



and the
BEAT GOES ON

Pandemics & Seismic Events

stewart

Ted C. Jones, PhD
Chief Economist
Stewart Title

**An Economic Outlook on What Changes,
What Stays the Same and What's to Come**



Hard Rock
CAFE

Anchorage

Recorded by SONNY and CHER on Atco Records

THE BEAT GOES ON

Words and Music by SONNY BONO



1967 – An Economic Forecast for 2020

What Changes,
What Stays
the Same
What's to
Come

**The beat goes on, the beat goes on
Drums keep pounding a rhythm to the brain
La de da de de, la de da de da**

Sonny & Cher

**Charleston was once the rage, uh huh
History has turned the page, uh huh
The mini skirts, the current thing, uh huh
Teenybopper is our newborn king, uh huh**

Sonny & Cher

Weekly Unemployment Claims

695,000 October 1982 *Prior Record*

3.307 Million March 25, 2020 *4.7X*

6.648 Million April 2, 2020 *2X*

6.606 Million April 9, 2020

5.245 Million April 16, 2020

4.427 Million April 23, 2020

3.839 Million April 30, 2020

22%

Unemployment
Rate

Recession

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

-4.8% Q1 2020

FORECAST

Goldman Sachs

-9%

Q1 2020

-34%

Q2 2020

+19%

Q3 2020

-6.2%

2020



FORECAST

FEDERAL RESERVE BANK *of* ST. LOUIS
CENTRAL TO AMERICA'S ECONOMY*

**Q2
2020**

47

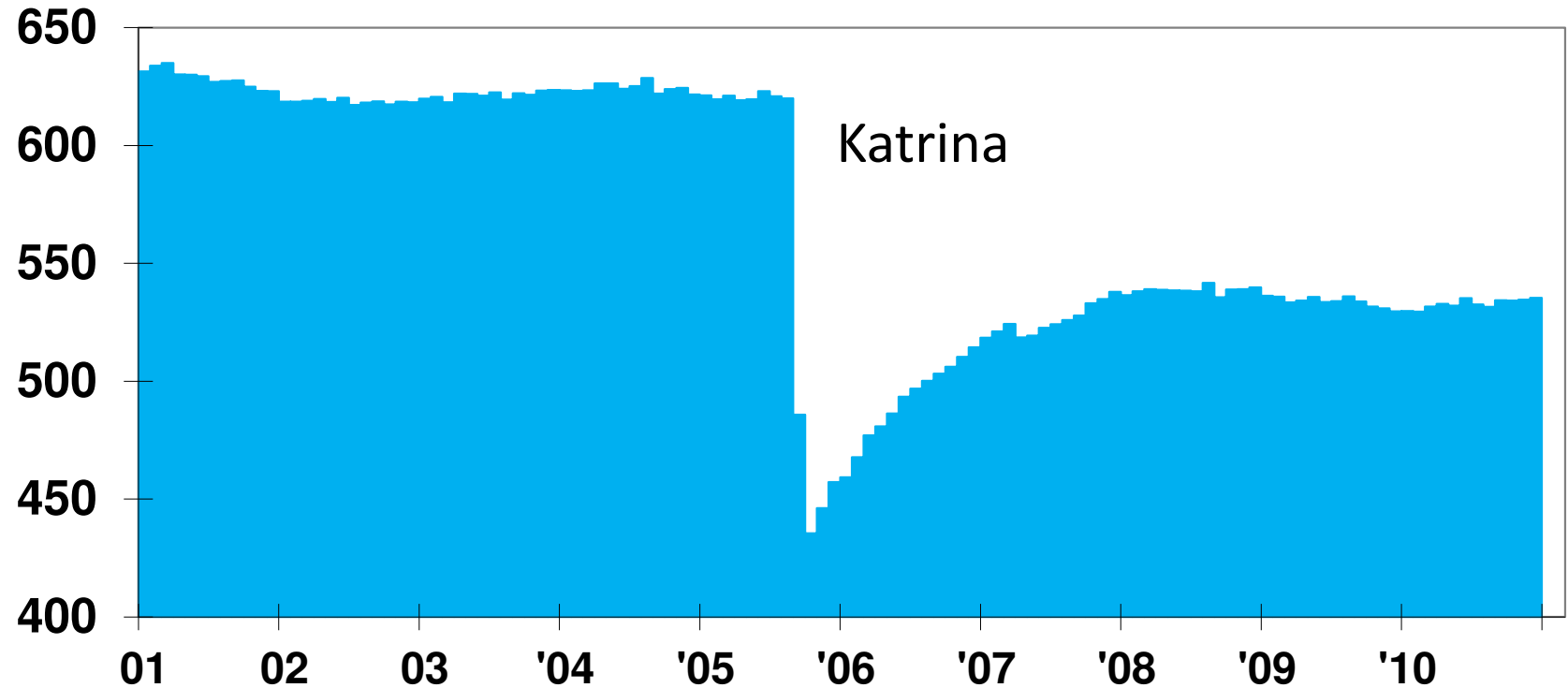
**Million
Unemployed**

32.1%

**Unemployment
Rate**

New Orleans MSA Jobs

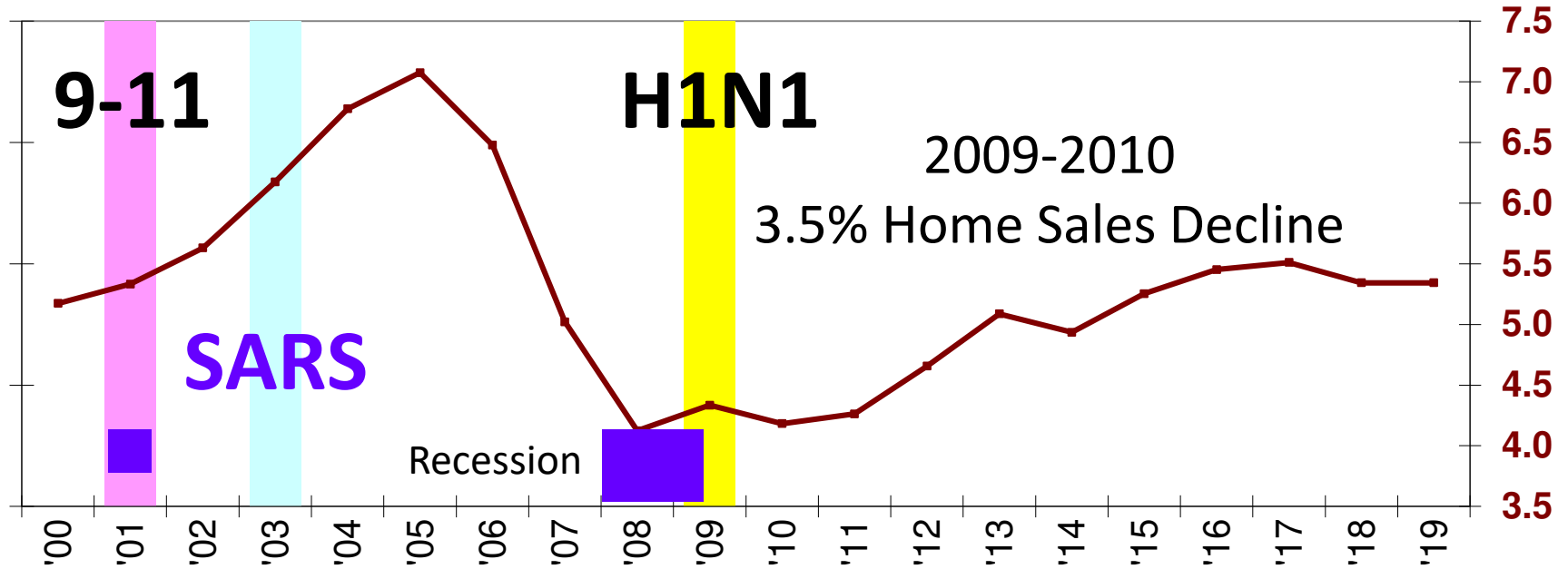
Jobs (Thousands) *Seasonally Adjusted*



Annual Existing Home Sales

Major Pandemics-Seismic Events

Millions

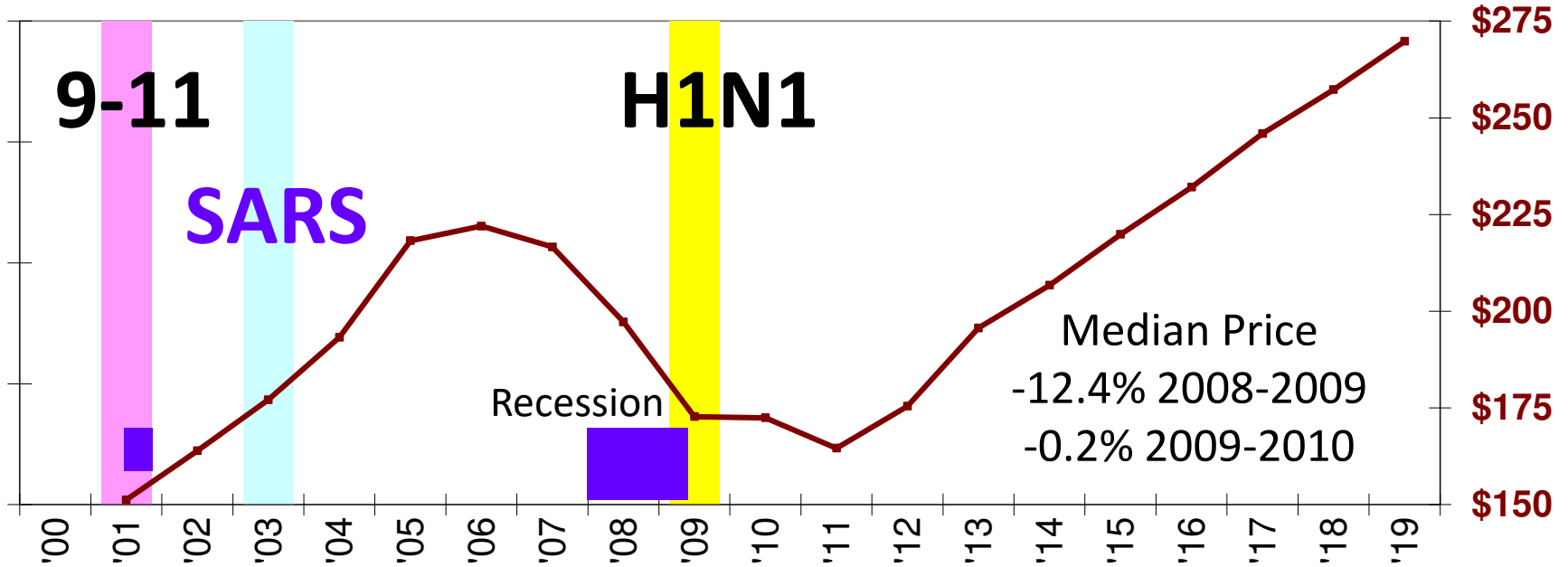


Actual Annual Sales – Not Seasonally Adjusted

Median Price - Existing Home Sales

Major Pandemics-Seismic Events

\$ Thousands

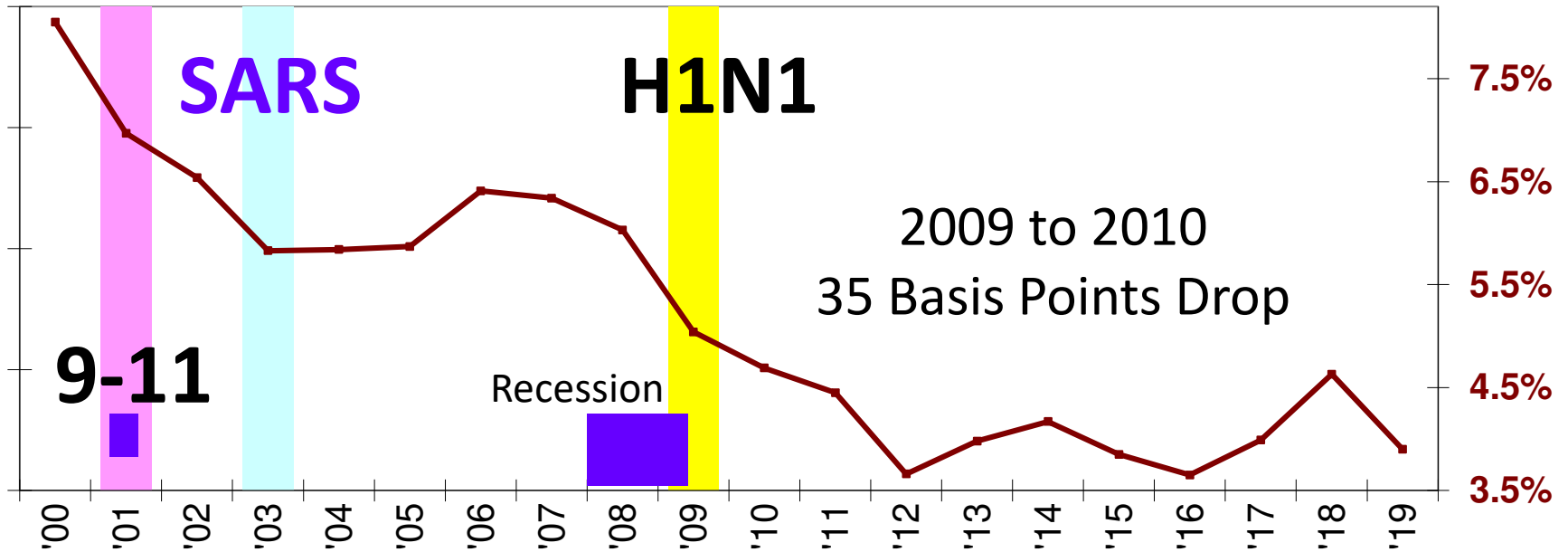


Annual Average of Monthly Median Prices

30-Year Conventional Mortgage Interest Rates

Major Pandemics-Seismic Events

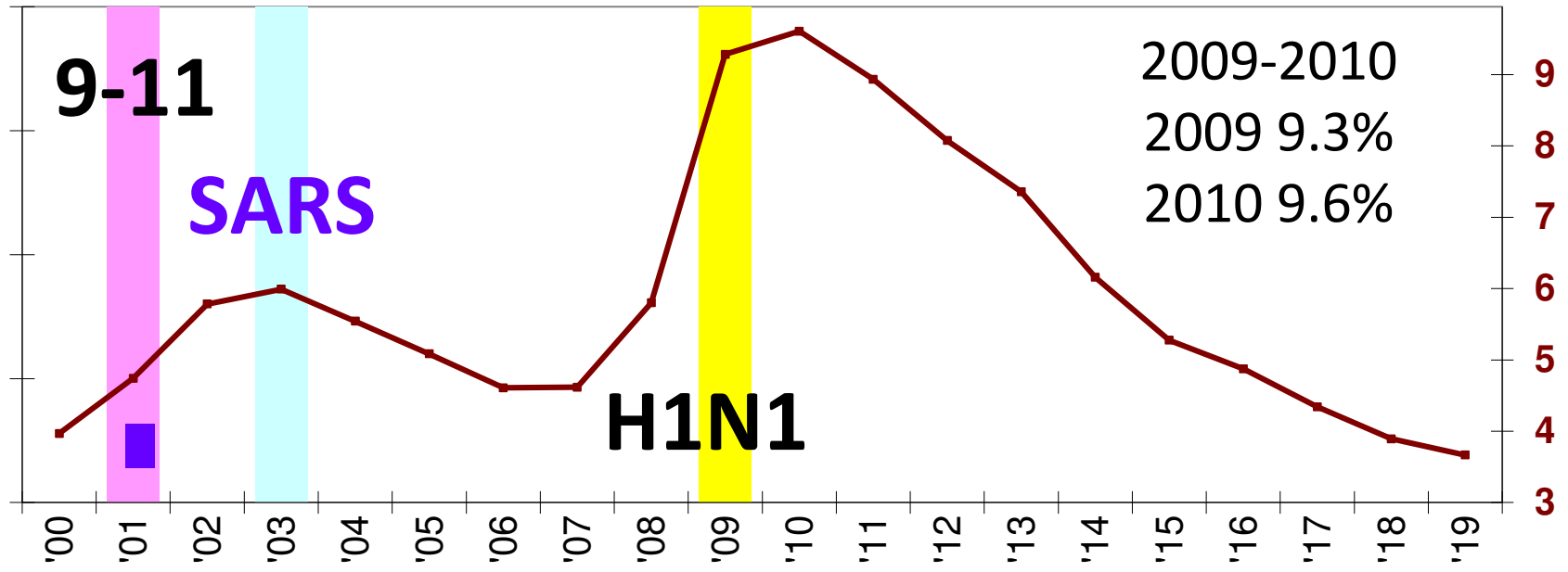
Percent



Unemployment Rate

Major Pandemics-Seismic Events

Unemployment Rate

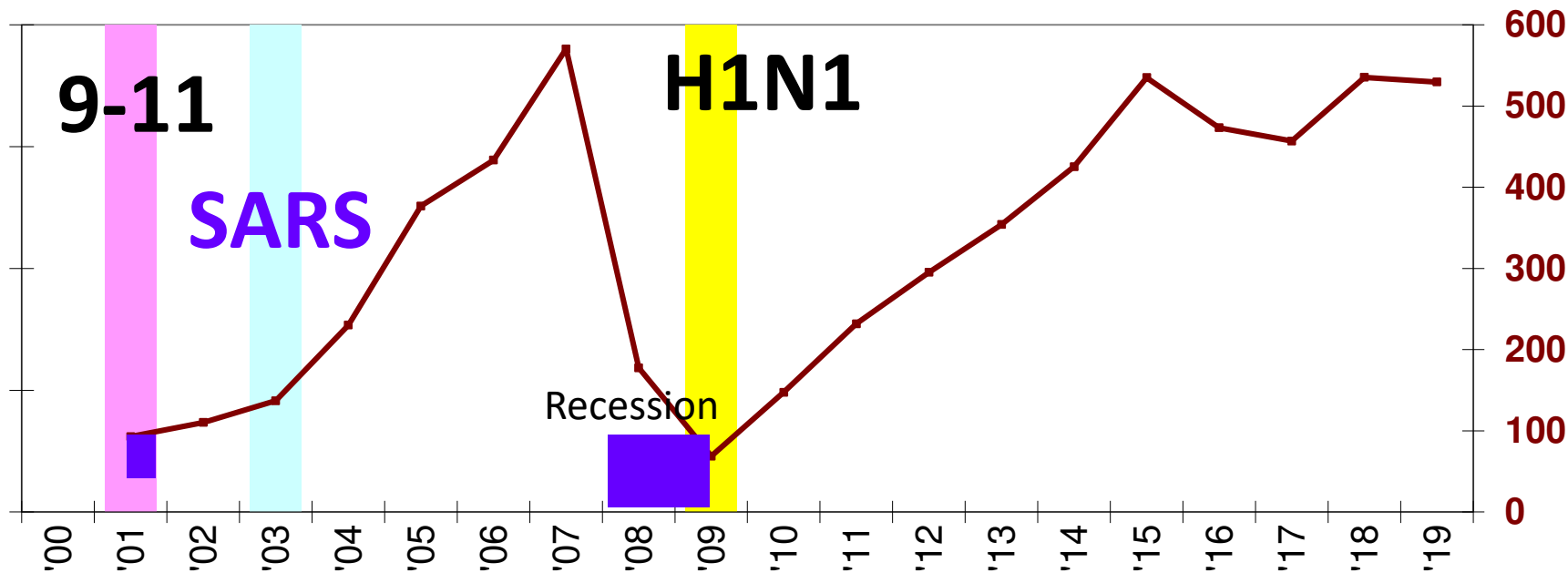


Average Annual Unemployment Rate – Not Seasonally Adjusted

Commercial Real Estate Sales Volume

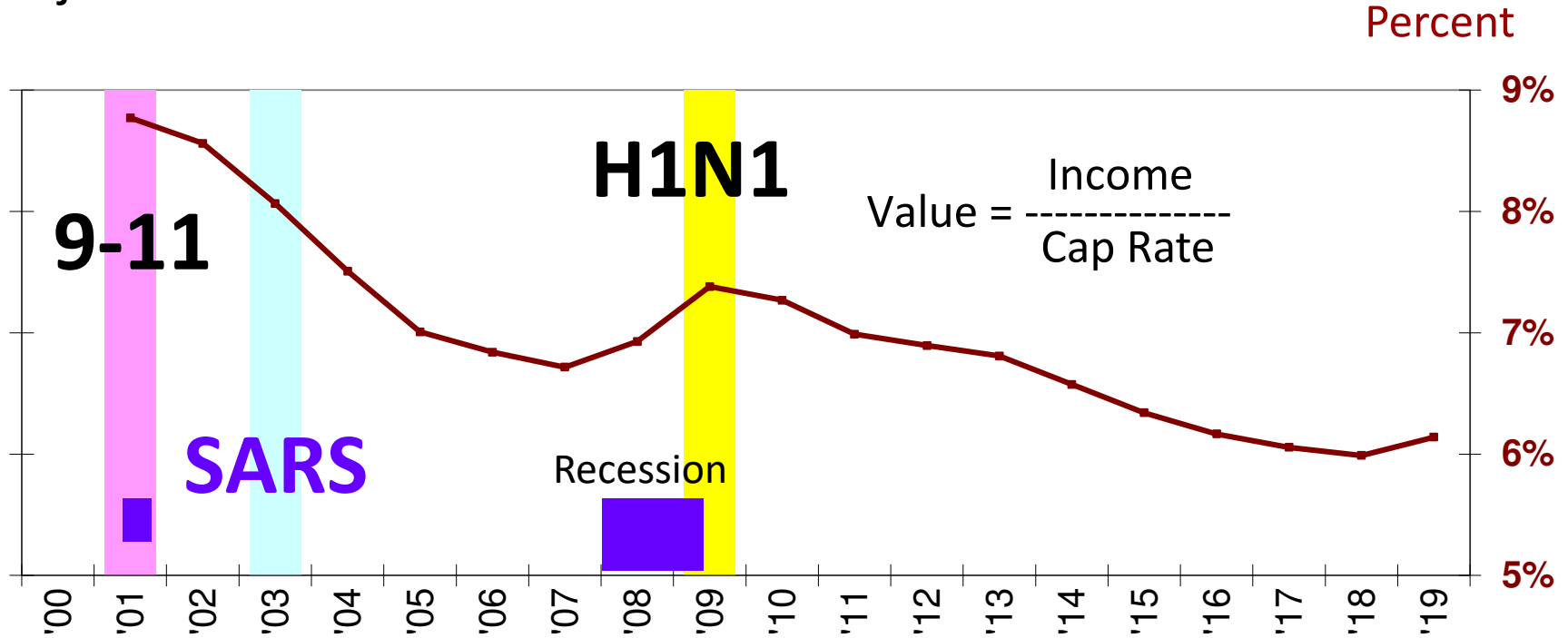
Major Pandemics-Seismic Events

\$ Billions



Commercial Real Estate Capitalization Rates

Major Pandemics-Seismic Events



H1N1 *aka Swine Flu*

United States 2009

60.8 Million Cases

274,304 Hospitalizations

12,469 Deaths *284,000 world*

Coronavirus

World

3,595,363

249,225

5-4-20



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

<https://www.worldometers.info/coronavirus/>

U.S. 307 Million vs World 6.85 Billion – U.S. 4.5%

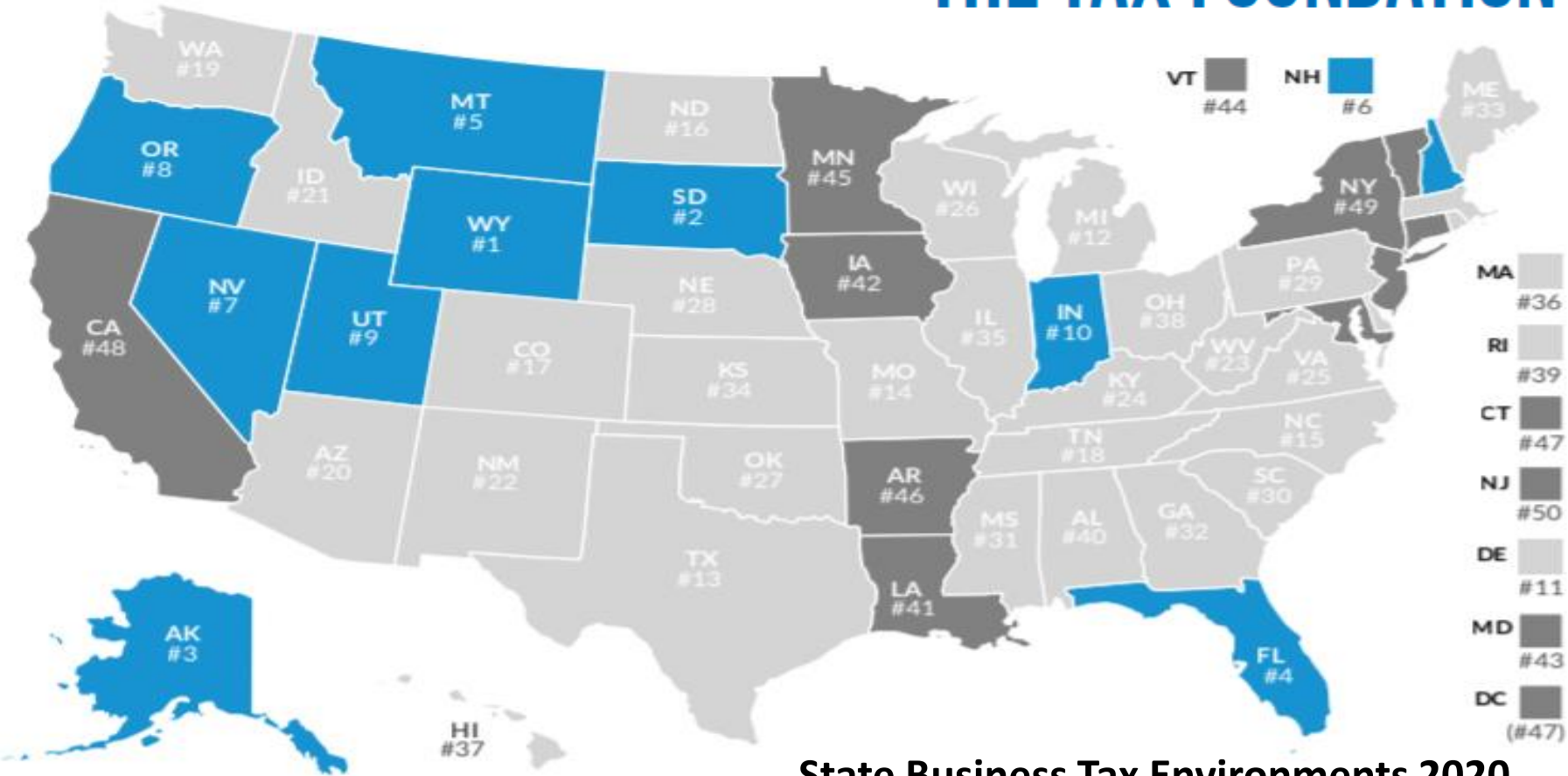
61,000

**U.S. Flu Deaths Fall of 2017
Spring of 2018 Flu Season**

State Job Growth -- 12 Months Ending March 2020

Utah	2.61%	Alabama	0.61%	Mississippi	-0.20%
Arizona	2.21%	Delaware	0.59%	Missouri	-0.30%
Idaho	2.20%	North Carolina	0.54%	Rhode Island	-0.30%
Texas	1.91%	Dist of Columbia	0.50%	Minnesota	-0.36%
Washington	1.88%	Virginia	0.50%	Maine	-0.42%
Tennessee	1.71%	New Jersey	0.38%	Alaska	-0.44%
New Mexico	1.67%	Nevada	0.35%	Arkansas	-0.45%
Montana	1.65%	Maryland	0.34%	Hawaii	-0.45%
Colorado	1.60%	Connecticut	0.31%	Indiana	-0.46%
Florida	1.32%	New York	0.18%	Wyoming	-0.46%
South Carolina	1.27%	Wisconsin	0.13%	Ohio	-0.54%
South Dakota	1.04%	North Dakota	0.12%	Iowa	-0.59%
Nebraska	0.90%	Pennsylvania	0.10%	Illinois	-0.66%
California	0.83%	Massachusetts	0.01%	Oklahoma	-0.72%
Georgia	0.79%	Kentucky	-0.04%	Louisiana	-1.02%
Oregon	0.77%	Michigan	-0.07%	West Virginia	-1.62%
Kansas	0.65%	New Hampshire	-0.19%	Vermont	-2.20%

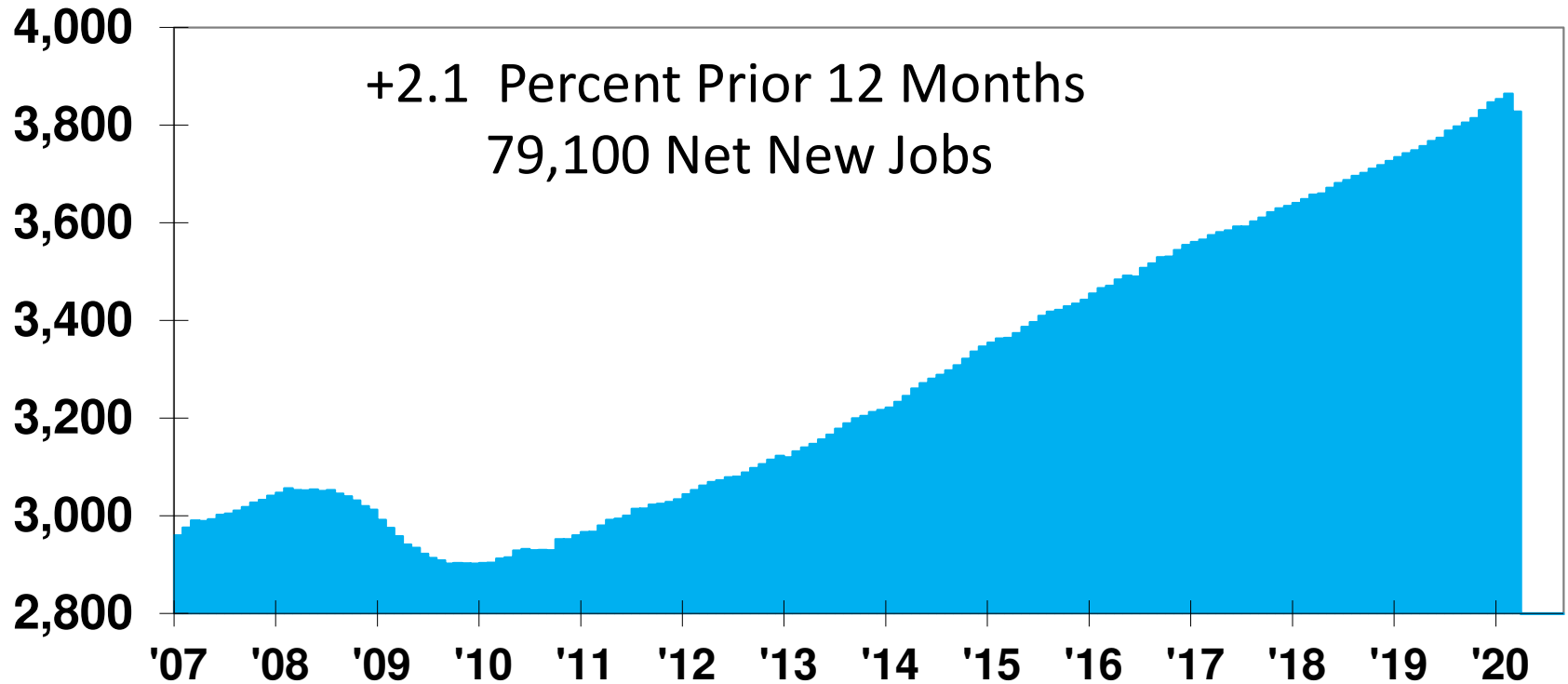
THE TAX FOUNDATION



State Business Tax Environments 2020

Dallas-Ft Worth-Arlington MSA Jobs

Jobs (Thousands) *Seasonally Adjusted*



DFW MSA Vs U.S. Supersector Employment Analysis - March 2020

Not Seasonally Adjusted	Percent of All Jobs		12-Month Job Growth	
Employment Supersector	DFW MSA	U.S.	DFW MSA	U.S.
Mining & Logging		0.5%		-4.7%
<i>Mining & Logging + Construction</i>	<i>6.1%</i>	<i>5.3%</i>	<i>4.7%</i>	<i>0.9%</i>
Construction		4.9%		2.2%
Manufacturing	7.5%	8.5%	0.3%	0.1%
Trade-Transport-Utilities	20.9%	18.2%	2.1%	0.4%
Information	2.2%	1.9%	1.7%	1.7%
Financial Activities	8.6%	5.8%	4.0%	1.7%
Professional and Business Service	17.0%	14.1%	4.2%	1.5%
Education and Health Services	12.2%	16.3%	1.6%	2.2%
Leisure & Hospitality	10.2%	10.6%	0.4%	-0.6%
Other	3.3%	3.9%	-0.3%	0.8%
Government	12.0%	15.3%	2.1%	0.9%

Source: U.S. Bureau of Labor Statistics, Stewart Title Guaranty Company

DFW MSA SuperSector Job Growth Analysis -- March 2020

Not Seasonally Adjusted

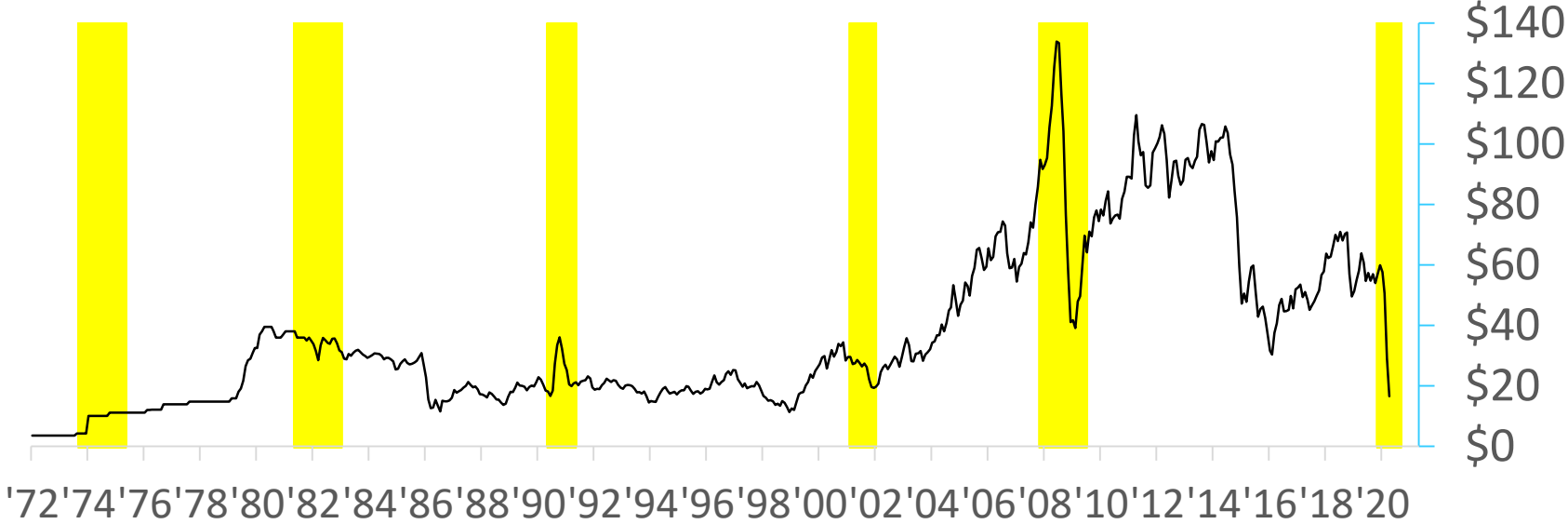
Employment Supersector	Total Jobs Thousands Mar 2020	Percent of All Jobs		12-Months		5 Years	
				Today	5-Years Ago	Net New Jobs Thousands	Percent Change
		Total	3,816.3	100.0%	100.0%	86.2	2.3%
Mining & Logging	-	0.0%	0.0%	-	#DIV/0!	-	#DIV/0!
<i>Mining, Logging and Construction</i>	233.4	6.1%	5.9%	10.4	4.7%	37.3	19.0%
Construction	-	0.0%	0.0%	-	#DIV/0!	-	#DIV/0!
Manufacturing	287.8	7.5%	7.9%	0.8	0.3%	23.9	9.1%
Trade-Transport-Utilities	795.7	20.9%	21.0%	16.7	2.1%	92.3	13.1%
Information	82.7	2.2%	2.4%	1.4	1.7%	2.9	3.6%
Financial Activities	326.4	8.6%	8.1%	12.7	4.0%	56.1	20.8%
Professional and Business Service	650.6	17.0%	16.4%	26.2	4.2%	100.4	18.2%
Education and Health Services	466.4	12.2%	12.2%	7.3	1.6%	57.8	14.1%
Leisure & Hospitality	391.0	10.2%	10.1%	1.5	0.4%	53.9	16.0%
Other	125.5	3.3%	3.5%	(0.4)	-0.3%	6.7	5.6%
Government	456.8	12.0%	12.5%	9.6	2.1%	37.8	9.0%

Recessions + Oil Prices



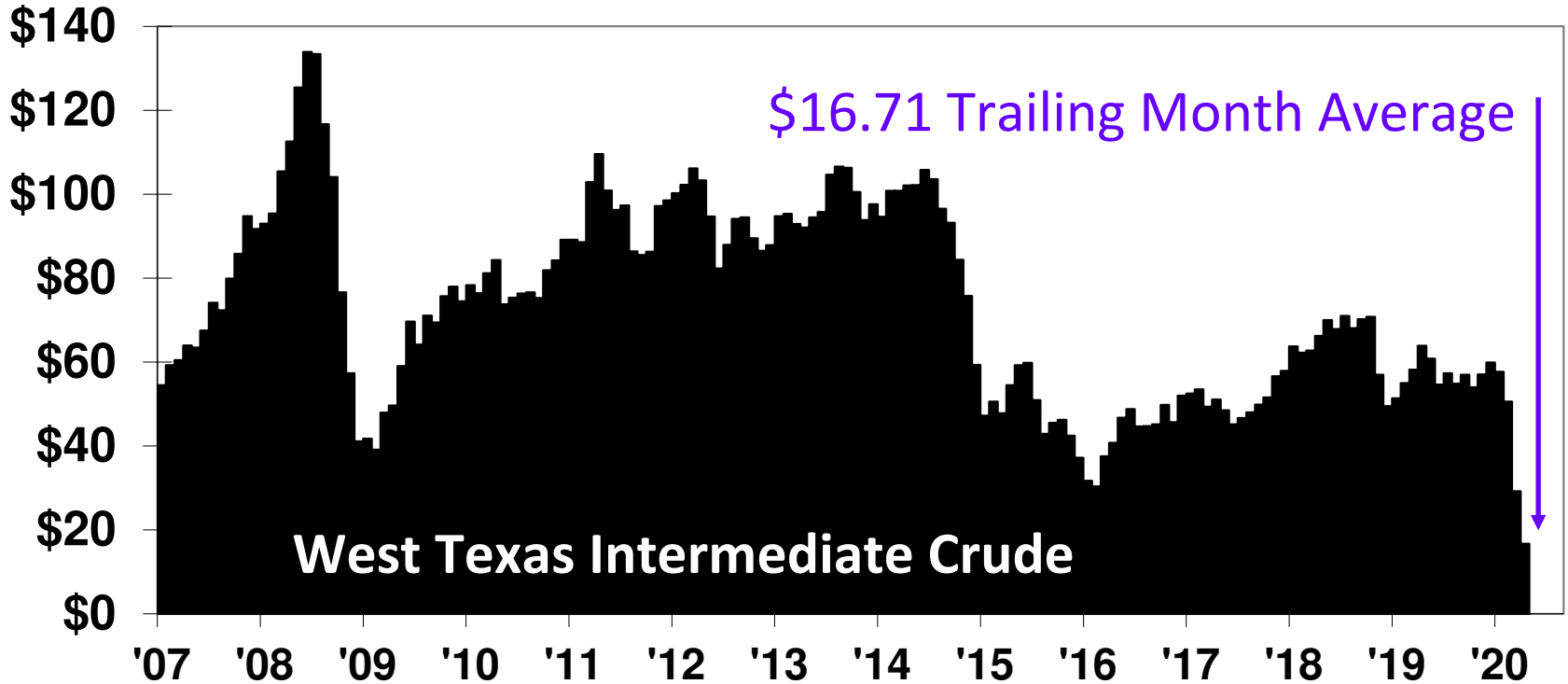
Recession

West Texas Intermediate Crude Oil



West Texas Intermediate Crude Oil Price

\$ Per Barrel



West Texas Intermediate Crude

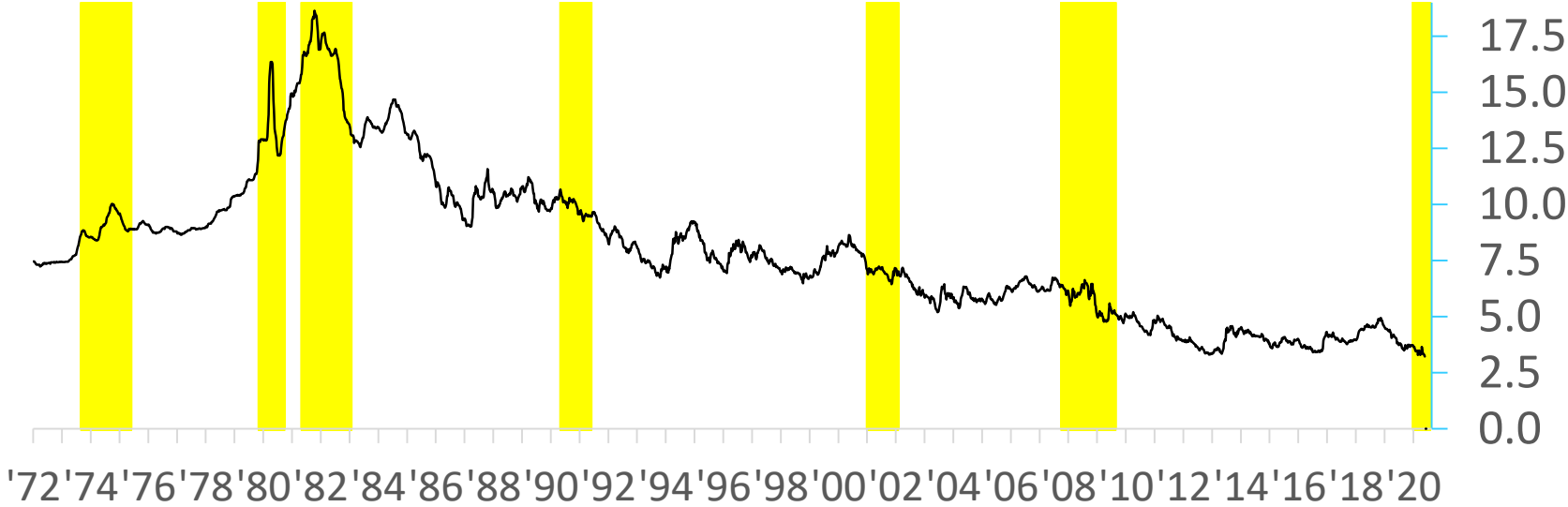
\$16.71 Trailing Month Average

Residential Interest Rates + Recession



Recession

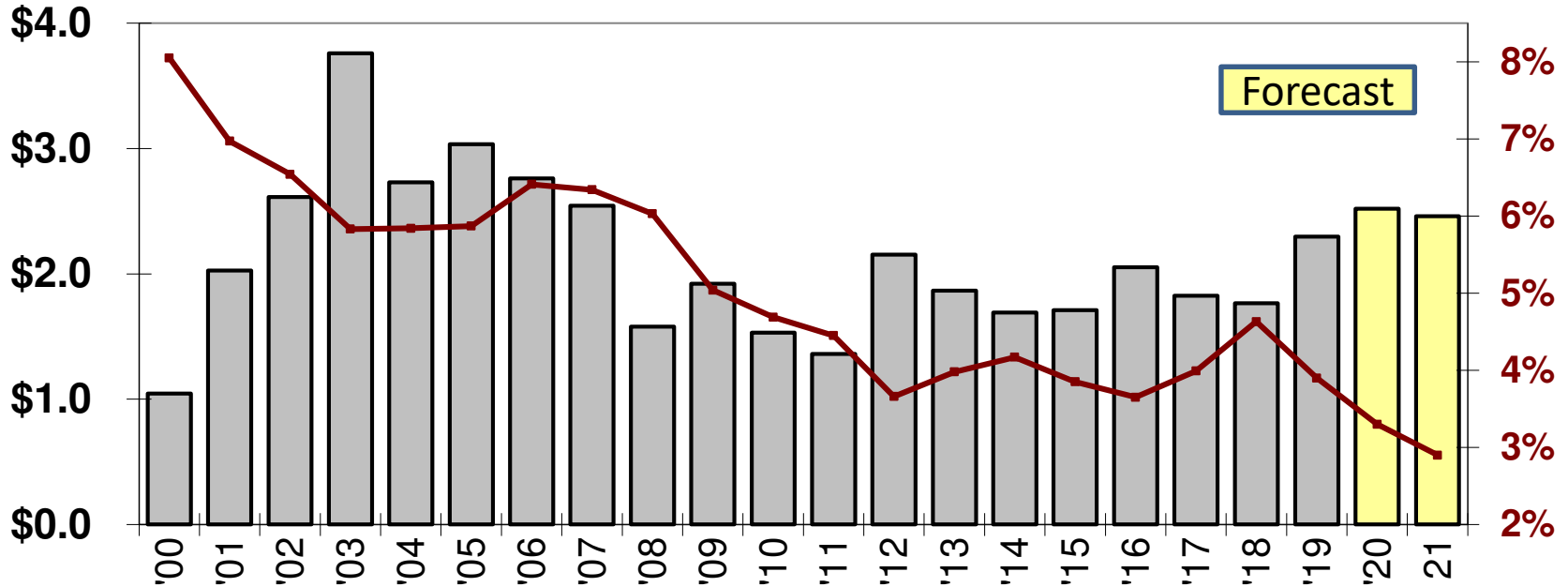
Conventional Mortgage Rate - Percent



Residential Lending Volumes & Interest Rates

Residential Lending - \$ Trillions 

30-Year Conventional Mortgage Rates 



Lending – Fannie Mae

Interest Rates – Freddie Mac

SOFTLY DOLLARS

Treasurys		Last Week	Commercial Cap Rates	Q1 2020
1 Year	0.17%	0.18%	Overall	6.41%
2 Year	0.20%	0.22%	Apartments	5.48%
5 Year	0.36%	0.37%	Hotels	8.27%
10 Year	0.64%	0.67%	Industrial	6.49%
20 Year	1.04%	1.06%	Offices	5.23%
30 Year	1.27%	1.25%	Retail	6.65%
			Senior Housing	6.97%

U.S. DEPARTMENT OF THE TREASURY

Municipal 10-Year Bonds		Last Week
AAA	1.30%	1.10%
AA	1.45%	1.20%
A	1.65%	1.40%

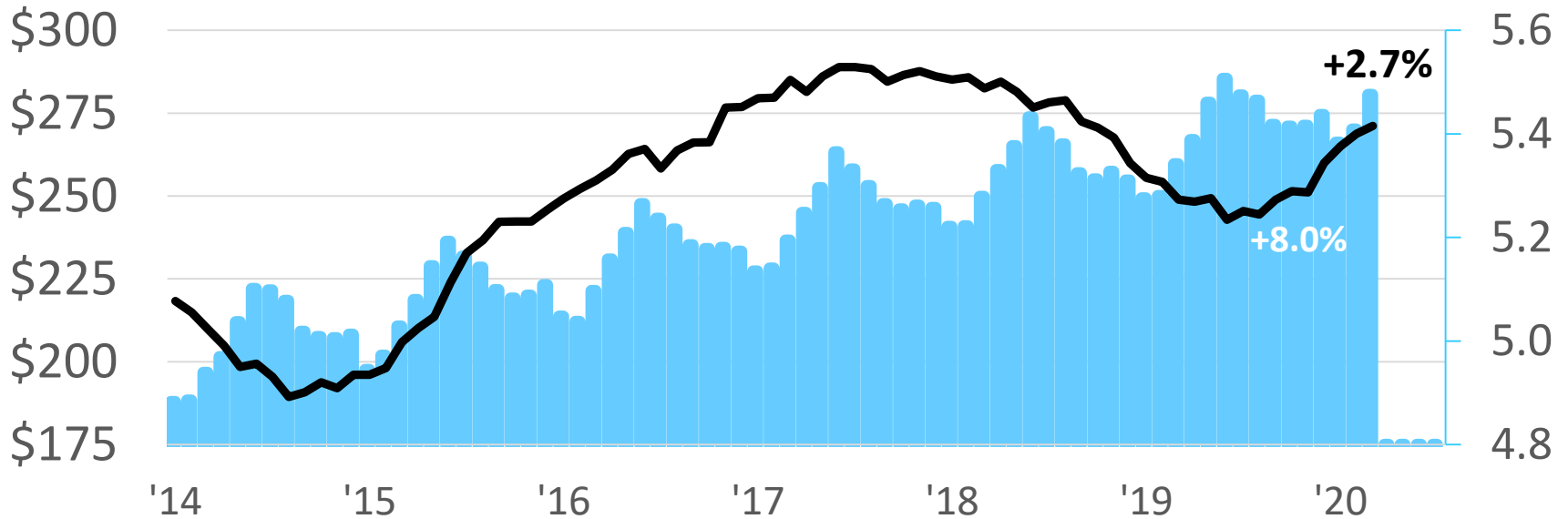
REAL CAPITAL ANALYTICS

Corporate Bonds	
Aaa Corporate	2.38%
Baa Corporate	3.87%

US Existing Home Sales & Median Prices

Median Home Price - \$ Thousands

Sales – Prior 12 Months
Millions



Existing Home Sales Forecast - April 2020

Sales -- Thousands	US Home Sales			
	SAAR	2019	2020	2021
Fannie Mae		5,340	4,538	5,229
MBA		5,334	5,231	5,772
Average		5,337	4,885	5,501

Competitor Order Counts

1st 3 Weeks April

A -43%

B -47%

Percent Change - Year-Over-Year

Fannie Mae	-15.0%	15.2%
MBA	-1.9%	10.3%
Average	-8.5%	12.6%

Existing Home Sales Forecast - April 2020

Sales -- Thousands *Seasonally Adjusted Annualized Rate*

US Home Sales

	2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Fannie Mae	5,647	3,755	4,020	4,728	4,875	5,258	5,375	5,407
MBA	5,416	4,853	5,095	5,559	5,686	5,741	5,790	5,869
Average	5,532	4,304	4,558	5,144	5,281	5,500	5,583	5,638

Percent Change - Year-Over-Year

Fannie Mae	8.7%	-29.1%	-25.7%	-12.8%	-13.7%	40.0%	33.7%	14.4%
MBA	4.0%	-8.2%	-6.1%	2.7%	5.0%	18.3%	13.6%	5.6%
Average	6.3%	-18.6%	-15.9%	-5.0%	-4.5%	27.8%	22.5%	9.6%

Existing Home Median Price Forecast - April 2020

	Median Price -- \$ Thousands		SAAR
	2019	2020	2021
Fannie Mae	\$ 272.0	\$ 275.0	\$ 279.0
MBA	\$ 269.7	\$ 284.9	\$ 288.0
Average	\$ 270.9	\$ 280.0	\$ 283.5

Percent Change - Year-Over-Year

Fannie Mae	1.1%	1.5%
MBA	5.6%	1.1%
Average	3.4%	1.3%

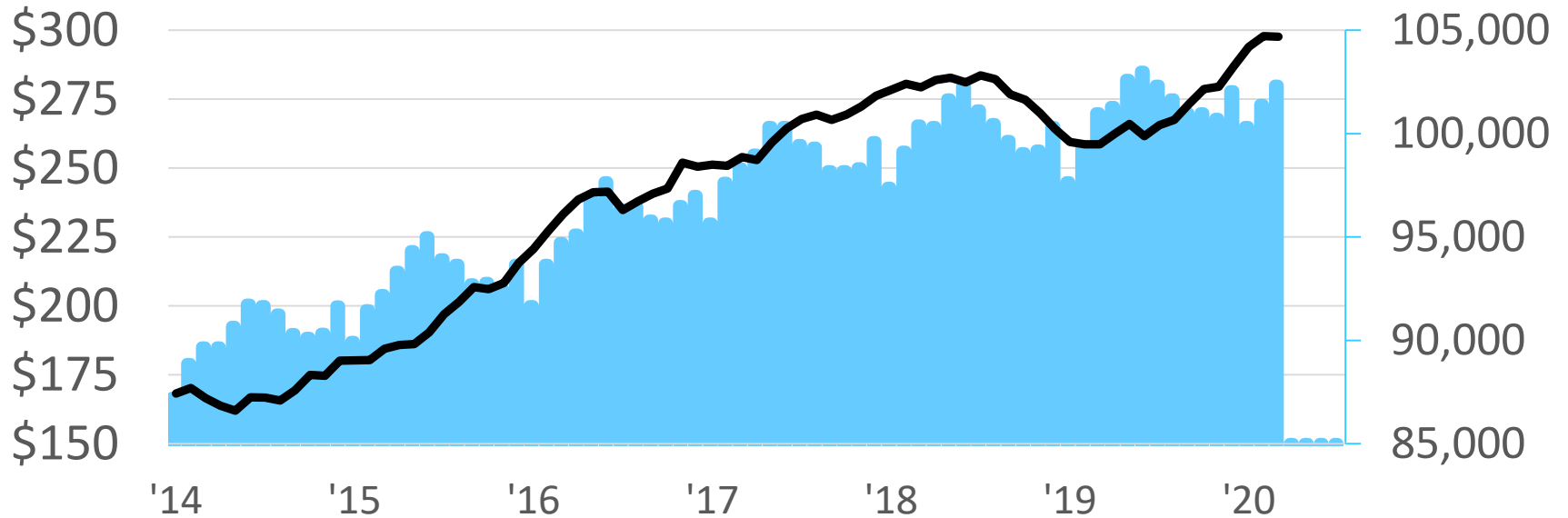


US Home Sales

DFW Existing Home Sales & Median Prices

Median Home Price - \$ Thousands

Sales – Prior 12 Months



Comparative Sales & Price Performance

	Home Sales		Median Price	
	Latest 12 Months		Latest 12 Months	
	<i>\$ Thousands</i>		<i>\$ Thousands</i>	
	2014	2020	2014	2020
U.S.	5,020,000	5,415,000	\$ 199.4	\$ 274.6
DFW	87,206	104,682	\$ 185.0	\$ 280.0

Percent Change

U.S.
DFW

Sales	Price
7.9%	37.7%
20.0%	51.4%

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	120,000	62,563	1.92
Total	724,300	386,284	1.88

**1.25 to
1.50 New
Jobs
Per
New
Dwelling
Normal**

Average Rent	\$ 1,250
Year-Over-Year Change	4%
Average Apartment Size- Sq Ft	847

Apartment Mix

\$501 - \$700	3%
\$701 - \$1,000	36%
\$1,001 - \$1,500	40%
\$1,501 - \$2,000	14%
> \$2,000	7%

Dallas Apartment Rents

RENTCafé®

RENTCafé® Apartment Rents

Conventional - 20% Down	
Average Rent	\$ 1,250
Rate	3.23%
Term	30 Years
<i>Dallas-Arlington</i>	
Average Price	\$ 293,500
Less 20% Down	(58,700)
Loan Amount	\$ 234,800
Monthly Payment	(1,019)
Residual	\$ 231

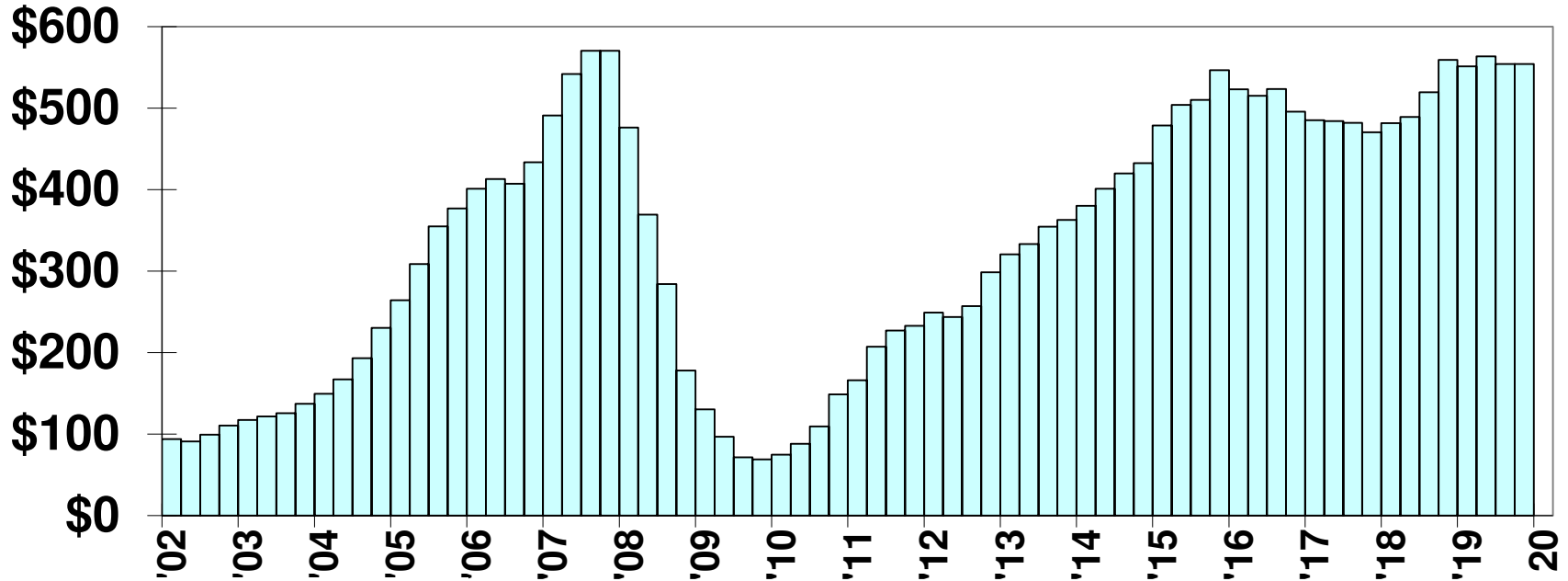
Conventional Loan

FHA - 3.5% Down	
Average Rent	\$ 1,250
Rate	3.32%
Term	30 Years
<i>Dallas-Arlington</i>	
Average Price	\$ 293,500
Less 3.5% Down	(10,273)
Loan Amount	\$ 283,228
Monthly Payment	(1,244)
Residual	\$ 6

FHA

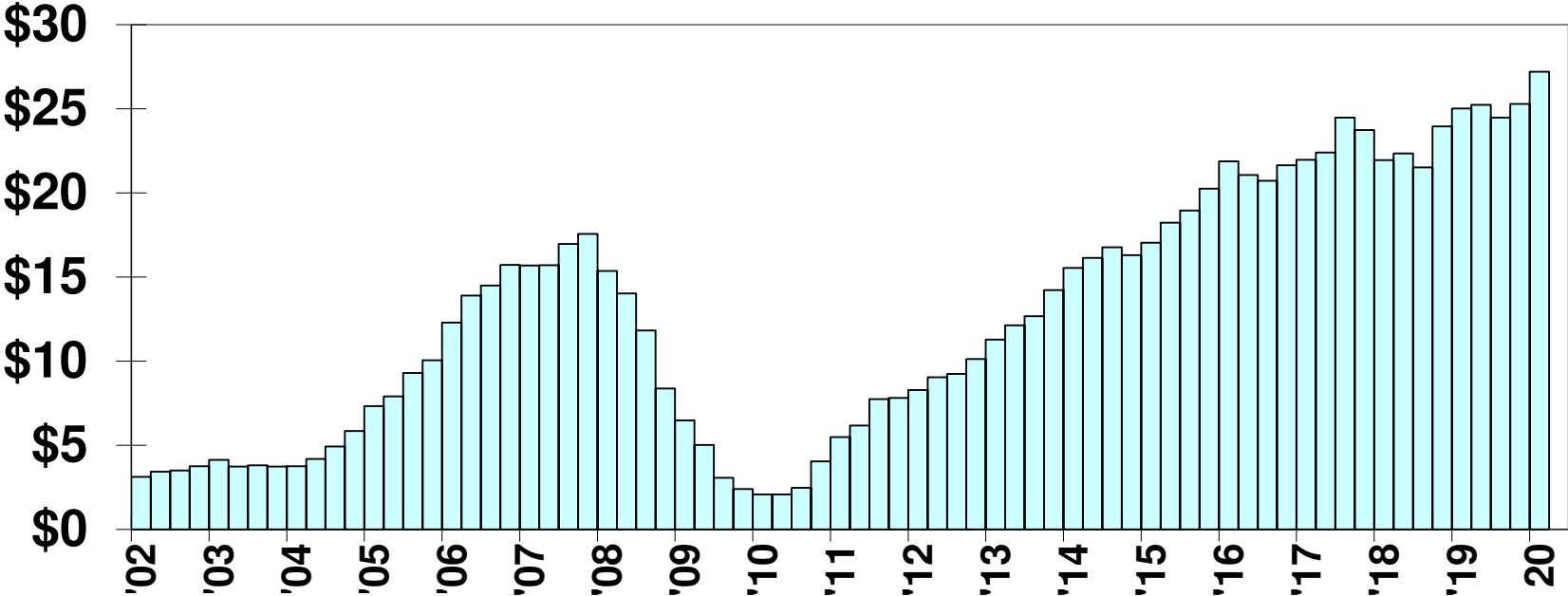
US Commercial Real Estate Sales Volume

\$ Billions – *Trailing 12 Months*



Dallas Commercial Real Estate Sales

\$ Billions – *Trailing 12 Months*



\$ Millions

2007	\$	3,260.9	
	\$	4,790.8	
	\$	4,539.1	
	\$	2,759.8	
2008	\$	1,926.0	
	\$	2,590.2	
	\$	1,091.1	
	\$	866.9	
2009	\$	467.3	-85.7%
	\$	635.5	-86.7%
	\$	429.7	-90.5%
	\$	541.6	-80.4%
2010	\$	457.3	-86.0%

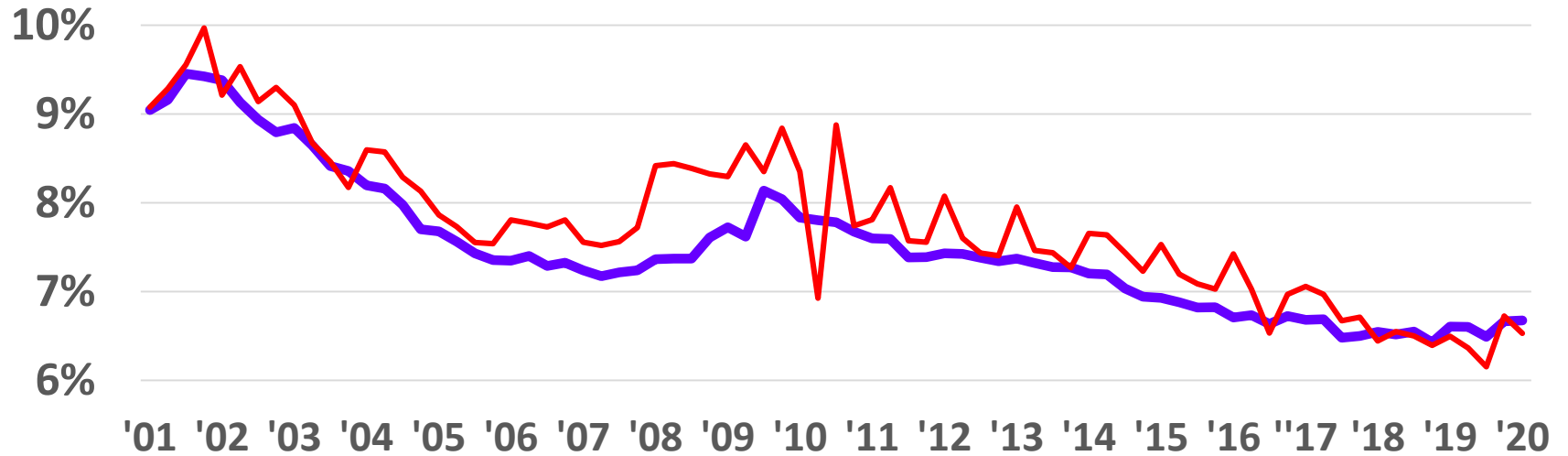
**Dallas
Commercial
Real Estate
Sales**

**Percent Change
Same Quarter 2007**

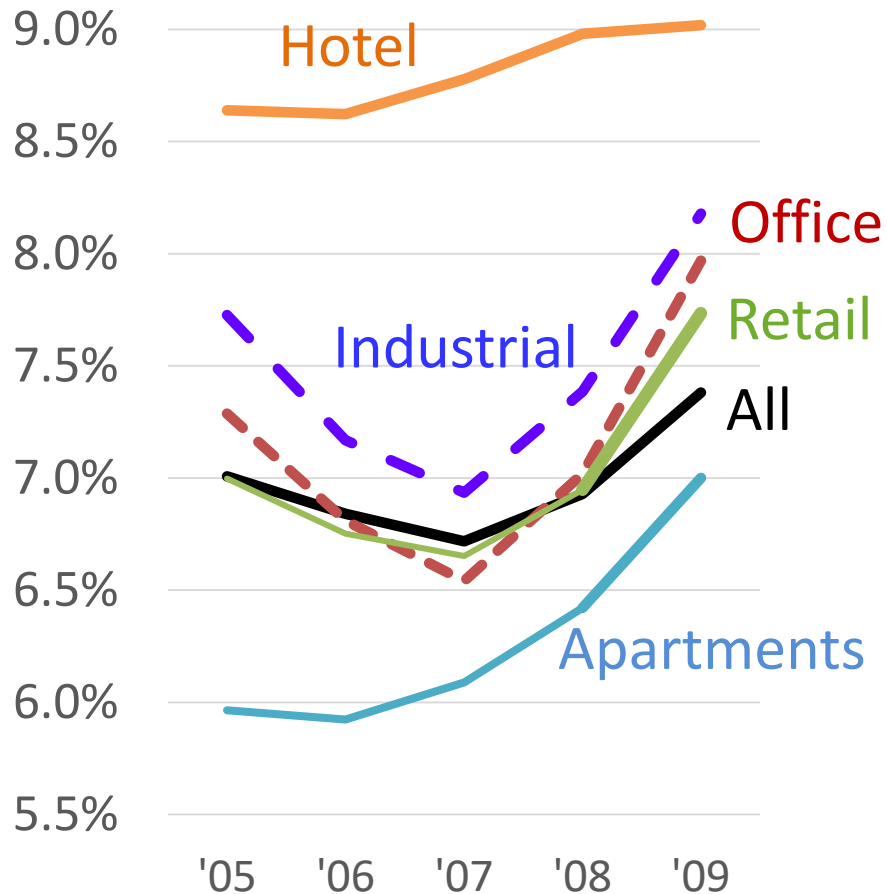
Commercial Real Estate Cap Rates

Cap Rate

— U.S. — Dallas



Commercial Cap Rates



	Trough	Peak	Gain BP
Hotel	8.62%	9.02%	40
Industrial	6.93%	8.18%	124
Office	6.54%	7.97%	143
Retail	6.65%	7.73%	108
All	6.72%	7.38%	66
Apartments	5.92%	7.00%	108

2005-2009

**-10% Value
Just Cap Rate**

Value Impacts – Commercial Real Estate

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

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

Florida Hotel Sales

Year	\$ Billion
'06	\$ 4.74
'07	\$ 6.63
'08	\$ 1.09
'09	\$ 0.55
'10	\$ 1.32
'11	\$ 1.49
'12	\$ 1.89
'13	\$ 4.23
'14	\$ 5.16
'15	\$ 7.49
'16	\$ 3.59
'17	\$ 2.65
'18	\$ 5.07
'19	\$ 4.71

91.7% Plunge

8 Years to Recover

Florida Hotel Cap Rates

Year	Cap Rate
'06	9.17
'07	8.47
'08	8.58
'09	9.73
'10	7.93
'11	7.85
'12	7.88
'13	7.63
'14	8.13
'15	8.45
'16	8.83
'17	9.06
'18	8.81
'19	8.28



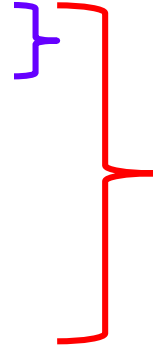
+126 Basis Points

8 Years to Recover

2007-2009 Cap Rate
Increase Alone Caused
13% Value Decline

Florida Hotel Average Sales Price Per Unit

Year	Per Unit
'06	\$ 123,380
'07	\$ 111,274
'08	\$ 141,009
'09	\$ 75,360
'10	\$ 83,031
'11	\$ 98,732
'12	\$ 101,836
'13	\$ 139,964
'14	\$ 168,649
'15	\$ 156,290
'16	\$ 136,378
'17	\$ 114,346
'18	\$ 157,532
'19	\$ 200,441

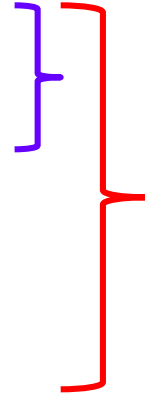


-46.6% Value
5 Years to Recover

2007-2009 Revenue
Drop of 19.3%

Dallas Apartment Sales

Year	\$ Billions
'06	\$ 4.97
'07	\$ 4.12
'08	\$ 2.19
'09	\$ 0.83
'10	\$ 1.87
'11	\$ 2.84
'12	\$ 3.72
'13	\$ 6.01
'14	\$ 6.63
'15	\$ 8.89
'16	\$ 9.63
'17	\$ 9.93
'18	\$ 9.54
'19	\$ 10.45



79.9% Plunge

6 Years to Recover

Dallas Apartment Cap Rates

Year	Cap Rates
'06	7.179%
'07	6.994%
'08	7.754%
'09	8.404%
'10	6.574%
'11	6.412%
'12	6.215%
'13	6.565%
'14	6.332%
'15	6.188%
'16	6.011%
'17	5.655%
'18	5.593%
'19	5.377%



+141 Basis Points

2007-2009 Cap Rate
Increase Alone Caused
16.8% Value Decline

Dallas Apartment Average Sales Price Per Unit

Year	Per Unit
'06	\$ 53,793
'07	\$ 46,847
'08	\$ 58,631
'09	\$ 63,869
'10	\$ 86,205
'11	\$ 62,267
'12	\$ 81,387
'13	\$ 101,885
'14	\$ 129,710
'15	\$ 118,978
'16	\$ 119,522
'17	\$ 143,726
'18	\$ 141,592
'19	\$ 147,846

Shortage
Of
Housing
Visible

U.S. Hotels – April 2020

- U.S. hotels were less than 1 percent delinquent in their mortgage payments in March 2020, approached 20

Trepp

- **CBRE** survey - found that almost 60 percent of hotels had less than 2 months or less of reserves
- 70+ percent of surveyed hotels were considering closing **CBRE**

2020 Economic Outlook *Ted's Take*

Expected Short Recession, Deep – But Out by Q4
Entered Downturn with Best Wage Growth in 10 Years

Record Low Interest Rates

Cheap Energy *fuels the economy, helps almost EVERYONE*

Manufacturing Short-term Comeback

replacing China on many fronts – medical, parts, pharma

McDrive

Autoschalter



Achtung

Eingeschränkter
Winterdienst
Keine Streuung



Ettweil

Büro + Lagerflächen
zu vermieten
Tel. 0172-7628855

McDRIVE

What's to Come - Permanent *Ted's Take*

- **U.S. Manufacturing LONGTERM Comeback**
- **Hastening Paperless Real Estate Transaction Process**
- **Remote Everything – Notary, Closings, Appraisals.....**
- **Drive-Thru Everything**
- **Office Demand – Permanently Down**
- **Industrial Property Demand – Permanently Up**
- **Leisure & Hospitality Direct Hit from the Blast + RE**
- **Oil Prices Remain Low – 99.5% of Consumers Win**



DrTCJ

<http://blog.stewart.com>

stewart.com

Stewart Blog



and the
BEAT GOES ON

Pandemics & Seismic Events

stewart

Ted C. Jones, PhD
Chief Economist
Stewart Title

**An Economic Outlook on What Changes,
What Stays the Same and What's to Come**