

THE 3 R's

OF REAL ESTATE AND THE ECONOMY



REINVENT



RECHARGE



REIGNITE

Ted C. Jones, PhD
Chief Economist SVP

Takeaways

- Highest Intrinsic Value of Housing
- Accelerating Pre-Existing Trends
- Permanent Changes *66 Days Average*
- Macro Factors Rule
- New Rules-Taxes-Economics Unknown
- Omnichannel Marketing Key

Recession

Recession is Defined as Two or More
Quarters of Negative GDP Growth

FORECAST

Goldman
Sachs

-5%

Q1

-32.9%

Q2 2020

33.3%

Q3 2020

-4.6%

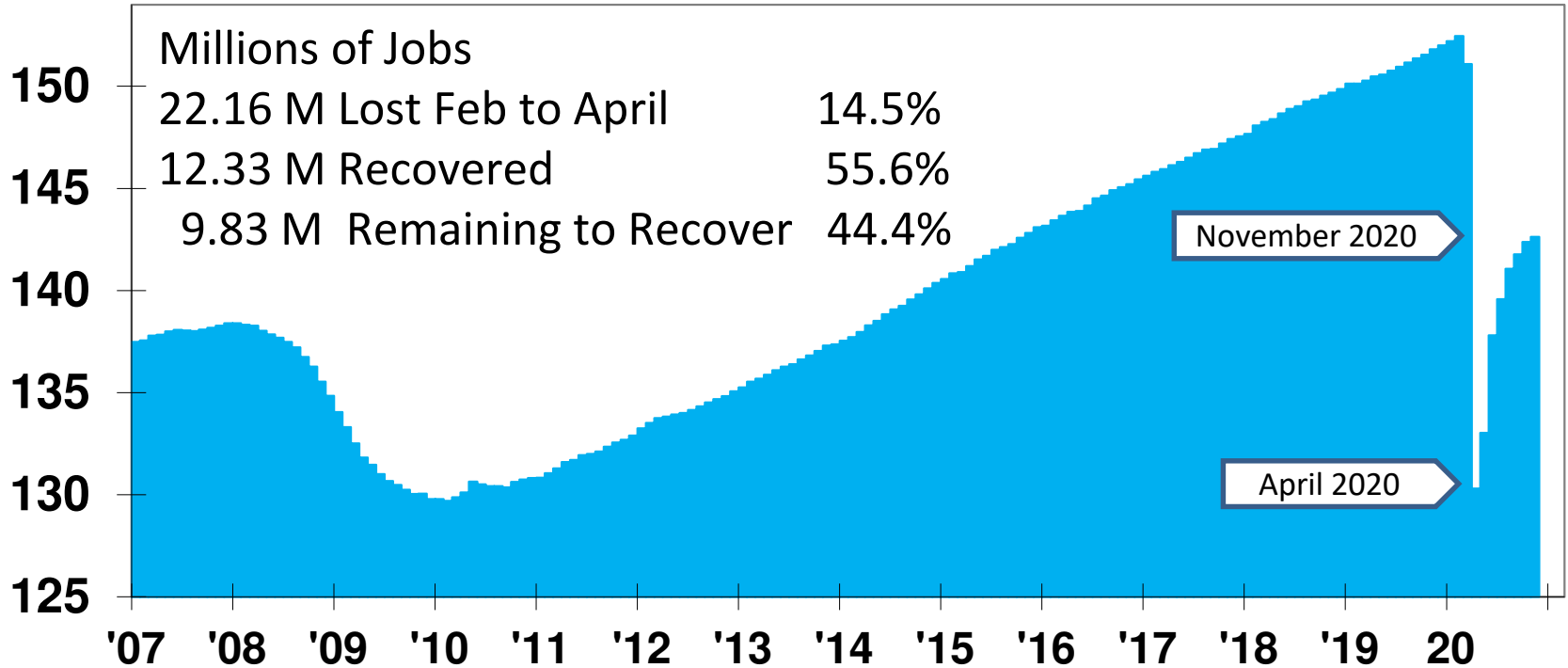
2020

+5.3%

2021

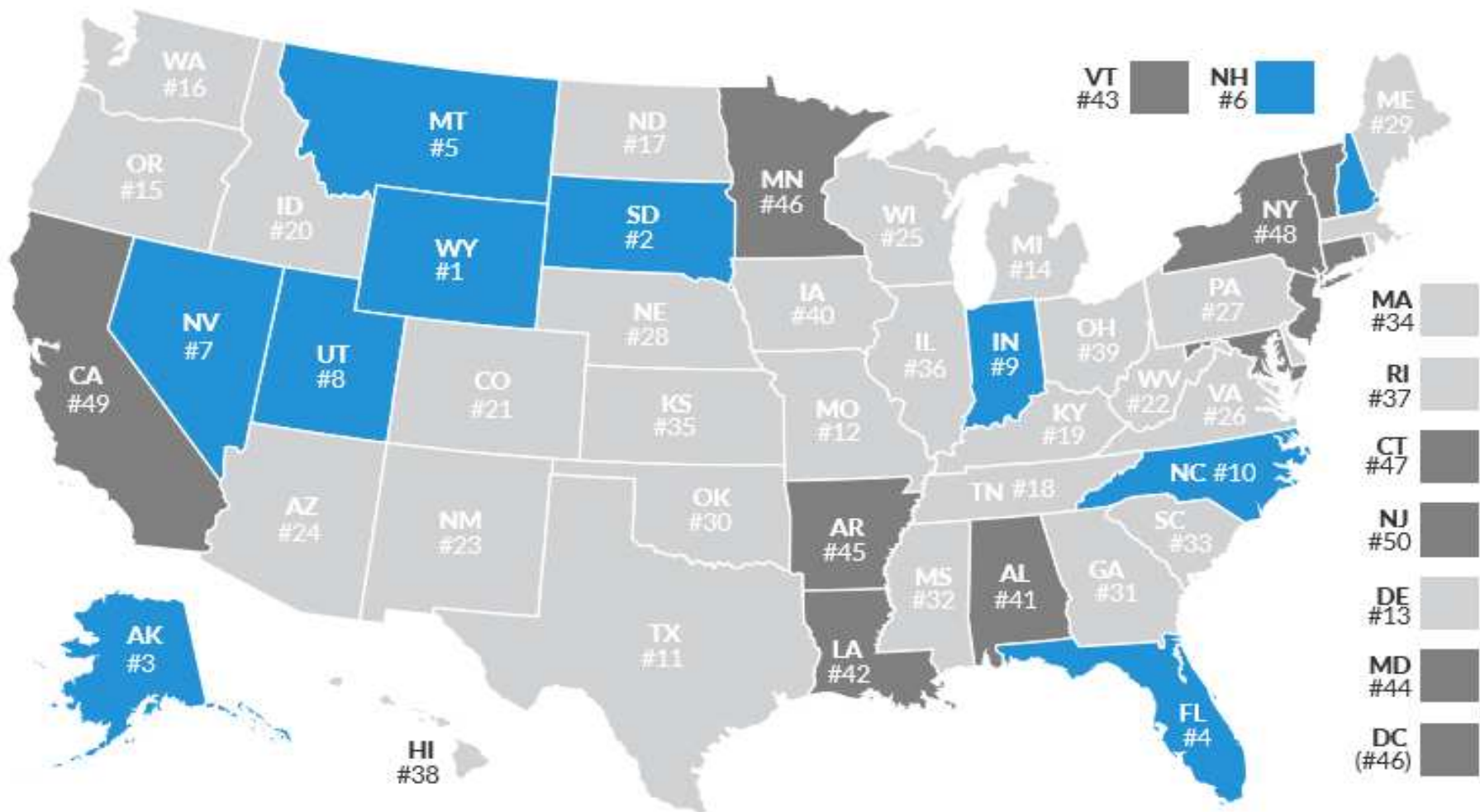
U.S. Jobs

Jobs (Millions) *Seasonally Adjusted*



2021 State Business Tax Climate Index

THE TAX FOUNDATION



State Job Losses -- February 2020 to Trough



Michigan	23.8%	California	14.9%	Iowa	11.7%
Vermont	21.7%	Alaska	14.7%	Georgia	11.4%
Nevada	20.1%	Maryland	13.9%	<u>Texas</u>	<u>10.8%</u>
Hawaii	20.1%	Indiana	13.7%	Idaho	10.8%
New York	19.8%	Louisiana	13.7%	Virginia	10.7%
New Jersey	19.6%	Oregon	13.6%	Mississippi	10.5%
Rhode Island	19.3%	North Carolina	13.4%	Alabama	10.5%
Massachusetts	18.6%	South Carolina	13.3%	North Dakota	10.1%
Pennsylvania	18.3%	West Virginia	13.2%	Kansas	10.0%
Delaware	17.9%	Montana	13.1%	Arizona	9.9%
Connecticut	17.1%	Illinois	13.1%	South Dakota	9.4%
New Hampshire	17.1%	Minnesota	13.0%	Arkansas	9.3%
Kentucky	16.8%	Florida	13.0%	Utah	9.1%
Maine	16.4%	Tennessee	12.8%	Dist of Columbia	9.1%
Ohio	16.0%	Colorado	12.2%	Wyoming	9.0%
Wisconsin	15.9%	New Mexico	12.0%	Nebraska	8.9%
Washington	15.7%	Missouri	11.9%	Oklahoma	8.5%

Percentage of Lost Jobs Recovered -- November 2020

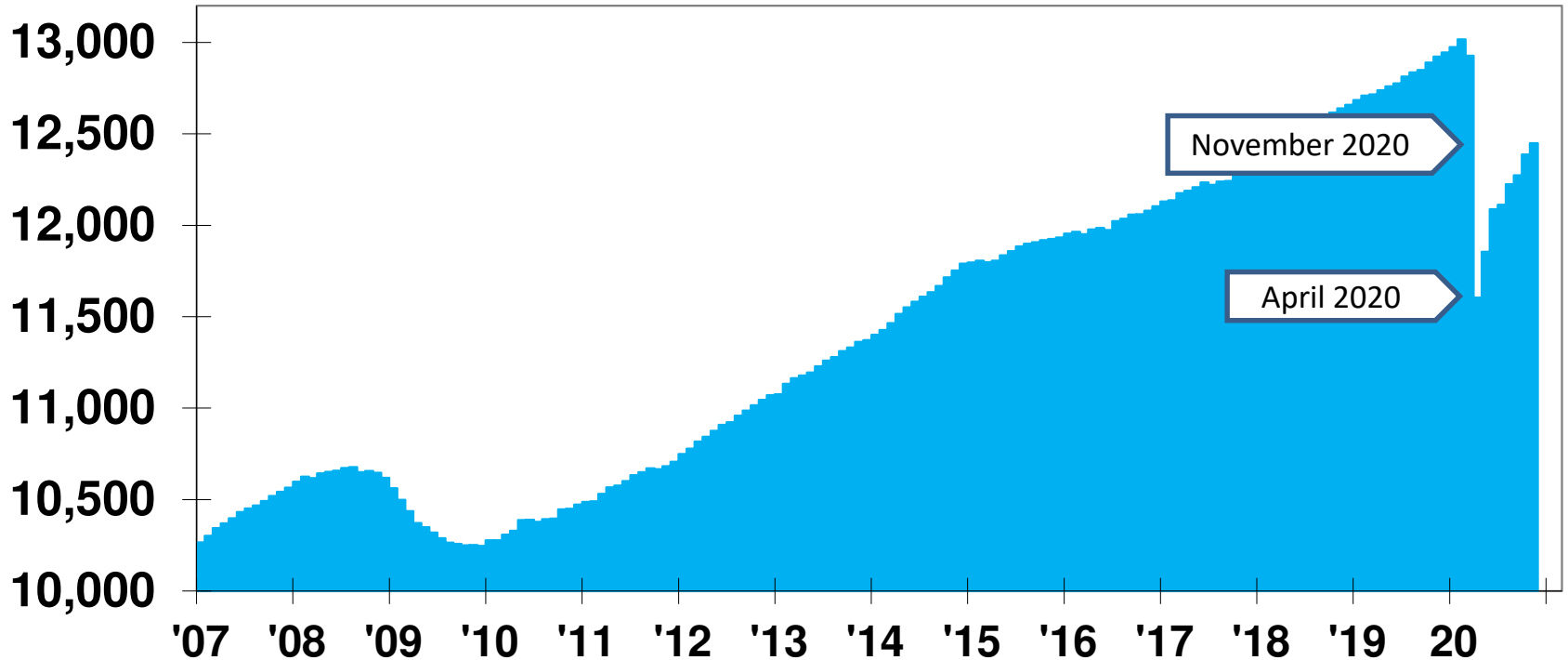


Idaho	95.9%	Nevada	62.2%	Maine	53.4%
Utah	94.6%	Vermont	62.2%	Oregon	52.7%
Alabama	77.4%	Colorado	61.2%	Wisconsin	52.2%
Mississippi	77.0%	Nebraska	61.2%	Kansas	51.9%
South Carolina	74.6%	Washington	61.1%	Minnesota	49.8%
Georgia	74.3%	North Carolina	60.8%	Oklahoma	49.7%
Montana	72.8%	Ohio	60.7%	Massachusetts	49.4%
Indiana	71.6%	Texas	59.7%	Delaware	49.0%
Tennessee	68.3%	Alaska	59.2%	New York	47.9%
Arizona	68.3%	Florida	59.0%	Wyoming	46.7%
Kentucky	67.1%	Michigan	58.7%	New Hampshire	46.7%
Missouri	66.6%	New Jersey	58.4%	Illinois	46.3%
Arkansas	65.7%	Rhode Island	58.3%	California	46.0%
Connecticut	64.5%	Iowa	58.2%	New Mexico	37.3%
Louisiana	64.3%	Pennsylvania	57.7%	Dist of Columbia	26.5%
Maryland	63.3%	Virginia	56.3%	North Dakota	26.5%
South Dakota	62.7%	West Virginia	56.0%	Hawaii	24.3%

Texas



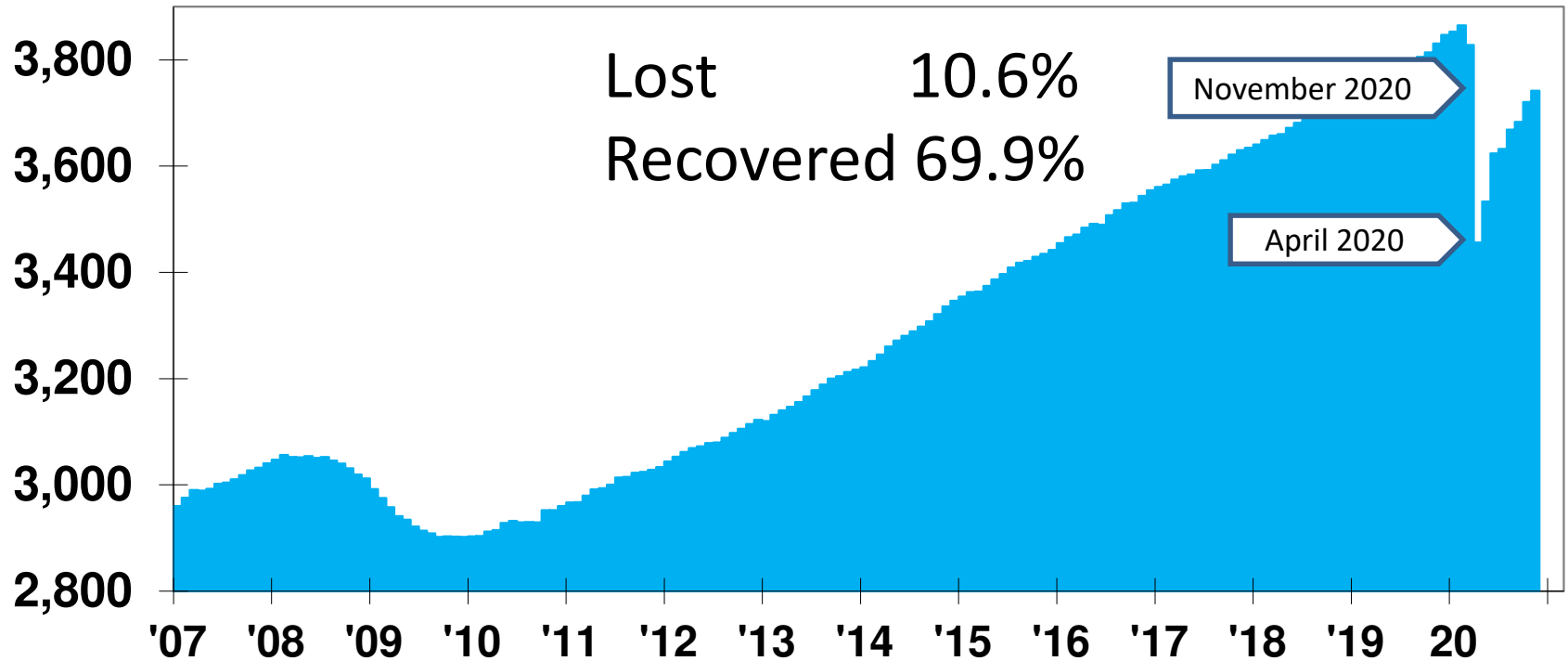
Jobs (Thousands) *Seasonally Adjusted*



Dallas-Ft Worth-Arlington MSA



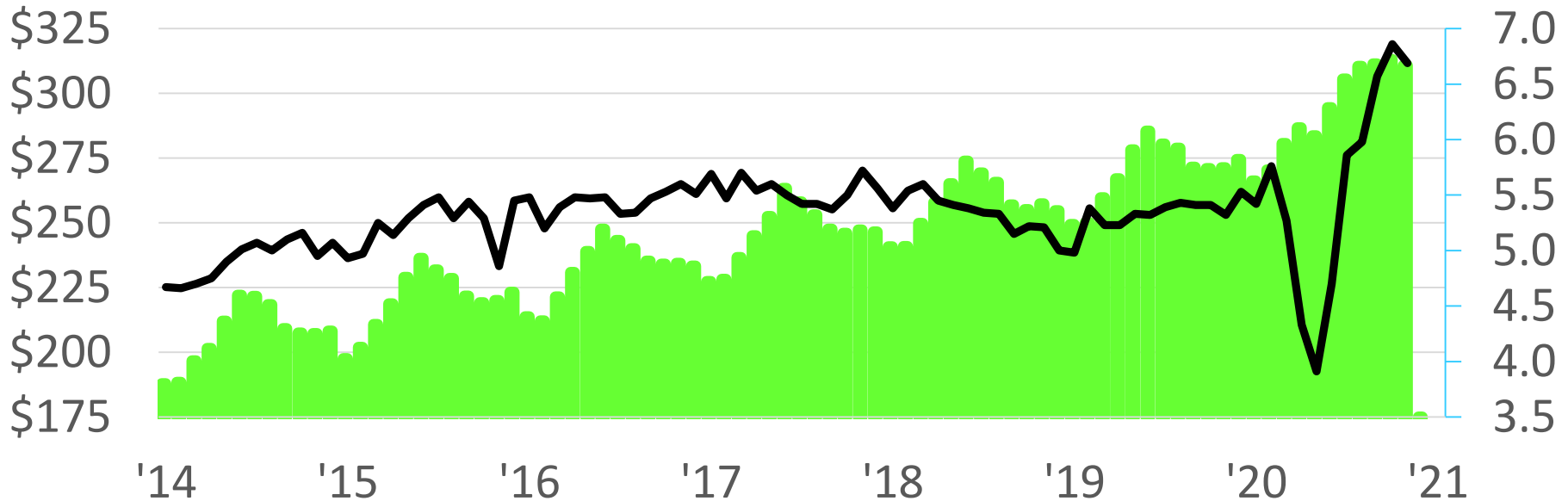
Jobs (Thousands) *Seasonally Adjusted*



US Existing Home Sales & Median Prices

Median Home Price - \$ Thousands

Sales – Seasonally
Adjusted Annualized
Rate Millions



Existing Single-Family Sales

November 2020

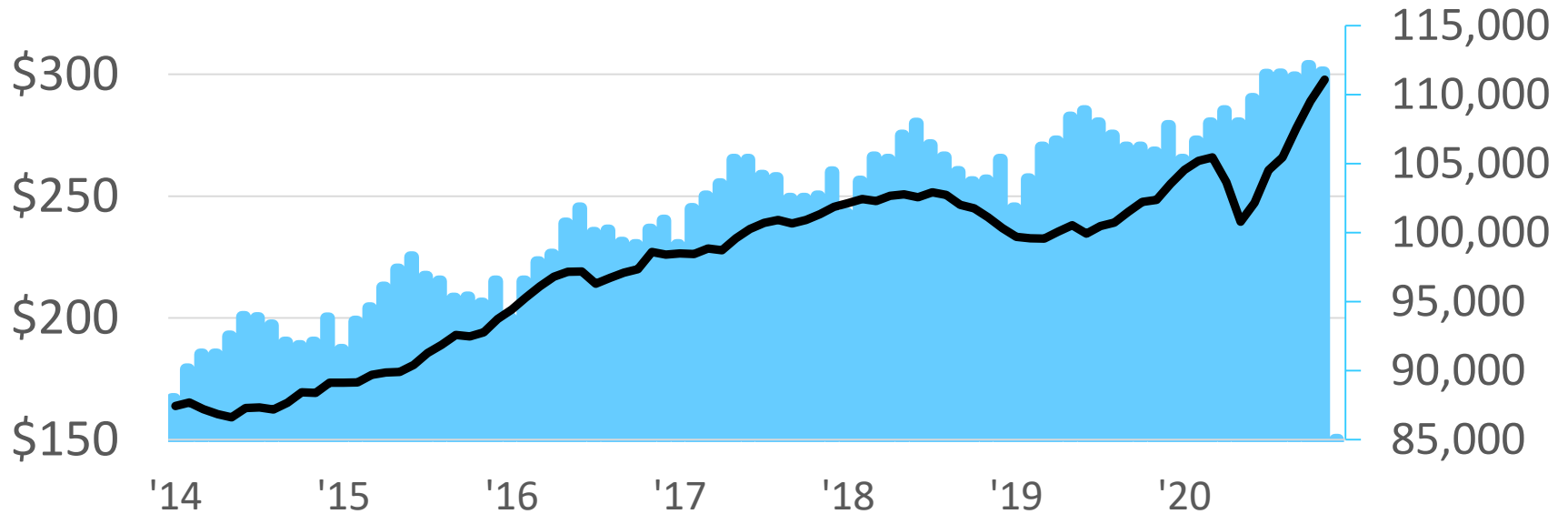
Price Range Thousands	Sales Distribution	Change in Sales Vs November 2019	Change in Inventory Vs Nov 2019
\$0 to \$100	5.4%	-21.7%	-38.5%
\$100 - \$250	31.2%	1.1%	-27.5%
\$250 - \$500	41.5%	37.3%	-16.3%
\$500 - \$750	12.9%	64.9%	-3.5%
\$750 - \$1 Million	4.5%	84.9%	1.0%
Great than \$1 Million	4.5%	88.1%	-1.4%

Based on a Non-Seasonally Adjusted Sample

DFW MSA Home Sales & Median Prices

Median Home Price - \$ Thousands

Sales – Prior 12 Months



Jobs & Residential Dwelling Unit Permits

Dallas-Ft Worth-Arlington

Year	Net New Jobs	Dwelling Unit Permits	Jobs Per New Dwelling
2013	94,000	40,364	2.33
2014	130,100	43,994	2.96
2015	95,600	57,146	1.67
2016	112,400	55,800	2.01
2017	79,600	62,524	1.27
2018	92,600	63,893	1.45
2019	92,600	62,955	1.47
Total	696,900	386,676	1.80

Normal
Is from
1.25 to 1.5
Net New Jobs
Per New
Dwelling
Unit

Jobs & Residential Dwelling Unit Permits

Houston-The Woodlands-Sugar Land

Year	Net New Jobs	Dwelling Unit Permits	Jobs Per New Dwelling
2013	89,900	51,334	1.75
2014	116,800	63,745	1.83
2015	(3,200)	56,901	(0.06)
2016	2,600	44,732	0.06
2017	49,300	42,395	1.16
2018	82,100	57,478	1.43
2019	82,100	63,672	1.29
Total	419,600	380,257	1.10

Normal
Is from
1.25 to 1.5
Net New Jobs
Per New
Dwelling
Unit

U.S. Median Home Price Gain
Forecast
12-Months Ending
September 2021

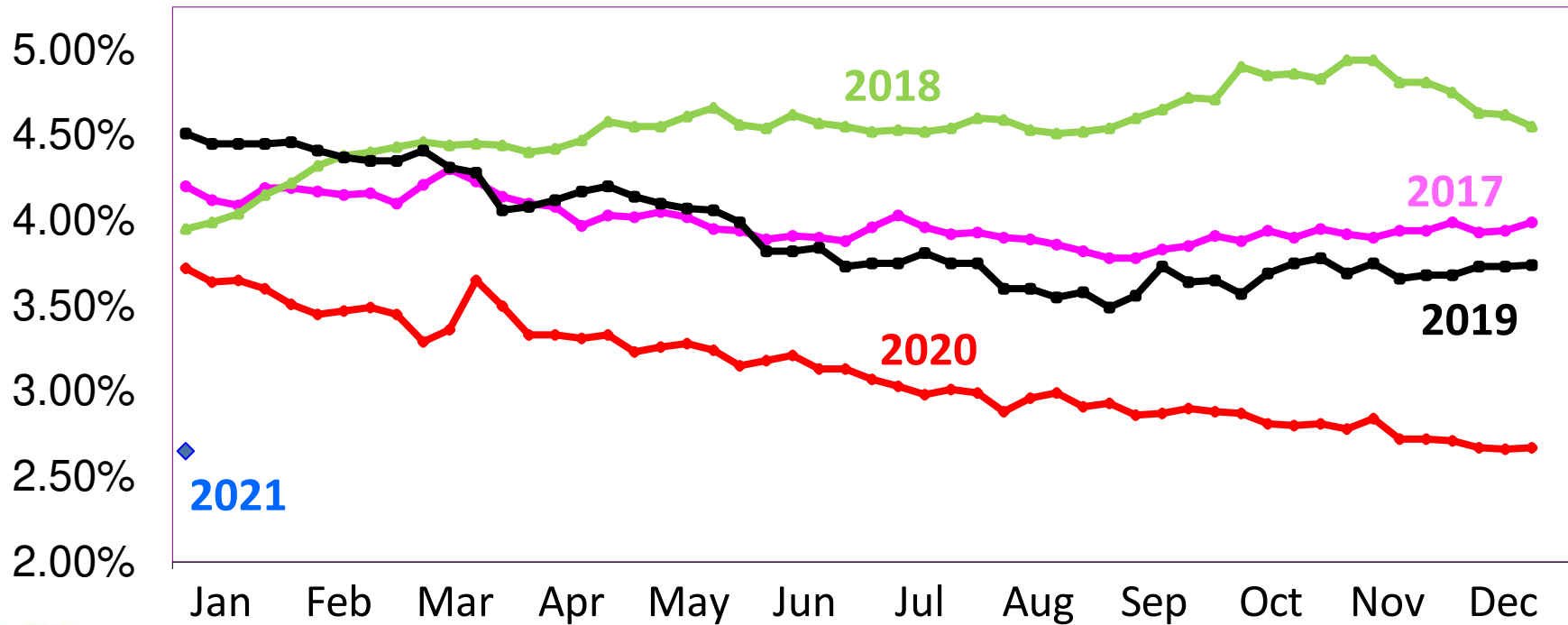
0.2%



CoreLogic®

30-Year Conventional Residential Mortgage Rates

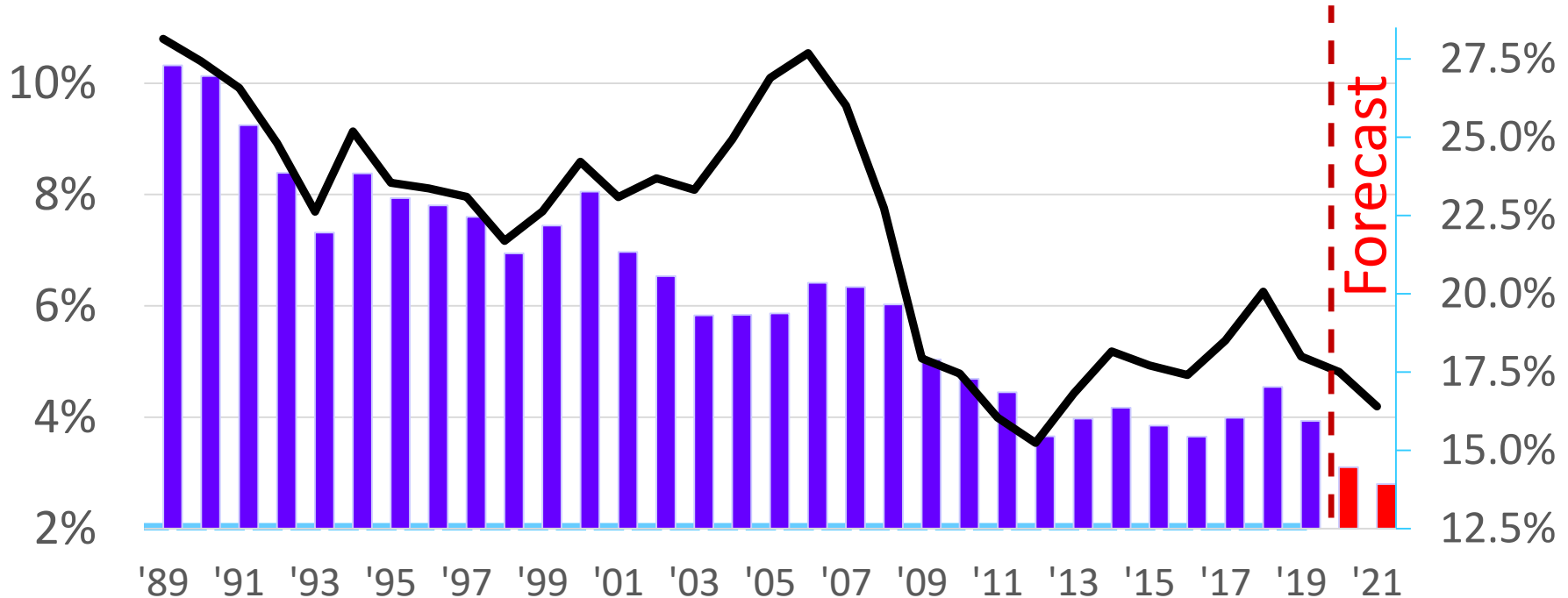
Percent



Interest Rates & Household Income

30-Year Conventional Mortgage Rate

Mortgage Payments as % of Median Income

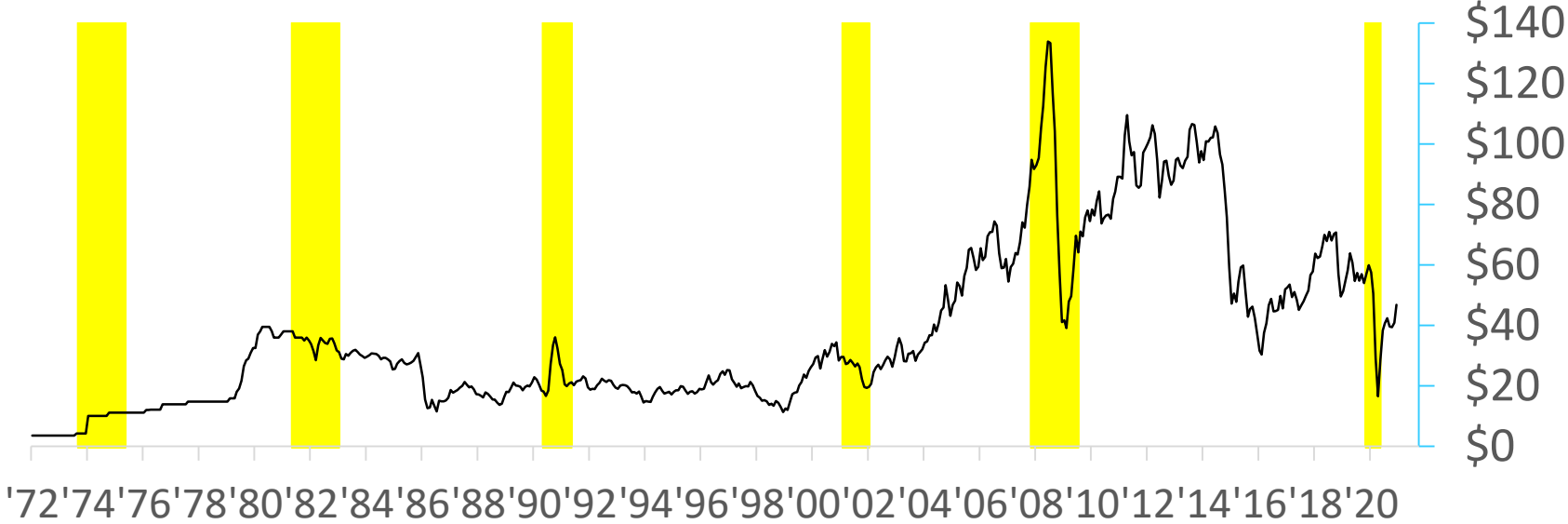


Recessions + Oil Prices



Recession

West Texas Intermediate Crude Oil

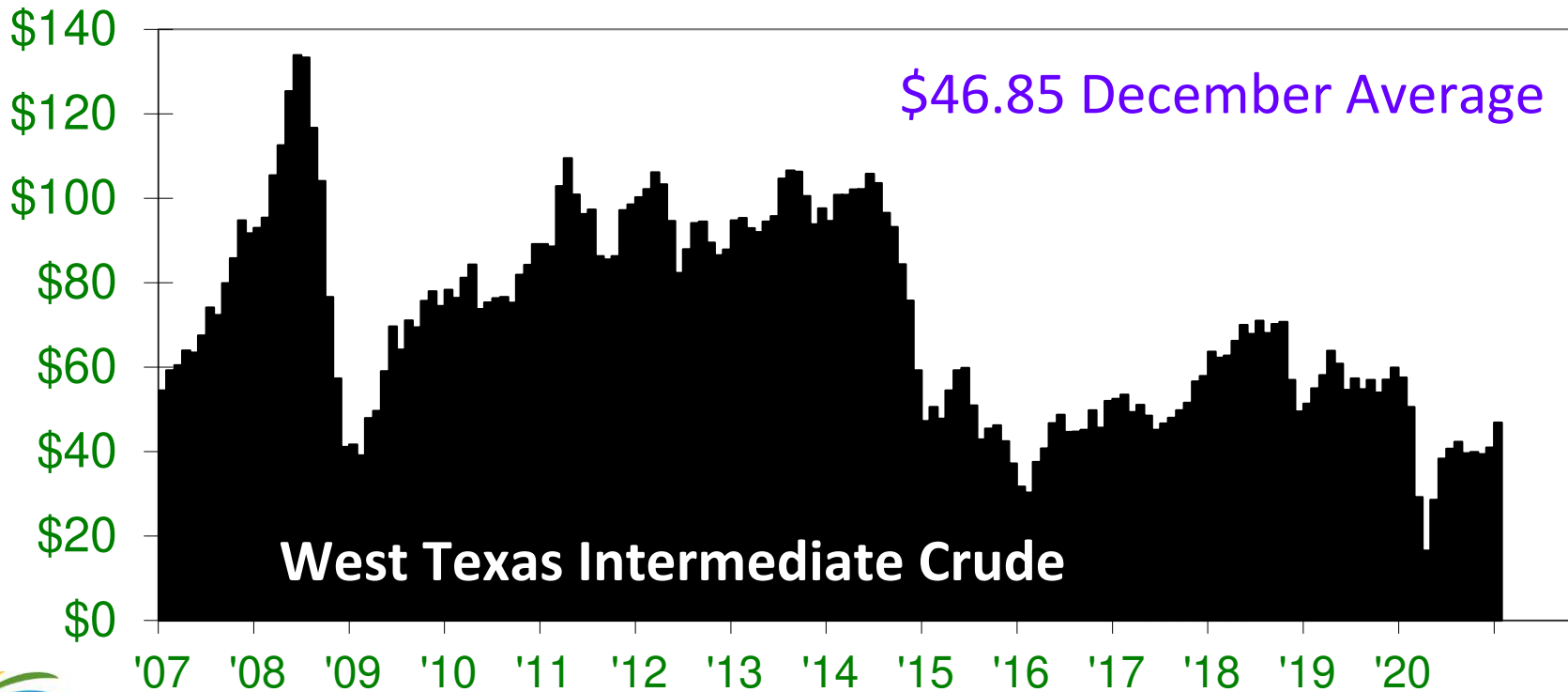


WHY IT IS GOING
TO TAKE YEARS
TO RECOVER ALL THE
JOBS LOST

Ted's Opinion

West Texas Intermediate Crude Oil Price

\$ Per Barrel



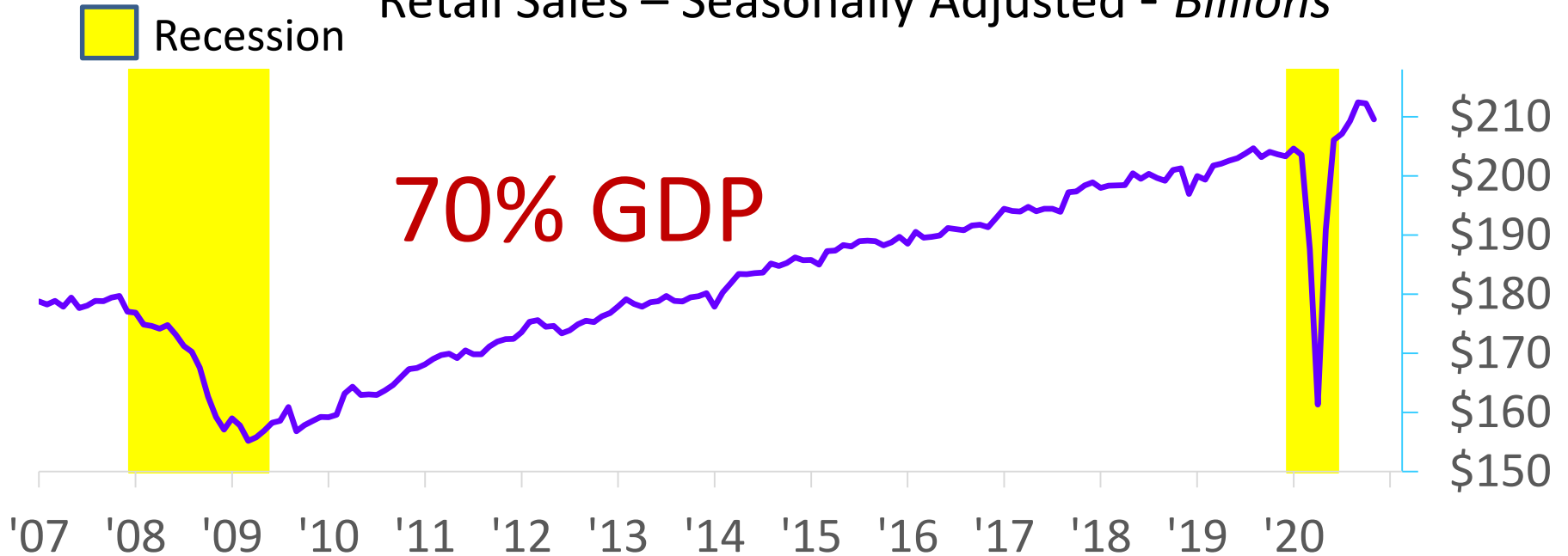
U.S. Oil Production

	Average Barrels Per Day Millions	Oil Field Worker Employment Jobs Thousands		
		Total	Extraction	Support
2015	8.879	521.9	197.5	324.4
2019	12.232	419.7	150	269.7
Change	37.8%	-19.6%	-24.1%	-16.9%

Production +38% Jobs -20%

U.S. Real Retail & Food Service Sales

Retail Sales – Seasonally Adjusted - *Billions*



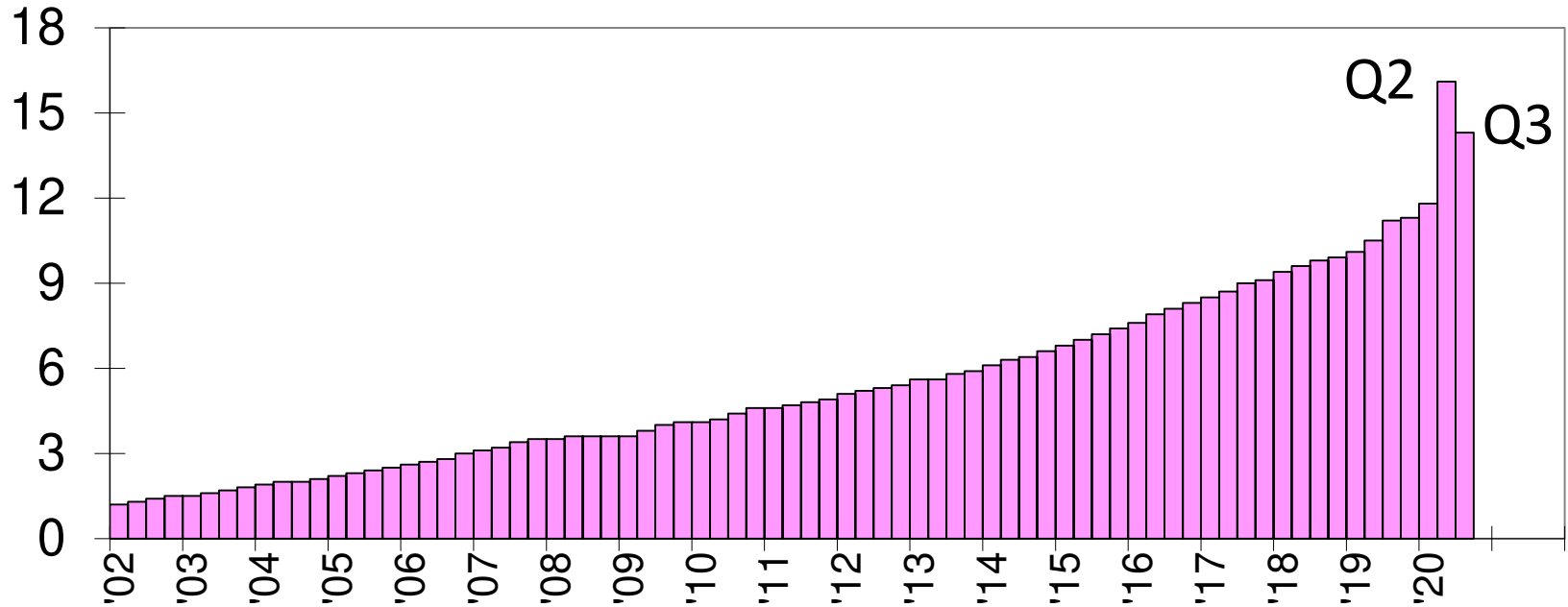
Type of Business	11 Month Total		November
	\$ Millions	% Change	Percent
	2020	2019	Change
Retail & Food Services - Total	5,641,170	0.3	2.5%
Motor Vehicle & Parts Dealers	1,134,080	0.0	2.9%
Furniture & Home Furnishing Stores	99,979	-6.4	0.4%
Electronics & Appliance Stores	73,163	-14.1	-9.9%
Building Material & Garden Equipment & Supplies Dealers	402,647	13.4	17.2%
Food & Beverage Stores	776,988	11.6	8.5%
Grocery Stores	693,935	11.4	8.2%
Health & Personal Care Stores	329,068	1.1	2.6%
Gasoline Stations	385,511	-16.4	-17.9%
Clothing & Clothing Accessories	166,084	-28.5	-19.2%
Sporting Goods, Hobby, Musical Instrument & Book Stores	73,385	4.3	14.0%
General Merchandise Stores	655,820	3.1	1.0%
Department Stores	96,267	-17.5	-19.9%
Miscellaneous Store Retailers	119,395	-2.2	-1.8%
Nonstore Retailers	860,089	22.6	30.0%
Food Services & Drinking Places	564,961	-19.4	-19.3%

Advanced
Retail
Sales
Estimates
November
2020



E-Commerce Sales as Percentage of Total Retail

Percent

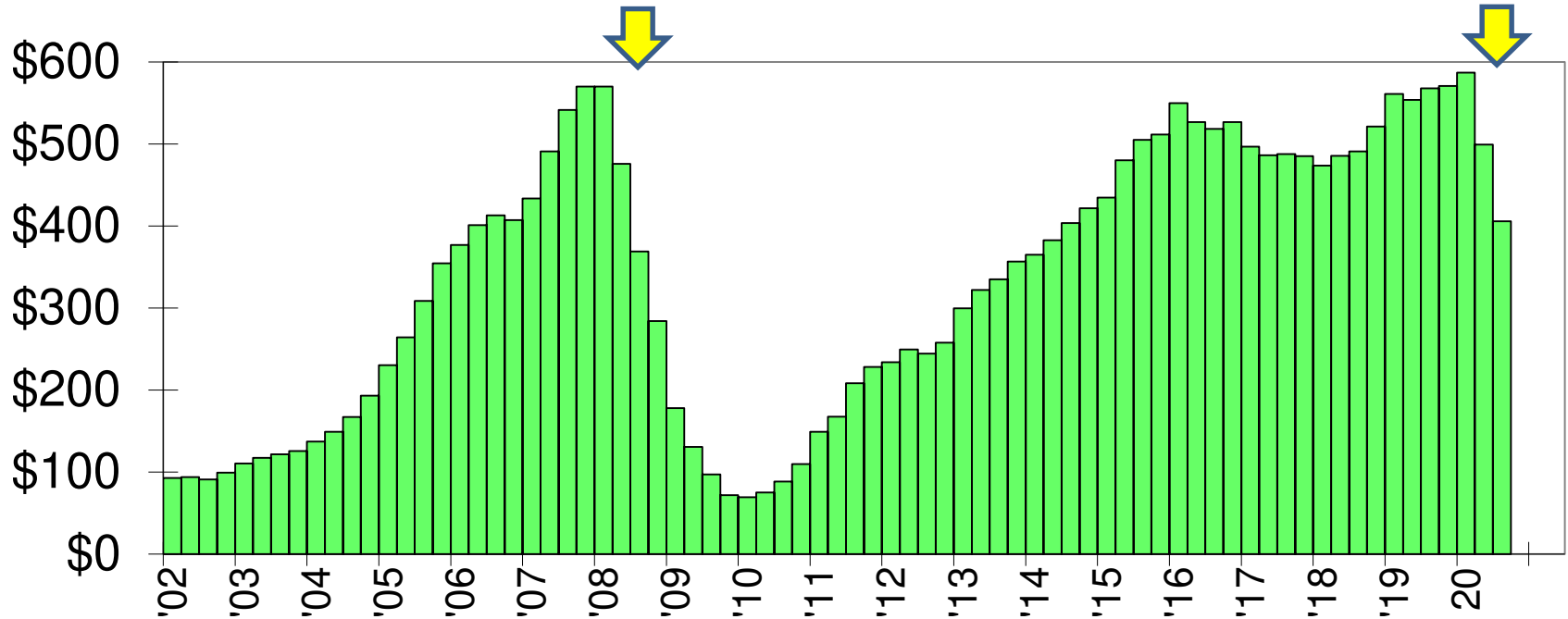


Omnichannel Marketing



US Commercial Real Estate Sales

\$ Billions – *Trailing 12 Months*



U.S. Commercial Real Estate Sales

Comparisons to
Same Quarter 2007

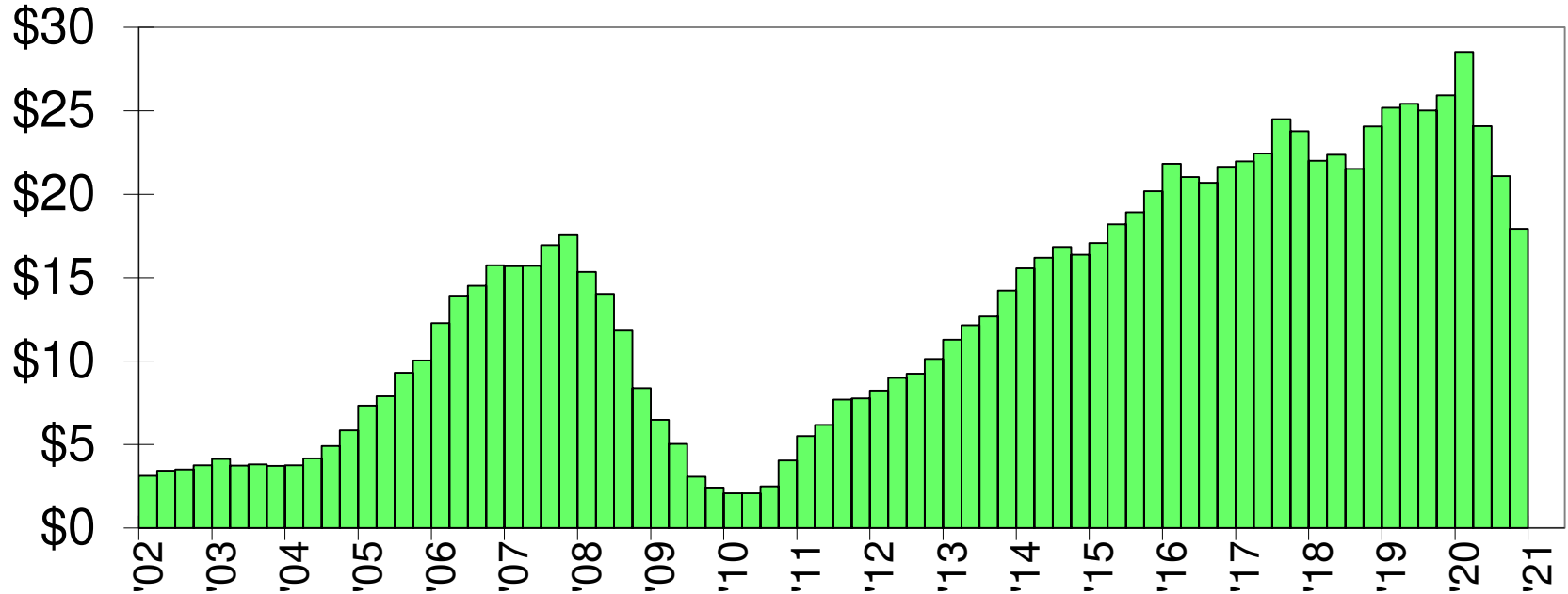
	\$ Billions	
2007	\$ 155.594	
	\$ 154.588	
	\$ 127.375	
	\$ 132.497	
2008	\$ 61.163	-60.7%
	\$ 47.868	-69.0%
	\$ 42.569	-66.6%
	\$ 26.139	-80.3%
2009	\$ 13.769	-91.2%
	\$ 14.290	-90.8%
	\$ 17.207	-86.5%
	\$ 23.618	-82.2%
2010	\$ 19.673	-67.8%

8 Years to
Recover Back
To
\$500 Billion
Annual

-60.7%
Q3 2020

Dallas Commercial Real Estate Sales

\$ Billions – *Trailing 12 Months*



Dallas Commercial Real Estate Sales

Comparisons to
Same Quarter 2007

		\$ Billions	
2007	\$	3.261	
	\$	4.783	
	\$	4.539	
	\$	2.760	
2008	\$	1.926	-40.9%
	\$	2.590	-45.8%
	\$	1.091	-76.0%
	\$	0.871	-68.4%
2009	\$	0.467	-85.7%
	\$	0.636	-86.7%
	\$	0.430	-90.5%
	\$	0.542	-80.4%
2010	\$	0.467	-75.8%

-42.1%
Q3 2020
Year
Over
Year

U.S. Commercial Real Estate Sales 2020 Vs 2019

Apartments

\$ Billions

	2019	2020	Percent Change
Q1	\$ 38.3	\$ 38.9	1.8%
Q2	\$ 46.2	\$ 14.7	-68.1%
Q3	\$ 47.5	\$ 21.8	-54.1%
YTD	\$ 132.0	\$ 75.5	-42.8%

Industrial

\$ Billions

	2019	2020	Percent Change
Q1	\$ 17.7	\$ 31.9	79.8%
Q2	\$ 20.2	\$ 12.2	-39.5%
Q3	\$ 41.5	\$ 13.6	-67.2%
YTD	\$ 79.5	\$ 57.8	-27.3%

Hotel

\$ Billions

	2019	2020	Percent Change
Q1	\$ 7.9	\$ 4.4	-44.8%
Q2	\$ 7.3	\$ 0.8	-89.2%
Q3	\$ 10.8	\$ 1.7	-84.7%
YTD	\$ 26.0	\$ 6.8	-73.8%

Offices

\$ Billions

	2019	2020	Percent Change
Q1	\$ 28.8	\$ 31.1	8.2%
Q2	\$ 38.6	\$ 11.7	-69.7%
Q3	\$ 34.0	\$ 12.9	-61.9%
YTD	\$ 101.3	\$ 55.7	-45.0%

Retail

\$ Billions

	2019	2020	Percent Change
Q1	\$ 12.3	\$ 13.2	7.1%
Q2	\$ 16.8	\$ 5.0	-70.5%
Q3	\$ 15.7	\$ 5.8	-63.0%
YTD	\$ 44.9	\$ 24.0	-46.5%

U.S. Total Commercial Real RE Sales

\$ Billions

	2019	2020	Percent Change
Q1	\$ 109.9	\$ 126.1	14.7%
Q2	\$ 135.4	\$ 47.7	-64.8%
Q3	\$ 153.9	\$ 60.5	-60.7%
YTD	\$ 399.2	\$ 234.3	-41.3%

Dallas Commercial Real Estate Sales 2020 Vs 2019

Apartments

\$ Millions

	2019	2020	Percent Change
Q1	\$ 2,720.8	\$ 515.0	-81.1%
Q2	\$ 3,174.5	\$ 2,200.0	-30.7%
Q3	\$ 2,500.0	\$ 2,317.2	-7.3%
YTD	\$ 8,395.3	\$ 5,032.2	-40.1%

Industrial

\$ Millions

	2019	2020	Percent Change
Q1	\$ 890.9	\$ 370.5	-58.4%
Q2	\$ 1,943.1	\$ 1,029.4	-47.0%
Q3	\$ 2,341.7	\$ 1,743.4	-25.5%
YTD	\$ 5,175.7	\$ 3,143.3	-39.3%

Hotel

\$ Millions

	2019	2020	Percent Change
Q1	\$ 73.6	\$ 123.4	67.6%
Q2	\$ 246.4	\$ 6.0	-97.6%
Q3	\$ 269.2	\$ 59.9	-77.7%
YTD	\$ 589.1	\$ 189.3	-67.9%

Offices

\$ Millions

	2019	2020	Percent Change
Q1	\$ 1,010.7	\$ 1,165.8	15.3%
Q2	\$ 1,073.3	\$ 526.4	-51.0%
Q3	\$ 1,151.3	\$ 341.1	-70.4%
YTD	\$ 3,235.3	\$ 2,033.3	-37.2%

Retail

\$ Millions

	2019	2020	Percent Change
Q1	\$ 411.0	\$ 545.3	32.7%
Q2	\$ 857.0	\$ 121.3	-85.9%
Q3	\$ 379.5	\$ 201.5	-46.9%
YTD	\$ 1,647.5	\$ 868.1	-47.3%

Senior Housing & Care

\$ Millions

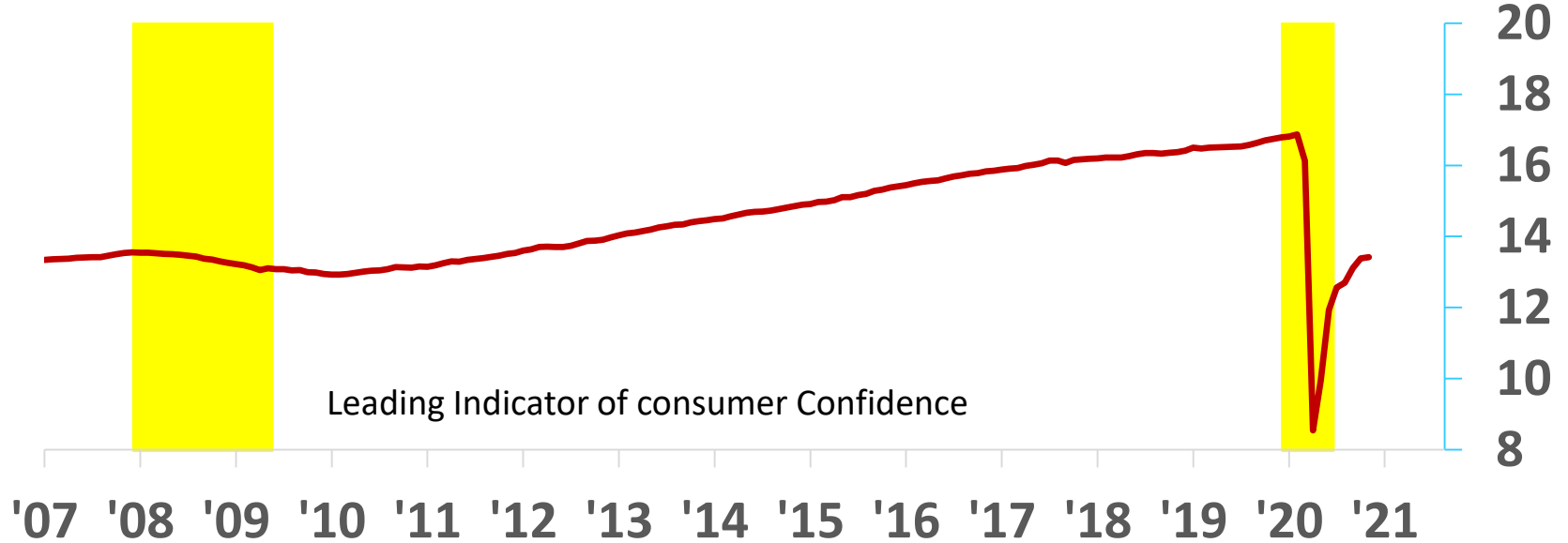
	2019	2020	Percent Change
Q1	\$ 4.4	\$ 116.6	2540.2%
Q2	\$ 184.1	\$ 7.5	-95.9%
Q3	\$ 129.6	\$ 29.6	-77.2%
YTD	\$ 318.1	\$ 153.7	-51.7%

U.S. Leisure & Hospitality Employment



Recession

Leisure & Hospitality Employment - *Millions*





Ted C. Jones
@DrTCJ

100,000



The National Restaurant Association says 100,000 restaurants have shuttered either permanently or indefinitely & that 40% of restaurant proprietors surveyed think they will be out of business by Spring 2021 without government support

[@USATODAYmoney](#)

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@DrTCJ



Retail Real Estate Woes

The Shops at Sunset Place, an outdoor shopping mall in South Miami, Florida, which sold for \$115.5 million in October 2015, just resold for \$65.5 million, a 41.3% drop in value due to increased nearby competition, the pandemic & ecommerce

@GlobeStcom

7:39 PM · Jan 6, 2021 · Twitter Web App

-41.3%



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Ted C. Jones

@DrTCJ



High Amenities Key for Office Market Recovery



A 2019 study of 250 buildings by Cushman & Wakefield found high-amenity office buildings rented for a 18.3% premium to the surrounding submarket

@GlobeStcom

8:07 PM · Jan 6, 2021 · Twitter Web App

18.3%

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...

In-store traffic from the Sunday prior to Thanksgiving through Saturday January 2nd plunged 33.1% from the same period 1-year ago

@Sensormatic
@ChainStoreAge

7:33 AM · Jan 6, 2021 · Twitter for iPad



DrTCJ

-33.1%

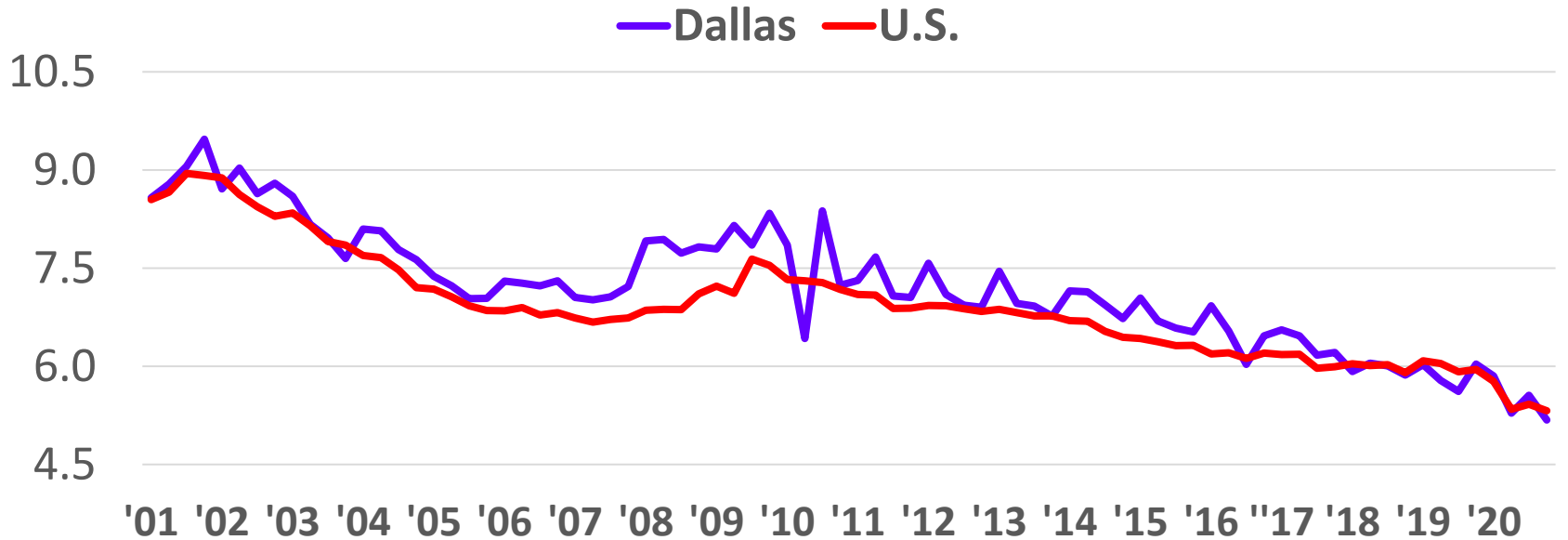
Value Impacts – Commercial Real Estate

- Cap Rates – Risk Component
- Demand – Rent Component
- Vacancy & Collection Loss

$$\text{Value} = \frac{\text{Income}}{\text{Cap Rate}}$$

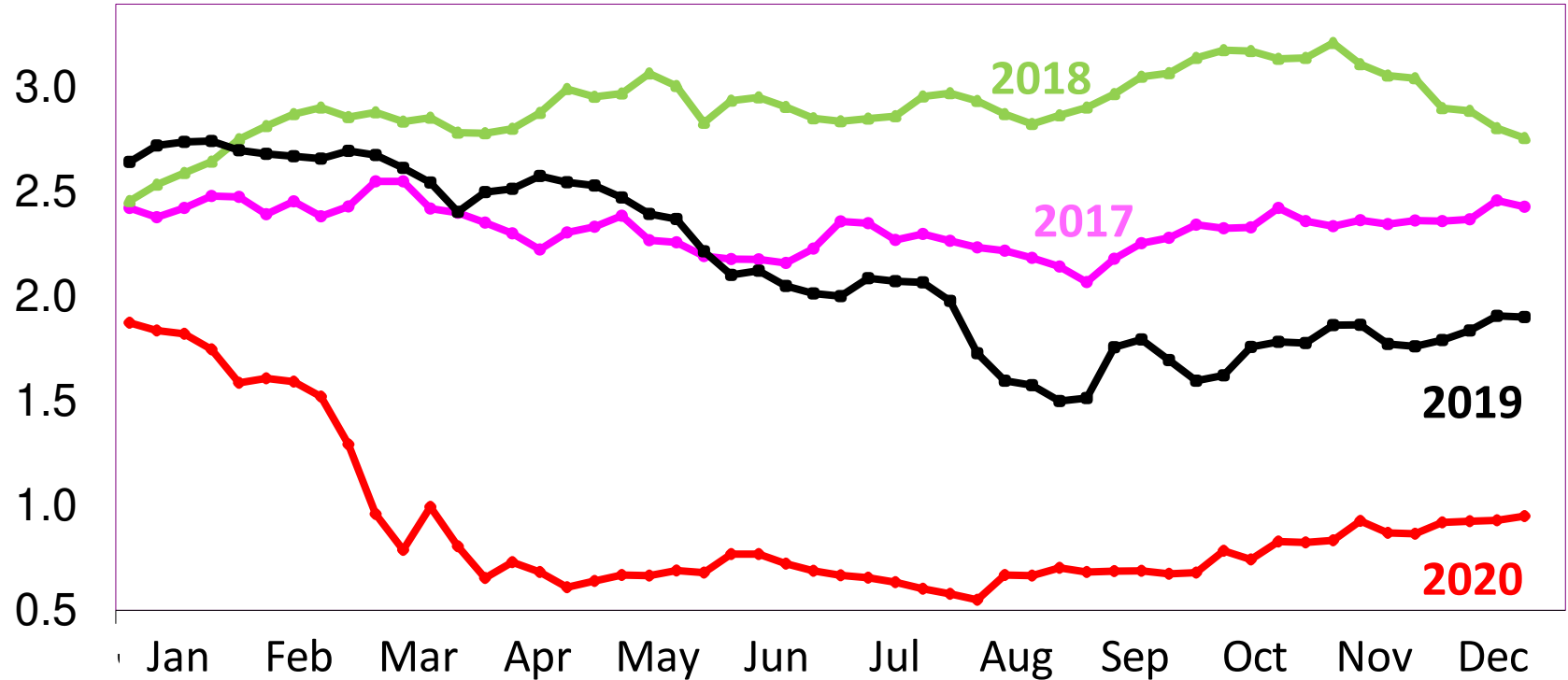
U.S. & Dallas Cap Rates

Percent



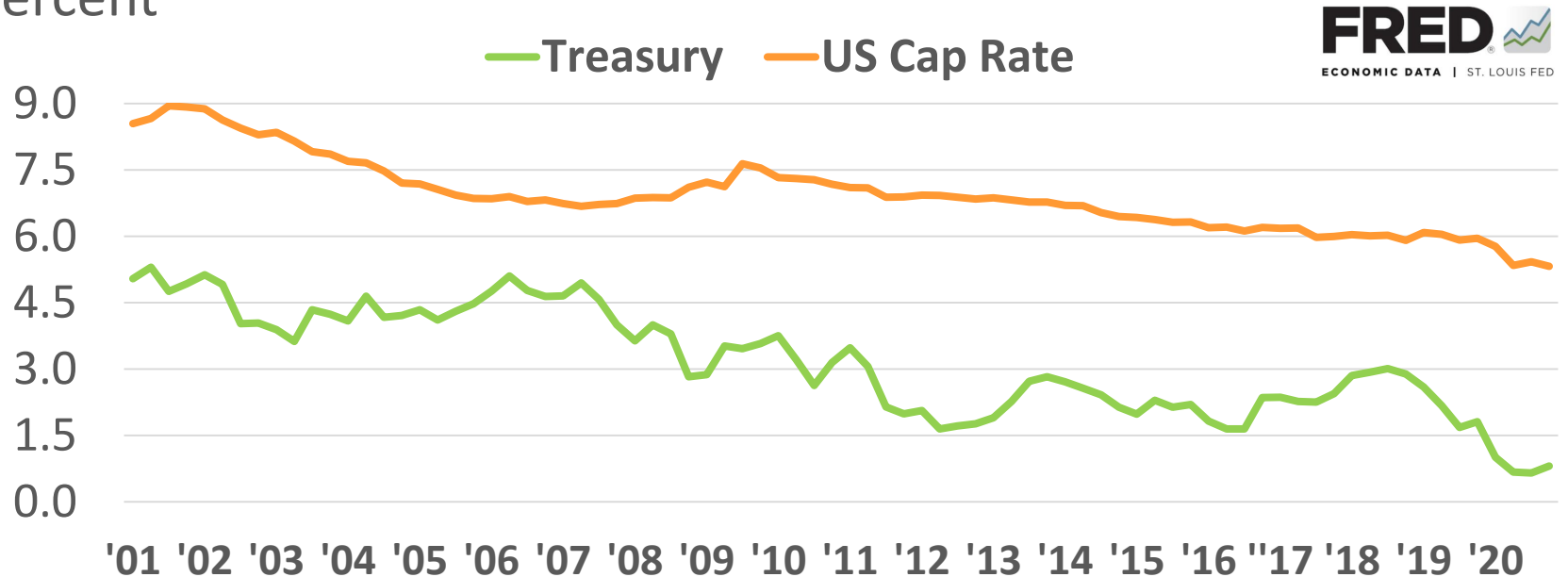
10-Year Treasury Rates

Percent



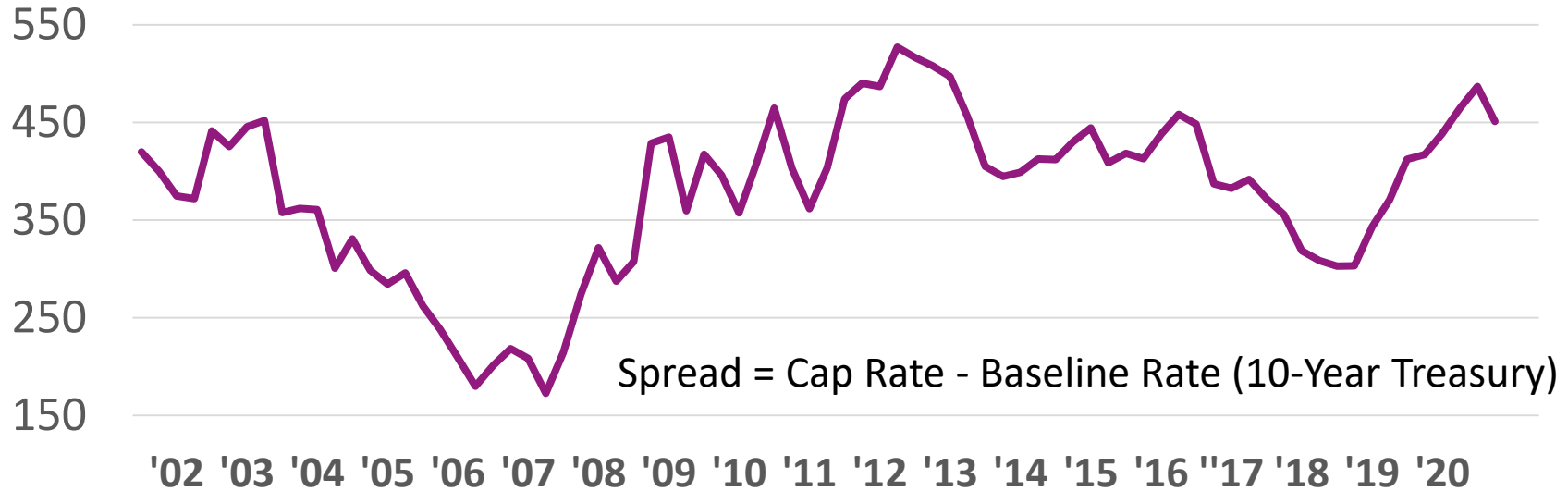
U.S. 10-Year Treasury Yield Vs Cap Rates

Percent



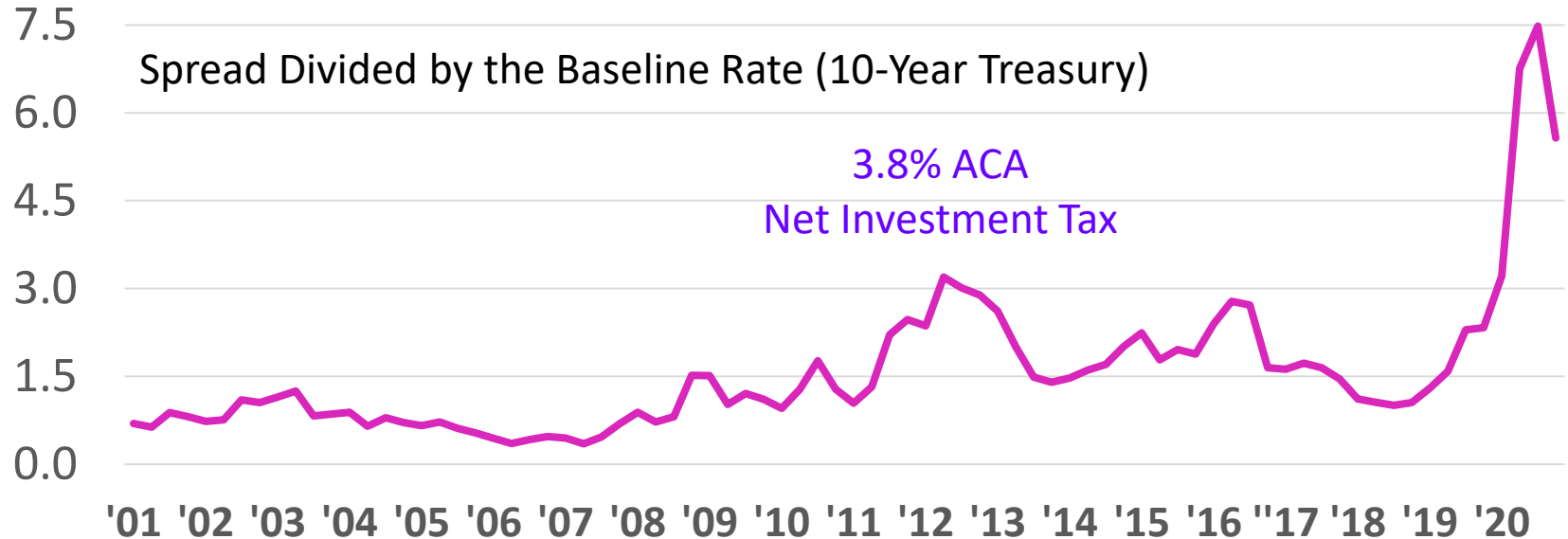
U.S. 10-Year Treasury Yield-Cap Rates Spread

Spread – Basis Points



U.S. 10-Year Treasury Yield-Cap Rates Spread

Spread – As a Multiple of 10-Year Treasury



Outstanding Distress by Property Type

Property Type	Outstanding Distress (\$m)	Outstanding Potential Distress (\$m)
Office	4,057	11,284
Industrial	376	1,597
Retail	17,678	20,377
Apartment	1,939	21,446
Hotel	22,658	23,679
Others	268	3,737
Total	46,992	82,259

Outstanding distress and potential distress arising in 2020 and outstanding at the end of Q3 2020.

Aggregate statistics and the *Others* category capture asset types not included in our standard volume statistics, such as residential condominiums, self storage, manufactured housing, and parking facilities.

Distressed CRE Sales

\$126 Billion
by 2022

\$321 Billion
In 5 Years

\$659 Billion
Worst-Case



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Epic Games (firm that developed the massively popular video game Fortnite) signed a contract to buy a dying mall & redevelop it as their headquarters with 980,000 square feet of office and recreation space in Cary, North Carolina. Google is doing the same in Los Angeles

@WSJ

8:11 AM · Jan 6, 2021 · Twitter for iPad



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10-Year Debt Impact

**BIDEN
HARRIS**

\$5.60
Trillion

2030 Debt Equal
128% of GDP

**TRUMP
PENCE**
MAKE AMERICA GREAT AGAIN!

\$4.95
Trillion

2030 Debt Equal
125% of GDP

Year	Median Household Income	Percent Change
'03	\$ 43,318	
'04	\$ 44,334	2.35%
'05	\$ 46,326	4.49%
'06	\$ 48,201	4.05%
'07	\$ 50,233	4.22%
'08	\$ 50,303	0.14%
'09	\$ 49,777	-1.05%
'10	\$ 49,276	-1.01%
'11	\$ 50,054	1.58%
'12	\$ 51,017	1.92%
'13	\$ 53,585	5.03%
'14	\$ 53,657	0.13%
'15	\$ 56,516	5.33%
'16	\$ 59,039	4.46%
'17	\$ 61,136	3.55%
'18	\$ 63,179	3.34%
'19	\$ 68,703	8.74%

2019 Real Median Household Income

Largest Gain in 34 Years

2.8 Times the Prior
33-Year Average

Tax Cut & Jobs Creation Act

BIDEN
HARRIS

Repeal
Act

TRUMP
PENCE
MAKE AMERICA GREAT AGAIN!

Make
Individual
Tax Cuts
Permanent

Gross Domestic Product (GDP)	-1.62%
Capital stock	-3.75%
Wage rate	-1.15%
Full-time Equivalent Jobs	-542,000

Source: Tax Foundation General Equilibrium Model, October 2020.

Corporate Tax Rate

BIDEN
HARRIS

28%

TRUMP
PENCE
MAKE AMERICA GREAT AGAIN!

21%

U.S. Currently
Ranks 19th

OECD 

Biden's Plan
Drops the
U.S. to
33rd Out of 36

Capital Gains Taxes

**BIDEN
HARRIS**

43.4%

Eliminate 1031s
\$400,000+ Income

**TRUMP
PENCE**
MAKE AMERICA GREAT AGAIN!

20%

2030 Debt Equal
125% of GDP

Minimum Wage Hike

BIDEN
HARRIS

\$15

Per Hour

TRUMP
PENCE
MAKE AMERICA GREAT AGAIN!

State
Decision

“A \$15 minimum wage could lift 1.3 million out of poverty — and cost 1.3 million jobs”



Congressional Budget Office

Nonpartisan Analysis for the U.S. Congress

Takeaways

- Highest Intrinsic Value of Housing
- Accelerating Pre-Existing Trends
- Permanent Changes *66 Days Average*
- Macro Factors Rule
- New Rules-Taxes-Economics Unknown
- Omnichannel Marketing Key



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<http://blog.stewart.com>

stewart.com

Stewart Blog

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Chief Economist SVP