

THINGS CHANGE

The Outlook for Real Estate and the Economy

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76 Million Boomers

83 Million Millennials 19 to 35

91 Million Millennials 16 to 35

Top Millennial Population Growth Markets

2005 to 2015

12-Month

Rank	City, State	Population Growth	Job Growth
1	Charlotte, North Carolina	30.7%	2.72%
2	Houston, Texas	17.4%	0.54%
3	Austin, Texas	16.4%	2.76%
4	Seattle, Washington	15.3%	3.64%
5	Omaha, Nebraska	14.3%	1.38%
6	Nashville, Tennessee	13.8%	2.83%
7	Indianapolis, Indiana	12.5%	2.25%
8	Tulsa, Oklahoma	11.0%	0.20%
9	Orlando, Florida	10.5%	4.73%
10	Columbus, Ohio	9.7%	2.00%

Source: apartment list

Twitter

@DrTCJ

Non-Renewals - Dead on Arrival

- **Mortgage Insurance Deductibility**
- **Residential Mortgage Debt Forgiveness**
- **Residential Energy Savings**
- **Renewables – Wind and Solar**
- **ObamaCare** - *Some Form, However*

Soon-to-Happen Tax Changes?????

- **Corporate Tax Cut 35 Percent to 15 Percent**
- **US Overseas Corporate Profit Repatriation**
- **Carried Interest Elimination**
- **ObamaCare 3.8% Investment Income Tax Cut**
- **Capital Gains Tax Cut**
- **Middle Class Tax Changes – Some Up, Some Down**

OECD Corporate Tax Rates

2000		2016	
Germany	42.2%	35.0%	U.S.
France	37.8%	34.4%	France
Italy	37.0%	30.0%	Australia
U.S.	35.0%	27.5%	Italy
Spain	25.0%	25.0%	Spain
Australia	34.0%	23.3%	Japan
Japan	30.0%	22.0%	S Korea
U.K	30.0%	20.0%	U.K.
Canada	29.1%	15.8%	Germany
S Korea	28.0%	15.0%	Canada

Germany

2,640

Basis

Point

Decline

62.6

Percent

Tax

Cut

OECD Corporate Tax Rates

2000		2016	
Germany	42.2%	35.0%	U.S.
France	37.8%	34.4%	France
Italy	37.0%	30.0%	Australia
U.S.	35.0%	27.5%	Italy
Spain	25.0%	25.0%	Spain
Australia	34.0%	23.3%	Japan
Japan	30.0%	22.0%	S Korea
U.K	30.0%	20.0%	U.K.
Canada	29.1%	15.8%	Germany
S Korea	28.0%	15.0%	Canada

Canada

1,410
Basis
Point
Decline

48.4
Percent
Tax
Cut

OECD Corporate Tax Rates

2000		2016	
Germany	42.2%	35.0%	U.S.
France	37.8%	34.4%	France
Italy	37.0%	30.0%	Australia
U.S.	35.0%	27.5%	Italy
Spain	25.0%	25.0%	Spain
Australia	34.0%	23.3%	Japan
Japan	30.0%	22.0%	S Korea
U.K	30.0%	20.0%	U.K.
Canada	29.1%	15.8%	Germany
S Korea	28.0%	15.0%	Canada

U.K.

**1,010
Basis
Point
Decline**

**33.3
Percent
Tax
Cut**

Mega Themes - 2017

- **More Jobs Than Ever in History**
- **Retail Boom – 14 Years to Run**
- **Entry Level Homebuyers Returning**
- **High-End Housing Retreating**
- **Inflation Potential -- UPS +4.9% Dec 26th**
- **Commercial Sales Cooling**

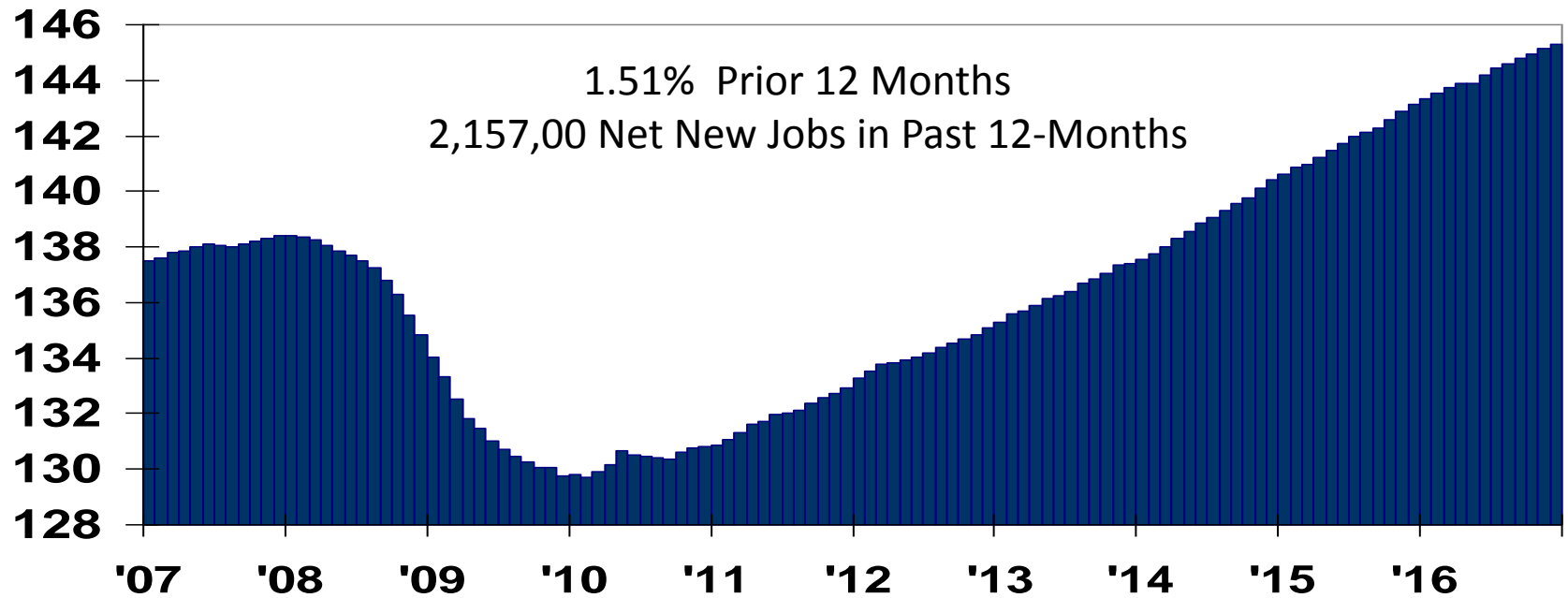
76 Million Boomers

83 Million Millennials 19 to 35

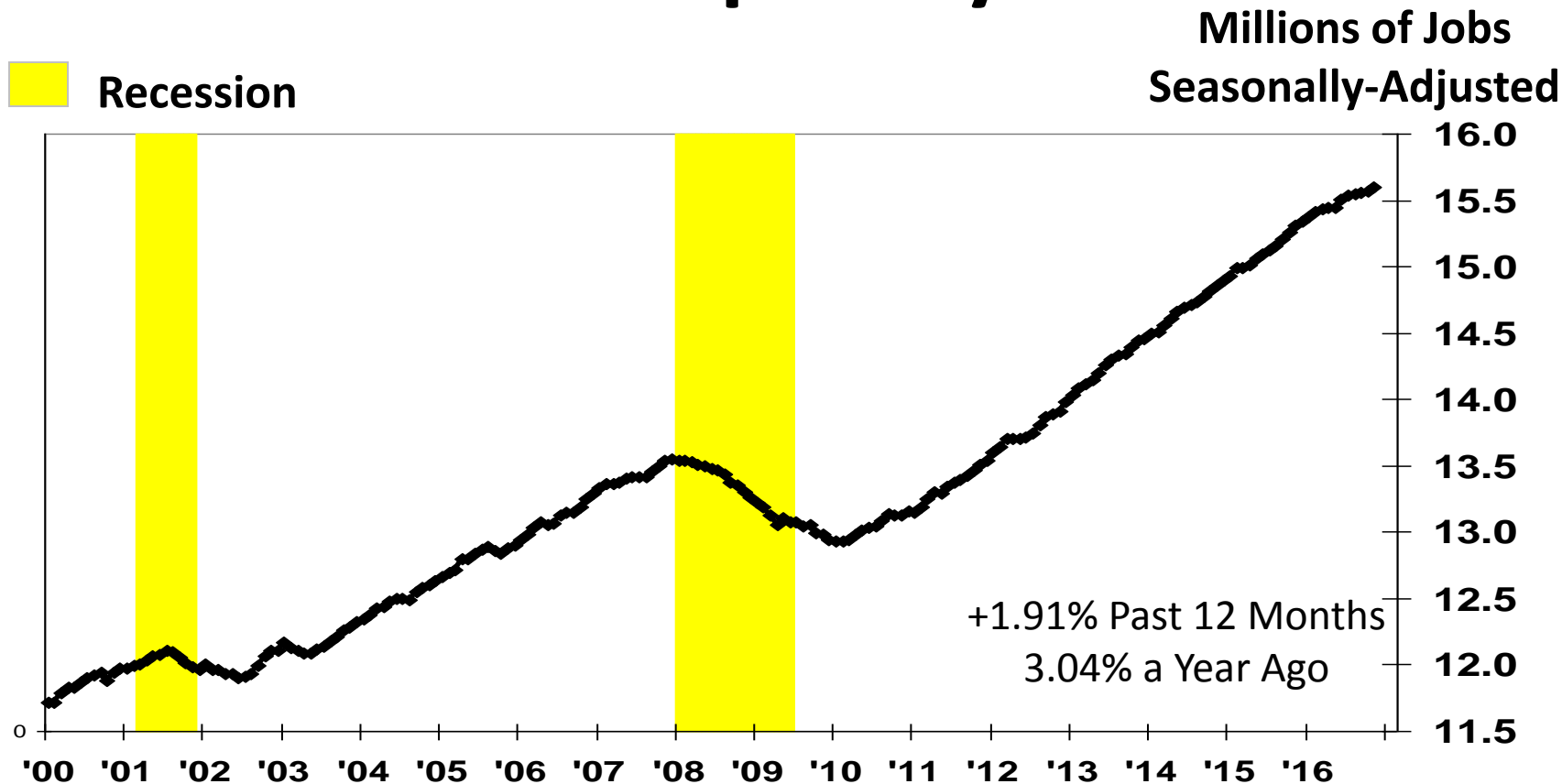
91 Million Millennials 16 to 35

U.S. Jobs

Jobs (Millions) *Seasonally Adjusted*

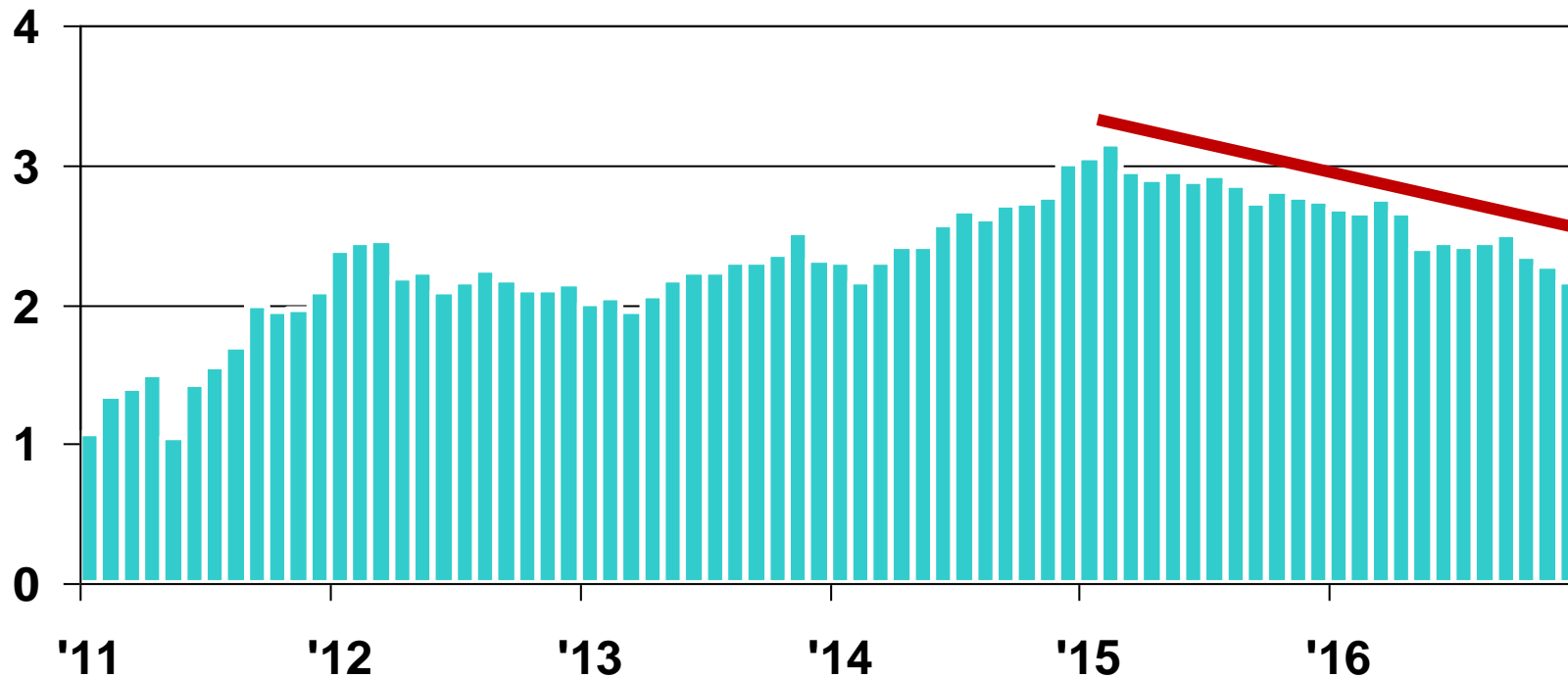


U.S. Leisure & Hospitality Jobs



U.S. Net Job Gains – *Trailing 12-Months*

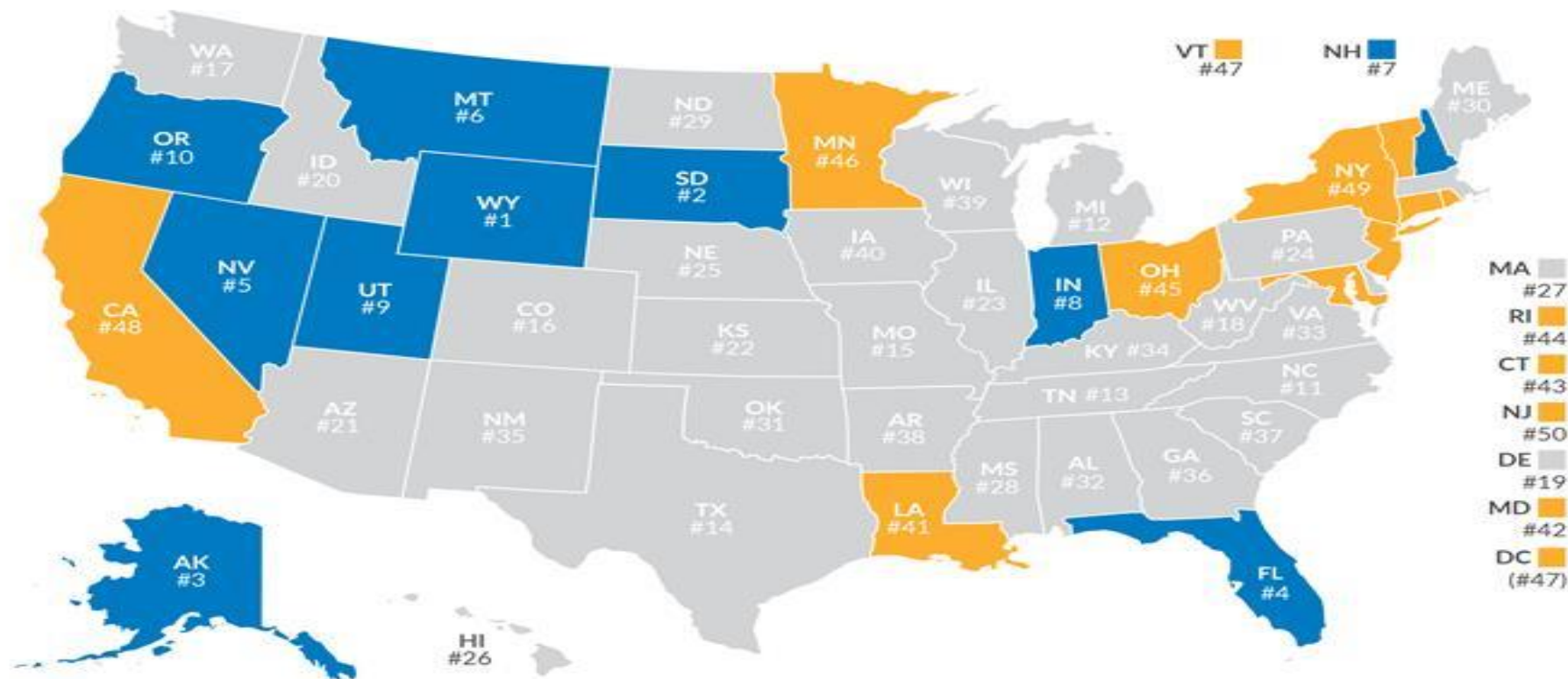
Jobs - *Millions*



Job-Growth - 12 Months Ending November 2016

Florida	3.22%	Tennessee	1.90%	Kentucky	0.82%
Washington	3.06%	Dist of Columbia	1.83%	Arkansas	0.72%
Utah	3.02%	<u>Texas</u>	<u>1.77%</u>	Illinois	0.72%
Oregon	2.94%	West Virginia	1.43%	Pennsylvania	0.66%
Nevada	2.74%	Indiana	1.30%	Iowa	0.64%
Hawaii	2.45%	Delaware	1.23%	New Jersey	0.53%
Idaho	2.38%	Montana	1.17%	Maine	0.44%
South Dakota	2.37%	Rhode Island	1.13%	Vermont	0.13%
California	2.32%	Maryland	1.13%	Connecticut	0.08%
Georgia	2.28%	New York	1.12%	Mississippi	-0.21%
South Carolina	2.24%	Minnesota	1.11%	New Mexico	-0.28%
New Hampshire	2.21%	Arizona	1.10%	Kansas	-0.28%
Colorado	2.16%	Wisconsin	1.05%	Louisiana	-0.32%
Missouri	2.05%	Nebraska	1.00%	Alaska	-0.86%
Massachusetts	2.00%	Virginia	0.96%	Oklahoma	-0.93%
Michigan	1.96%	Alabama	0.95%	North Dakota	-1.54%
North Carolina	1.92%	Ohio	0.91%	Wyoming	-3.09%

2017 State Business Tax Climate Index



Note: A rank of 1 is best, 50 is worst. Rankings do not average to the total. States without a tax rank equally as 1. DC's score and rank do not affect other states. The report shows tax systems as of July 1, 2016 (the beginning of Fiscal Year 2017).

Source: Tax Foundation.

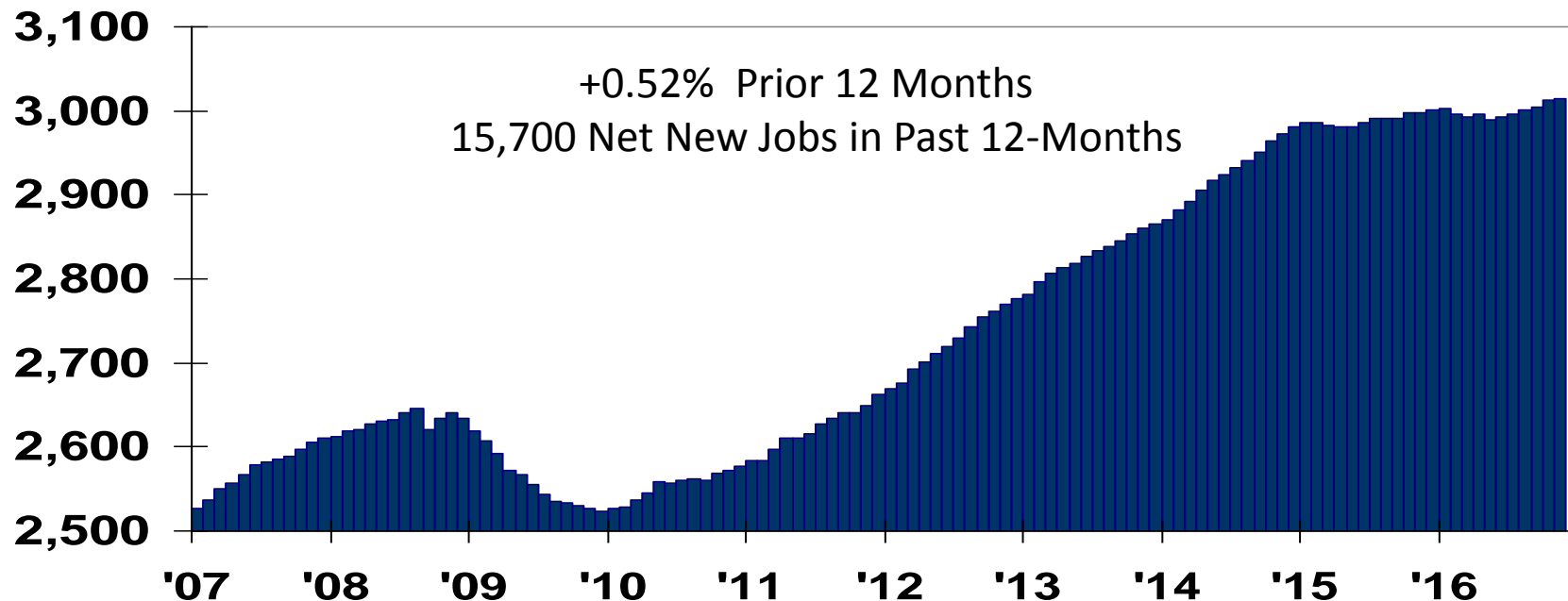
- 10 Best Business Tax Climates
- 10 Worst Business Tax Climates

Houston MSA Economic Downturns

		Thousands		
	Date	Jobs	Loss	Percent
Peak	August 2001	2,317.1		
Trough	June 2003	2,281.2	-35.9	-1.55%
Peak	August 2008	2,645.1		
Trough	December 2009	2,524.2	-120.9	-4.57%

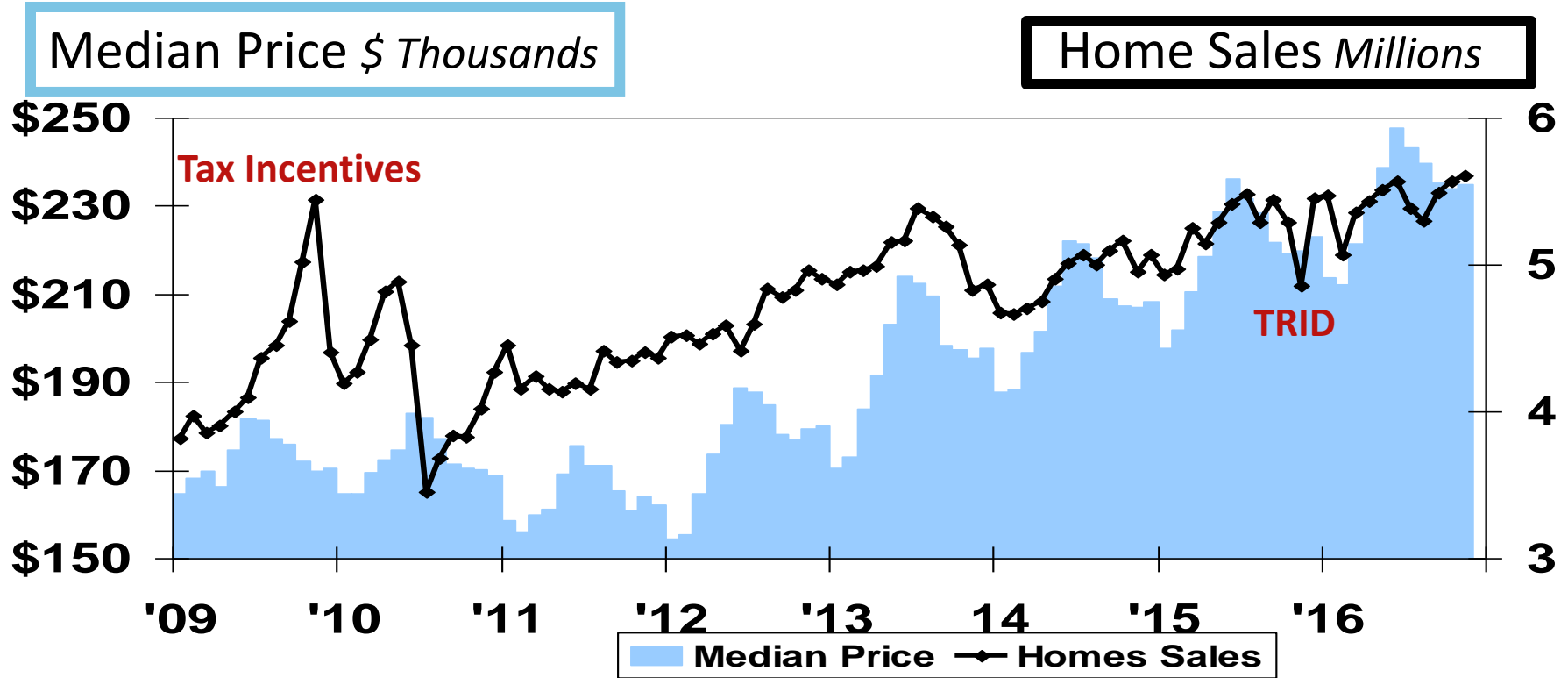
Houston-The Woodlands-Sugar Land MSA Jobs

Jobs (Thousands) *Seasonally Adjusted*



U.S. Existing Home Sales & Median Prices

Sales on a Seasonally Adjusted Annualized Rate

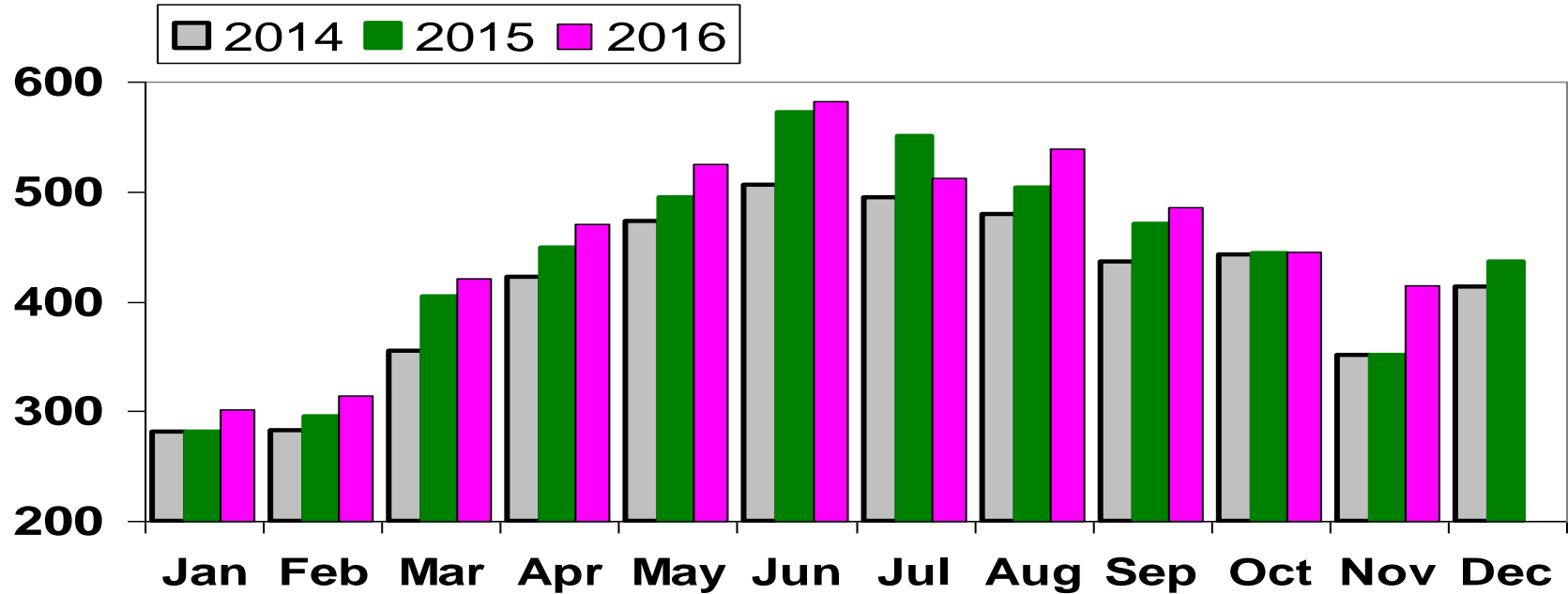


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U.S. Existing Home Sales

Sales — *Not Seasonally Adjusted* - Thousands

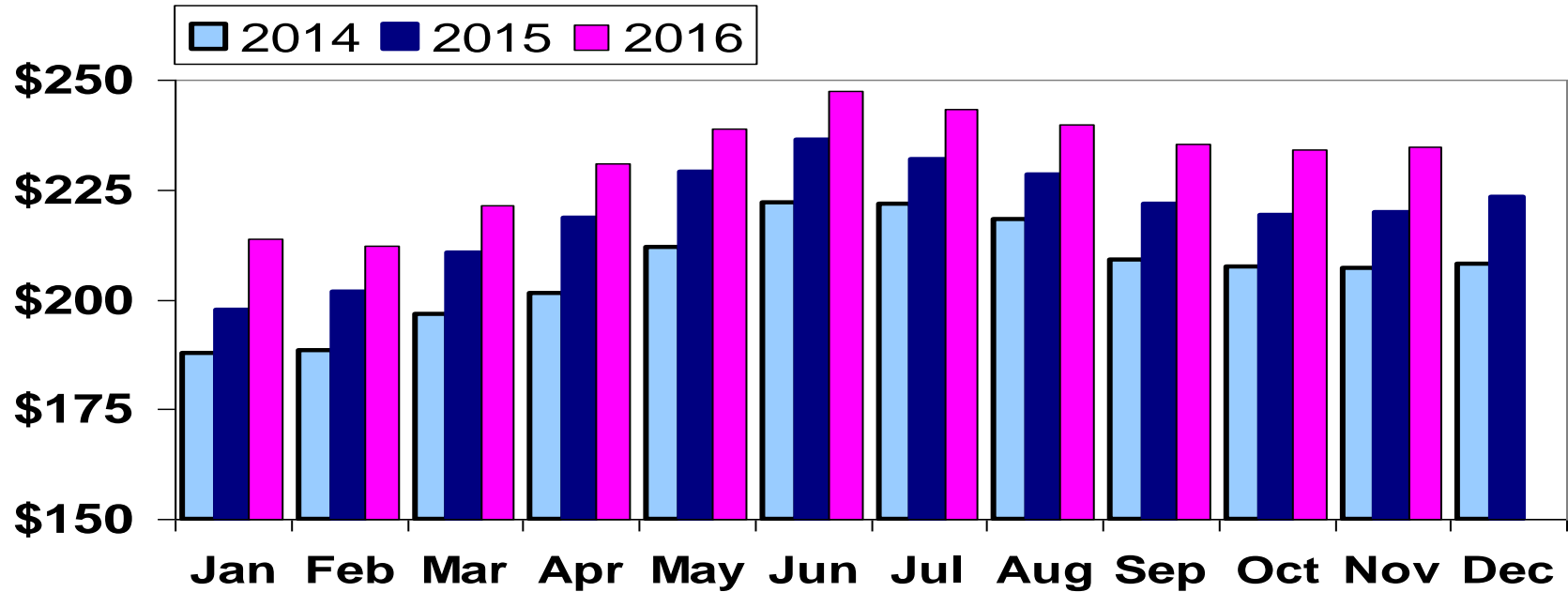


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U.S. Existing Home Sales

Median Price – *Not Seasonally Adjusted* - \$Thousands



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Single Family

Brazoria-Ft Bend-Galveston-Harris-Montgomery Counties

	Percent		
Closing Price	2015	2016	Change
\$0 - \$499,999	63,154	65,211	3.26%
\$500,000 - \$749,999	4,223	4,096	-3.01%
\$750,000 - \$999,999	1,322	1,199	-9.30%
\$1 Million and Up	1,419	1,352	-4.72%
Total	70,118	71,858	2.48%

Townhouse-Condos

Closing Price	2015	2016	Percent Change
\$0 - \$499,999	6,392	6,285	-1.67%
\$500,000 - \$749,999	280	226	-19.29%
\$750,000 - \$999,999	37	42	13.51%
\$1 Million and Up	13	12	-7.69%
Total	6,722	6,565	-2.34%

Mid-Rise * High Rise

	Percent		
Closing Price	2015	2016	Change
\$0 - \$499,999	622	562	-9.65%
\$500,000 - \$749,999	63	67	6.35%
\$750,000 - \$999,999	32	26	-18.75%
\$1 Million and Up	38	48	26.32%
Total	755	703	-6.89%

Total Housing Sales

Closing Price	2015	2016	Percent Change
\$0 - \$499,999	70,168	72,058	2.69%
\$500,000 - \$749,999	4,566	4,389	-3.88%
\$750,000 - \$999,999	1,391	1,267	-8.91%
\$1 Million and Up	1,470	1,412	-3.95%
Total	77,595	79,126	1.97%

Houston-The Woodlands-Sugar Land MSA

12-Months Ending Nov 2016

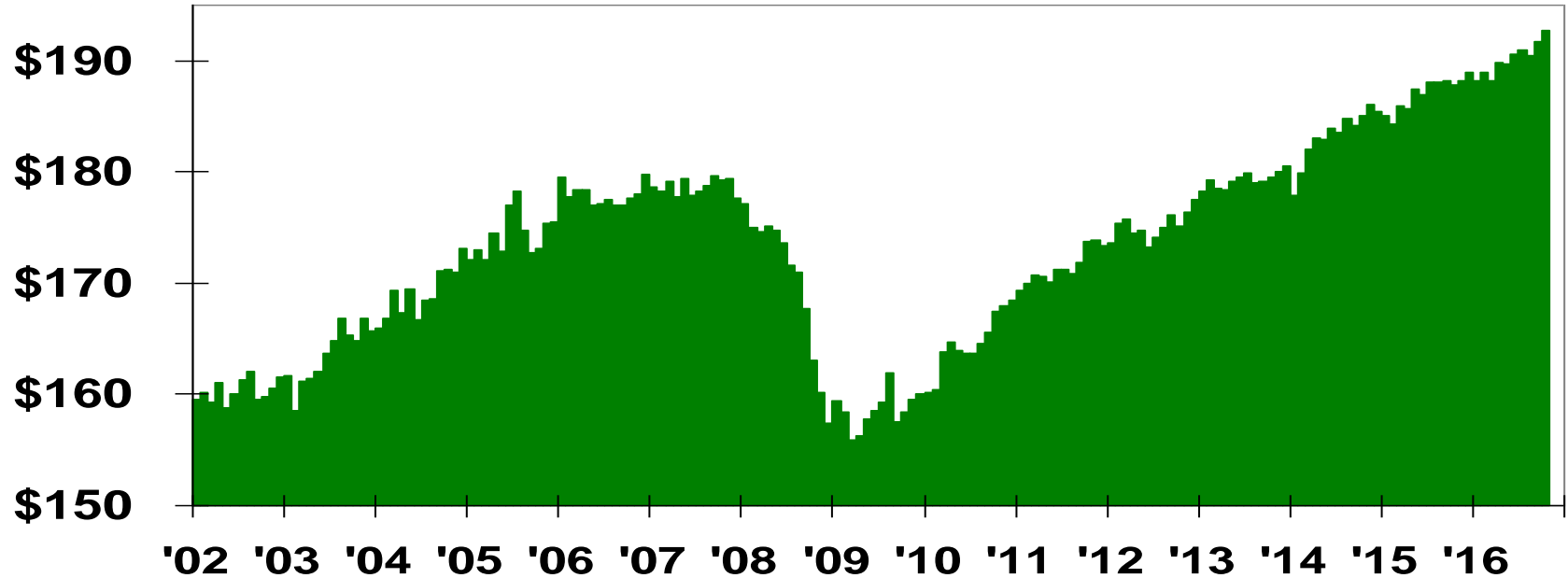
Building Permits	35,464
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Net New Jobs	15,700
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Dwellings Per New Job	2.26
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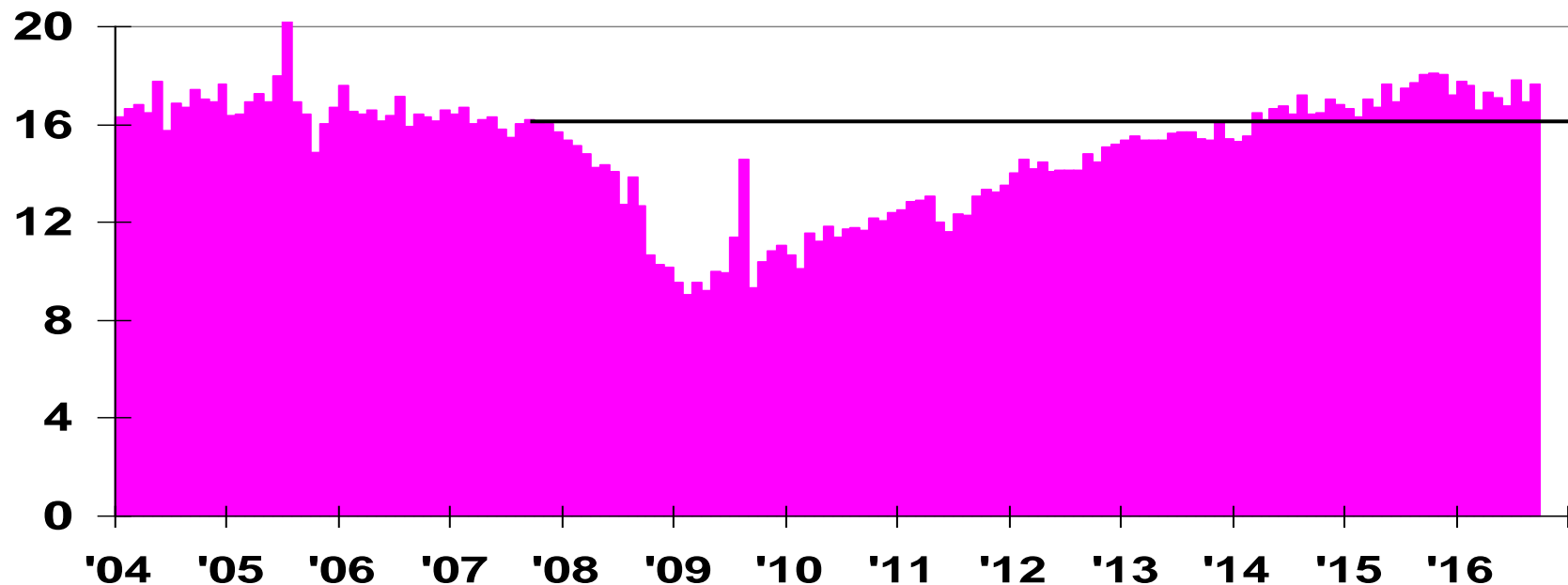
U.S. Real Retail & Food Service Sales

\$ Billions – Seasonally Adjusted



Light Weight Vehicle Sales

Millions – *Seasonally Adjusted Annual Rate*



2016 US Stock Market Performance

13%+ Dow Jones Industrial

9.5% S&P500

7.5% Nasdaq Composite

8.5% Gold

14.9% Silver

45.2% Crude Oil

Fed Funds Target Rate Increases

	Months	Number	Basis
	Duration	Increases	Points Increase
June 2004 - June 2006	25	17	425
June 1999 - May 2000	12	6	175
March 1997	1	1	25
February 1994 - Feb 1995	13	7	300
		Average	231.25
		Median	237.5

Source: Federal Reserve Bank of New York

Rates November 1, 2016

10-Year Treasury	1.81%
30-Year Residential	3.54%

12-18 Month Outlook

Rate Increase Impact - Basis Points

Lower Quartile	115.6
1/3rd	173.4
Median Quartile	231.3

Treasury Forecasts 12-18 Months

Lower Quartile	2.97%
1/3rd	3.54%
Median Quartile	4.12%

30-Year Residential Rates 12-18 Months

Lower Quartile	4.71%
1/3rd	5.28%
Median Quartile	5.86%

* 30-Year Residential = 10-Yr +174 bp

10 Year Treasury Rate

Mon Nov 7 1.83%

Tue Jan 10 2.38%

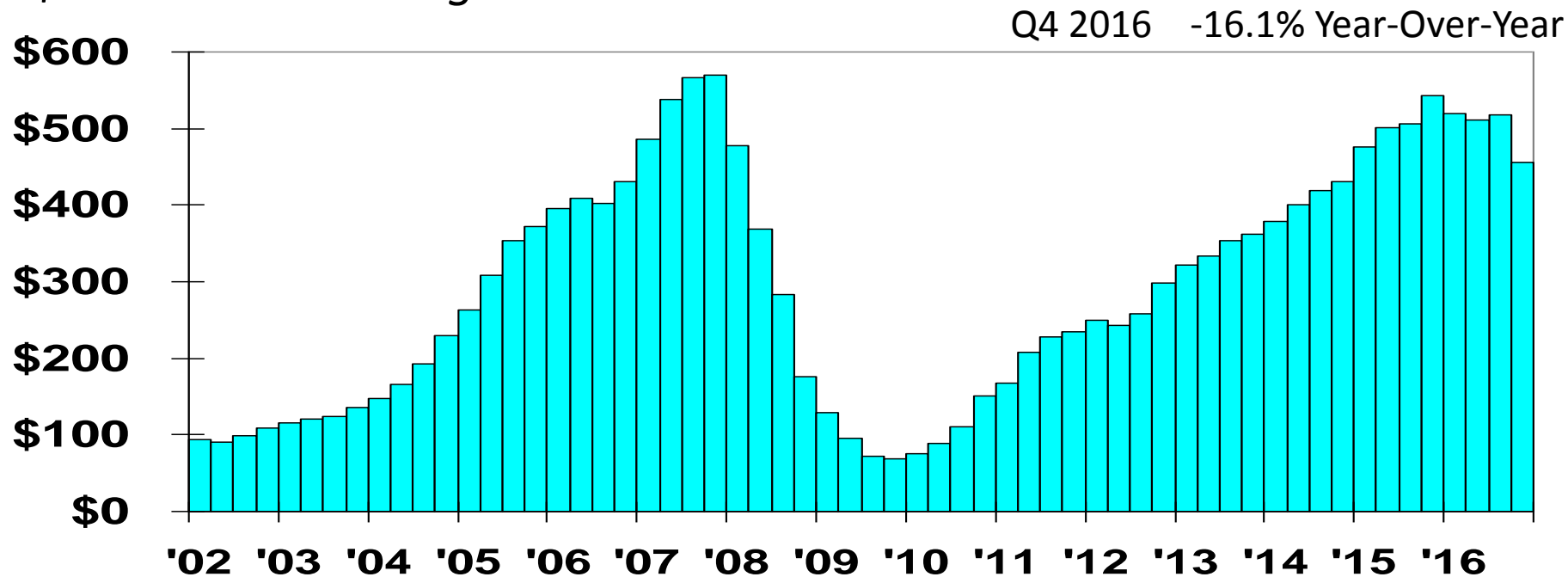
Increase

55 Basis Points

30% Gain

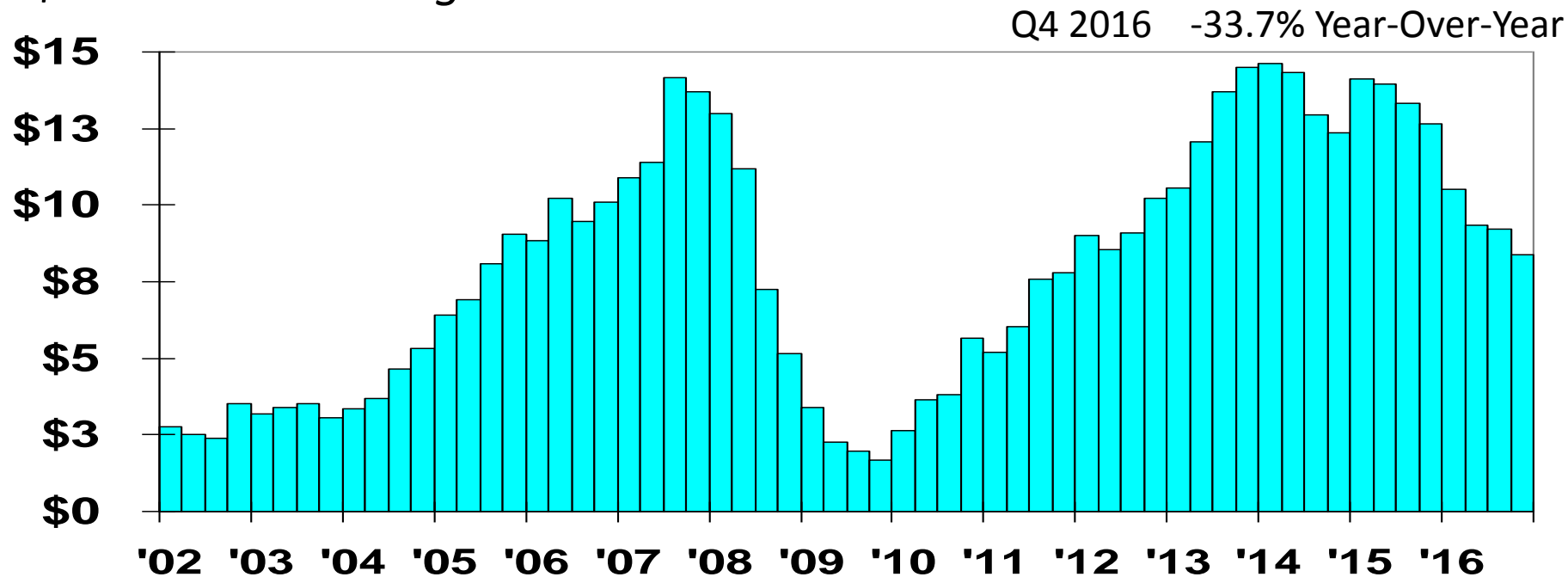
U.S. Commercial Real Estate Sales Volume

\$ Trillions – *Trailing 12 Months*



Houston Commercial Real Estate Sales Volume

\$ Billions – *Trailing 12 Months*

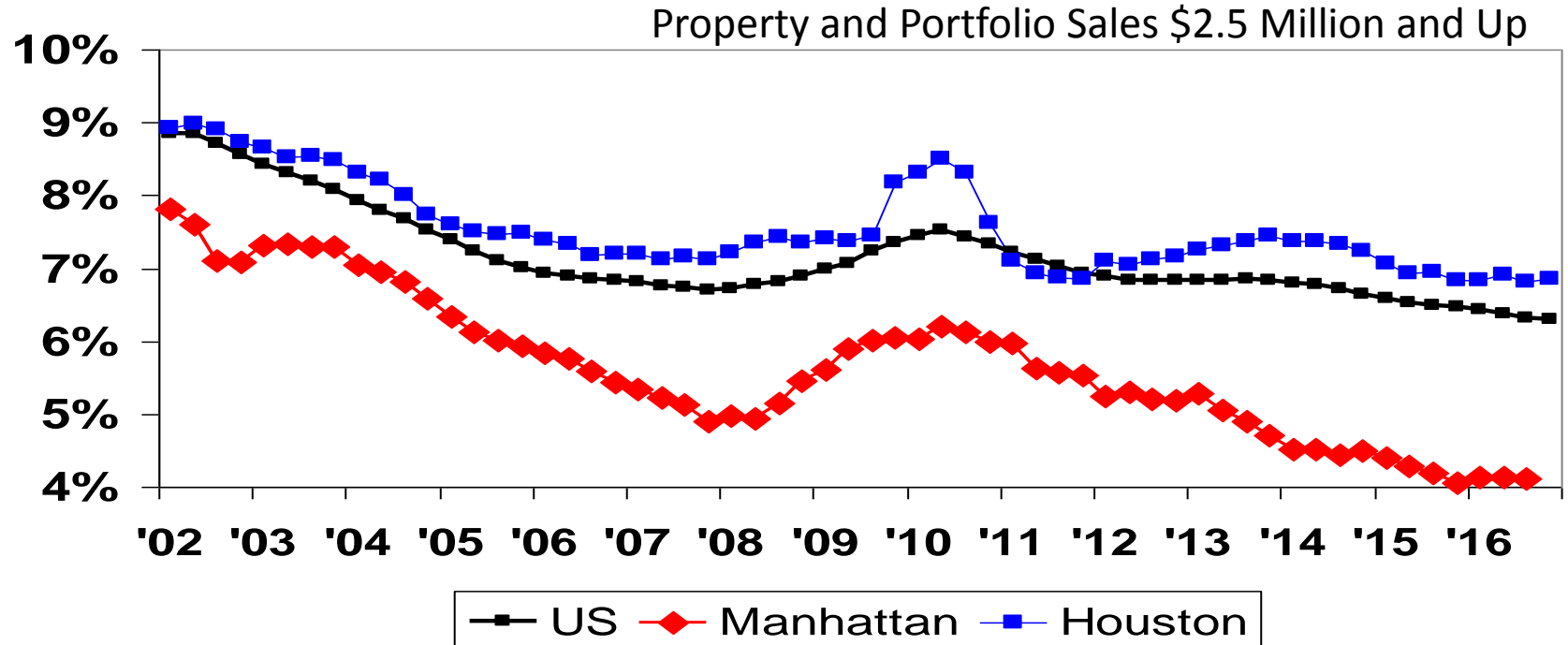


Houston Scorecard

	A	B	C	D	F
Retail	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apartments	<input checked="" type="checkbox"/> BC	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> A	<input type="checkbox"/>
Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hotel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Commercial Real Estate Cap Rates

Percent – All Property Types, 4 Quarter Moving Average

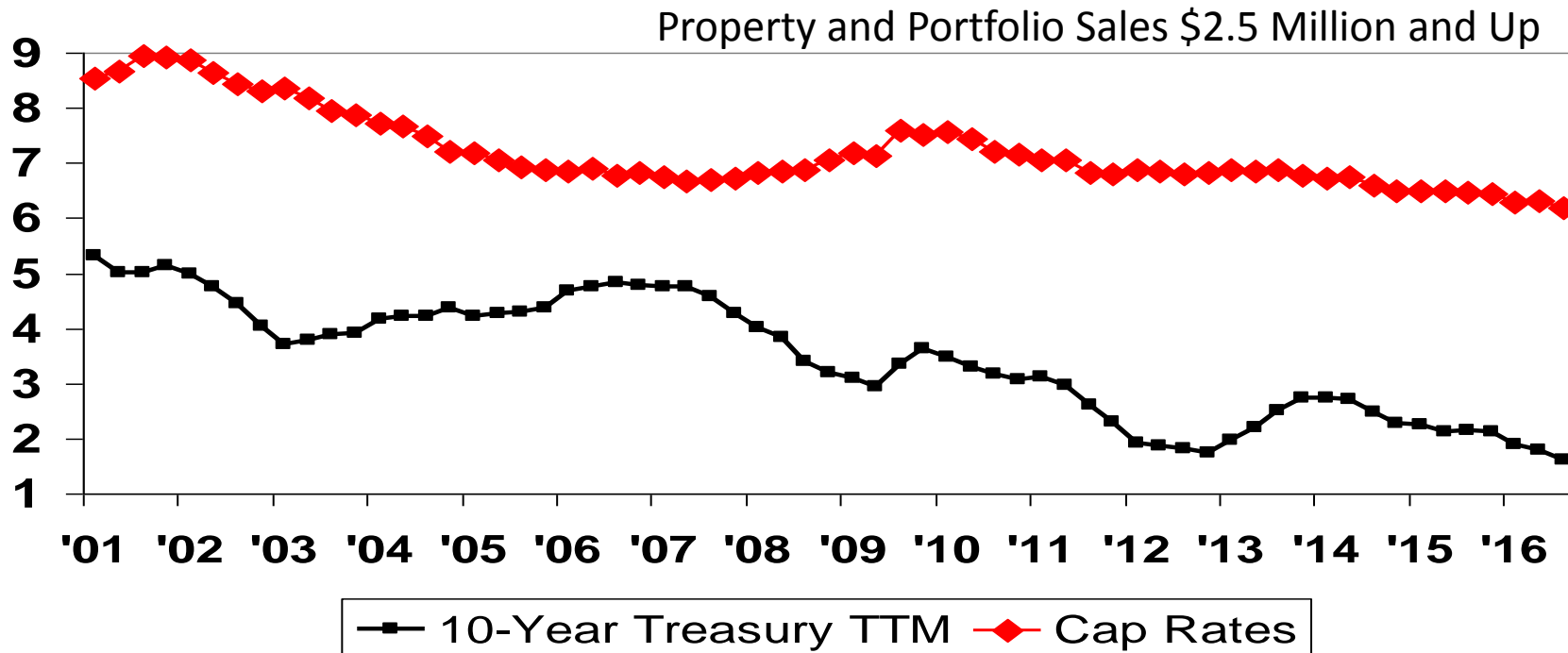


Income Approach to Valuation

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

Commercial Real Estate Cap Rates & 10-Year Treasury

Percent – All Property Types, End of Quarter TTM Treasury Rate



Correlation Coefficients - Cap Rates & T-Bonds

Quarterly Data - Q1 2001 - Q3 2016

Correlation Coefficeints

Pearson's

Product
Moment

Spearman's
Rank

Correlation Coefficient

57.500%

54.400%

P-Value

0.0001%

0.0001%

Probabilty

99.99%

99.99%

Commercial Capitalization Rates & TTM 10 Year T-Bonds

Quarterly - Q1 2001 - Q3 2016

	Capitalization Rate	10-Year Treasury Rate	Spread Basis Points
Average	7.21%	3.46%	375.1
Median	6.88%	3.49%	403.7
Maximum	8.96%	5.32%	509.1
Minimum	6.19%	1.61%	192.6

Source: Real Capital Analytics, Federal Reserve

Commercial Capitalization Rates

Q4 2017

Cap Rate 6.29%

10-Year T-Bond 2.14

415 Basis Point Spread

Currently

12 to 40

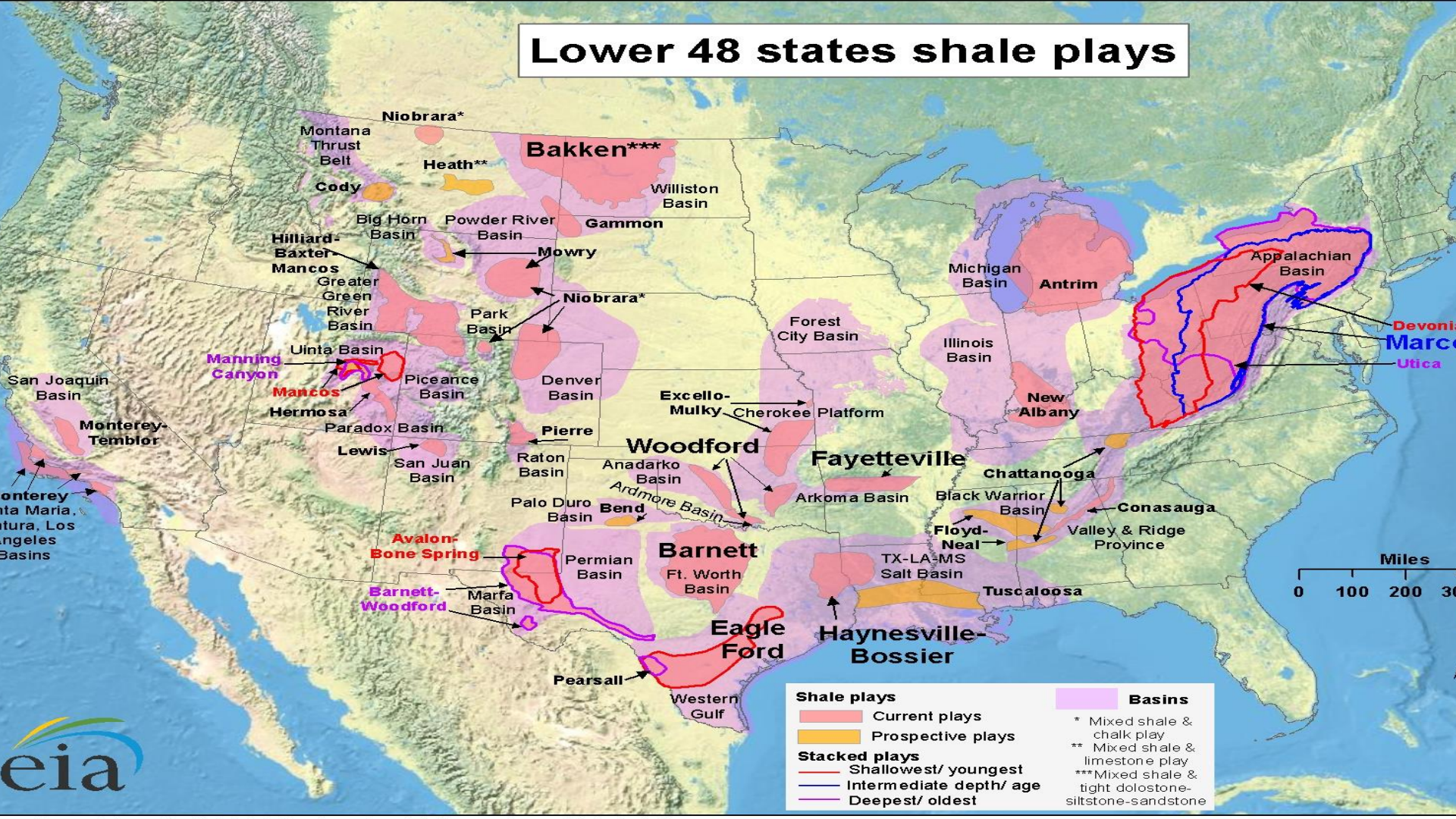
Basis Points

Off Norm

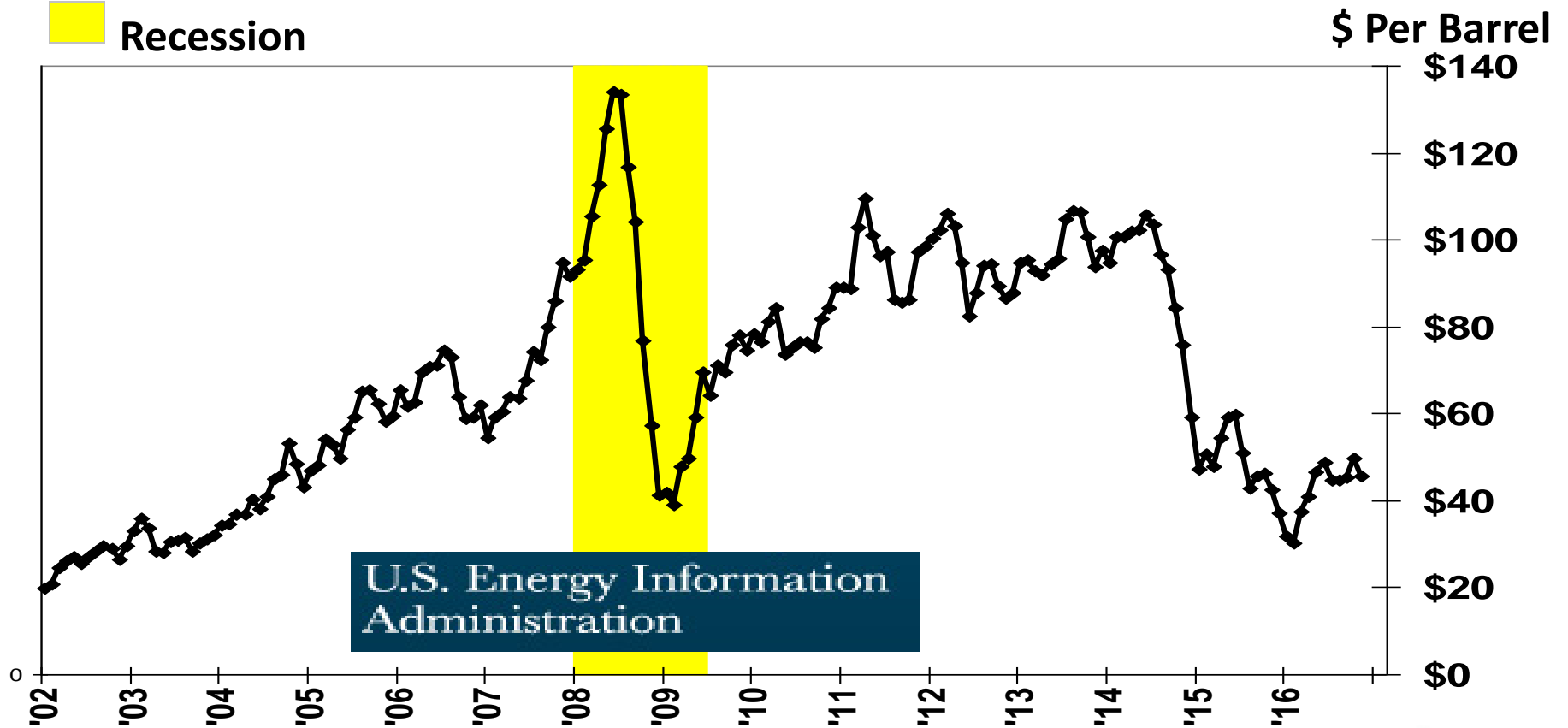
Value Compression - 2.0 to 6.0 Percent

\$60 OIL

Lower 48 states shale plays

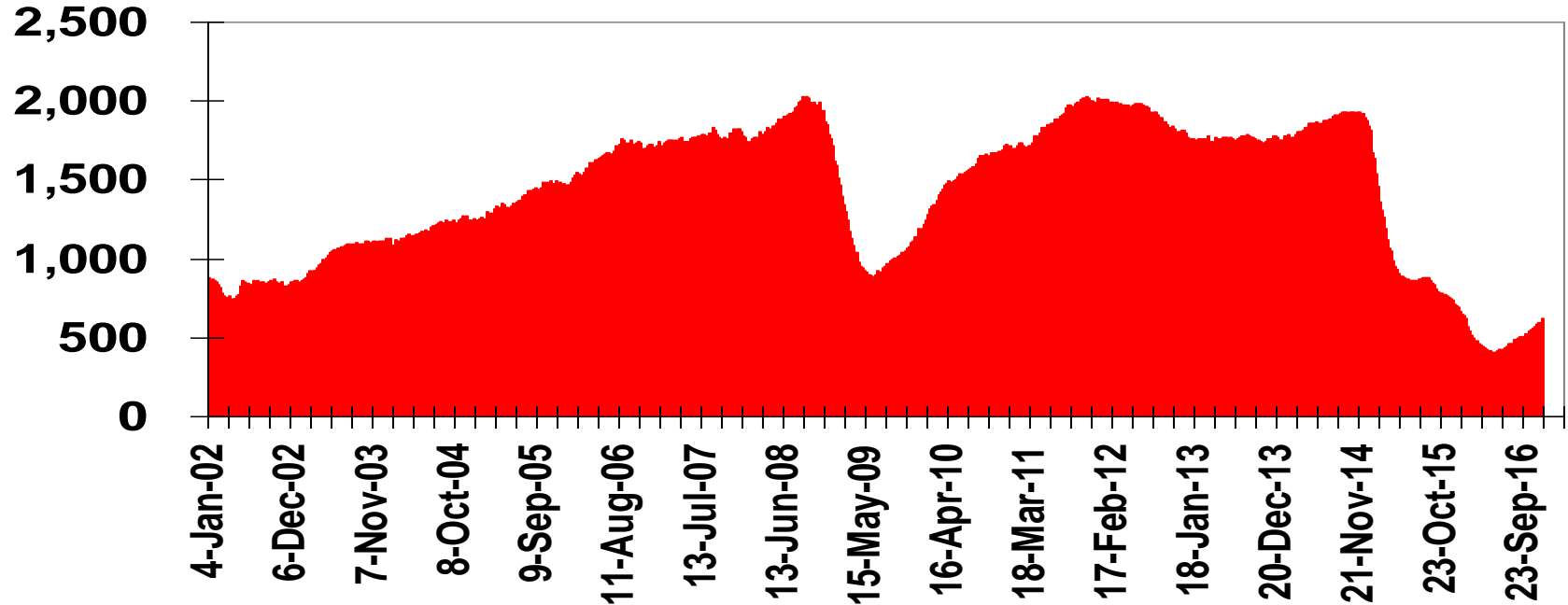


West Texas Intermediate Crude Oil Price



North American Drilling Rig Counts

Number of Operating Rigs



**Oil & Gas
Exploration
Companies
Will Boost Spending
7 Percent
In 2017**

\$550

Savings Per Driver

Vs 2014

2017 Issues, Positives & Concerns

- **Return of ARMS & Second Loans**
- **Faltering High-End Residential Sales**
- **Retracting Commercial Sales**
- **Inflation – UPS +4.9% December 26th**
- **Midwest Land Values**
- **Oil Sub-\$60**
- **.....**

**This is the best oil downturn
Houston may have ever seen.**

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The Outlook for Real Estate and the Economy

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