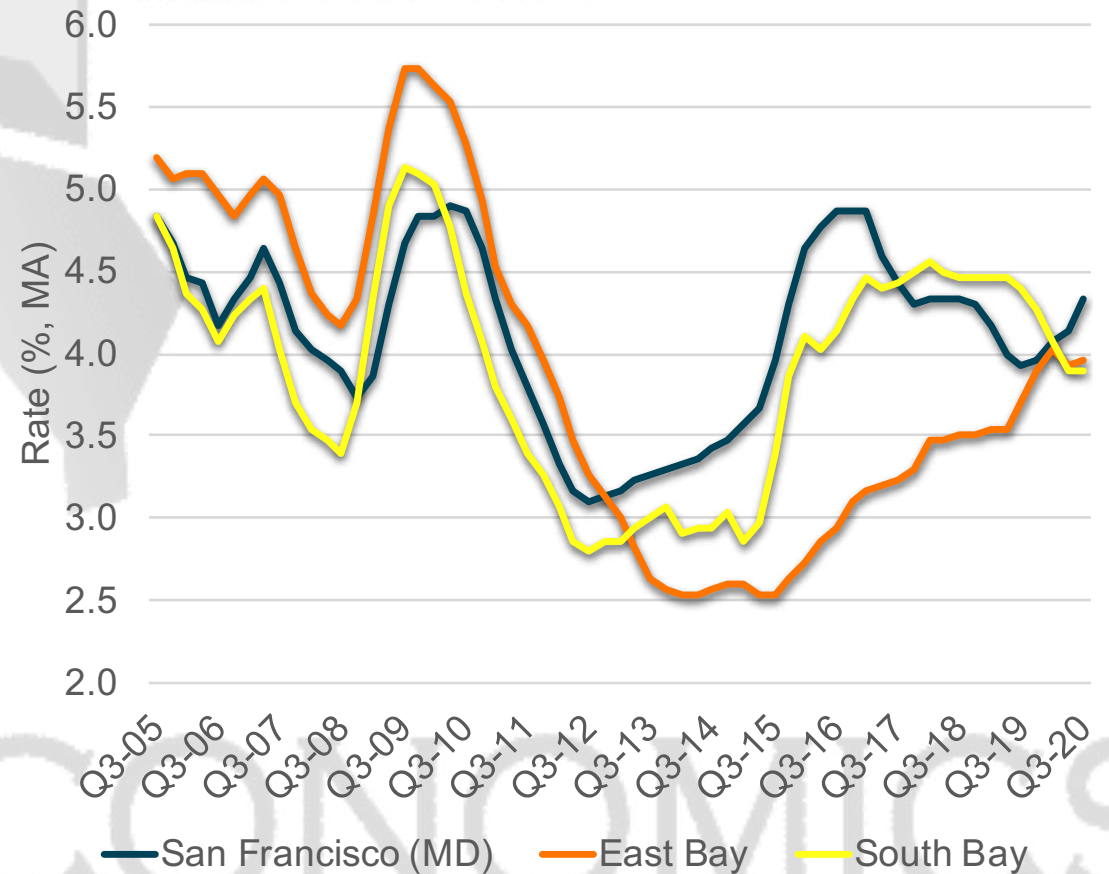
Apartment Market



Cost of Rent



Vacancy Rate



Lagging sectors

In **the United States**, as of September 26, 2020, arts, entertainment, and recreation spending by all consumers decreased by **55.5%** compared to January 2020.



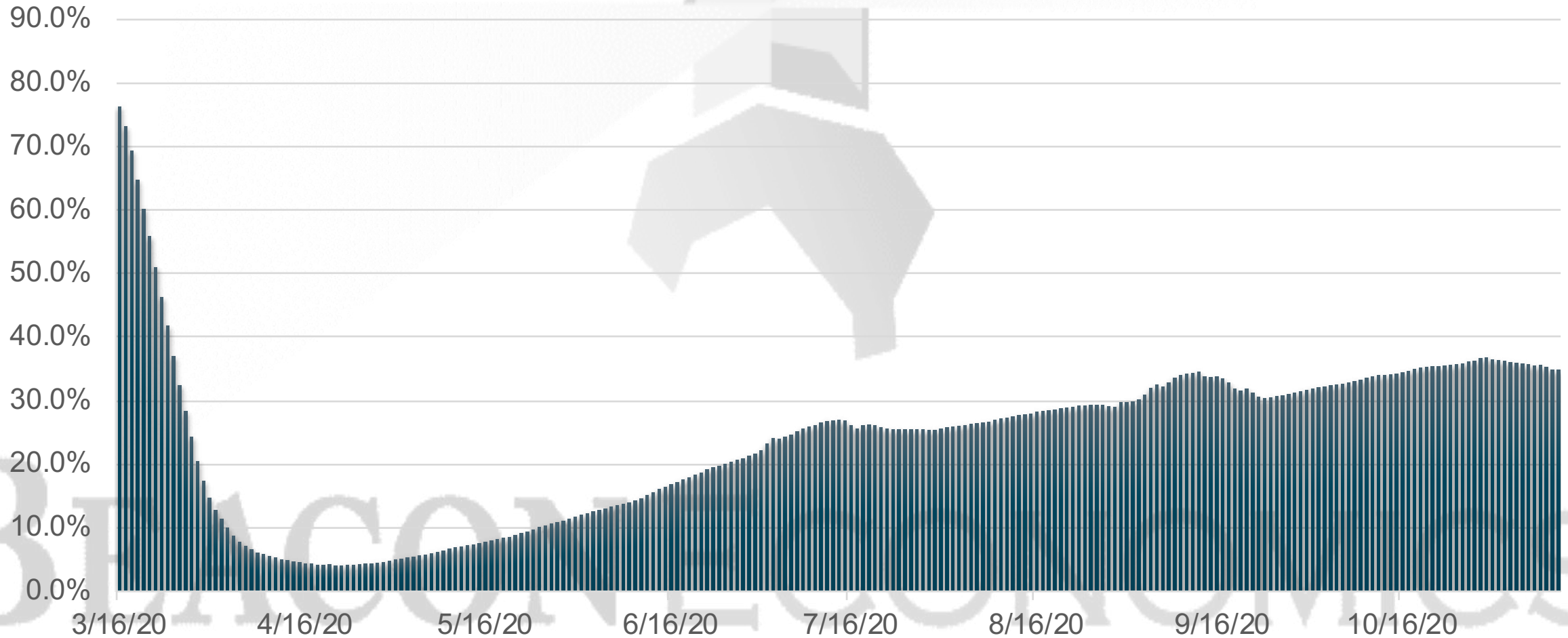
DOWNLOAD CHART



Airport Data



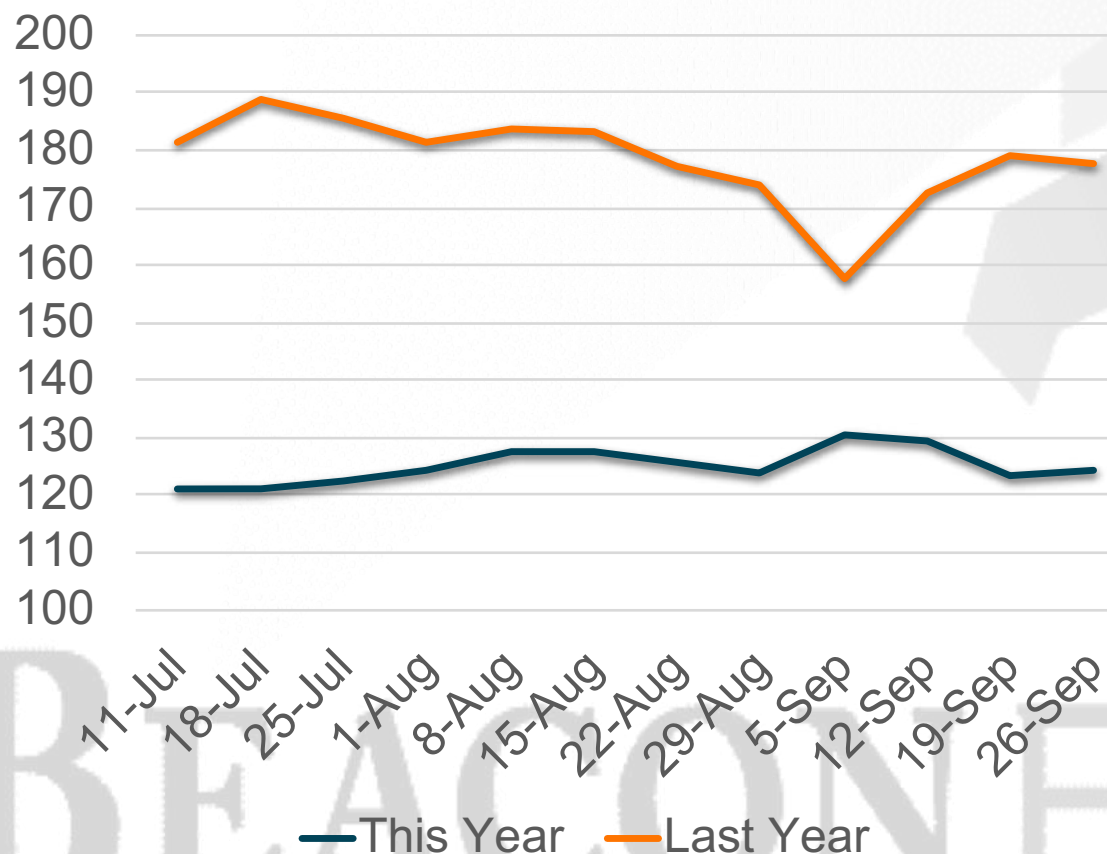
TSA Transits, Y/Y Difference



Hotels



Weekly ADR



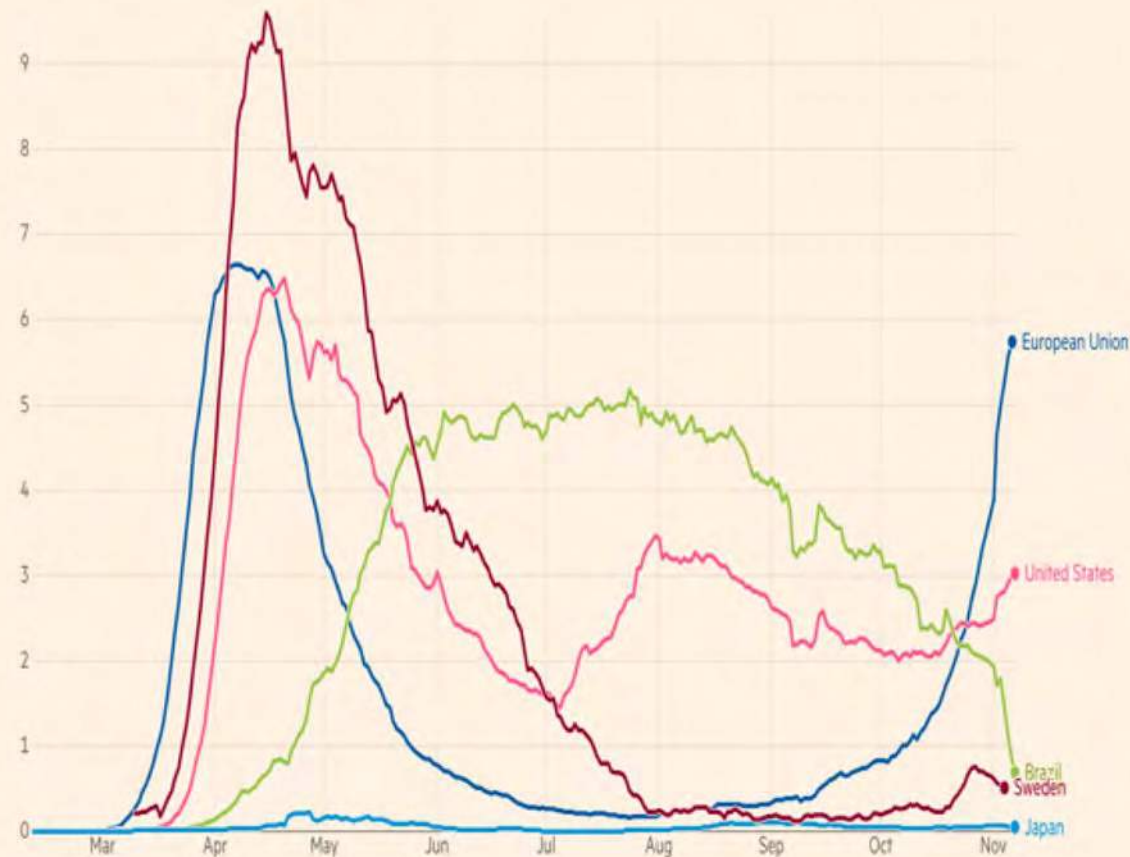
Location	Occupancy (%)		ADR	
	2020	Change	2020	% Change
United States	48.6	-31.7	102.4	-22.8
Pacific	52.6	-34.8	123.1	-32.7
California	54.8	-31.5	127.2	-29.8
Central Coast	62.6	-22.3	116.4	-19.9
Central Valley	68.9	-6.2	64.1	-5.0
Deserts	46.3	-12.5	46.0	-6.3
Gold Country	62.5	-19.5	63.5	-16.6
High Sierra	62.6	-20.0	103.2	-3.1
Inland Empire	70.1	-3.5	70.1	-9.1
Los Angeles	51.7	-38.9	66.3	-33.7
North Coast	77.3	-3.4	97.5	-2.4
Orange County	43.7	-46.2	59.0	-25.1
Shasta Cascade	72.2	-5.6	73.9	-3.6
San Diego Cnty	51.6	-37.5	68.9	-25.8
San Fran Bay	48.8	-42.0	61.9	-42.5

The Second Surge impact...



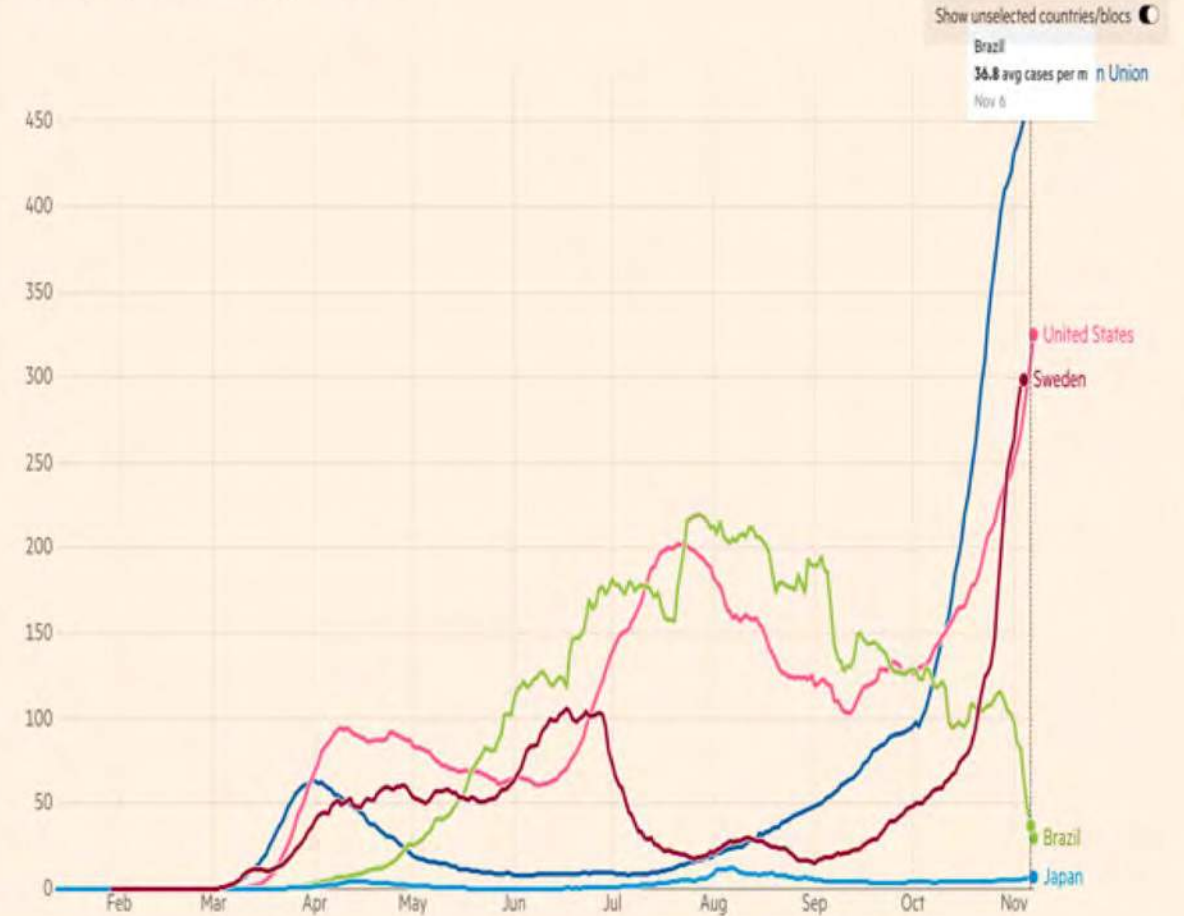
New deaths attributed to Covid-19 in European Union, United States, Brazil, Japan and Sweden

Seven-day rolling average of new deaths (per million)

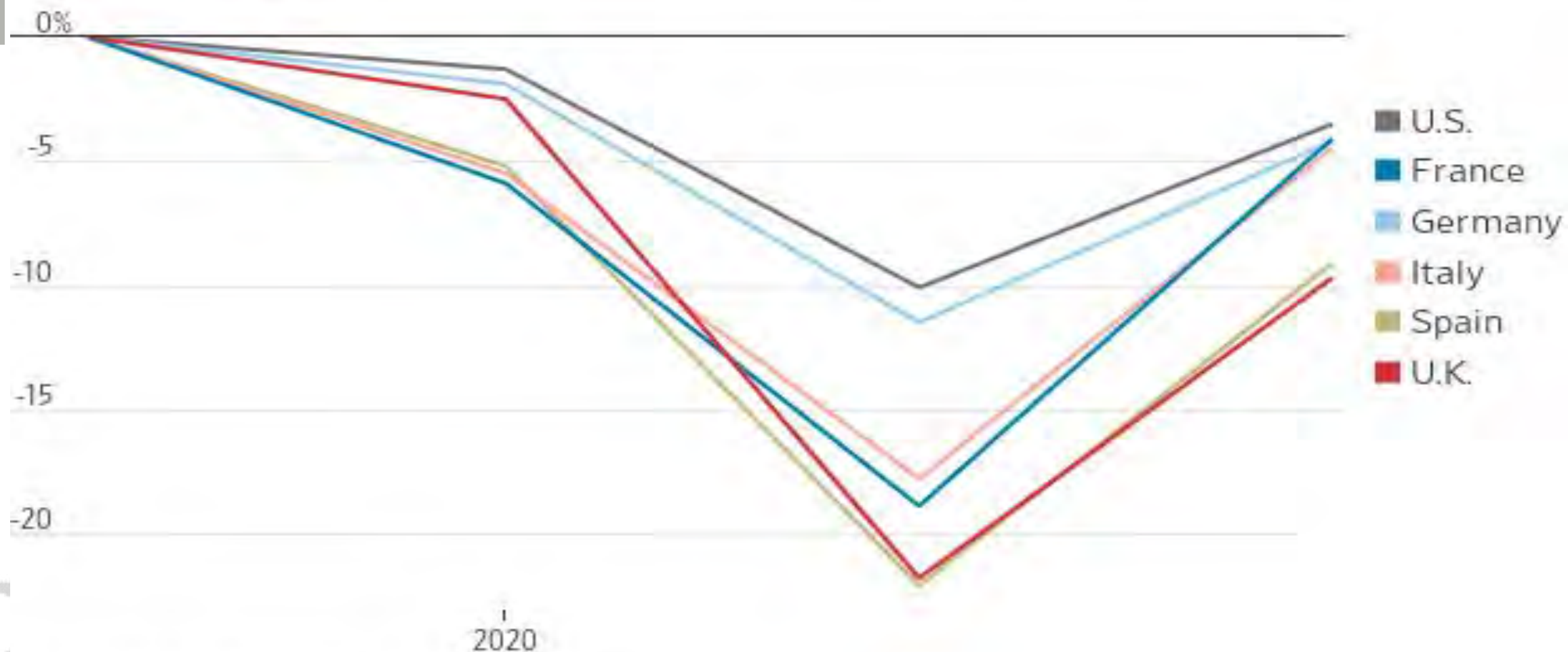


New confirmed cases of Covid-19 in European Union, United States, Brazil, Japan and Sweden

Seven-day rolling average of new cases (per million)



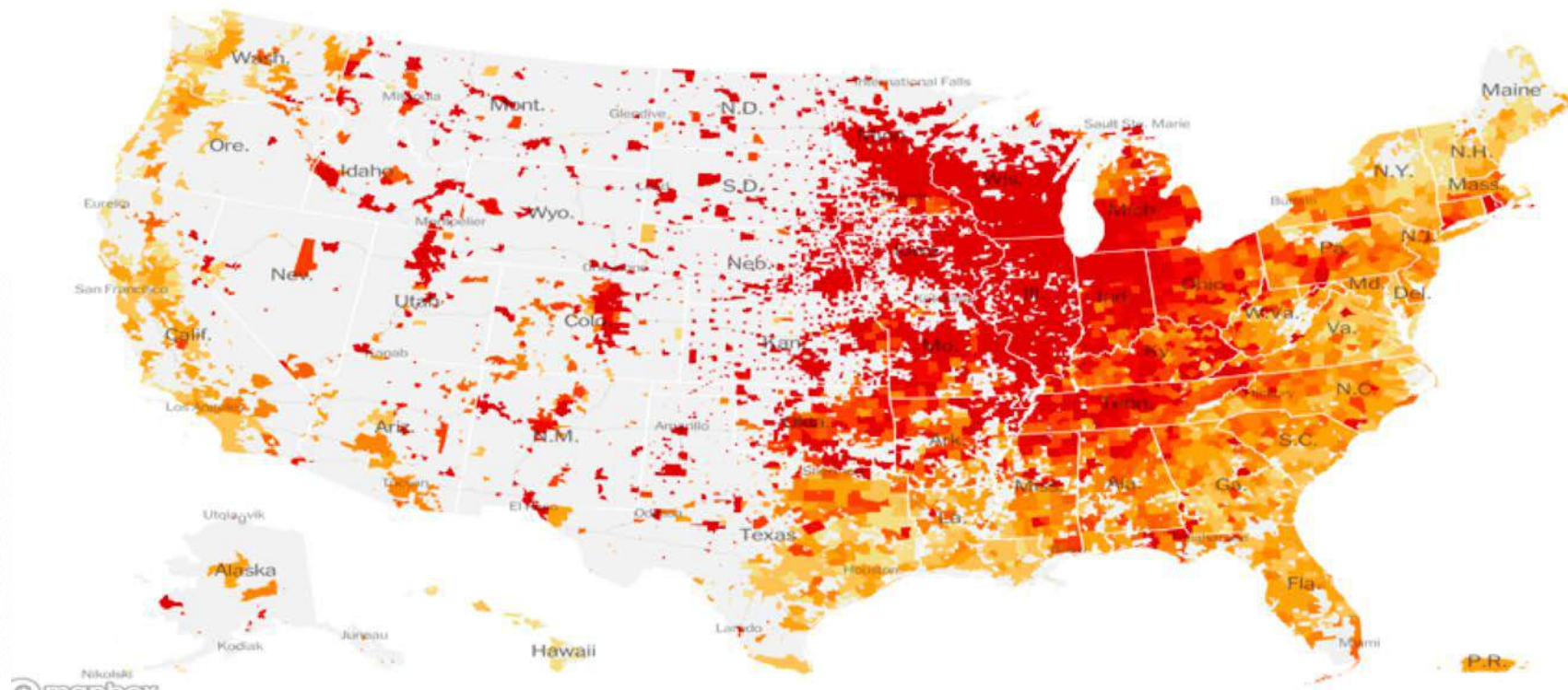
Change in gross domestic product from the fourth quarter of 2019 through the third quarter of 2020



Note: Adjusted for seasonality and inflation

Source: U.K. Office for National Statistics

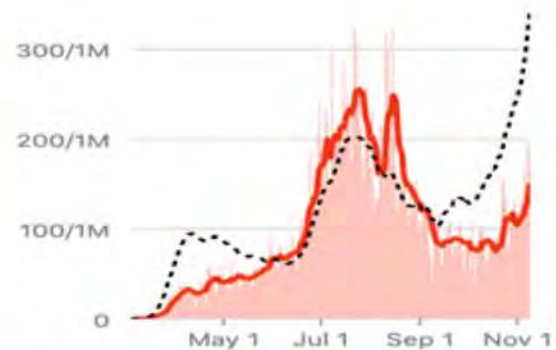
Surge #3



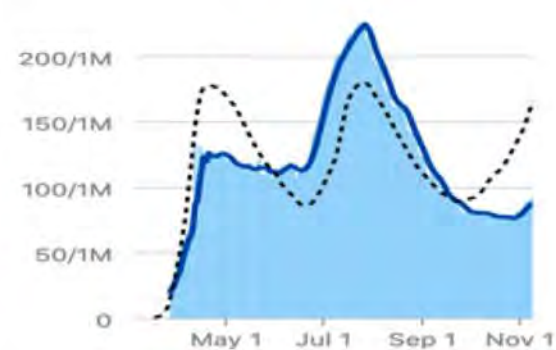
New tests (Calculated)
Total PCR tests (specimens)



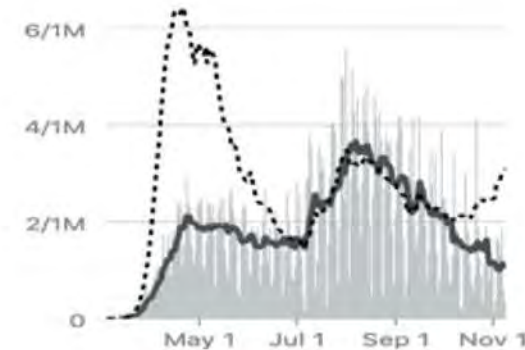
New cases (Calculated)



Current hospitalizations



New deaths (Calculated)

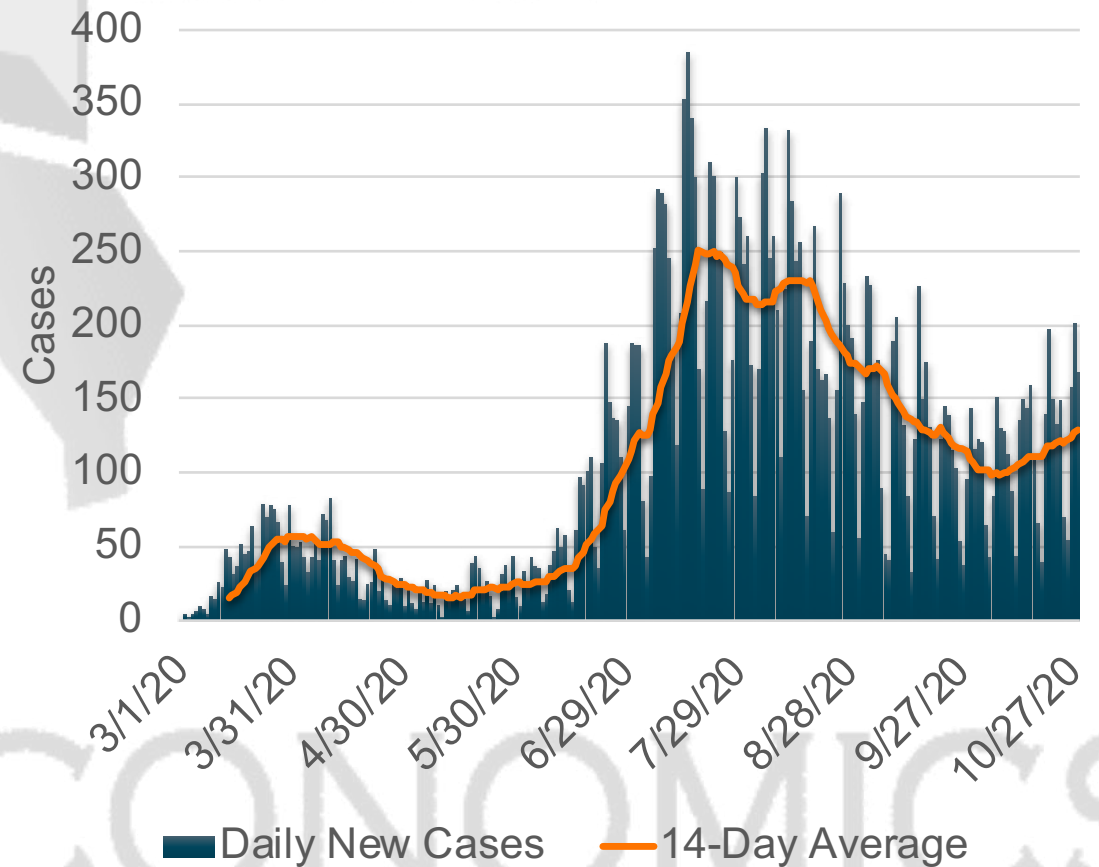


COVID-Statistics



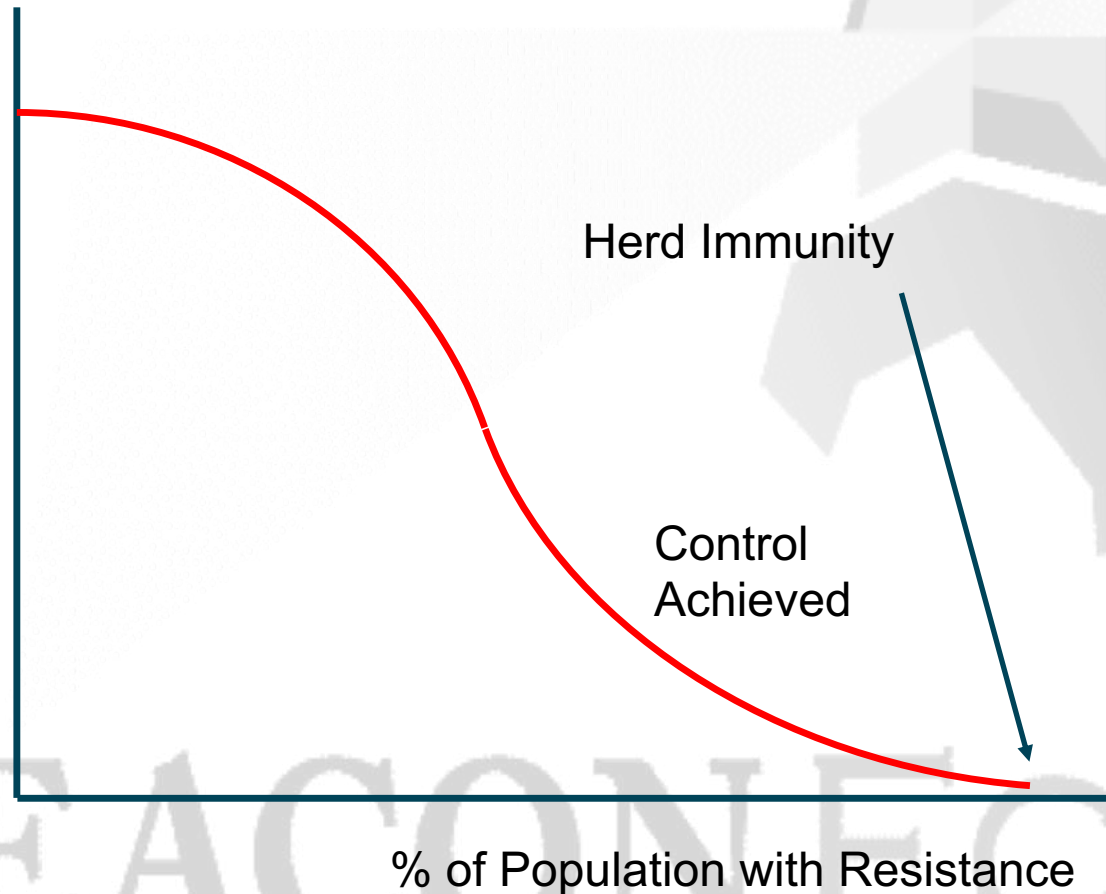
County	Total Cases	Cases/100,000
California Total	960,884	2,432
Top Five		
Los Angeles	315,634	3,144
Riverside	70,309	2,846
San Bernardino	67,196	3,082
Orange	63,125	1,988
San Diego	58,699	1,758
Bay Area		
Santa Clara	25,705	1,333
Alameda	24,391	1,459
Contra Costa	19,472	1,688
San Francisco	12,669	1,437

Santa Clara County COVID Incidence



New surge vs second wave

Speed of outbreaks



Government Efforts?

- Cost Benefit analysis needed
- Focus on personal behavior not economic activity
- Protect the population at highest risk

Covid Deaths	Total deaths	
All ages	198,809	% total
Under 1 year	22	0.00%
1–4 years	15	0.00%
5–14 years	35	0.00%
15–24 years	369	0.20%
25–34 years	1,541	0.80%
35–44 years	4,039	2.00%
45–54 years	10,627	5.30%
55–64 years	25,421	12.80%
65–74 years	42,950	21.60%
75–84 years	52,618	26.50%
85 years and over	61,172	30.80%



Share price performance

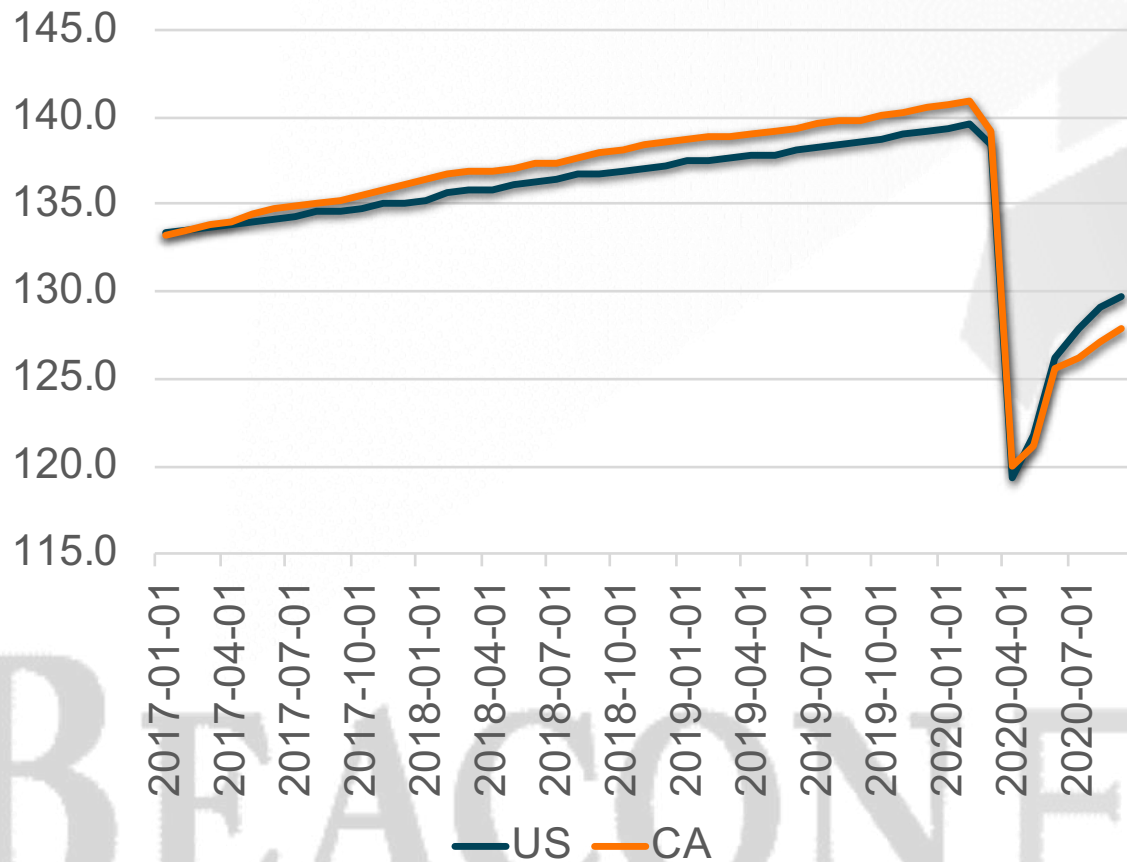


Source: FactSet

Employment: Lead / Lag

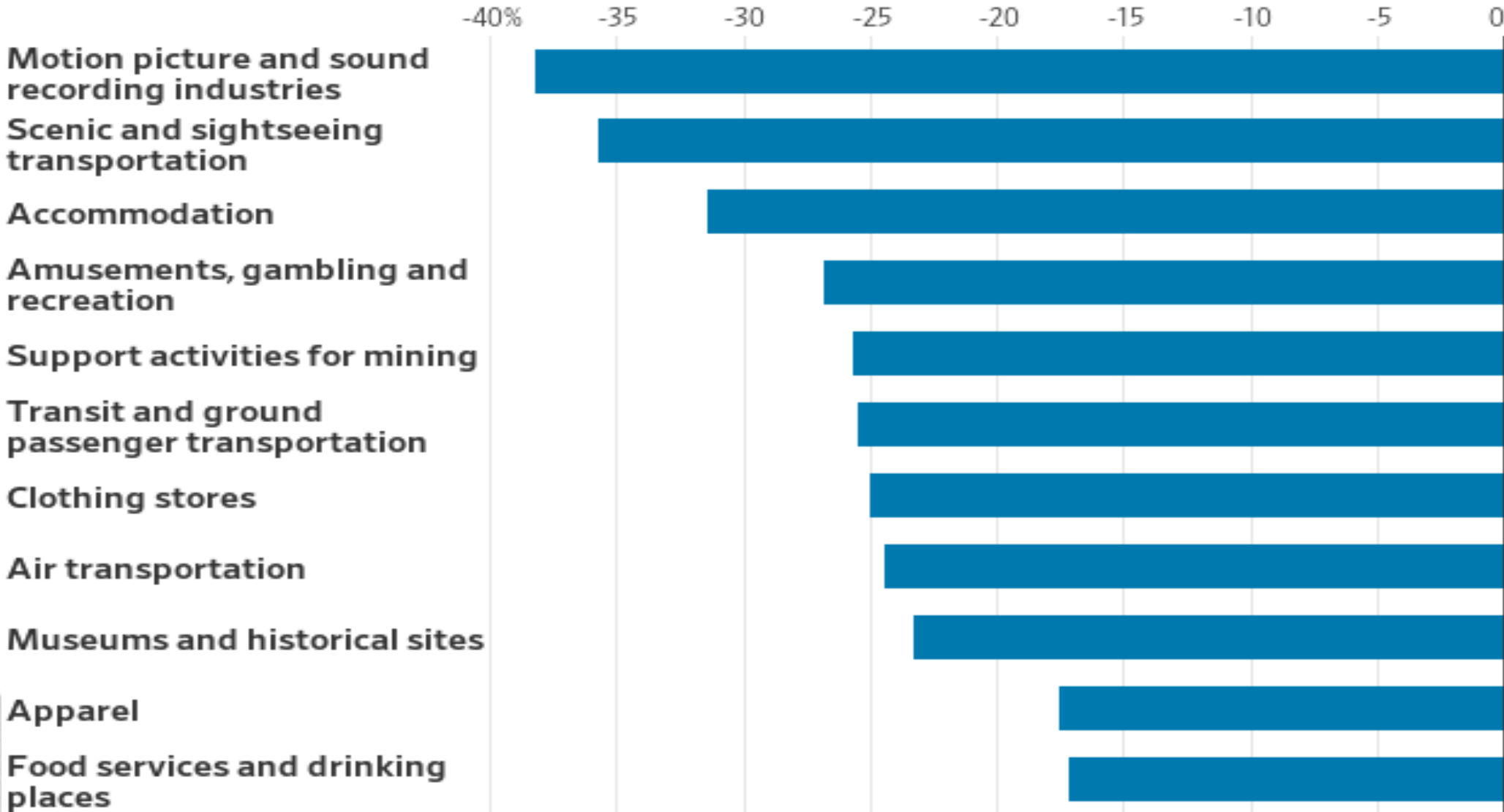


Index of Payroll Employment



State Employment	Sep-20	Sep-19		
Total Nonfarm	15982.3	17471.2	-1488.9	
Leisure and Hospitality	1454.3	2033.6	-579.3	-28.5%
Government	2476.3	2608.8	-132.5	-5.1%
Other Services	463.4	577.6	-114.2	-19.8%
Retail Trade	1535.9	1648.4	-112.5	-6.8%
Health Care	2339.5	2439.2	-99.7	-4.1%
Manufacturing	1221	1318.1	-97.1	-7.4%
Admin Support	1040	1135.9	-95.9	-8.4%
Information	515.7	567.2	-51.5	-9.1%
NR/Construction	863.3	914.5	-51.2	-5.6%
Wholesale Trade	653.5	692.7	-39.2	-5.7%
Education	345.8	384.7	-38.9	-10.1%
Prof Sci Tech	1307.4	1343.1	-35.7	-2.7%
Logistics	686.2	708.6	-22.4	-3.2%
Management	242.3	254.8	-12.5	-4.9%
Financial Activities	838.3	844.3	-6	-0.7%

Change in employment since February for select industries



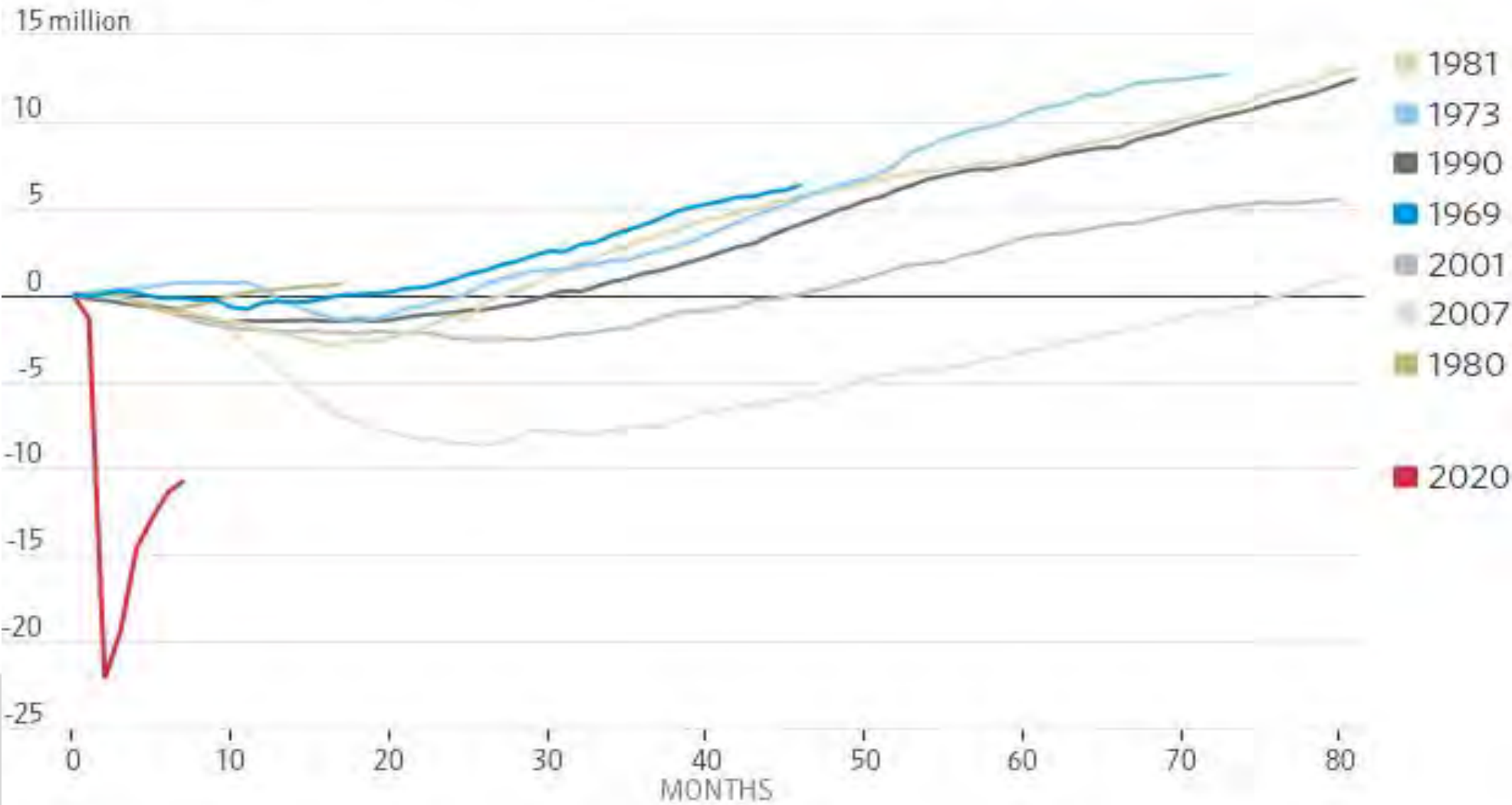
Note: Seasonally adjusted
Source: Labor Department



ICS

Recession Job Losses

Change in U.S. employment from peak of each economic cycle



Note: Seasonally adjusted

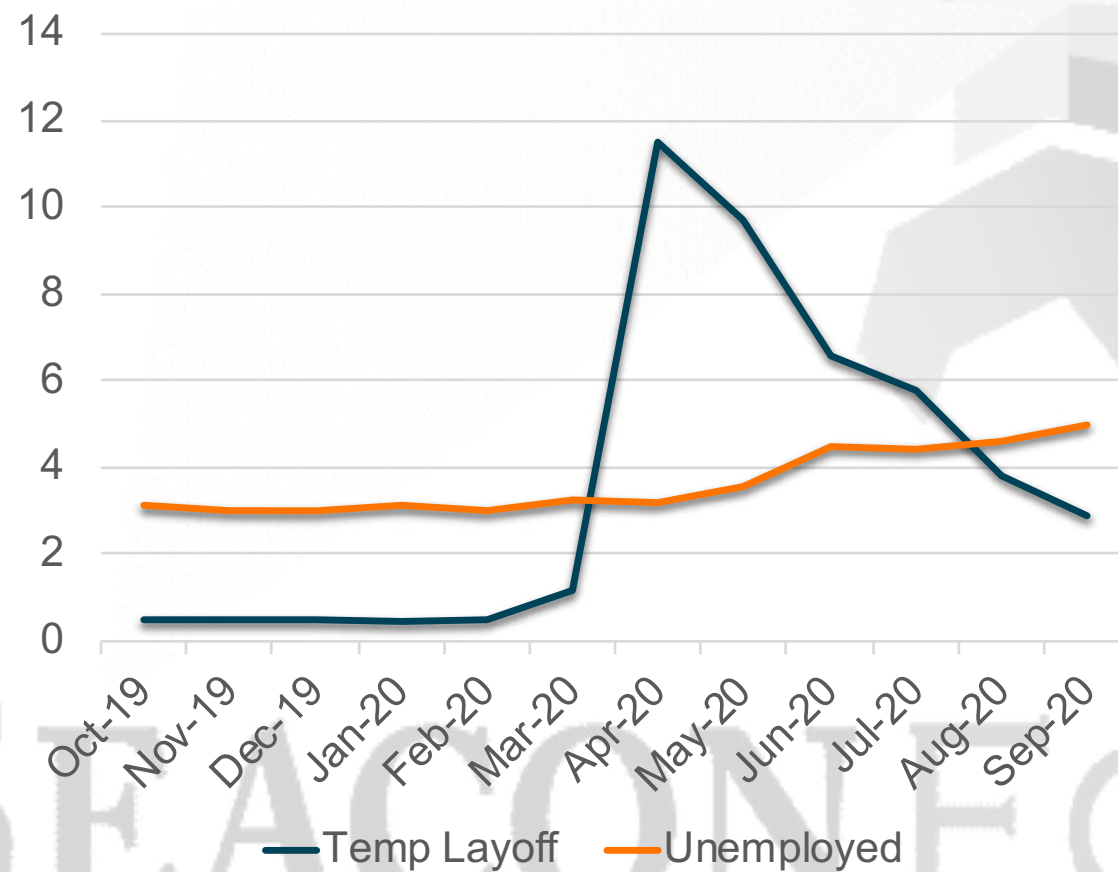
Sources: Labor Department via the St. Louis Fed, National Bureau of Economic Research

AICS

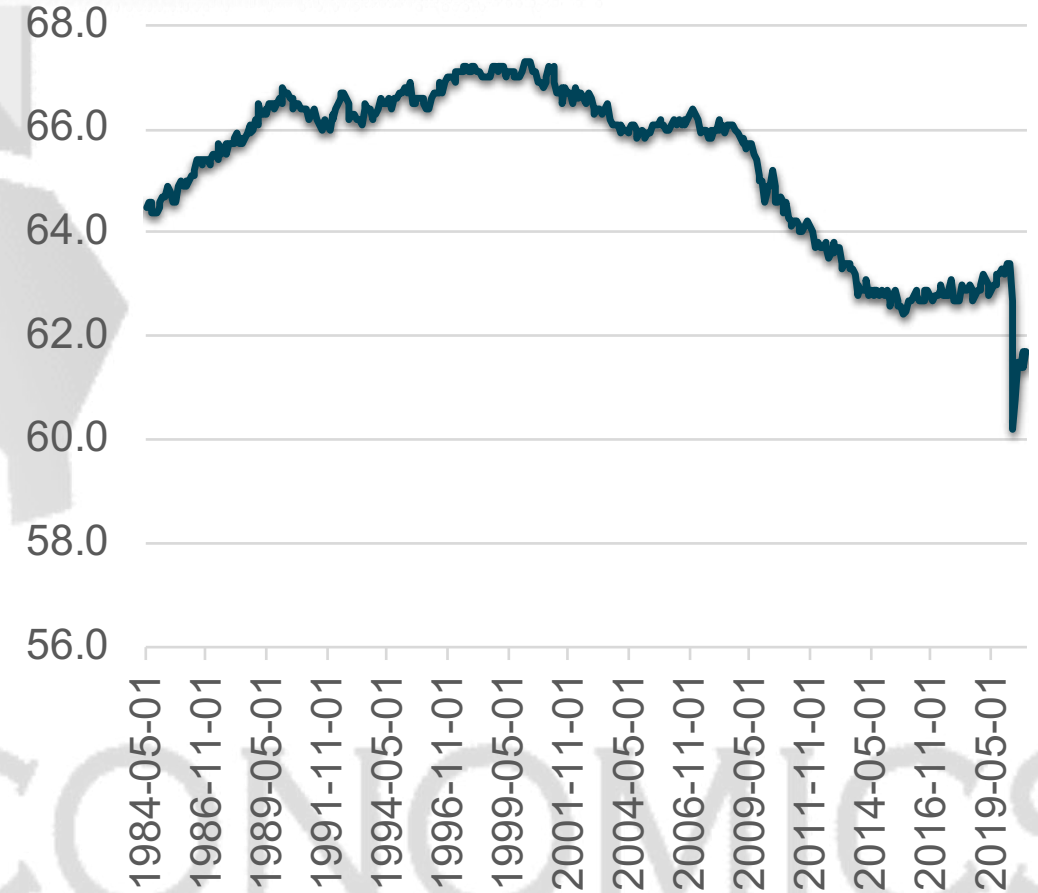
Labor Market Holes



Unemployment



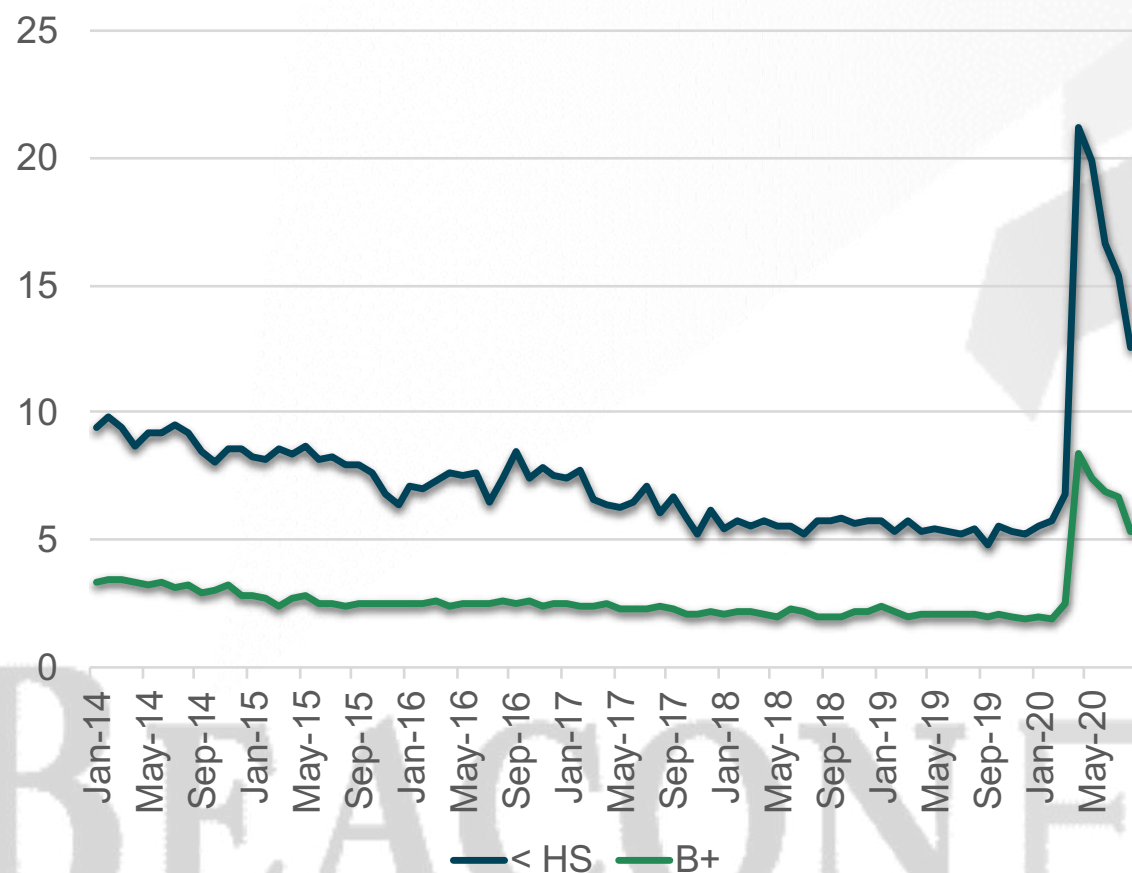
US Participation Rate



K Shaped Recovery?



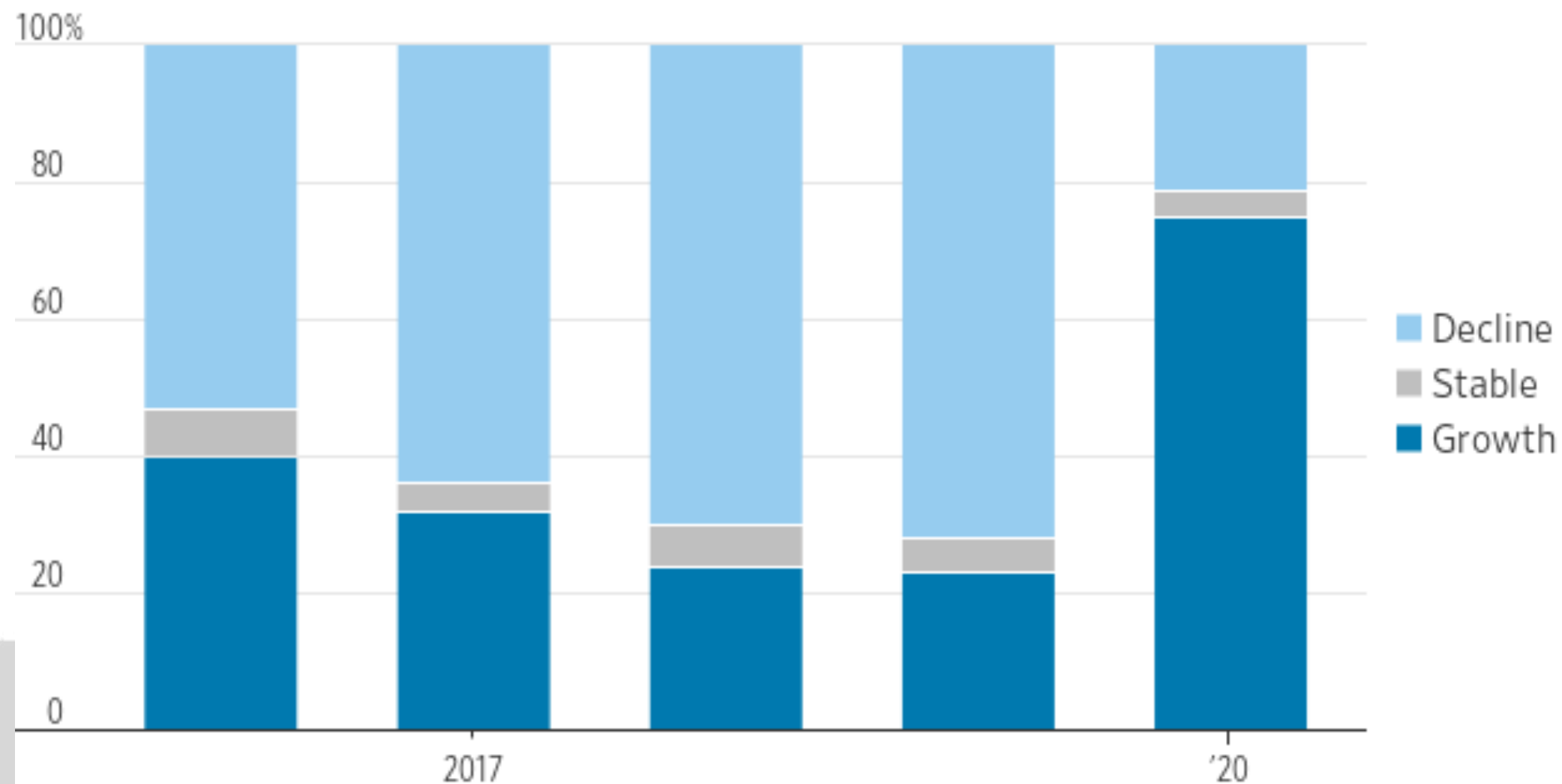
Unemployment by Education



In the United States, as of **October 23 2020**, job postings requiring extensive education **decreased by 23.2%** compared to January 2020.



Relative change from one year earlier in total applications to U.S. full-time two-year MBA programs



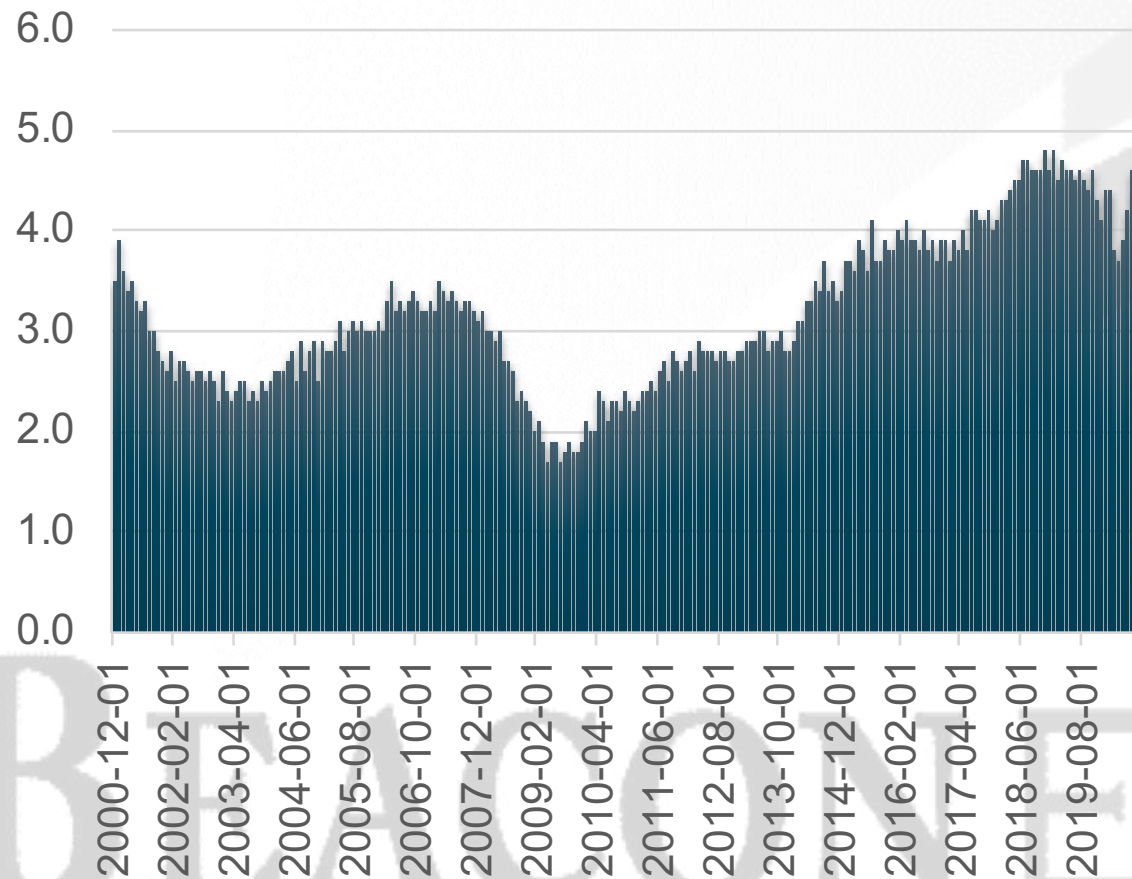
Source: Graduate Management Admission Council

ICS

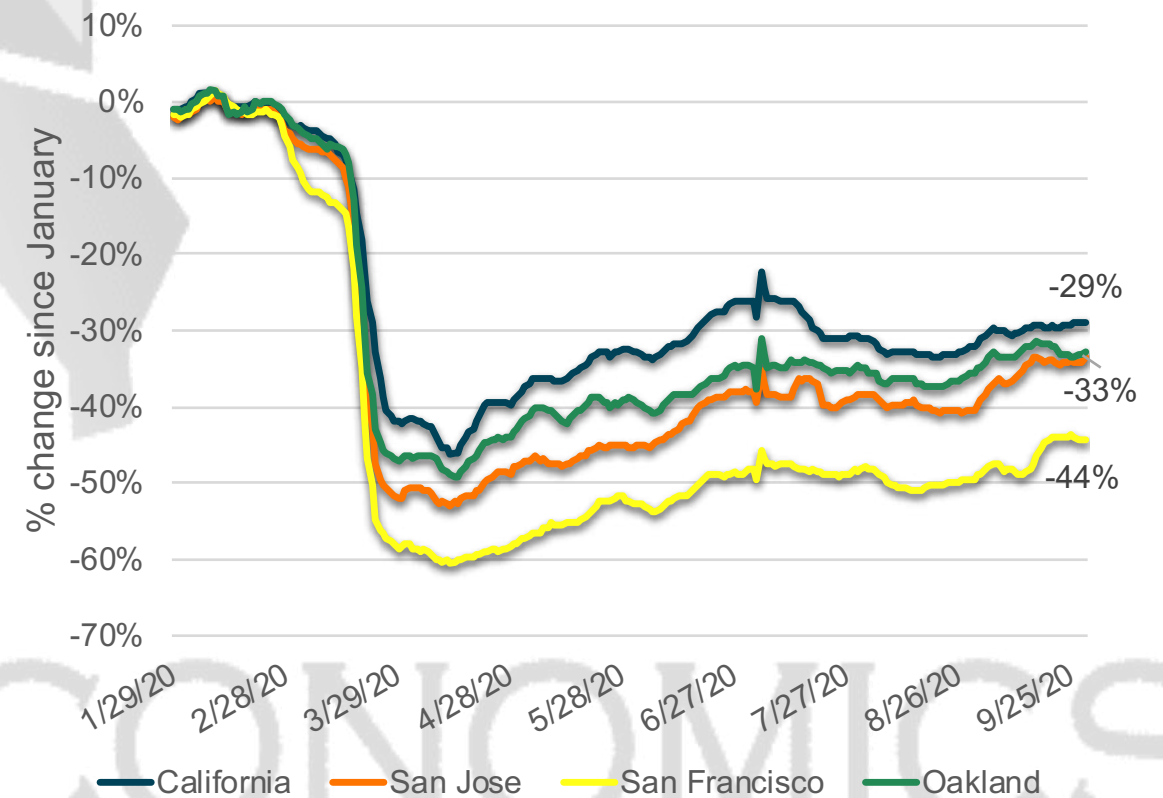
More Context



Jobs Opening Rate



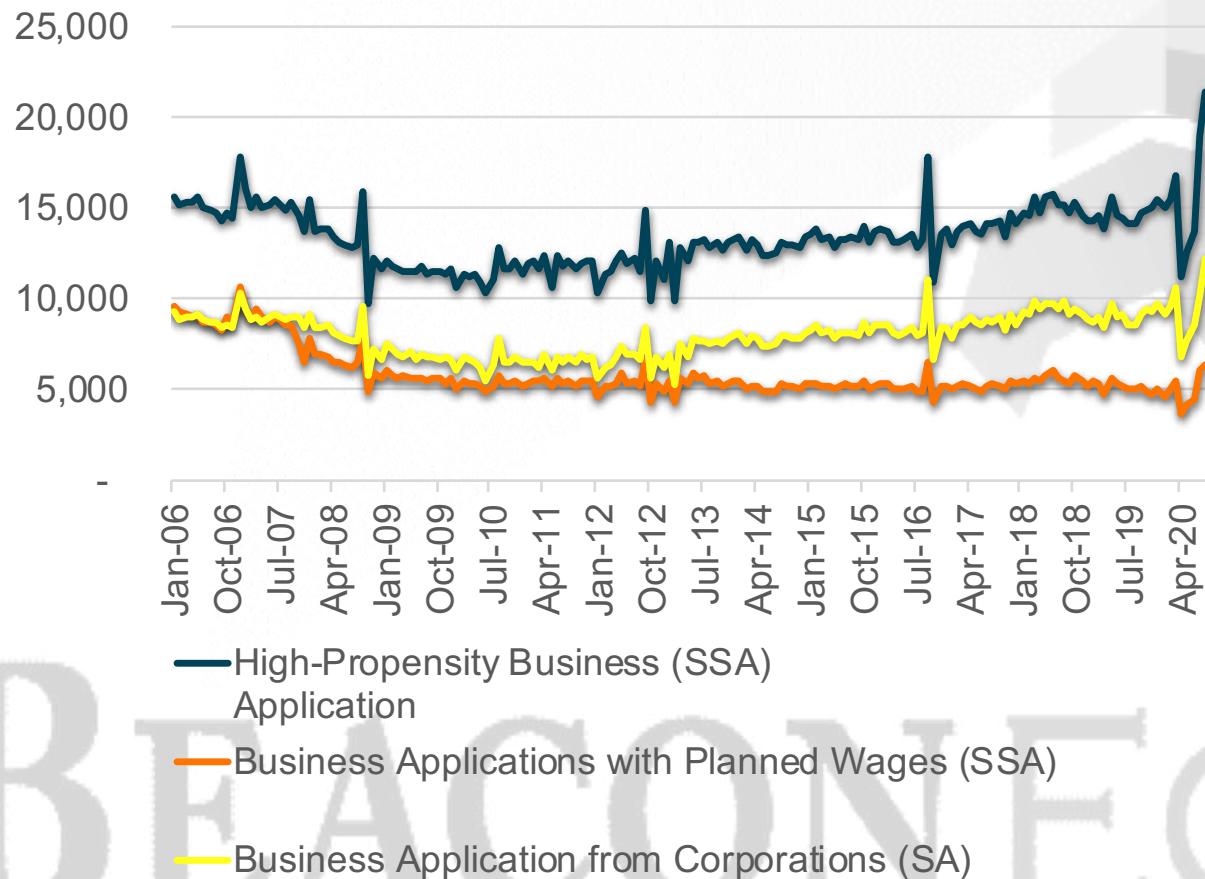
Change in Small Business Reopenings



Small Business?



California Business Applications

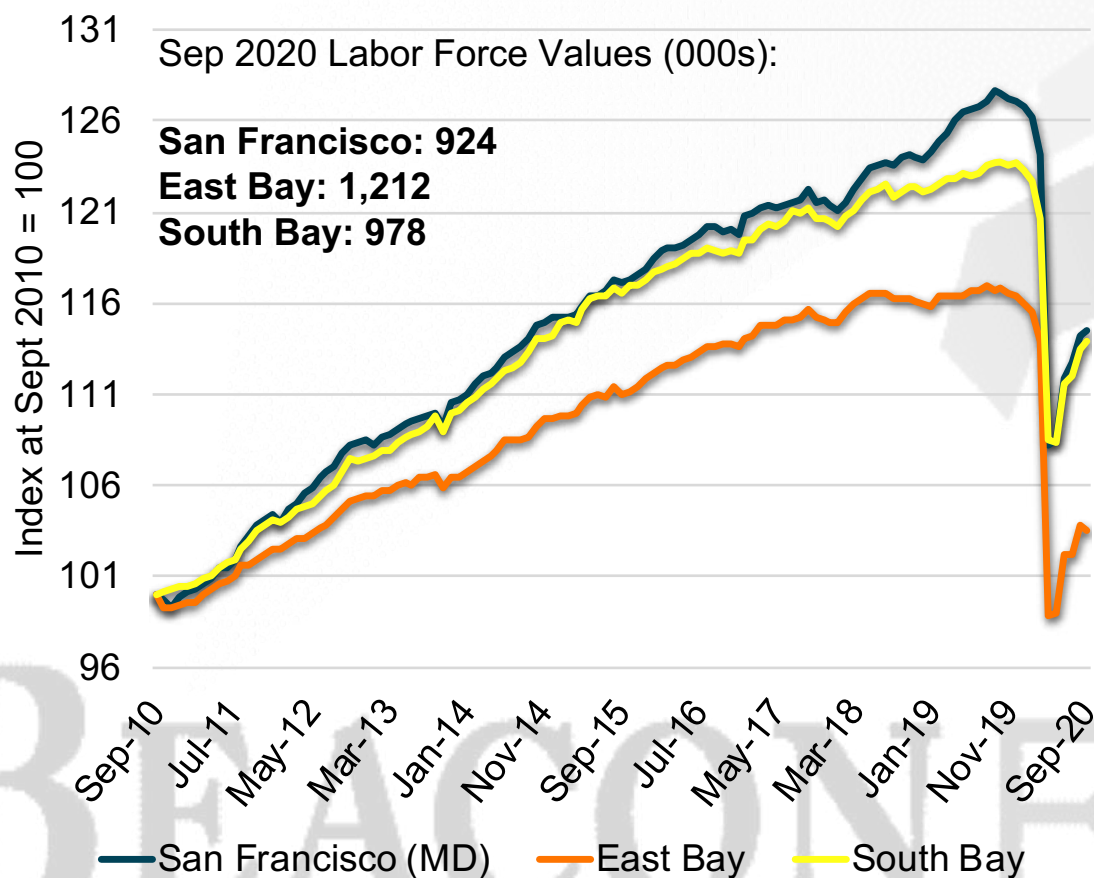


	JOR	Ch
Total	4.3	-0.1
Information(3)	3.2	-2.4
Mining and logging(3)	2.8	-1.7
Construction(3)	3.1	-1.1
Arts, entertainment, and recreation	4.8	-0.9
Transportation, warehousing, and utilities(3)	4.5	-0.8
Federal(3)	3.2	-0.6
Retail trade	4.1	-0.4
Real estate and rental and leasing(3)	2.9	-0.4
Finance and insurance	3.7	-0.3
Educational services(3)	3	-0.3
Wholesale trade	3.1	-0.1
Durable goods(3)	3.2	0
Government	3.1	0
State and local	3.1	0.1
Accommodation and food services	5.8	0.2
Health care and social assistance	5.3	0.3
Other services	4.3	0.3
Professional and business services	6	0.4
Nondurable goods(3)	4.2	0.7

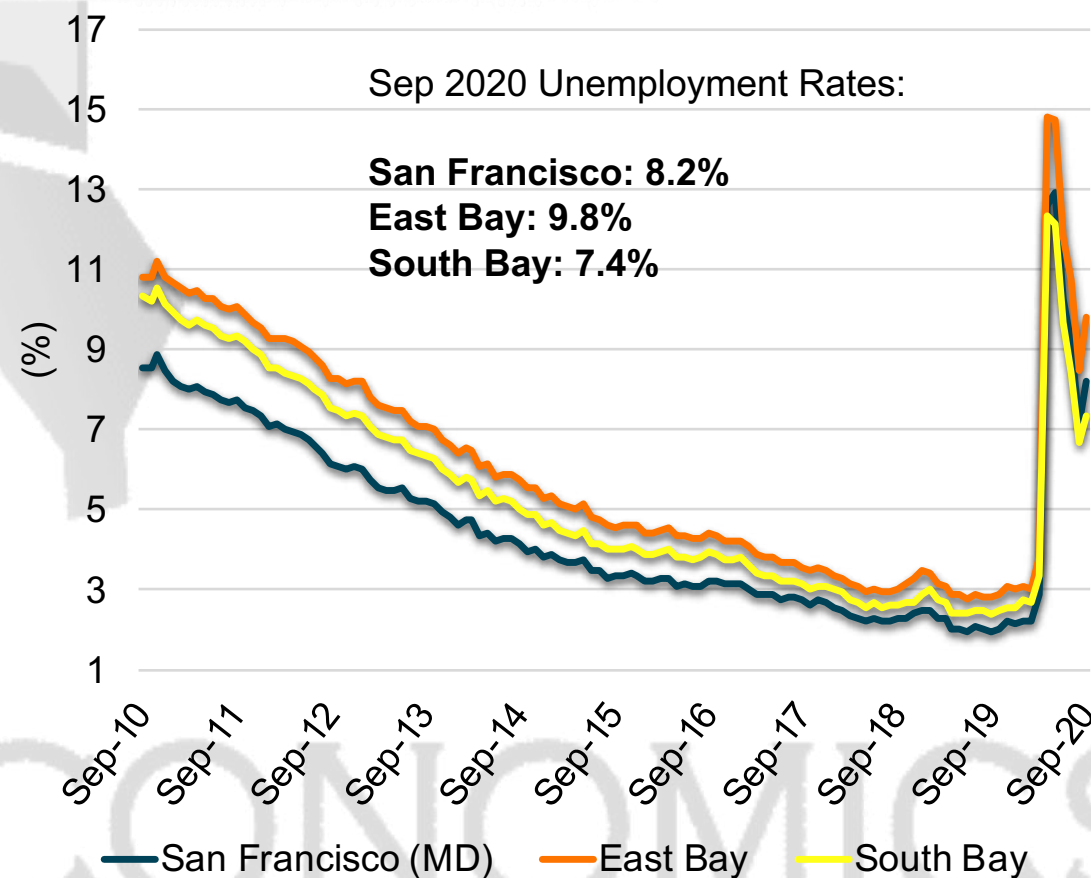
Labor Market



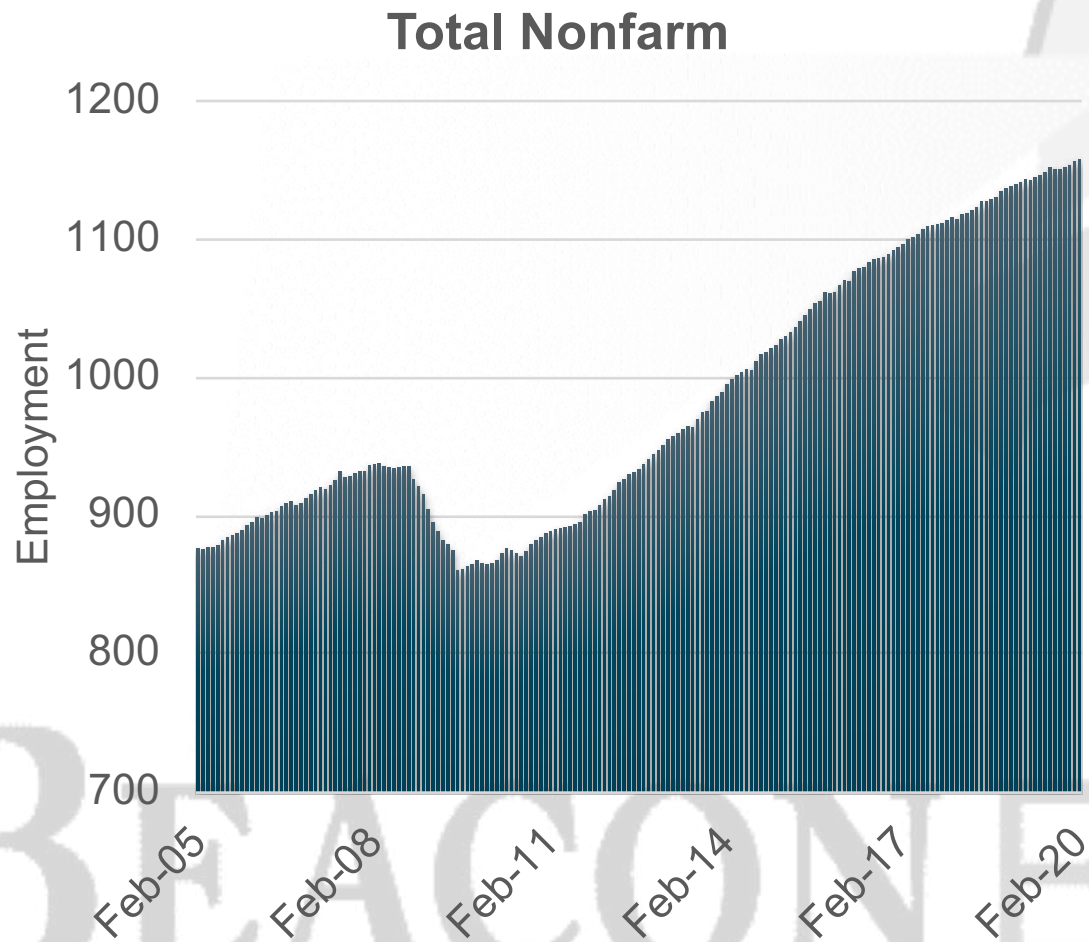
Labor Force



Unemployment Rate



Pre-COVID South Bay Economy

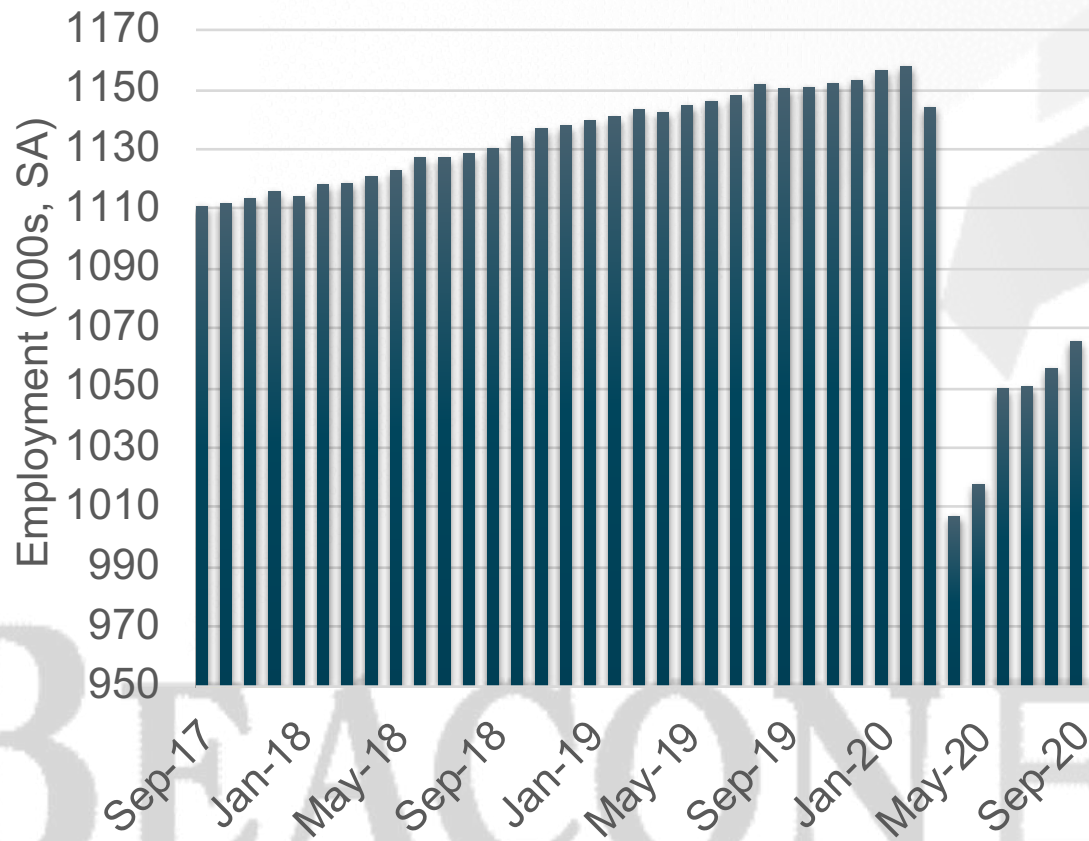


Industry	Feb-2020 South Bay Emp (000s)	Year-over-Year % Growth	
		South Bay	California
Total Nonfarm	1,157.8	1.5	1.5
Information	105.0	8.3	4.6
Logistics	15.2	5.5	6.2
Other Svcs.	30.1	4.1	1.4
Financial	38.5	3.4	1.7
Health Care	131.3	2.8	2.8
Government	98.2	2.2	1.4
Admin Support	63.6	2.0	0.6
Prof, Sci, Tech	166.5	1.7	2.5
Utilities	1.6	0.2	0.7
Retail Trade	84.1	-0.2	-0.7
L&H	104.1	-1.5	1.5
Wholesale	31.0	-3.0	-1.0
Management	14.8	-5.8	-1.5
Education	45.7	-6.3	3.4

COVID-19 Impacted South Bay Economy



Total Nonfarm

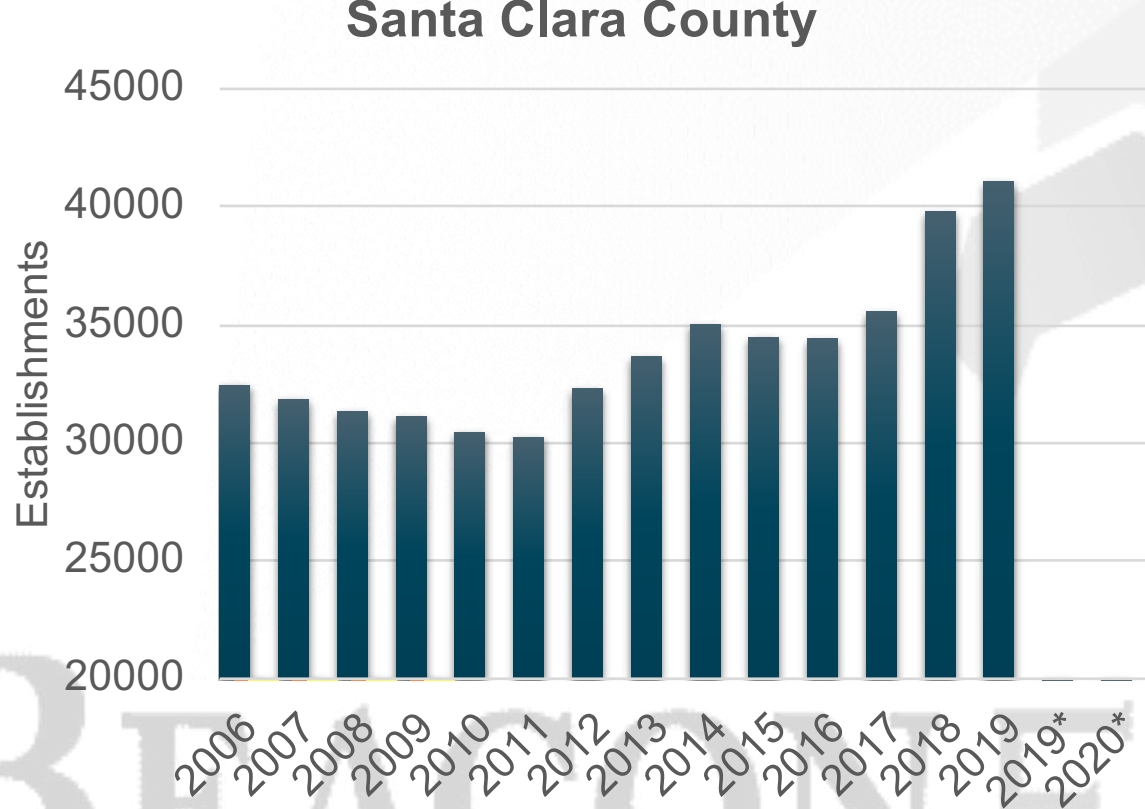


Industry	Sept-2020 South Bay Emp (000s)	Year-over-Year % Growth	
		South Bay	California
Total Nonfarm	1,065.6	-8.0	-9.2
Logistics	15.3	0.9	-5.8
Prof, Sci,Tech	166.4	-0.1	-3.3
Utilities	1.6	-0.5	0.6
Education	45.4	-0.6	-12.0
Management	14.3	-3.3	-3.8
Health Care	126.7	-3.5	-4.9
Admin Support	60.7	-4.6	-8.6
Financial	36.3	-5.8	-1.6
Manufacturing	163.0	-7.0	-7.2
Wholesale	28.6	-7.8	-5.4
Retail Trade	77.4	-7.9	-7.2
Information	91.8	-12.6	-12.3
Other Svcs.	22.3	-25.9	-20.3
L&H	71.4	-31.4	-29.2

Trends in Tech

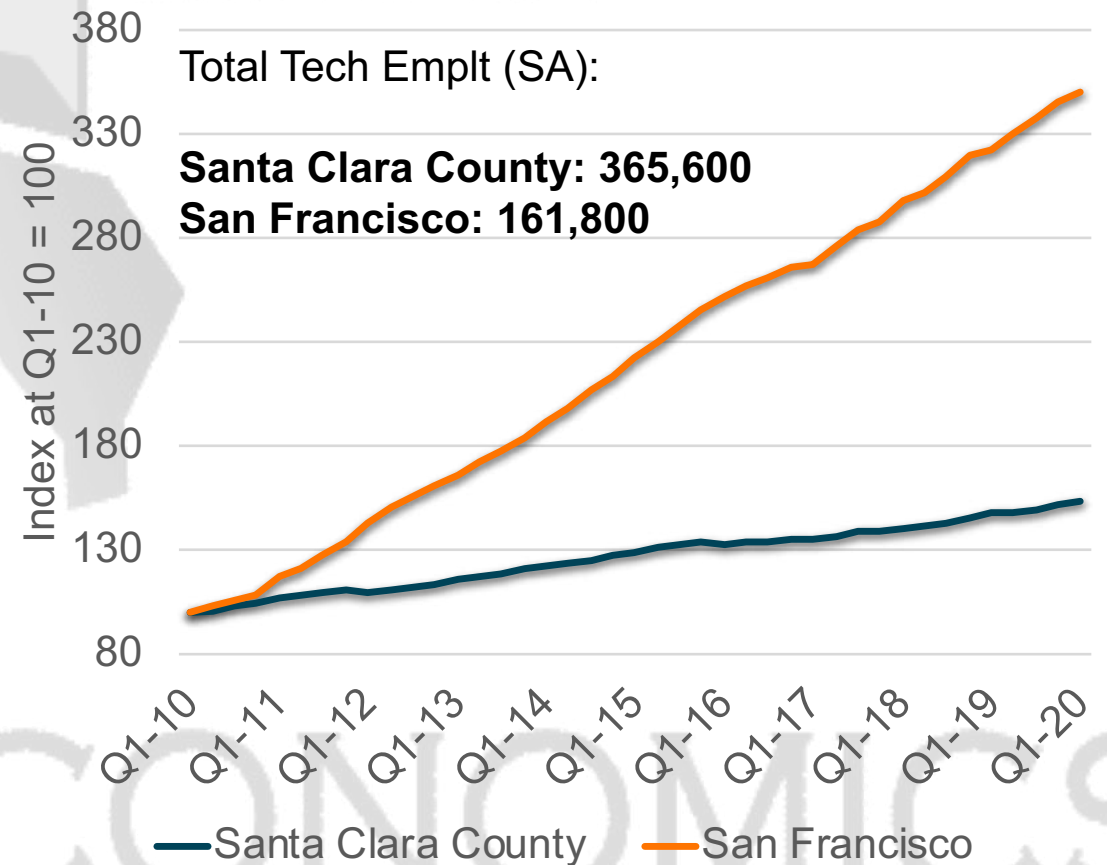


Tech Establishments Santa Clara County



*Year-to-date through first quarter

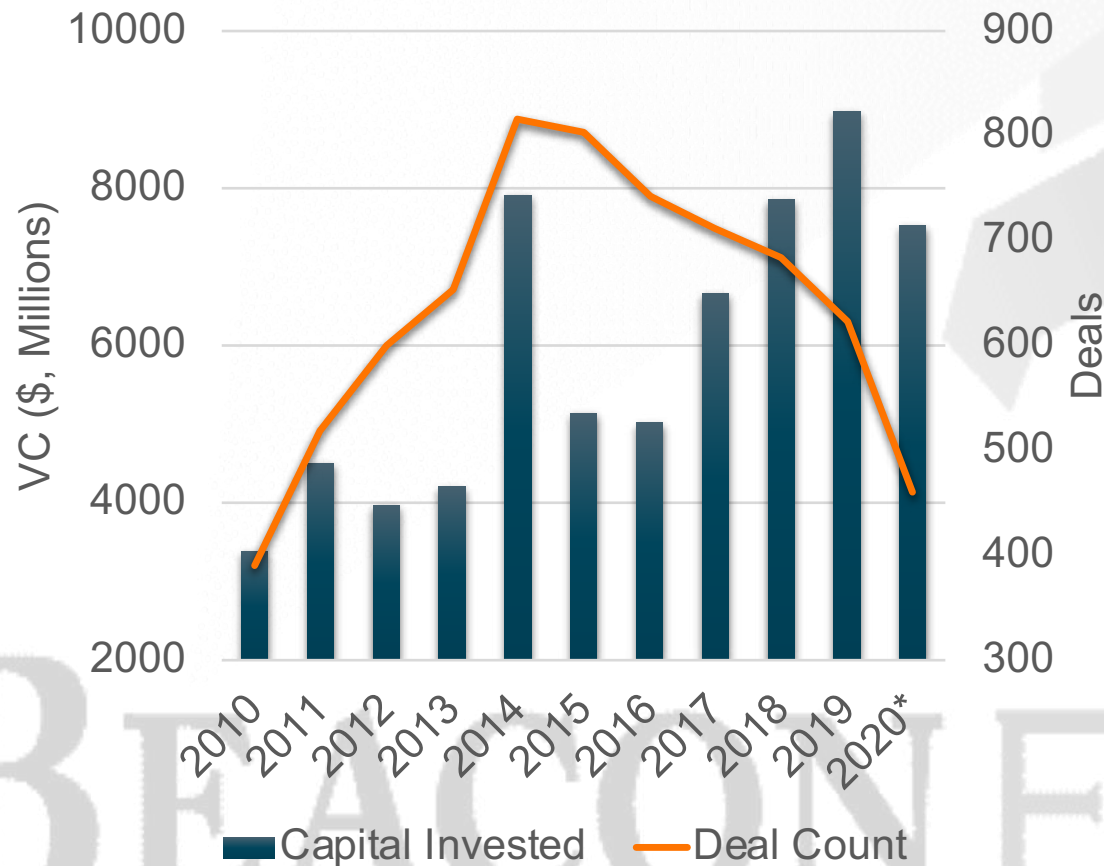
Tech Employment



Venture Capital – Santa Clara County



Venture Capital



Top 10 VC Deals, 2019-2020: Through Nov. 9 2020

Company	Industry	Deal Size (\$, Mil)	Date
Nuro	AI, Auto	940	Feb-19
Aurora (Automotive)	Auto	600	Feb-19
Nuro	AI, Auto	500	Nov-20
ChargePoint	Clean Tech	367	Aug-20
Netskope	Cybersecurity	340	Feb-20
Automation Anywhere	AI	290	Nov-19
Rubrik	Big Data	261	Jan-19
Cohesity	Big Data	250	Apr-20
Confluent	Big Data	250	Apr-20
Next Insurance	FinTech	250	Oct-19

Policy (Over)reaction



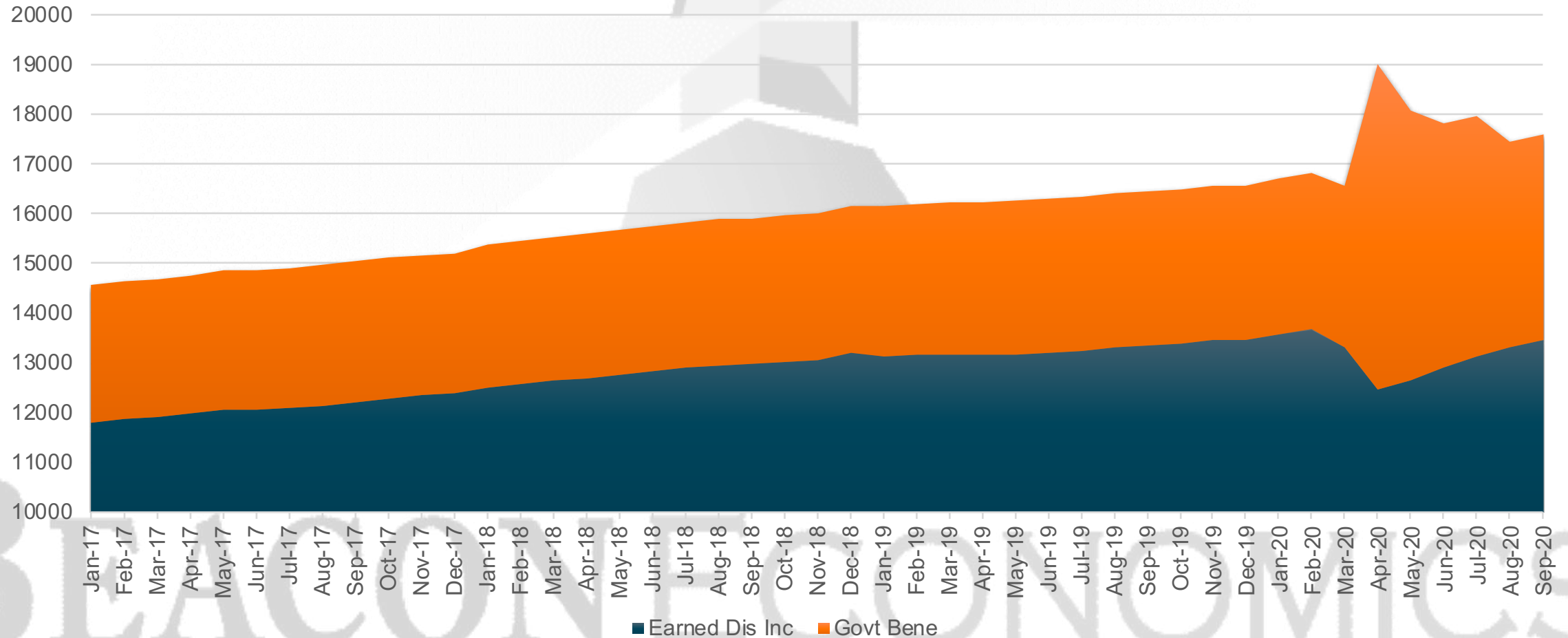
CARES Act: \$3 trillion in a \$5.5 trillion quarter

- Households
 - \$300 billion direct payments
 - \$250 billion unemployment expansion
 - Potential benefits = median weekly income
- Business
 - \$400-600 billion small business loans
 - \$500 billion economic stabilization for airlines, national security important industries etc.
- Local government support
 - \$350 billion, direct payments to governments, hospitals, airports, transit
- The Fed
 - Rate cuts
 - Full QE efforts
- Other Efforts
 - IRS, states: delaying tax payments
 - Local government moratorium on evictions
 - Large landlords providing rent deferral
 - Large public mortgage holders allowing owners to defer mortgages
 - Food programs expanding

Stimulus Dry Powder



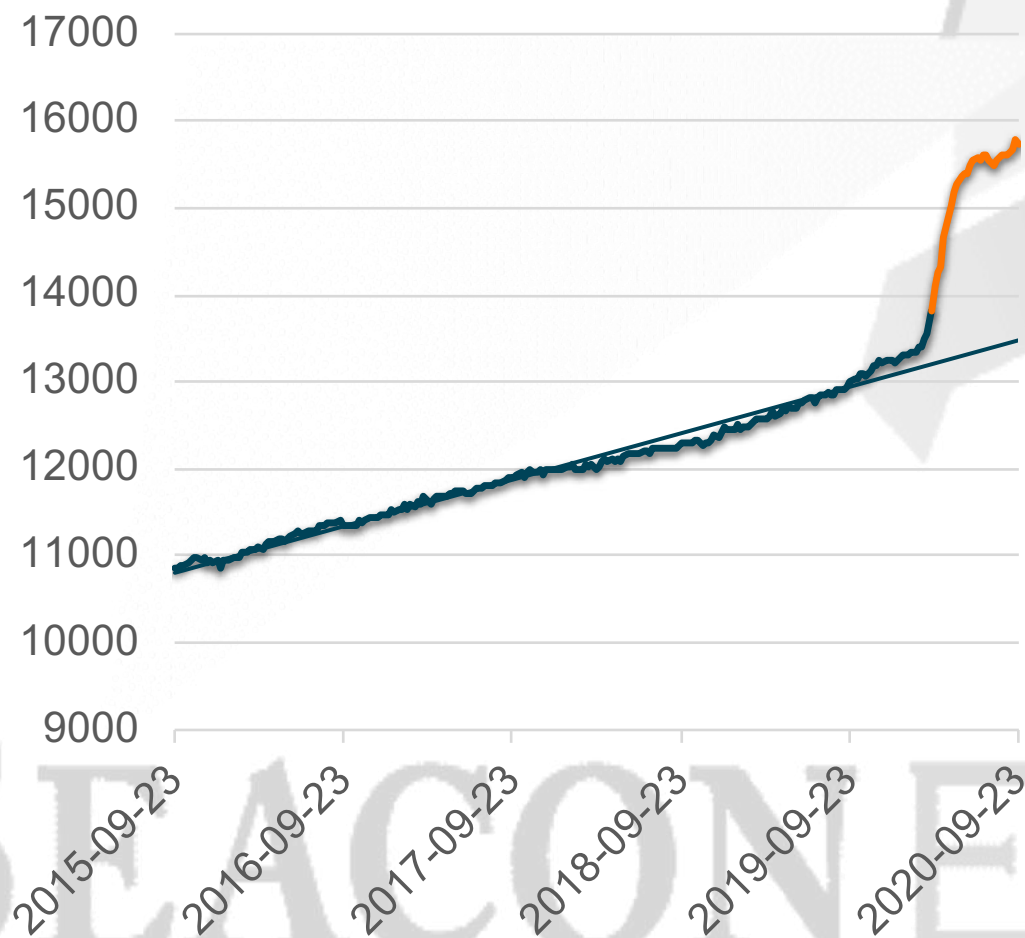
US Disposable Household Income by Source



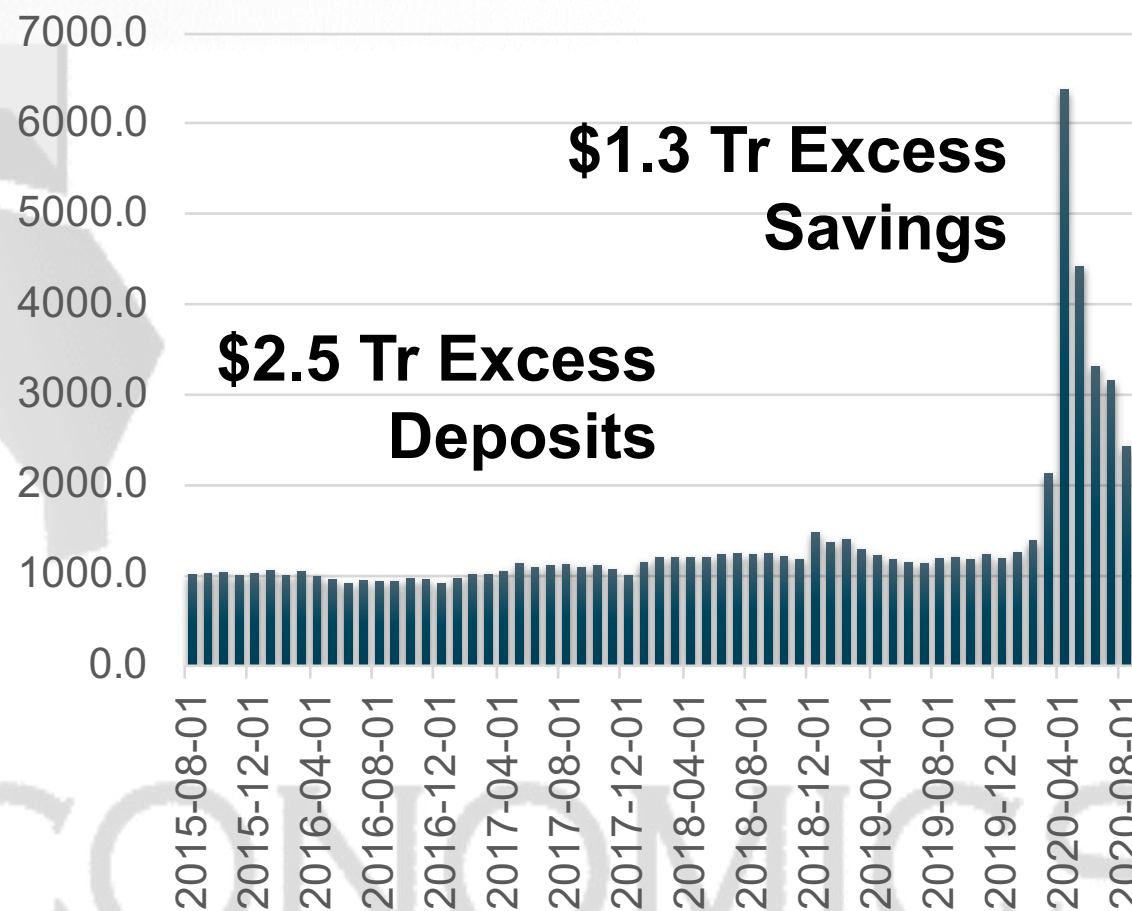
Dry Powder



Bank Deposits, Billions



Household Savings Billions SAAR



\$2.5 Tr Excess Deposits

Who is Ahead / Behind?



In **the United States**, as of October 04 2020, total spending by all consumers decreased by **3.2%** compared to January 2020.

[DOWNLOAD CHART](#)



U.S. federal spending as a share of gross domestic product



World War II

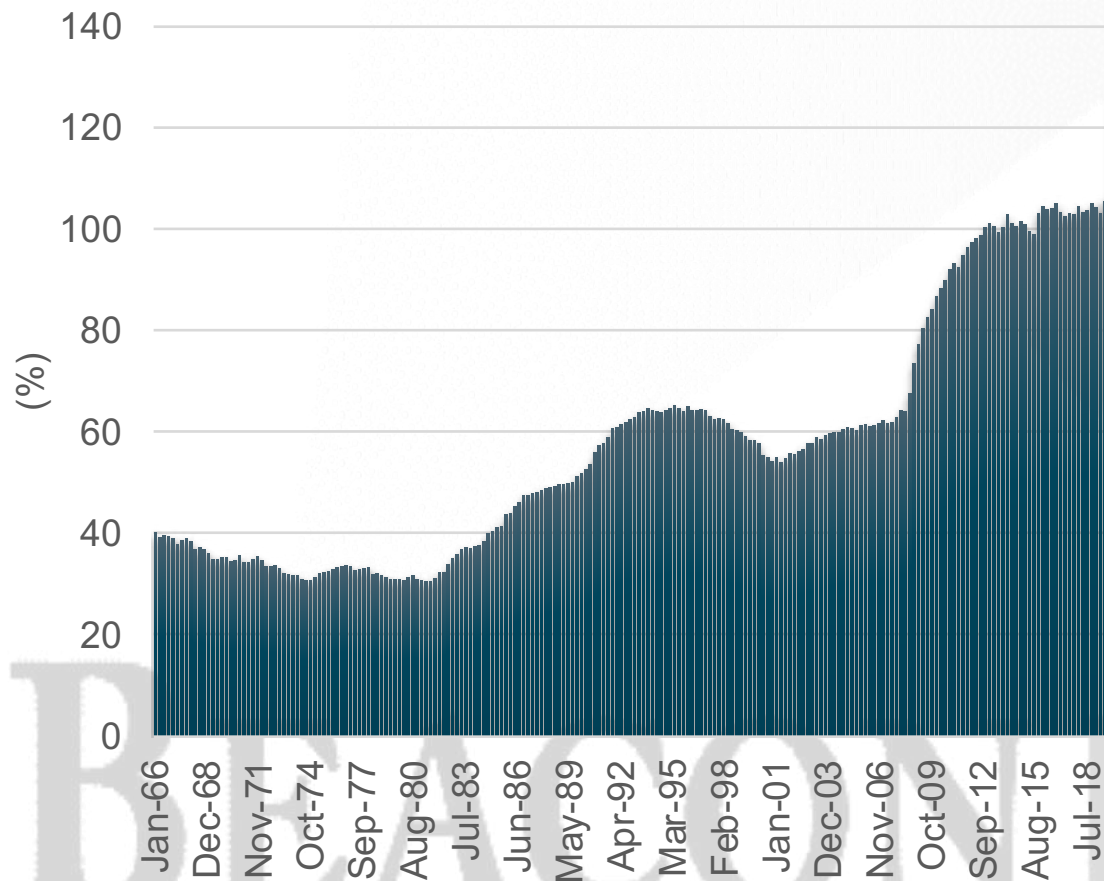


Sources: White House, CBO

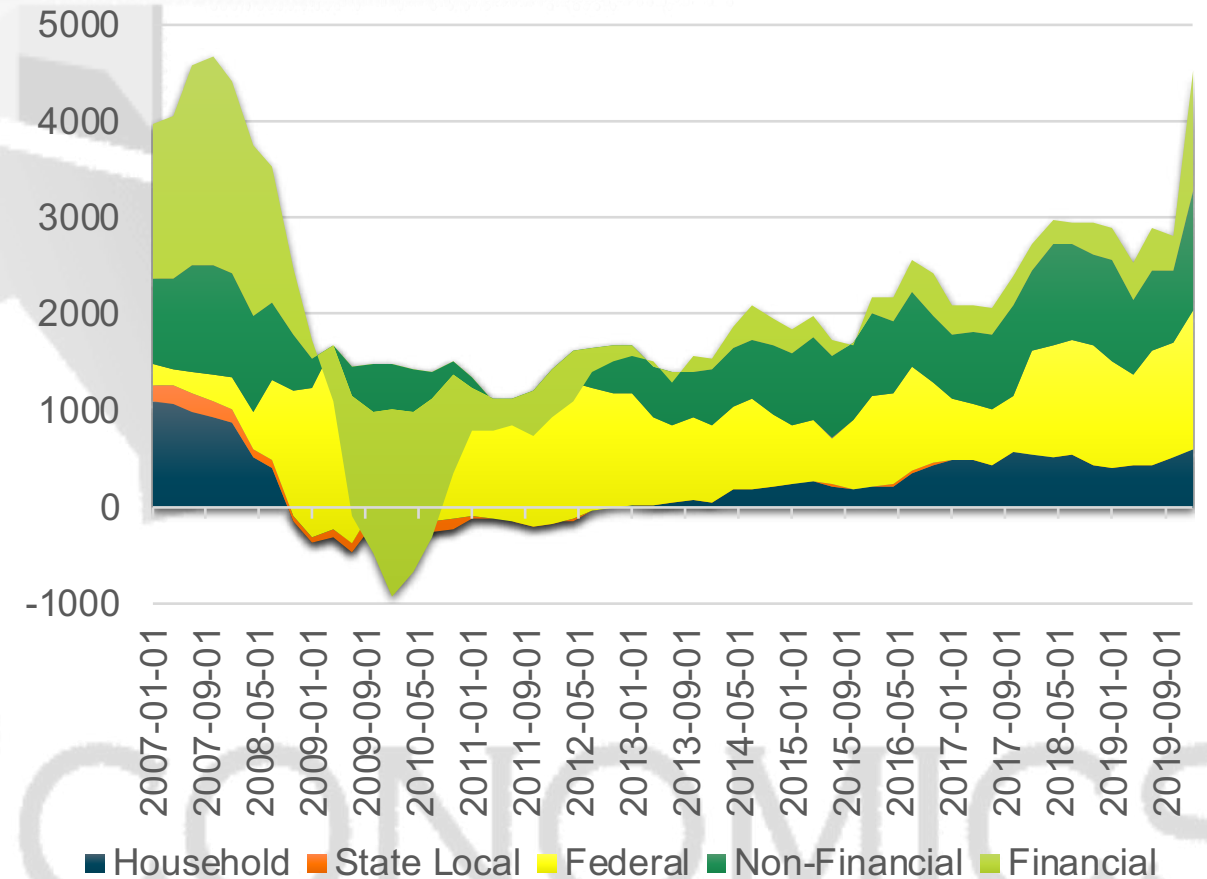
Government Debt



Gov Debt as % of GDP



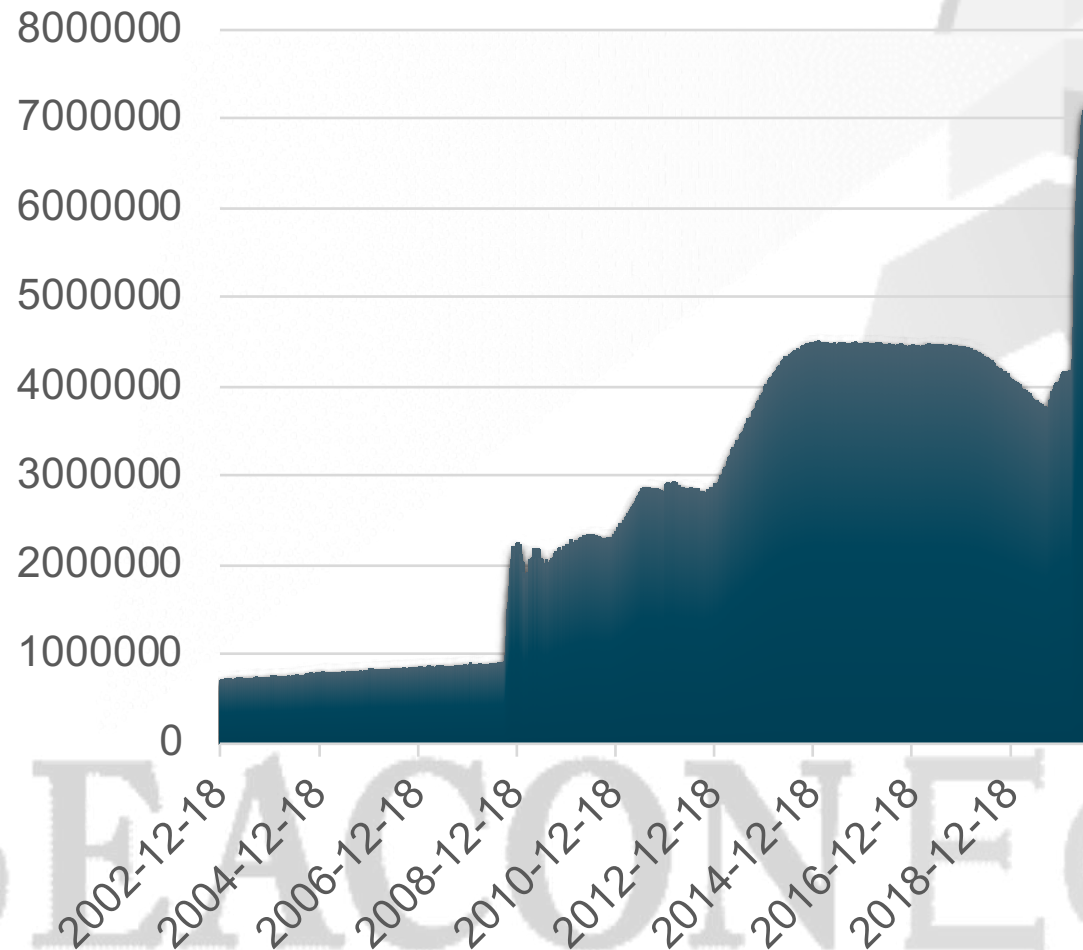
Total Borrowing (Annual Billions)



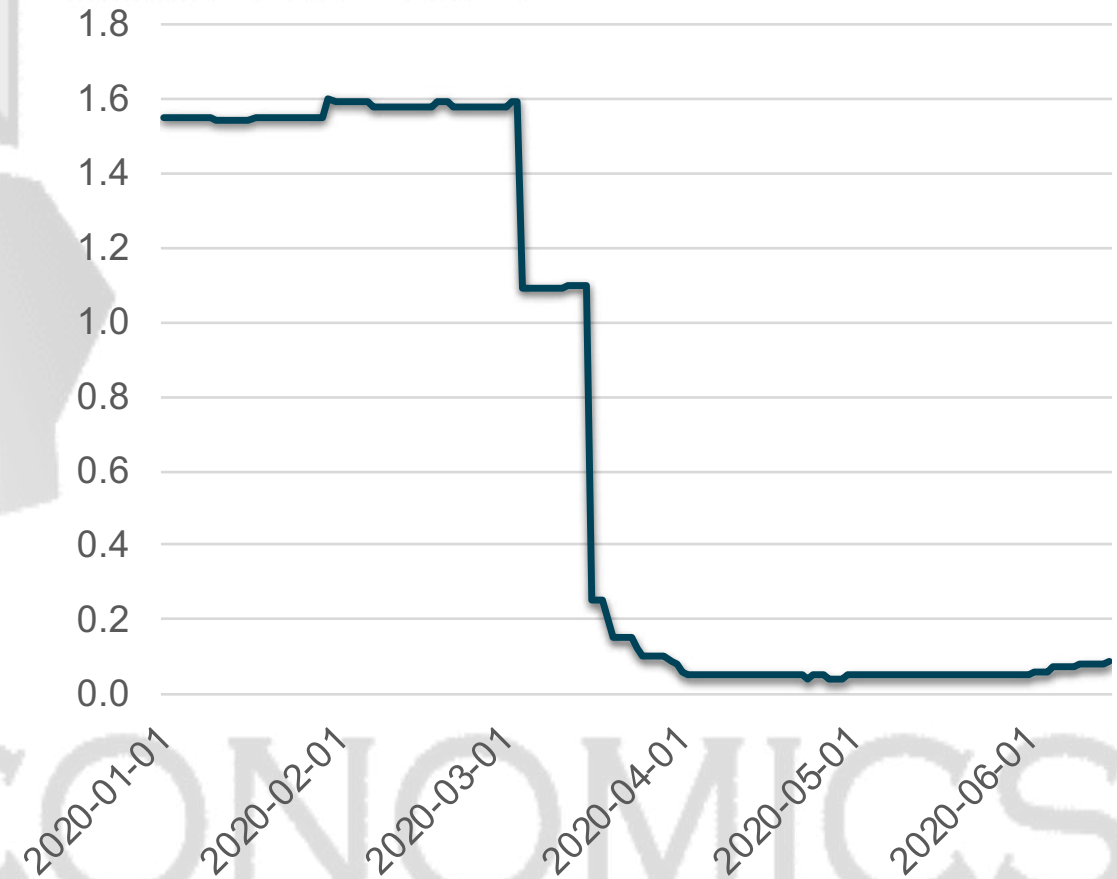
Federal Reserve Policy



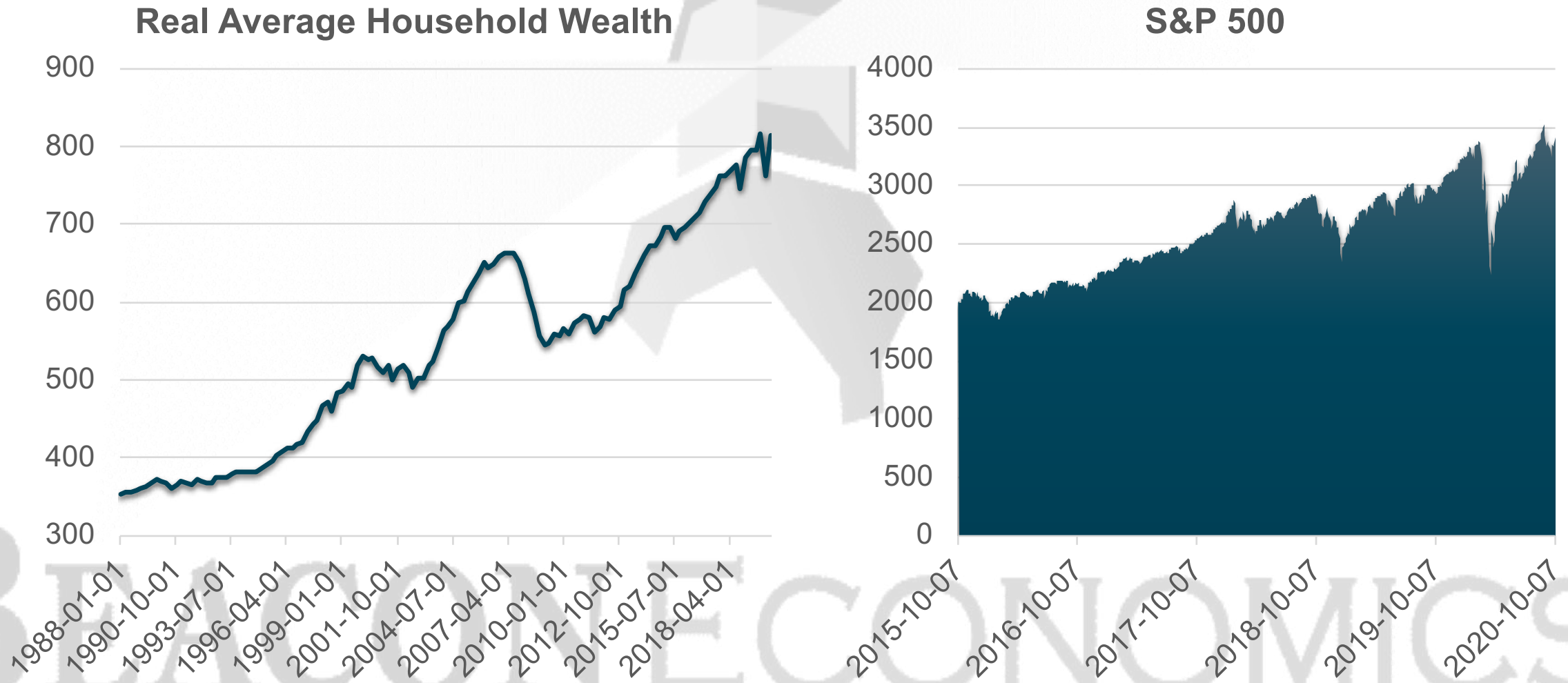
Fed Balance Sheet



Effective Federal Funds Rate



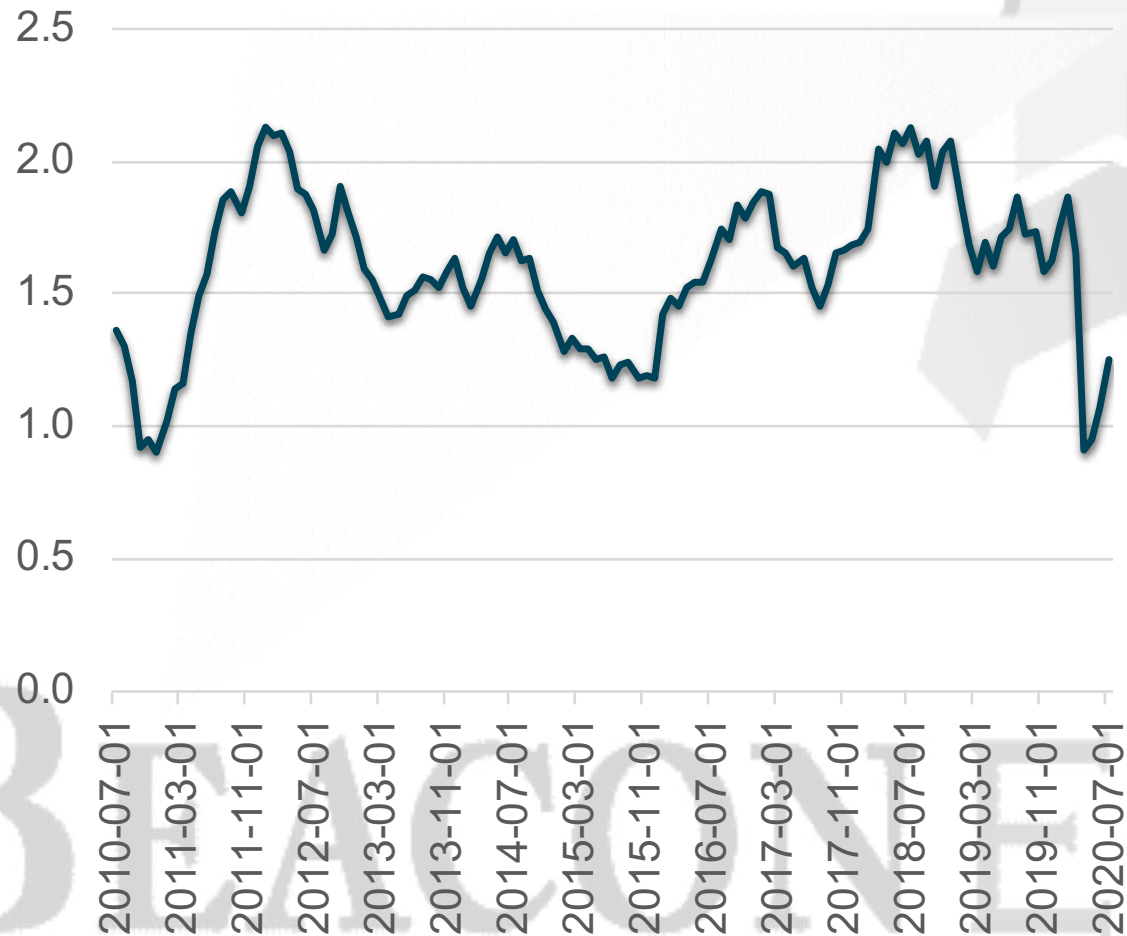
Financial Trends



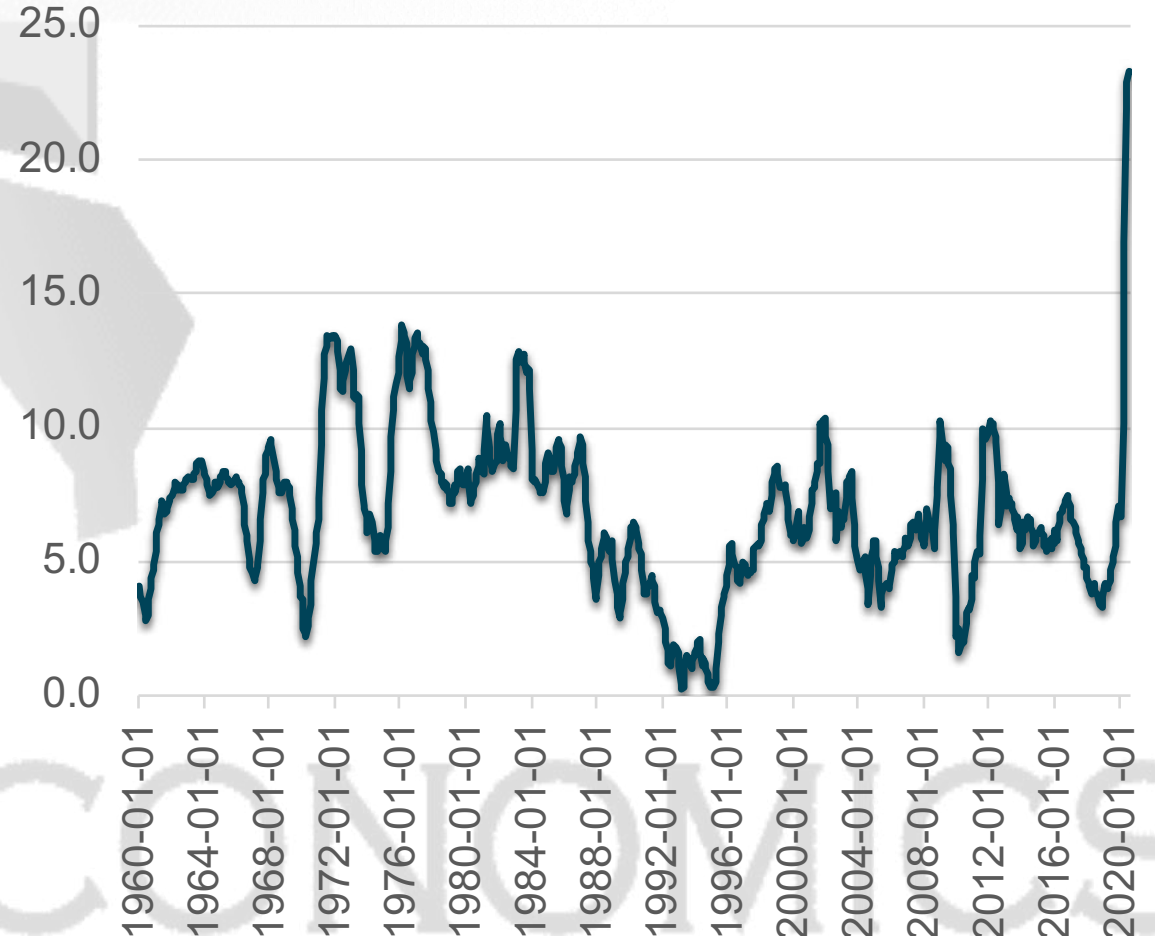
Inflation Warning



Core PCE Inflation



Y-o-Y M2 Growth



Closing the State Budget Gap



- January proposed for FY 2020-21:
 - \$5.6 billion surplus
- May revision for FY 2020-21:
 - \$54.3 billion deficit

Summary of Solutions	2020 Budget Act (\$Billions)
Reserves	8.8
Borrowing/Transfers/Deferrals	9.3
Revenues	4.4
Federal Funds	10.1
Cancelled Expansions, Updated Assumptions, Other	10.6
Trigger Reductions/Additional Deferrals	11.1
Total	54.3

Closing what Budget Gap?



Revenue Source	2019-20 YEAR-TO-DATE				2020-21 YEAR-TO-DATE			
	Forecast	Actual	Change	Percent Change	Forecast	Actual	Change	Percent Change
Personal Income	\$81,845	\$82,507	\$662	0.8%	\$26,003	\$29,649	\$3,646	14.0%
Sales & Use	25,426	26,070	643	2.5%	3,371	4,547	1,176	34.9%
Corporation	9,787	9,836	49	0.5%	5,029	4,853	-176	-3.5%
Insurance	3,052	3,128	76	2.5%	629	599	-31	-4.9%
Estate	0	0	0	0.0%	0	0	0	0.0%
Pooled Money Interest	587	599	12	2.0%	61	33	-29	-46.7%
Alcoholic Beverages	385	381	-5	-1.2%	69	75	6	9.3%
Tobacco	60	60	0	-0.5%	12	10	-1	-10.7%
Other	2,253	1,899	-353	-15.7%	430	381	-48	-11.2%
Total	\$123,395	\$124,479	\$1,084	0.9%	\$35,604	\$40,148	\$4,544	12.8%

Long Run Consumer / Business Behavior



Personal Behavior

- This is not a “new normal”
 - Polio, smallpox, plague, etc.
 - Spanish flu, MERS, SARS
 - Terrorism episodes
 - No permanent change in consumer behavior seen
- Some segments will lag
 - Older consumers
 - Global tourism

Business Issues

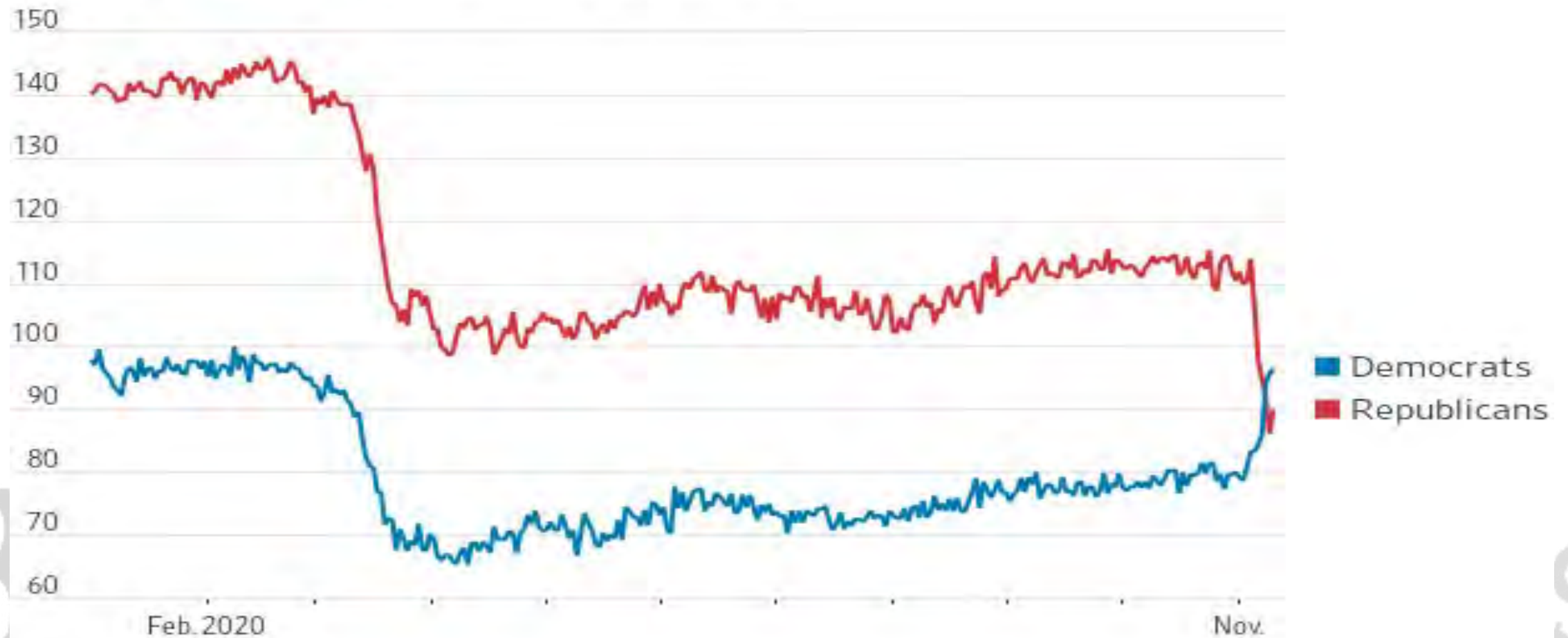
- Shakeout in stressed sectors
 - Oversupply of restaurants
 - Retail shifting to online
- Perhaps a good lesson?
 - More flexibility for remote work
 - Some long run impact on business travel
 - Office is not over, but...
 - Industrial: Local vs global transport

BEACON ECONOMICS

The election



Morning Consult index of consumer sentiment



Source: Morning Consult.

The election



■ National Election

- Biden, House in Democrat hands
- Senate likely to stay with Republicans, we await GA's next election
- Big issue: uncertainty until transition

■ Where do we head?

- Red senate: lock down for 2 years
- Blue senate: ???
- Good for CA; better alignment, personal connections, chance to focus on internal issues

■ State Election

- Props 15 (split roll), 16 (affirmative action), 21 (rent control), 23 (dialysis) going down
- Props 19 (prop tax), 22 (App subcontractors), 24 (internet) win: what about AB5?
- Shows CA population well to the political right of state legislative bodies
- General issue of taxes

■ Big state political shift

2020: The Long Run Still Matters



- It ain't good, but it ain't *that* bad..
 - The “V” is the only logical outcome
 - Speed of recovery dictated by pace at which virus gets under control again
 - Behavior, not policy at center of issue
- Baseline Forecast
 - 4.8% Q1, -31%Q2, 33% Q3, 8% Q4
 - Close to full recovery by Q3-2021
 - Unemployment below 7% by year end
 - Moderate upticks in debt distress
 - Stock market—who knows
 - Little impact on long run real estate values
 - Retail / restaurants / tourism to lag
- Wildcards
 - True Second round of outbreaks / shutdowns
 - Global situation
 - How long until travel gets going
 - Government budgets
- The true enemy: Miserabilism
 - More bad policy driven by a basic lack of context
 - Health needs conflated with culture wars
 - Uncomfortable math: A lot of economic damage relative to positive health outcomes
 - More targeted policies needed

What can Beacon do for you?



Connect with us.

To view again or download this presentation and for further information, go to: **www.BeaconEcon.com**

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



BEACON
ECONOMICS

Thank You

Chris@BeaconEcon.com | beaconecon.com