CAPITAL MARKETS REVIEW

Reviewing the quarter ended June 30, 2017

YANKE FINANCIAL

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Themes this Quarter

- **Economic update**
- Interest rate update/expectations
- Equity market assumptions
- What should investors do?

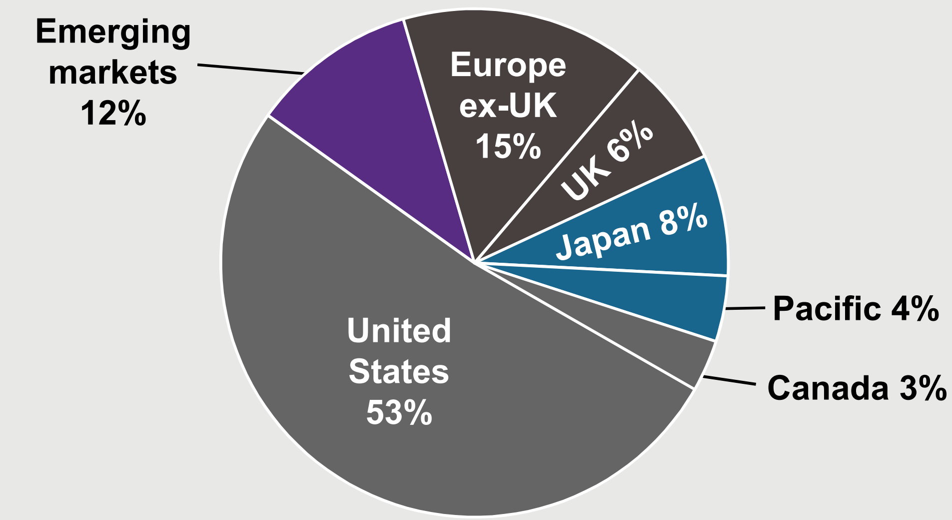
Global equity markets

International

	2017 YTD		2016	
Country / Region	**Local**	**USD**	**Local**	**USD**
Regions / Broad Indexes				
All Country World	9.3	11.8	9.7	8.5
U.S. (S&P 500)	-	9.3	-	12.0
EAFE	7.9	14.2	5.9	1.5
Europe ex-UK	10.0	18.3	3.2	0.3
Pacific ex-Japan	9.2	13.6	8.5	8.0
Emerging markets	15.0	18.6	10.1	11.6
MSCI: Selected Countries				
United Kingdom	4.7	10.0	19.2	0.0
France	9.1	17.9	9.2	6.0
Germany	7.3	16.0	6.6	3.5
Japan	6.1	10.1	-0.4	2.7
China	25.6	25.0	1.2	1.1
India	14.8	20.5	1.1	-1.4
Brazil	5.0	3.1	37.2	66.7
Russia	-16.0	-14.0	35.1	55.9

Weights in MSCI All Country World Index

% global market capitalization, float adjusted



Global equity market correlations

Rolling 1-year correlations, 30 countries

Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.
All return values are MSCI Gross Index (official) data. Chart is for illustrative purposes only. Past performance is not indicative of future results. Please see disclosure page for index definitions. Countries included in global correlations include Argentina, South Africa, Japan, UK, Canada, France, Germany, Italy, Australia, Austria, Brazil, China, Colombia, Denmark, Finland, Hong Kong, India, Malaysia, Mexico, Netherlands, New Zealand, Peru, Philippines, Portugal, Korea, Spain, Taiwan, Thailand, Turkey, United States.
Guide to the Markets – U.S. Data are as of June 30, 2017.

J.P.Morgan Asset Management

Asset class returns

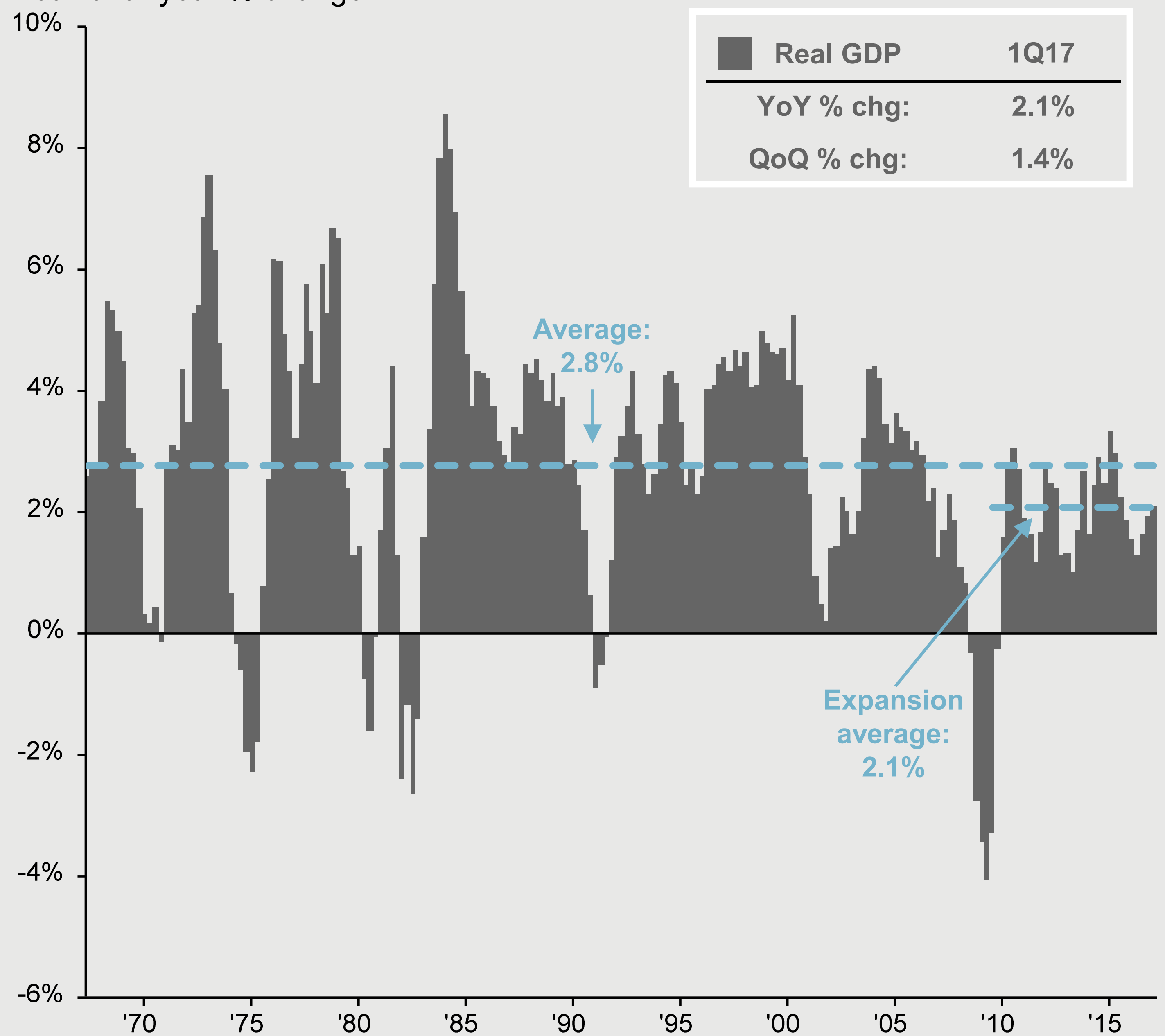
2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	YTD	2002 - 2016 Ann.	2002 - 2016 Vol.
Comdty. 25.9%	EM Equity 56.3%	REITs 31.6%	EM Equity 34.5%	REITs 35.1%	EM Equity 39.8%	Fixed Income 5.2%	EM Equity 79.0%	REITs 27.9%	REITs 8.3%	REITs 19.7%	Small Cap 38.8%	REITs 28.0%	REITs 2.8%	Small Cap 21.3%	EM Equity 18.6%	REITs 10.8%	EM Equity 23.8%
Fixed Income 10.3%	Small Cap 47.3%	EM Equity 26.0%	Comdty. 21.4%	EM Equity 32.6%	Comdty. 16.2%	Cash 1.8%	High Yield 59.4%	Small Cap 26.9%	Fixed Income 7.8%	High Yield 19.6%	Large Cap 32.4%	Large Cap 13.7%	Large Cap 1.4%	High Yield 14.3%	DM Equity 14.2%	EM Equity 9.8%	REITs 22.6%
High Yield 4.1%	DM Equity 39.2%	DM Equity 20.7%	DM Equity 14.0%	DM Equity 26.9%	DM Equity 11.6%	Asset Alloc. -25.4%	DM Equity 32.5%	EM Equity 19.2%	High Yield 3.1%	EM Equity 18.6%	DM Equity 23.3%	Fixed Income 6.0%	Fixed Income 0.5%	Large Cap 12.0%	Large Cap 9.3%	High Yield 9.2%	Small Cap 20.1%
REITs 3.8%	REITs 37.1%	Small Cap 18.3%	REITs 12.2%	Small Cap 18.4%	Asset Alloc. 7.1%	High Yield -26.9%	REITs 28.0%	Comdty. 16.8%	Large Cap 2.1%	DM Equity 17.9%	Asset Alloc. 14.9%	Asset Alloc. 5.2%	Cash 0.0%	Comdty. 11.8%	Asset Alloc. 6.8%	Small Cap 8.5%	DM Equity 19.2%
Cash 1.7%	High Yield 32.4%	High Yield 13.2%	Asset Alloc. 8.1%	Large Cap 15.8%	Fixed Income 7.0%	Small Cap -33.8%	Small Cap 27.2%	Large Cap 15.1%	Cash 0.1%	Small Cap 16.3%	High Yield 7.3%	Small Cap 4.9%	DM Equity -0.4%	EM Equity 11.6%	High Yield 6.5%	Asset Alloc. 6.9%	Comdty. 19.0%
Asset Alloc. -5.9%	Large Cap 28.7%	Asset Alloc. 12.8%	Large Cap 4.9%	Asset Alloc. 15.3%	Large Cap 5.5%	Comdty. -35.6%	Large Cap 26.5%	High Yield 14.8%	Asset Alloc. -0.7%	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Alloc. -2.0%	REITs 8.6%	Small Cap 5.0%	Large Cap 6.7%	Large Cap 15.9%
EM Equity -6.0%	Asset Alloc. 26.3%	Large Cap 10.9%	Small Cap 4.6%	High Yield 13.7%	Cash 4.8%	Large Cap -37.0%	Asset Alloc. 25.0%	Asset Alloc. 13.3%	Small Cap -4.2%	Asset Alloc. 12.2%	Cash 0.0%	High Yield 0.0%	High Yield -2.7%	Asset Alloc. 8.3%	REITs 4.9%	DM Equity 5.7%	High Yield 11.7%
DM Equity -15.7%	Comdty. 23.9%	Comdty. 9.1%	High Yield 3.6%	Cash 4.8%	High Yield 3.2%	REITs -37.7%	Comdty. 18.9%	DM Equity 8.2%	DM Equity -11.7%	Fixed Income 4.2%	Fixed Income -2.0%	EM Equity -1.8%	Small Cap -4.4%	Fixed Income 2.6%	Fixed Income 2.3%	Fixed Income 4.6%	Asset Alloc. 11.0%
Small Cap -20.5%	Fixed Income 4.1%	Fixed Income 4.3%	Cash 3.0%	Fixed Income 4.3%	Small Cap -1.6%	DM Equity -43.1%	Fixed Income 5.9%	Fixed Income 6.5%	Comdty. -13.3%	Cash 0.1%	EM Equity -2.3%	DM Equity -4.5%	EM Equity -14.6%	DM Equity 1.5%	Cash 0.3%	Cash 1.3%	Fixed Income 3.5%
Large Cap -22.1%	Cash 1.0%	Cash 1.2%	Fixed Income 2.4%	Comdty. 2.1%	REITs -15.7%	EM Equity -53.2%	Cash 0.1%	Cash 0.1%	EM Equity -18.2%	Comdty. -1.1%	Comdty. -9.5%	Comdty. -17.0%	Comdty. -24.7%	Cash 0.3%	Comdty. -5.3%	Comdty. 1.2%	Cash 0.8%

Source: Barclays, Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.
Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Barclays Global HY Index, Fixed Income: Barclays US Aggregate, REITs: NAREIT Equity REIT Index. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Barclays US Aggregate, 5% in the Barclays 1-3m Treasury, 5% in the Barclays Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period of 12/31/01 – 12/31/16. Please see disclosure page at end for index definitions. All data represents total return for stated period. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Economic growth and the composition of GDP

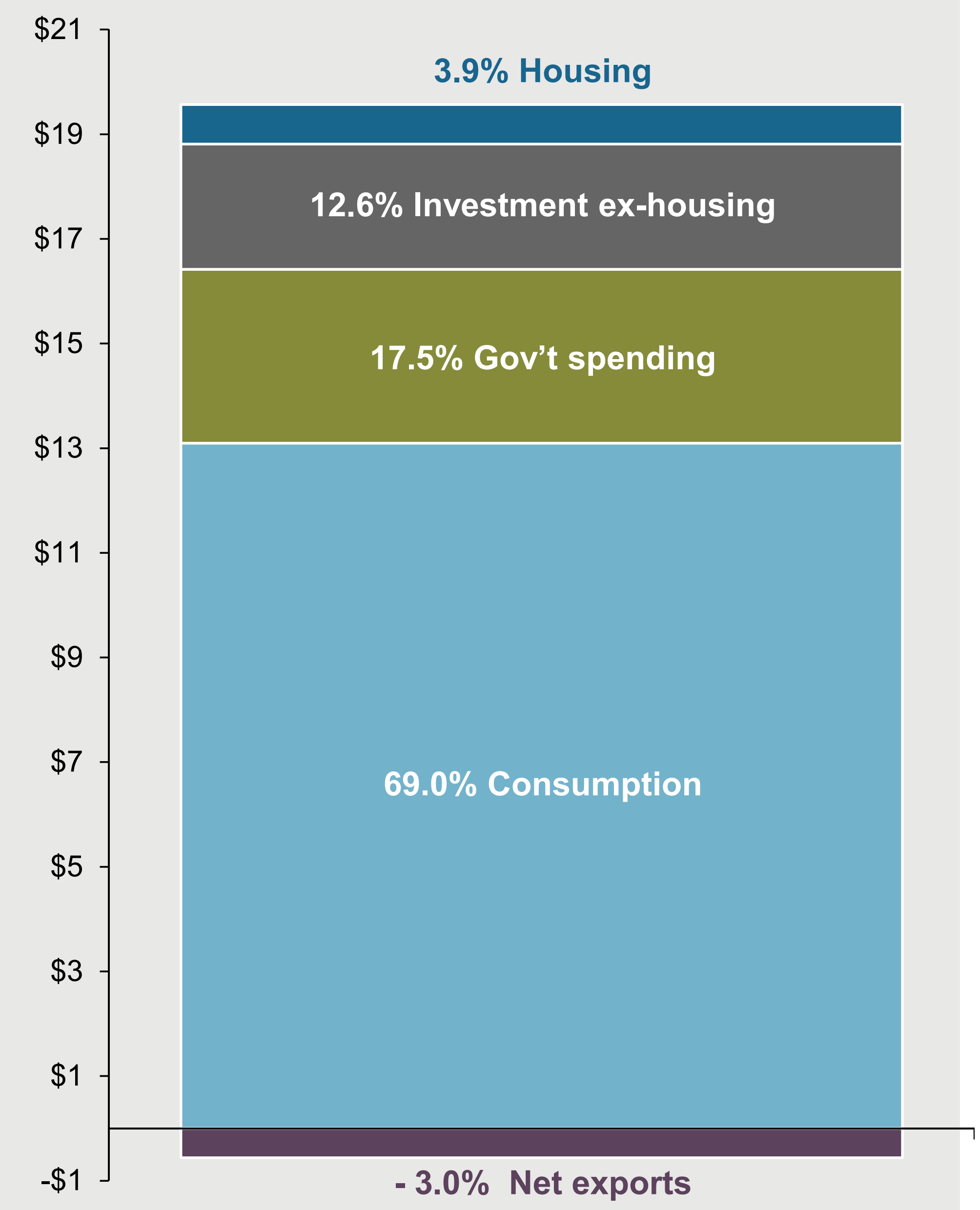
Real GDP

Year-over-year % change



Components of GDP

1Q17 nominal GDP, USD trillions

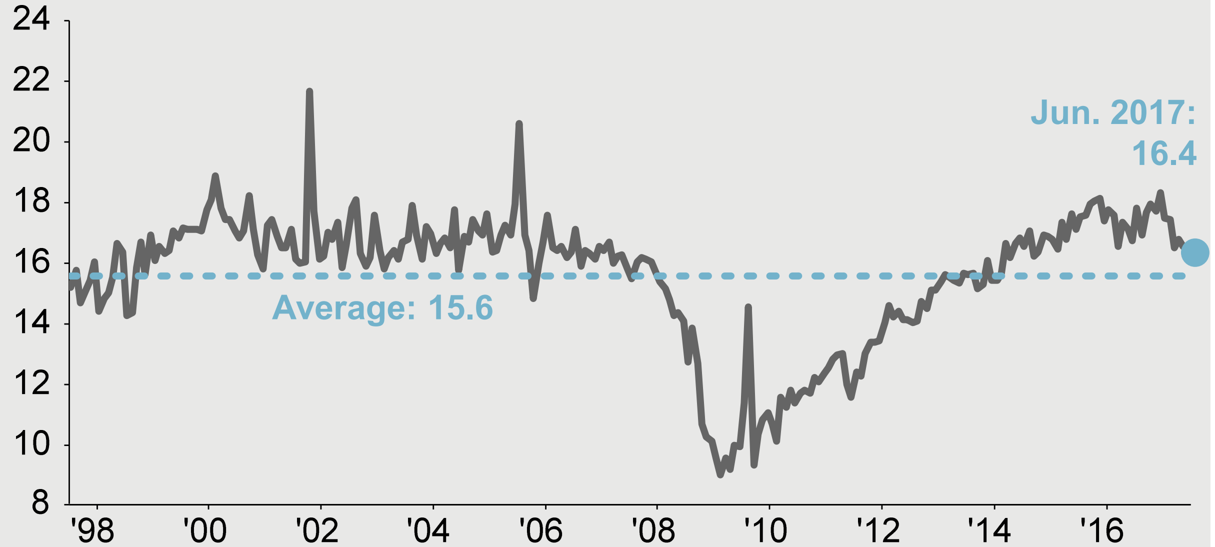


Source: BEA, FactSet, J.P. Morgan Asset Management.
Values may not sum to 100% due to rounding. Quarter-over-quarter percent changes are at an annualized rate. Average represents the annualized growth rate for the full period. Expansion average refers to the period starting in the second quarter of 2009.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Cyclical sectors

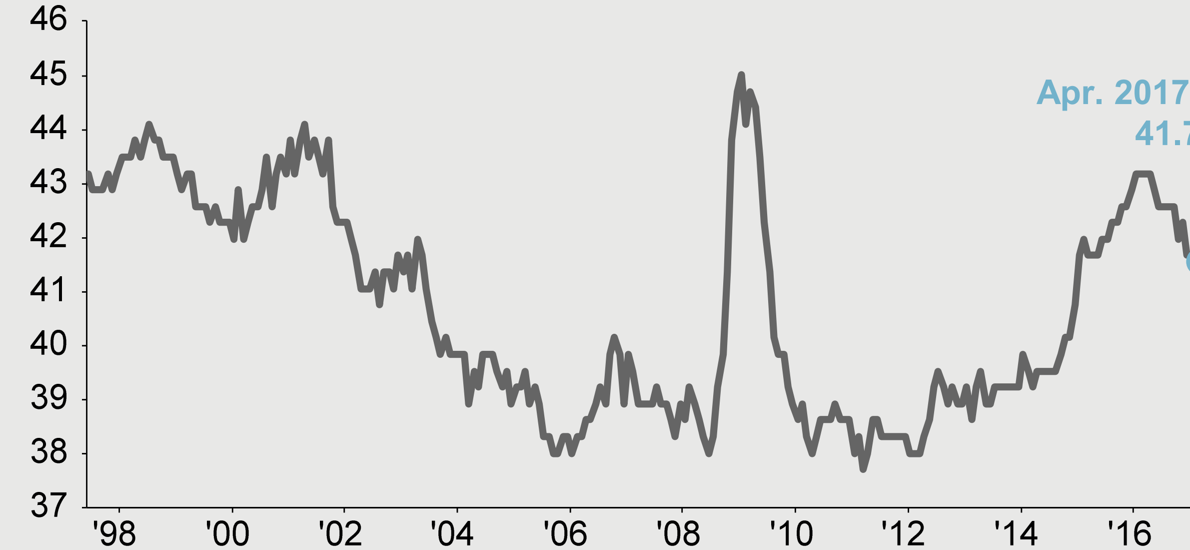
Light vehicle sales

Millions, seasonally adjusted annual rate



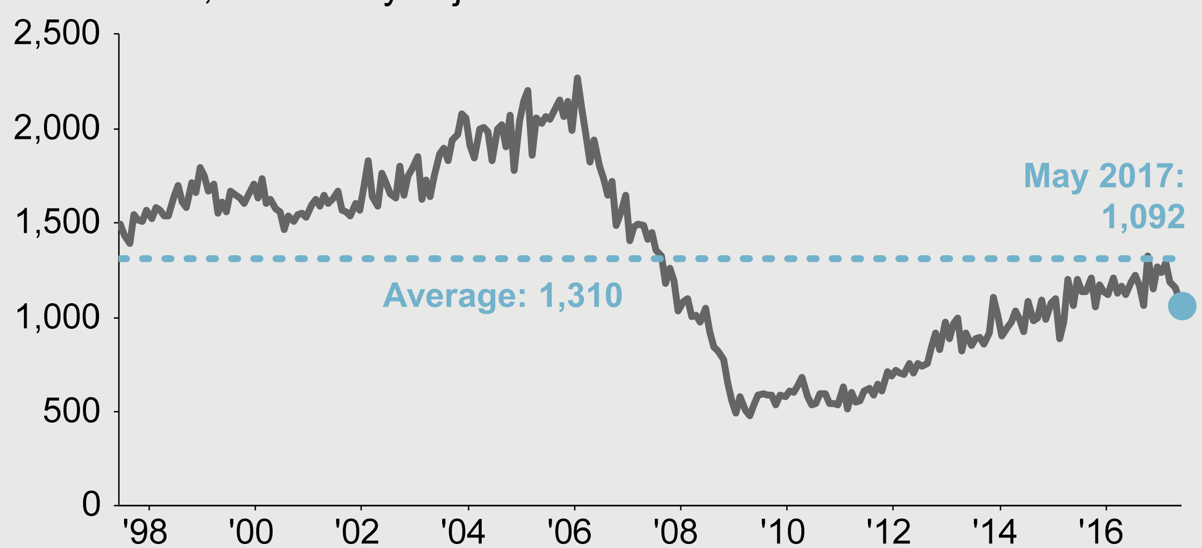
Manufacturing and trade inventories

Days of sales, seasonally adjusted



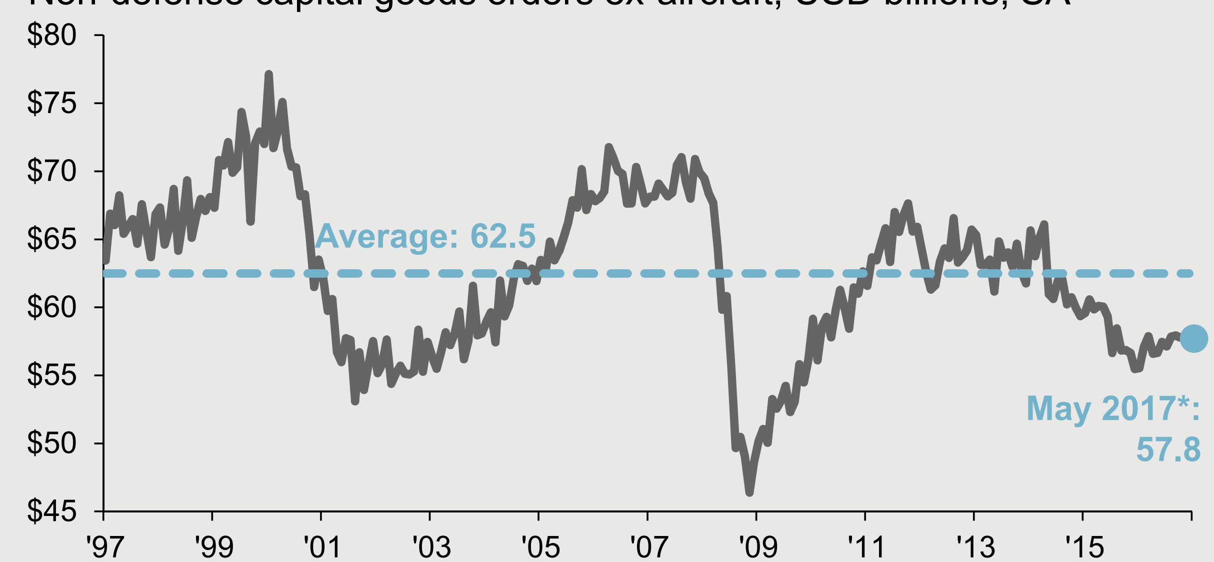
Housing starts

Thousands, seasonally adjusted annual rate



Real capital goods orders

Non-defense capital goods orders ex-aircraft, USD billions, SA

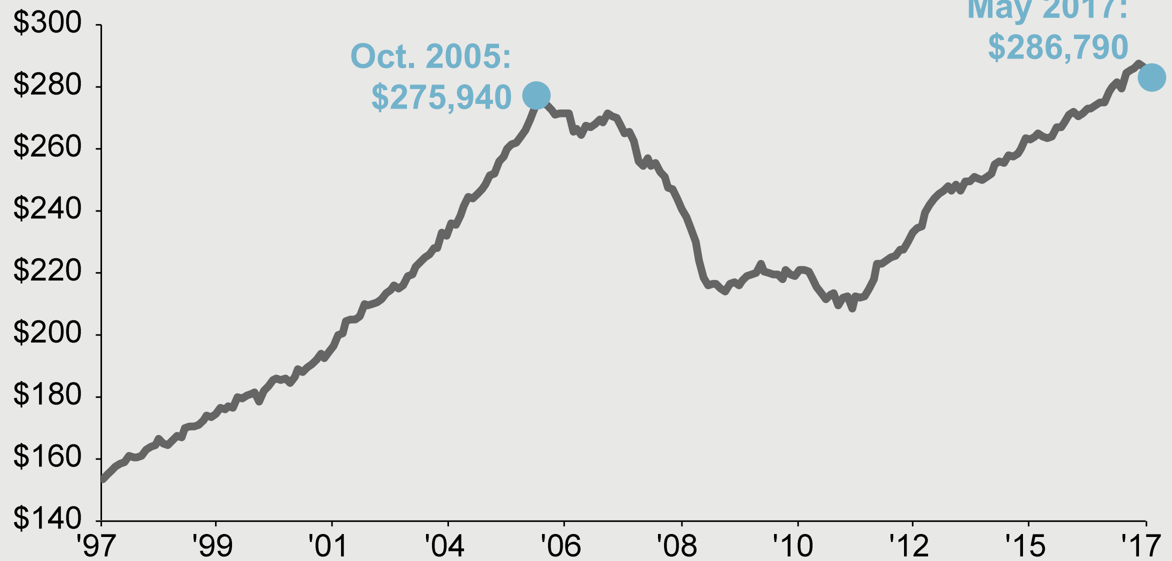


Source: J.P. Morgan Asset Management; (Top left) BEA; (Top and bottom right, bottom left) Census Bureau, FactSet.
Capital goods orders deflated using the producer price index for capital goods with a base year of 2009. *May figure is based on May 2017 Advance Report.
SA – seasonally adjusted.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Residential real estate

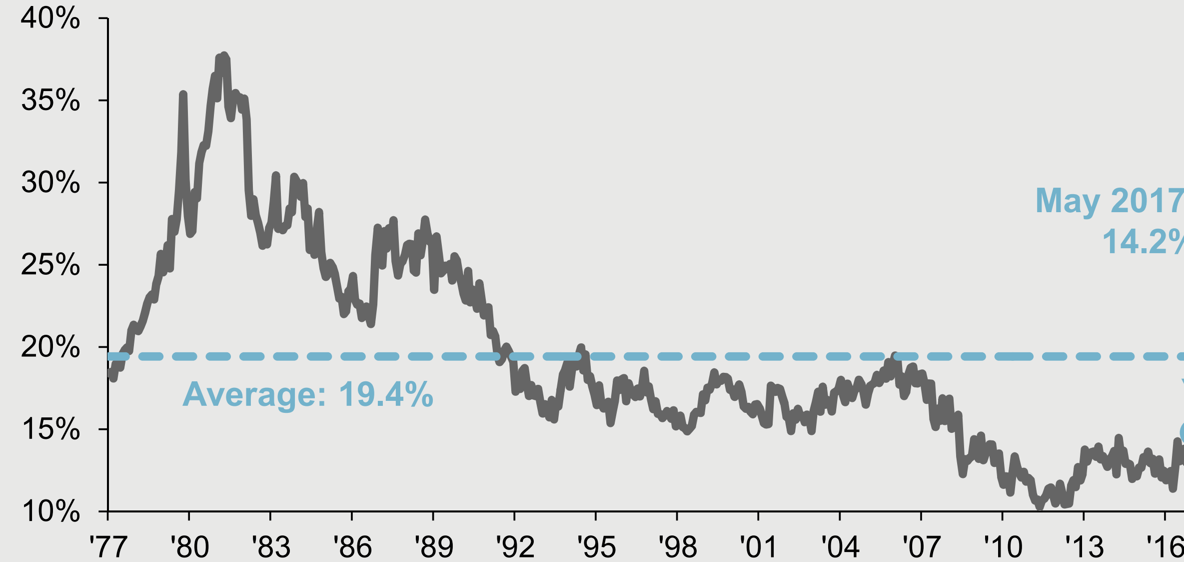
Average price for an existing single family home

Thousands USD, seasonally adjusted



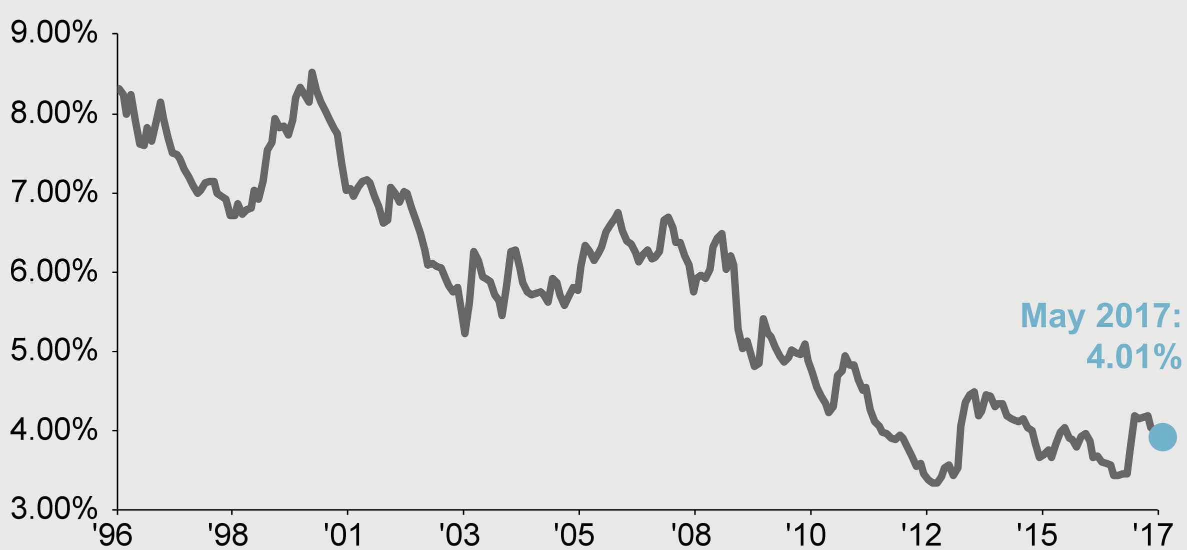
Housing Affordability Index

Avg. mortgage payment as a % of household income



Average interest rate on a U.S. mortgage

30-year fixed-rate mortgage



Lending standards for approved mortgage loans

Average FICO score based on origination date

Source: J.P. Morgan Asset Management; (Top left, bottom left and top right) FactSet; (Top left and top right) National Association of Realtors; (Bottom left) Freddie Mac; (Top right) BEA, Census Bureau; (Bottom right) McDash, J.P. Morgan Securitized Product Research.
Monthly mortgage payment assumes the prevailing 30-year fixed-rate mortgage rates and average new home prices excluding a 20% down payment.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Oil markets

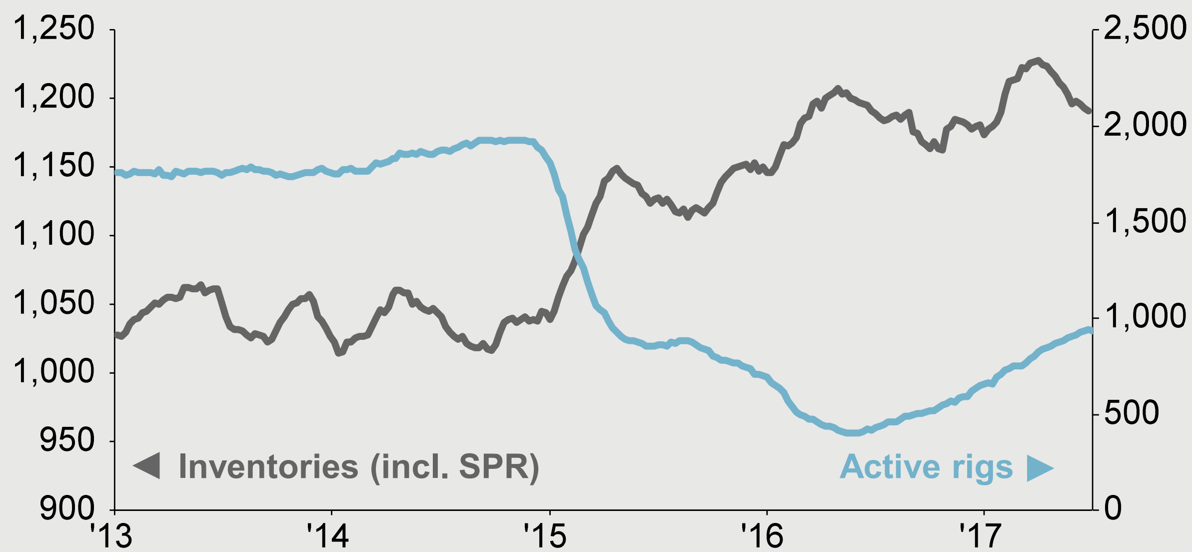
Change in production and consumption of liquid fuels

Production, consumption and inventories, millions of barrels per day

	2014	2015	2016	2017*	2018*	Growth since 2014
Production						
U.S.	14.1	15.1	14.8	15.6	16.7	18.1%
OPEC	36.6	38.0	39.0	39.2	39.9	8.8%
Global	**93.8**	**96.7**	**97.2**	**98.3**	**100.2**	**6.8%**
Consumption						
U.S.	19.1	19.5	19.6	20.0	20.3	6.0%
China	11.5	12.0	12.4	12.8	13.1	14.2%
Global	**93.6**	**95.4**	**96.9**	**98.5**	**100.1**	**6.9%**
Inventory Change	0.2	1.3	0.3	-0.2	0.1	

U.S. crude oil inventories and rig count**

Million barrels, number of active rigs



Price of oil

Brent crude, nominal prices, USD/barrel

Source: J.P. Morgan Asset Management; (Top and bottom left) EIA; (Right) FactSet; (Bottom left) Baker Hughes.
*Forecasts are from the June 2017 EIA Short-Term Energy Outlook and start in 2017.
**U.S. crude oil inventories include the Strategic Petroleum Reserve (SPR). Active rig count includes both natural gas and oil rigs.
Brent crude prices are monthly averages in USD using global spot ICE prices.
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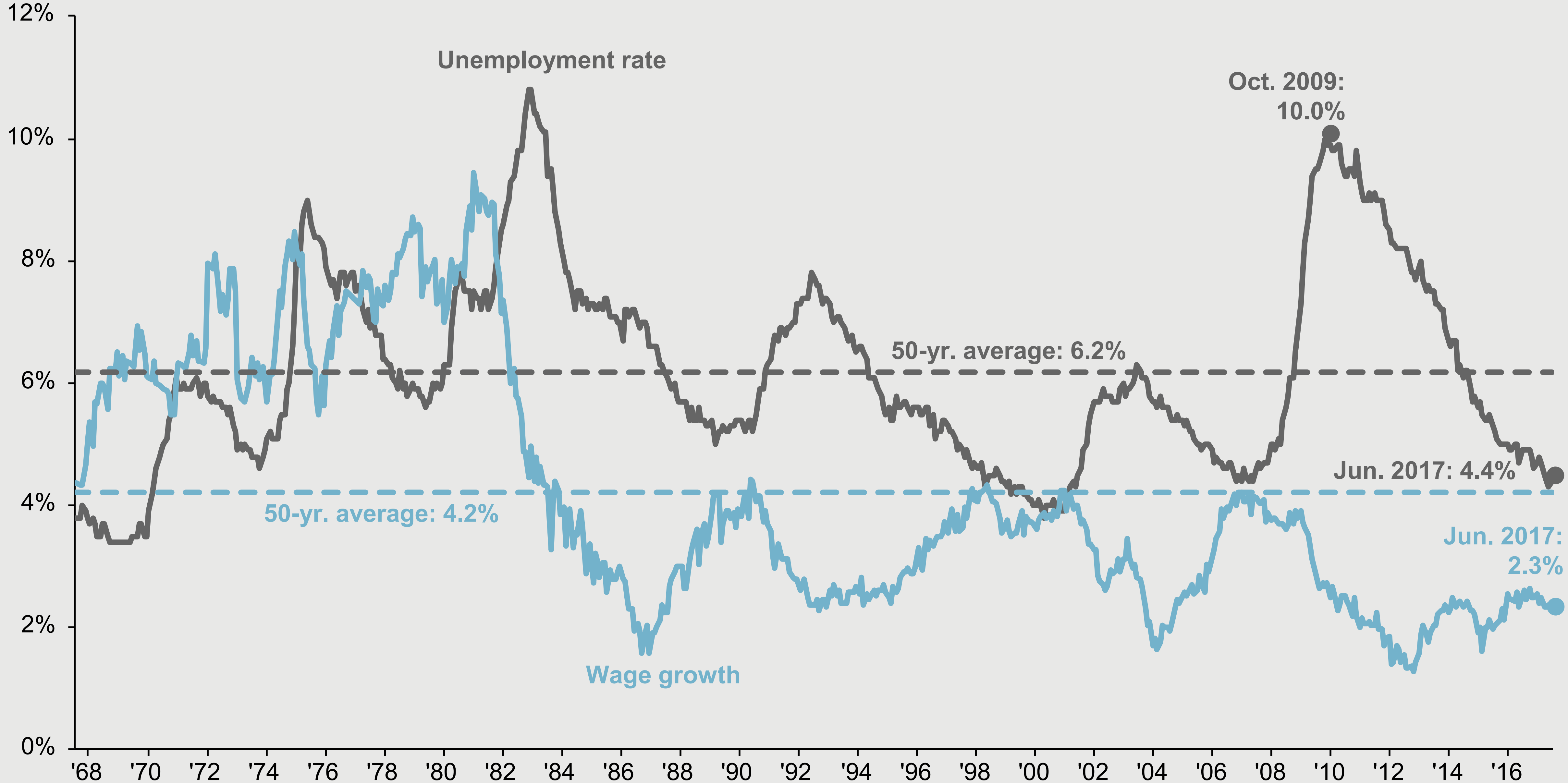
Unemployment and wages

Economy

Civilian unemployment rate and year-over-year growth in wages of production and non-supervisory workers
Seasonally adjusted, percent

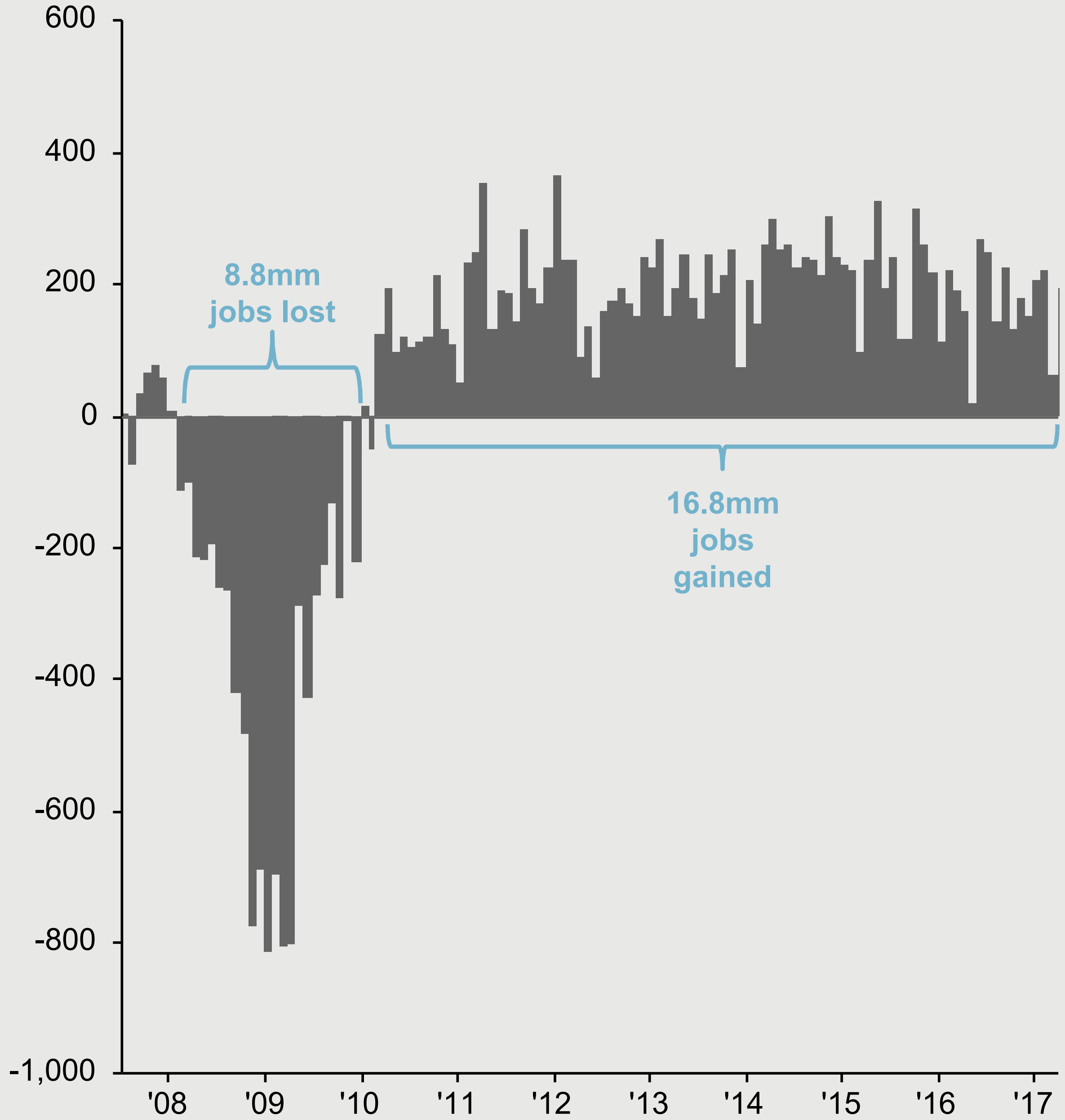


Source: BLS, FactSet, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Labor market perspectives

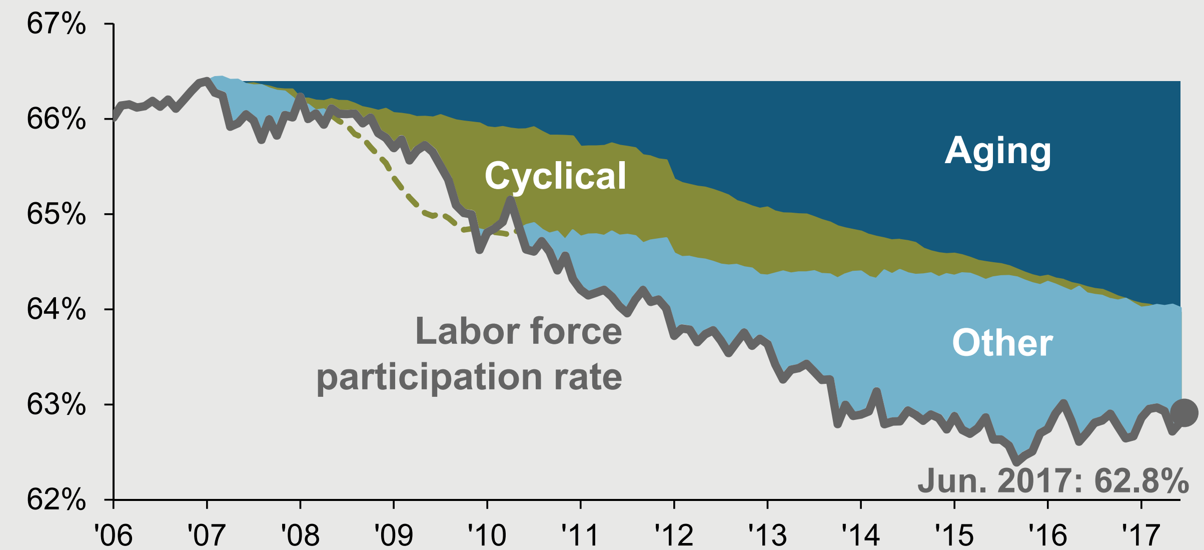
Employment – Total private payroll

Total job gain/loss, thousands



Labor force participation rate decline since 2007 peak*

Population employed or looking for work as a % of total, ages 16+



Net job creation since February 2010

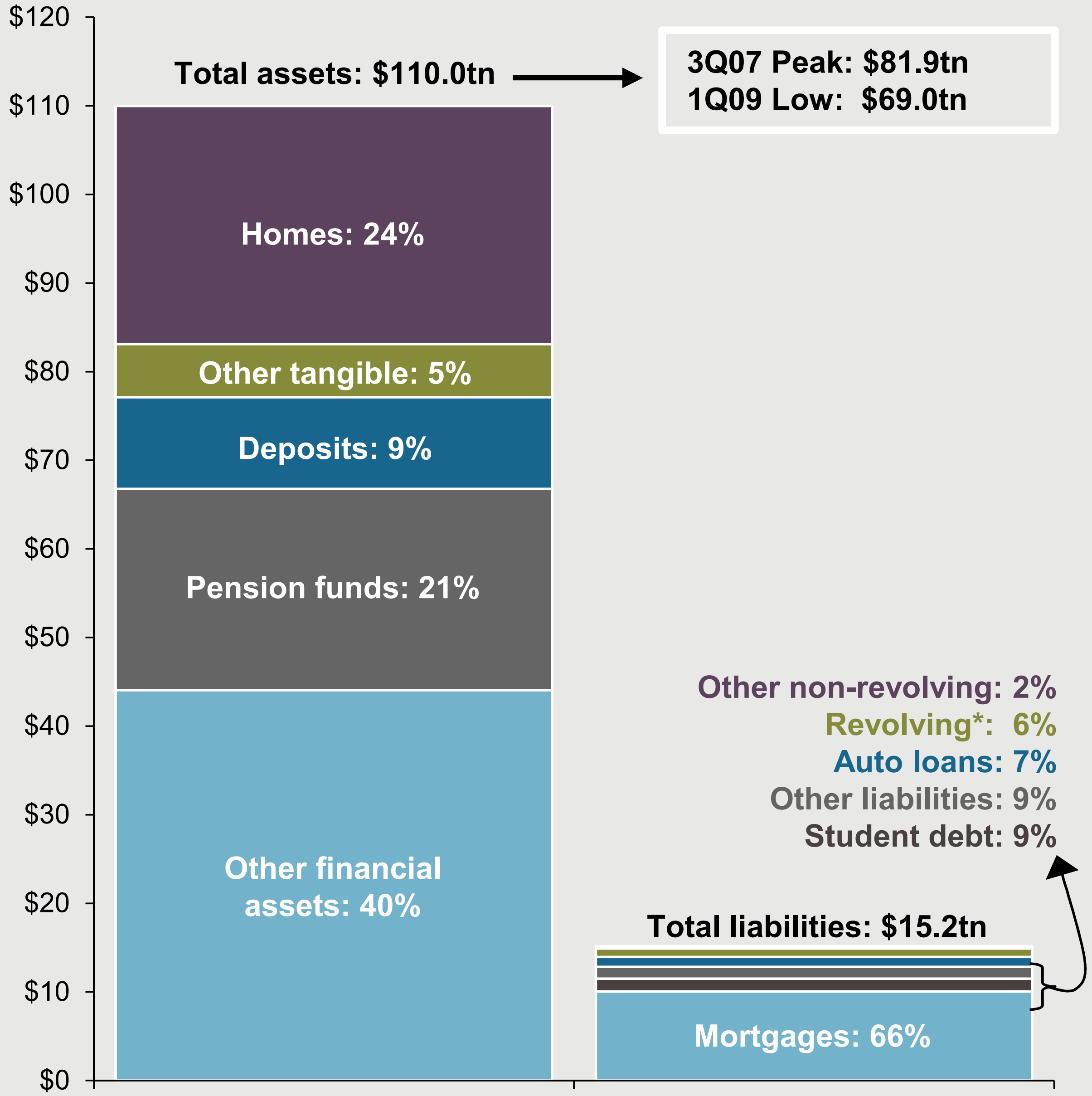
Millions of jobs

Source: BLS, FactSet, J.P. Morgan Asset Management. (Bottom right) Info. fin. & bus. svcs. = Information, financial activities and professional and business services; Mfg. trade & trans. = Manufacturing, trade, transportation and utilities; Leisure, hospt. & other svcs. = Leisure, hospitality and other services; Educ. & health svcs. = Education & health services; Mining and construct = Natural resources mining & construction; Gov't = Government.
*Aging effect on the labor force participation rate is the estimated number of people who are no longer employed or looking for work because they are retired. Cyclical effect is the estimated number of people who lose their jobs and stop looking for work or do not look for work because of the economic conditions. Other represents the drop in labor force participation from the prior expansion peak that cannot be explained by age or cyclical effects. Estimates for reason of decline in labor force participation rate are made by J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Consumer finances

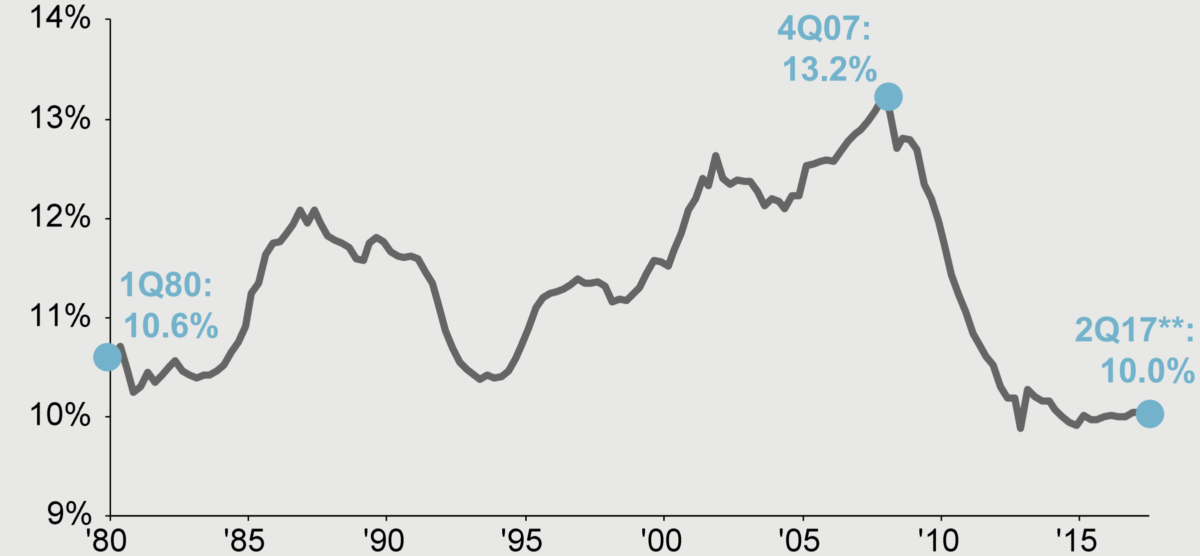
Consumer balance sheet

1Q17, trillions of dollars outstanding, not seasonally adjusted



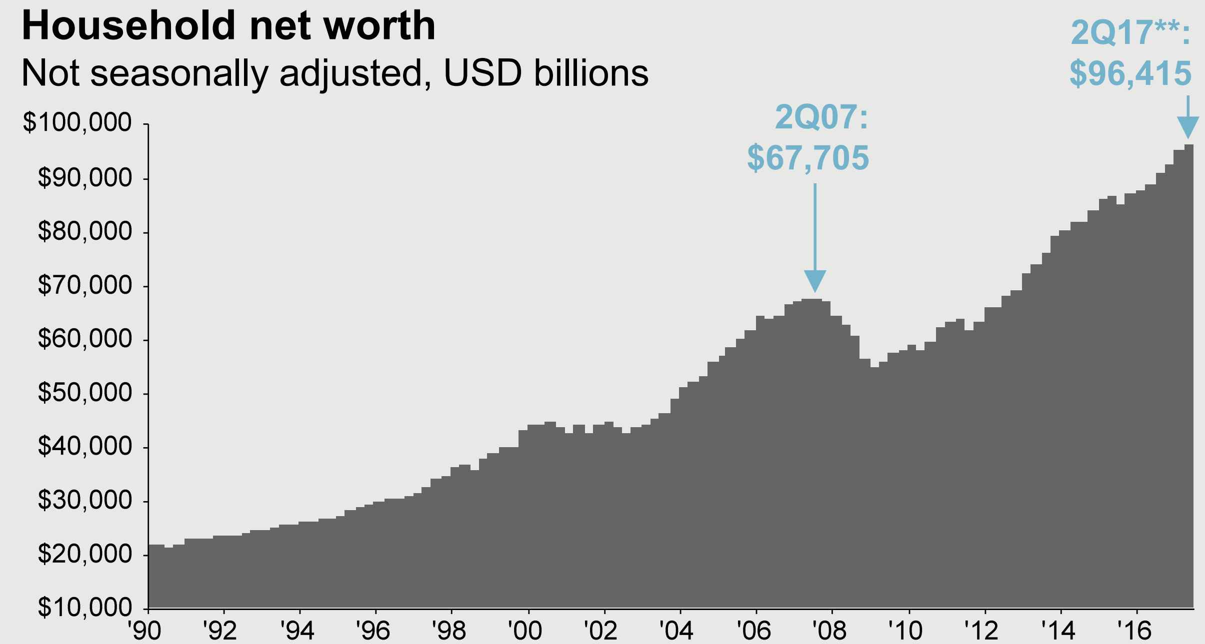
Household debt service ratio

Debt payments as % of disposable personal income, SA



Household net worth

Not seasonally adjusted, USD billions

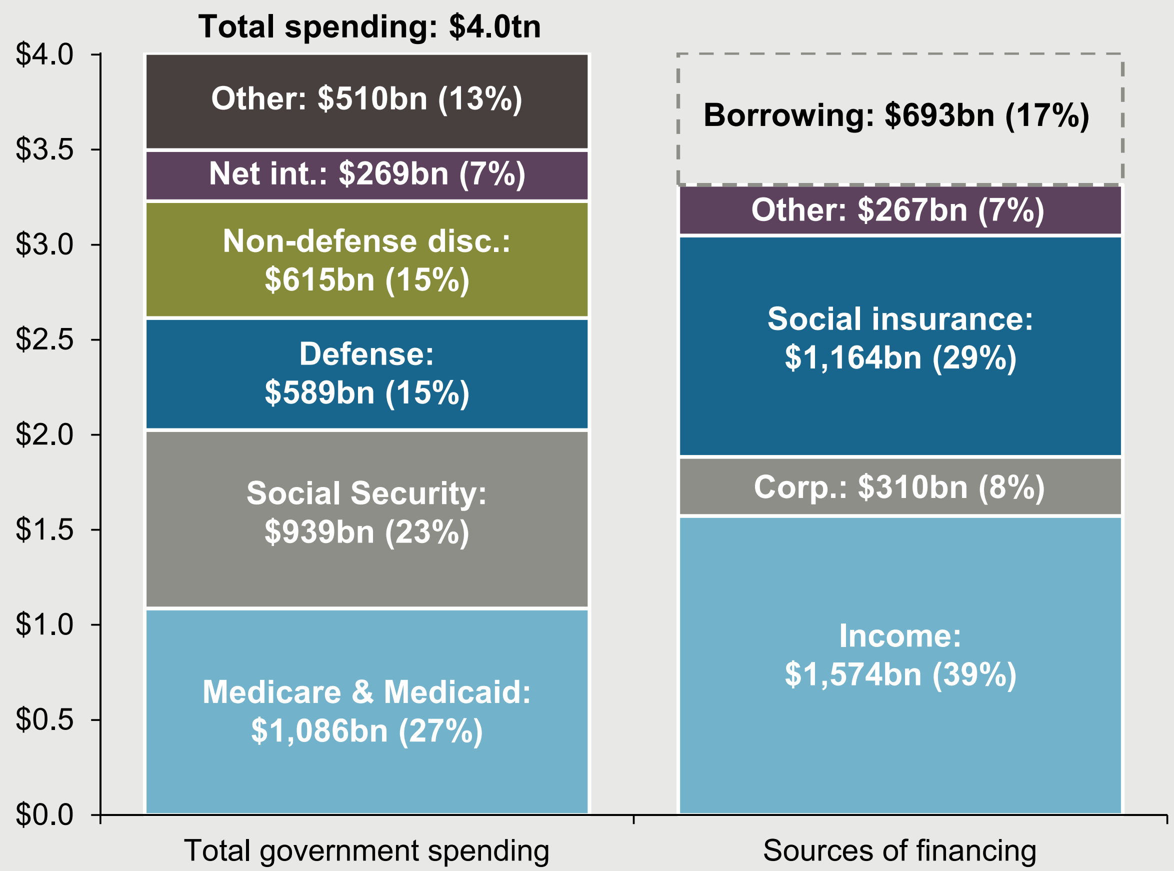


Source: FactSet, FRB, J.P. Morgan Asset Management; (Top and bottom right) BEA.
Data include households and nonprofit organizations. SA – seasonally adjusted.
*Revolving includes credit cards. Values may not sum to 100% due to rounding. **2Q17 figures are J.P. Morgan Asset Management estimates.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Federal finances

The 2017 federal budget

CBO Baseline forecast, USD trillions

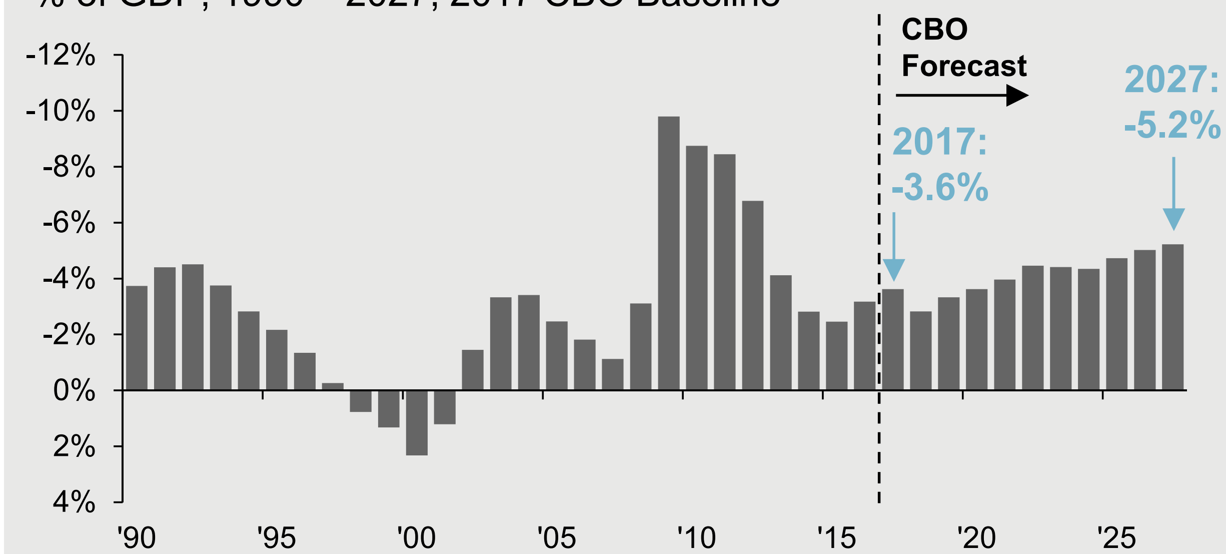


CBO's Baseline assumptions

	2017	'18-'19	'20-'21	'22-'27
Real GDP growth	2.1%	2.0%	1.5%	1.9%
10-year Treasury	2.3%	2.9%	3.5%	3.7%
Headline inflation (CPI)	2.2%	2.2%	2.4%	2.4%
Unemployment	4.5%	4.2%	4.8%	4.9%

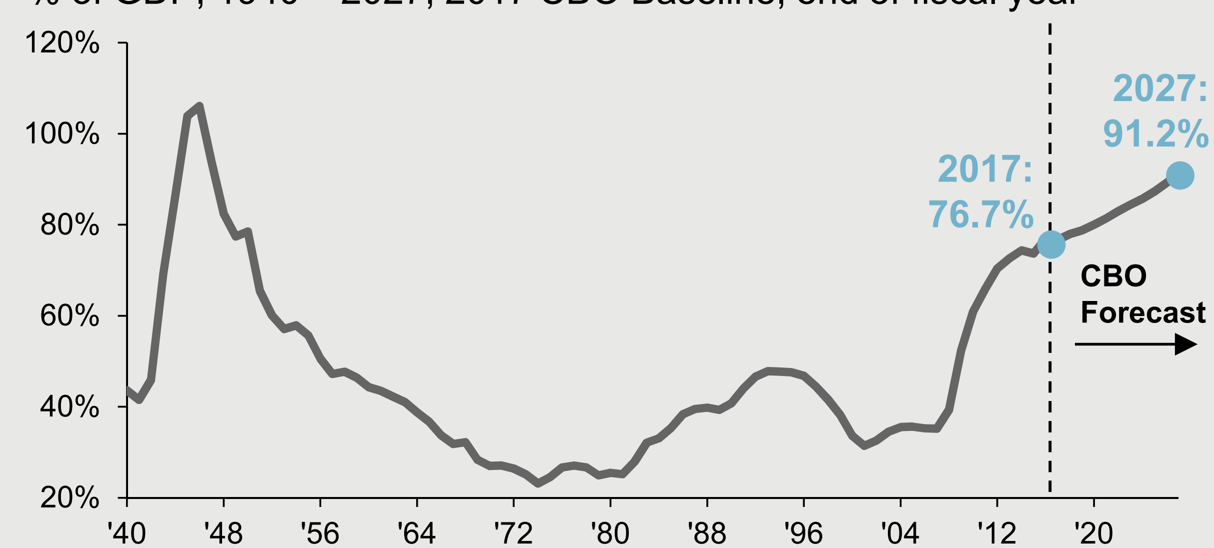
Federal budget surplus/deficit

% of GDP, 1990 – 2027, 2017 CBO Baseline



Federal net debt (accumulated deficits)

% of GDP, 1940 – 2027, 2017 CBO Baseline, end of fiscal year



Source: CBO, J.P. Morgan Asset Management; (Top and bottom right) BEA, Treasury Department.
2017 Federal Budget is based on the Congressional Budget Office (CBO) June 2017 Baseline Budget Forecast. Other spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement.
Note: Years shown are fiscal years (Oct. 1 through Sep. 30).
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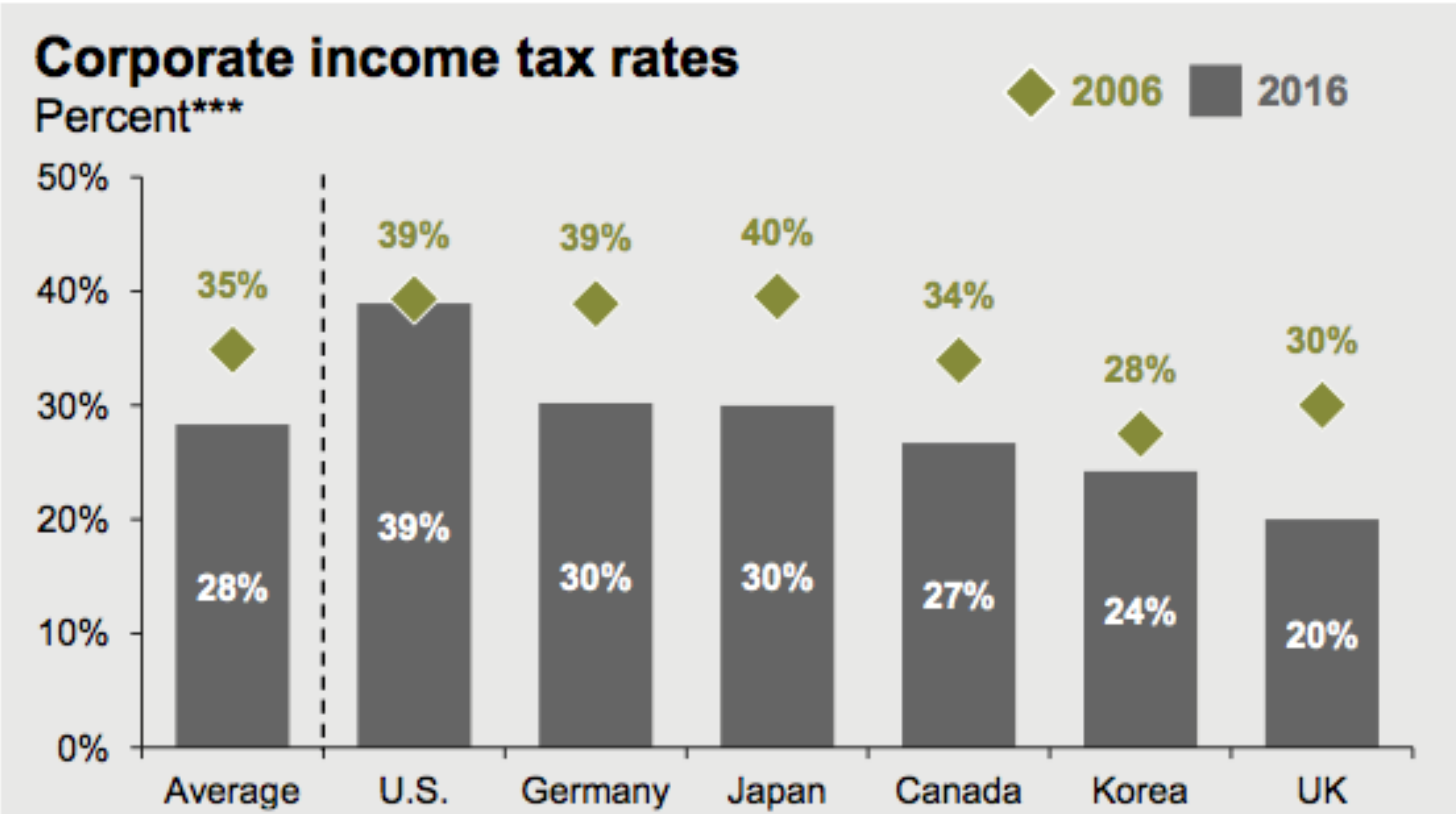

Corporate income tax rates
Percent***
2006
2016
50%
40%
30%
20%
10%
0%
35%
39%
39%
40%
34%
28%
30%
28%
39%
30%
30%
27%
24%
20%
Average
U.S.
Germany
Japan
Canada
Korea
UK

U.S. EQUITIES: THE TRUMP EFFECT?

TAX REFORM AND OVERSEAS CASH

ESTIMATED
$2.4 TRILLION IN CASH
HELD BY U.S. COMPANIES OVERSEAS

CASH BROUGHT BACK HOME
COULD POTENTIALLY IMPROVE
S&P 500

S&P 500'S EARNINGS
1 - 2.5%

S&P 500
OVER
15%
SINCE DONALD TRUMP'S SURPRISE ELECTION WIN

> "Until the stock market begins to worry, investors are probably best served by not trying to outsmart Mr. Market. While President Trump may be a wild card, don't let politics get in the way of your portfolio."

RAYMOND JAMES ESTIMATES

REDUCTION IN THE CORPORATE TAX RATE TO
25%

COULD POTENTIALLY IMPROVE 2017 EARNINGS BY **3%**
S&P 500

REDUCTION IN THE CORPORATE TAX RATE TO
20%

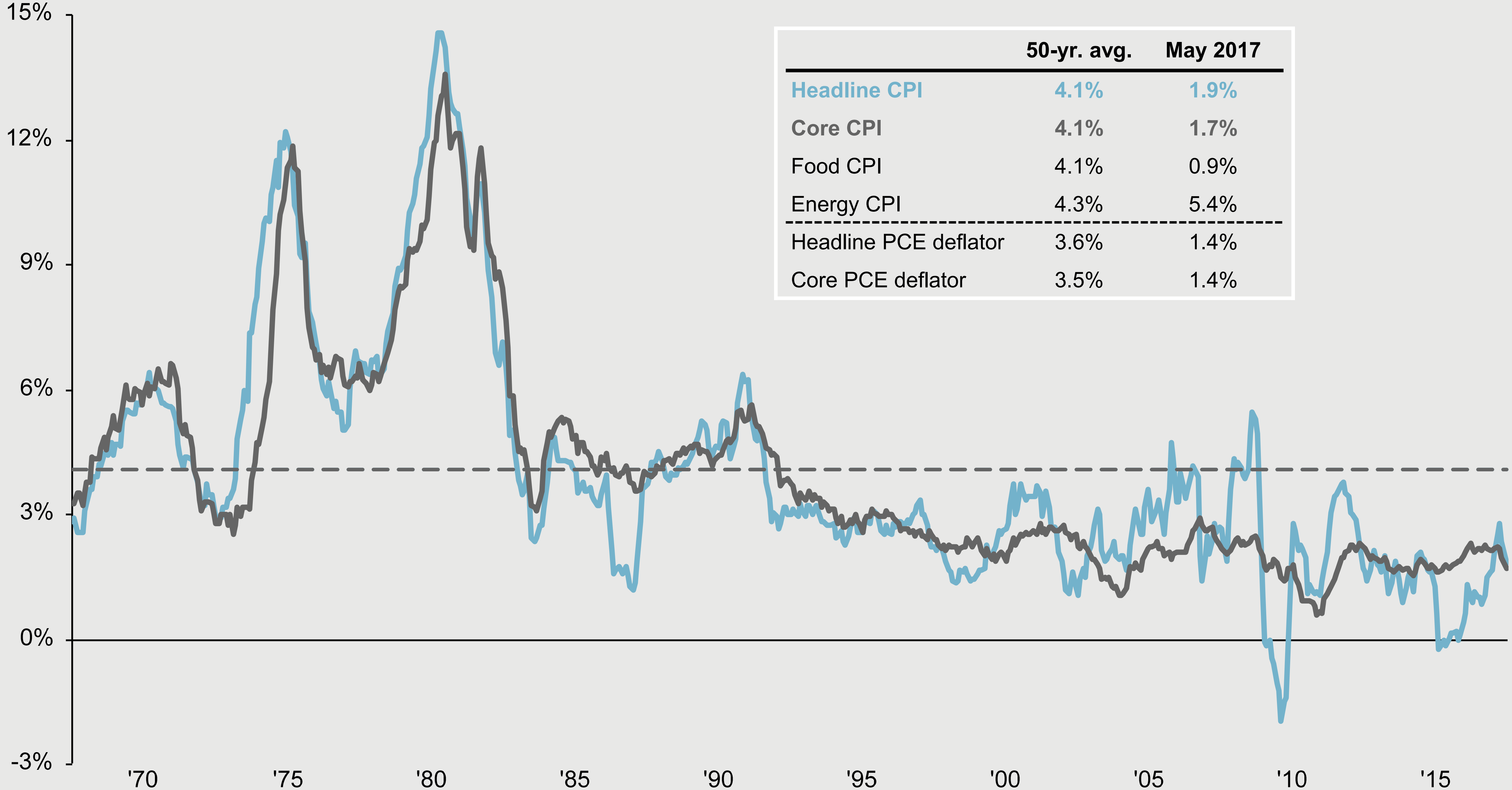
COULD POTENTIALLY IMPROVE 2017 EARNINGS BY **6-7%**
S&P 500

 For full theme articles, ask for a copy of the *April 2017 Investment Strategy Quarterly*.

Economy

CPI and core CPI

% change vs. prior year, seasonally adjusted



	50-yr. avg.	May 2017
Headline CPI	4.1%	1.9%
Core CPI	4.1%	1.7%
Food CPI	4.1%	0.9%
Energy CPI	4.3%	5.4%
Headline PCE deflator	3.6%	1.4%
Core PCE deflator	3.5%	1.4%

Source: BLS, FactSet, J.P. Morgan Asset Management.
CPI used is CPI-U and values shown are % change vs. one year ago. Core CPI is defined as CPI excluding food and energy prices. The Personal Consumption Expenditure (PCE) deflator employs an evolving chain-weighted basket of consumer expenditures instead of the fixed-weight basket used in CPI calculations.
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Returns in different inflation environments – 43 years

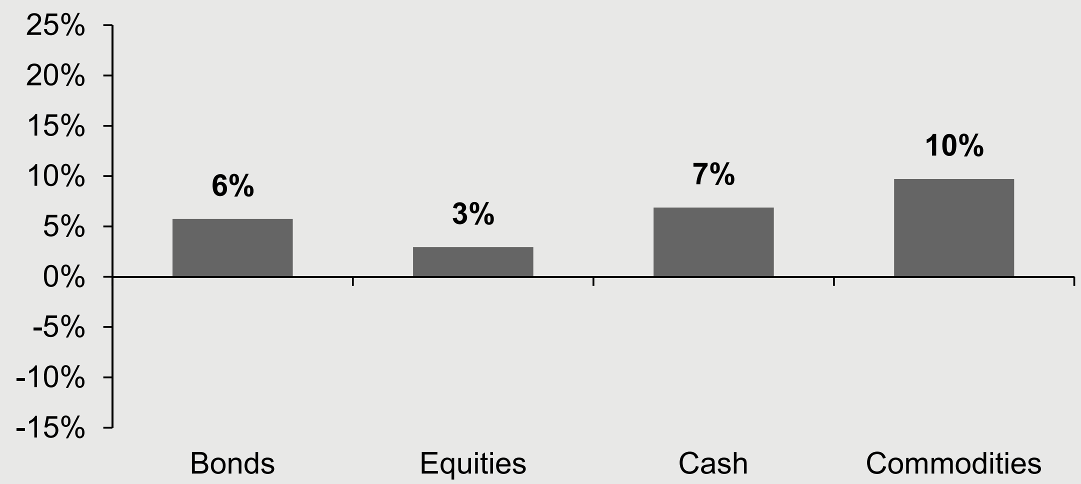
GTM – U.S. | On the Bench

Economy

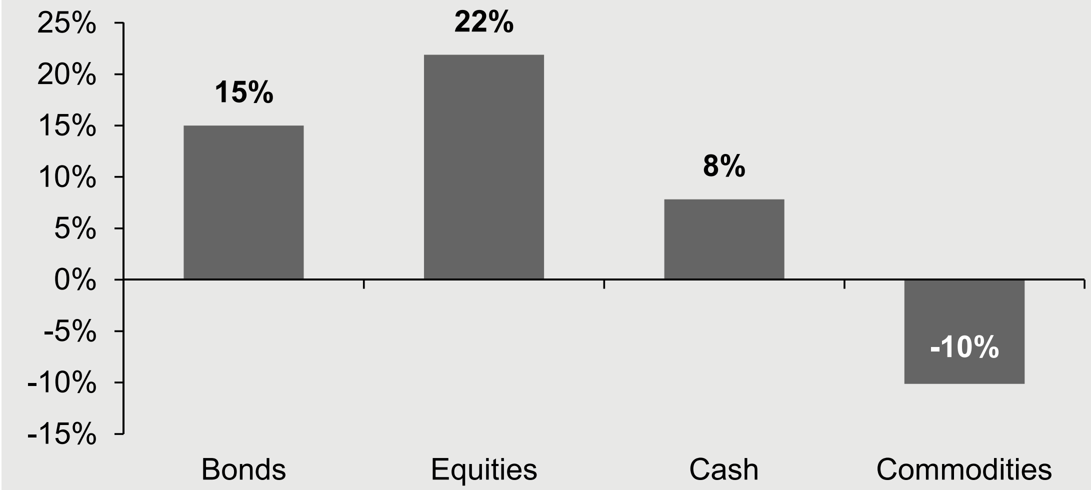
Rising inflation scenarios

Falling inflation scenarios

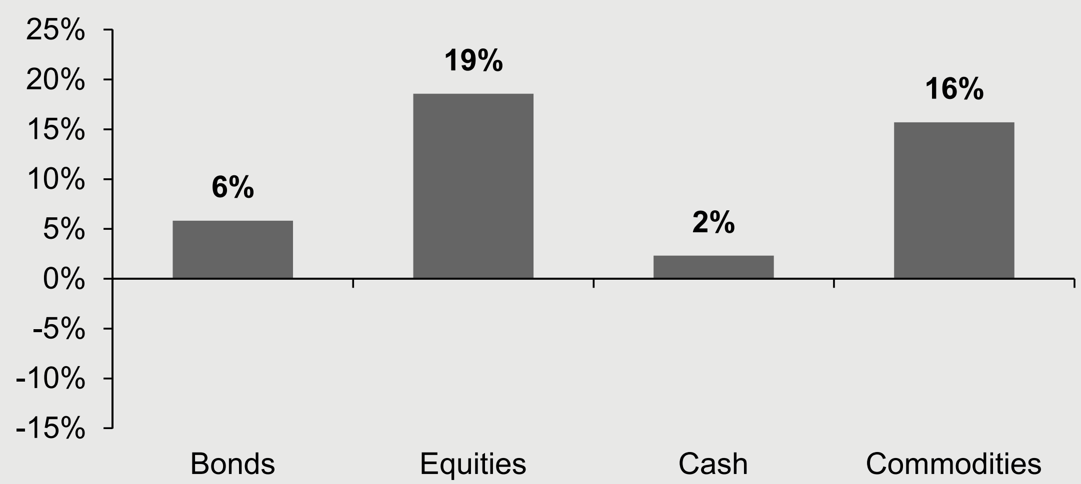
High and rising inflation
Occurred 13 times since 1974



High and falling inflation
Occurred 8 times since 1974



Low and rising inflation
Occurred 8 times since 1974



Low and falling inflation
Occurred 14 times since 1974

Above median

Median Inflation: 3.1%

Below median

Source: BLS, Barclays Capital, Robert Shiller, Federal Reserve, Strategas/Ibbotson, Standard & Poor's, FactSet, J.P. Morgan Asset Management.
High or low inflation distinction is relative to median CPI-U inflation for the period 1974 to 2016. Rising or falling inflation distinction is relative to previous year CPI-U inflation rate. Bond returns are based on the Barclays U.S. Aggregate index since its inception in 1976 and a composite bond index prior to that. Equity returns based on S&P 500 price return and annual dividend yield (total return). Cash returns are based on the Barclays 1-3 Month T-Bill index since its inception in 1992 and 3-month T-Bill rates prior to that. Commodities returns based on S&P GSCI.
For illustrative purposes only. Past performance is not indicative of comparable future returns.
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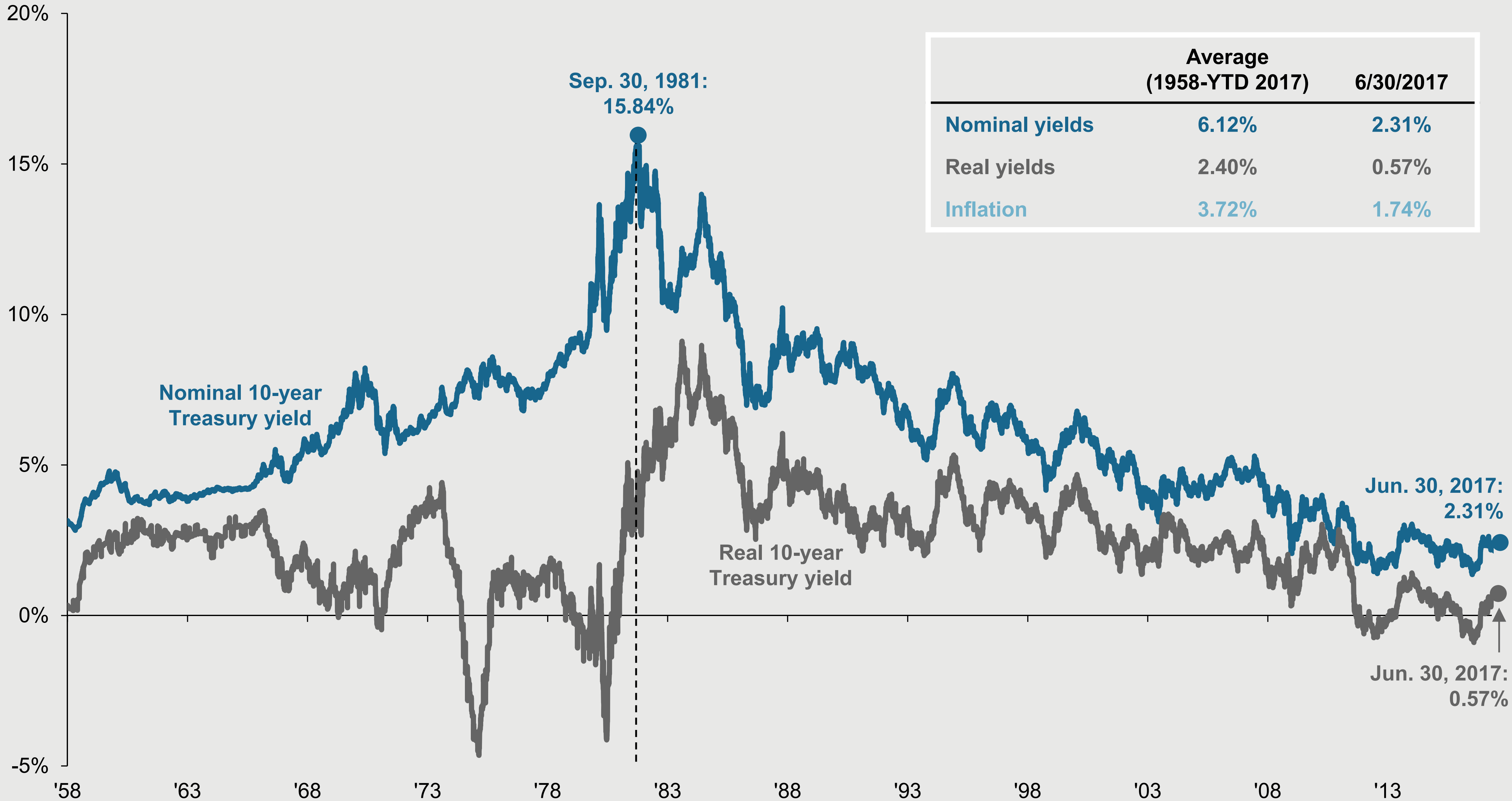
J.P.Morgan Asset Management

Themes this Quarter

- Economic update
- **Interest rate update/expectations**
- Equity market assumptions
- What should investors do?

Interest rates and inflation

Nominal and real 10-year Treasury yields



	Average (1958-YTD 2017)	6/30/2017
Nominal yields	6.12%	2.31%
Real yields	2.40%	0.57%
Inflation	3.72%	1.74%

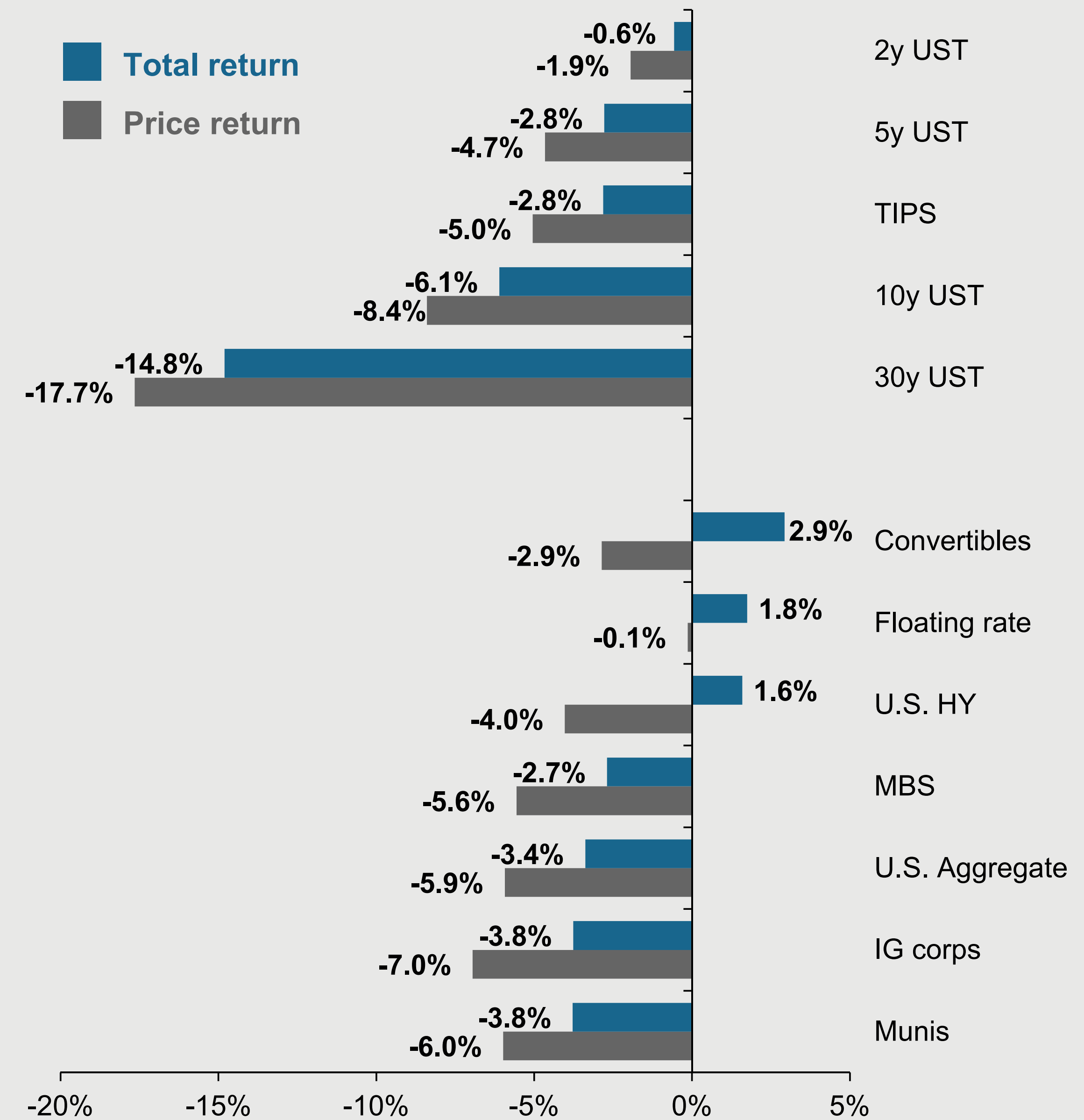
Source: BLS, Federal Reserve, J.P. Morgan Asset Management.
Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month except for June 2017, where real yields are calculated by subtracting out May 2017 year-over-year core inflation.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Fixed income yields and returns

U.S. Treasuries	Yield 6/30/2017	Yield 3/31/2017	Return 2017 YTD	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
2-Year	1.38%	1.27%	0.38%	2 years	0.63	-0.37
5-Year	1.89%	1.93%	1.12%	5	0.91	-0.33
10-Year	2.31%	2.40%	2.11%	10	1.00	-0.32
30-Year	2.84%	3.02%	5.61%	30	0.92	-0.33
TIPS	0.58%	0.43%	0.85%	10	0.57	0.18
Sector						
Broad Market	2.55%	2.61%	2.27%	8.3 years	0.86	0.03
MBS	2.87%	2.90%	1.35%	7.1	0.80	-0.12
Municipals	2.20%	2.45%	4.18%	9.9	0.47	0.01
Corporates	3.19%	3.33%	3.80%	10.9	0.44	0.35
High Yield	5.62%	5.84%	4.93%	6.3	-0.25	0.73
Floating Rate	1.89%	1.74%	1.64%	3.1	-0.20	0.39
Convertibles	5.79%	6.18%	9.82%	-	-0.31	0.89

Impact of a 1% rise in interest rates

Assumes a parallel shift in the yield curve and steady spreads



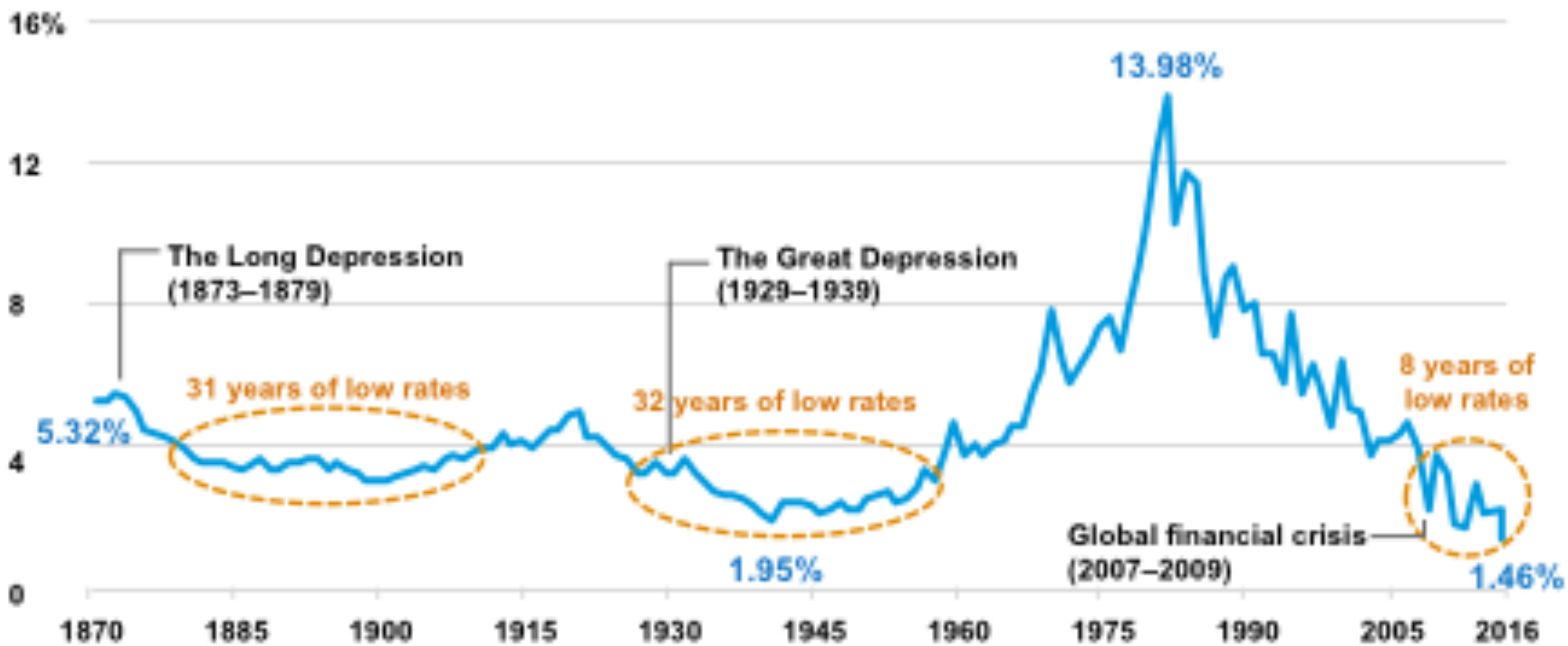
Source: Barclays, U.S. Treasury, Standard and Poor's, FactSet, J.P. Morgan Asset Management. Sectors shown above are provided by Barclays and are represented by – Broad Market: U.S. Aggregate; MBS: U.S. Aggregate Securitized - MBS; Corporate: U.S. Corporates; Municipals: Muni Bond 10-year; High Yield: Corporate High Yield; TIPS: Treasury Inflation Protection Securities (TIPS). Floating Rate: FRN (BBB); Convertibles: U.S. Convertibles Composite. Yield and return information based on bellwethers for Treasury securities. Sector yields reflect yield to worst. Correlations are based on 10-years of monthly returns for all sectors. Change in bond price is calculated using both duration and convexity according to the following formula: New Price = (Price + (Price * -Duration * Change in Interest Rates))+(0.5 * Price * Convexity * (Change in Interest Rates)^2). Chart is for illustrative purposes only. Past performance is not indicative of future results.

Guide to the Markets – U.S. Data are as of June 30, 2017.

Lower Rates for Longer

In a Low-Growth, Low-Inflation World, Rates Could Stay Lower for Longer

10-year Treasury yields

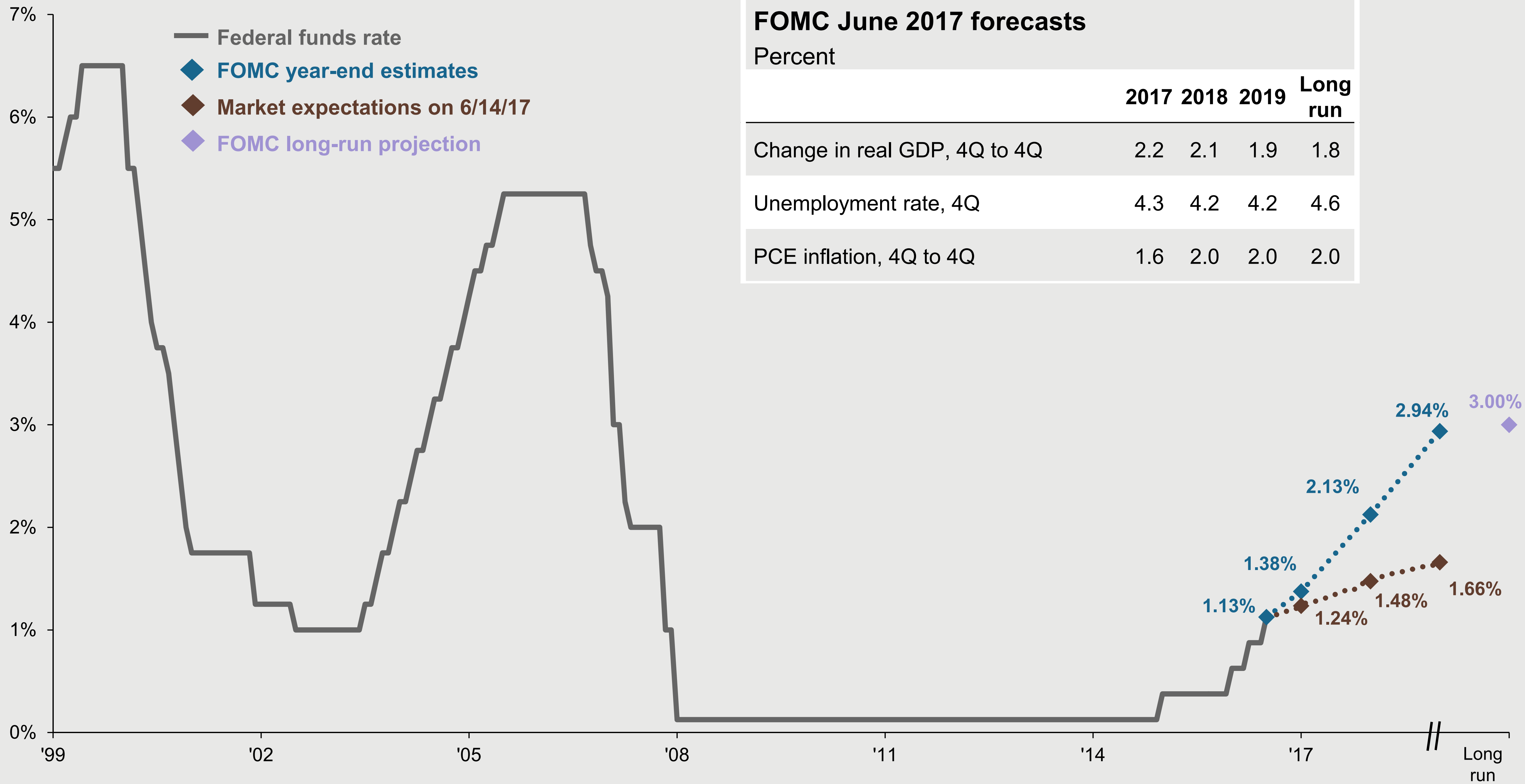


Sources: Federal Reserve, Thomson Reuters Datastream.
Data as of July 31, 2016. Year-end yields used for all other data points.

Fixed income

Federal funds rate expectations

FOMC and market expectations for the fed funds rate



FOMC June 2017 forecasts

Percent

	2017	2018	2019	Long run
Change in real GDP, 4Q to 4Q	2.2	2.1	1.9	1.8
Unemployment rate, 4Q	4.3	4.2	4.2	4.6
PCE inflation, 4Q to 4Q	1.6	2.0	2.0	2.0

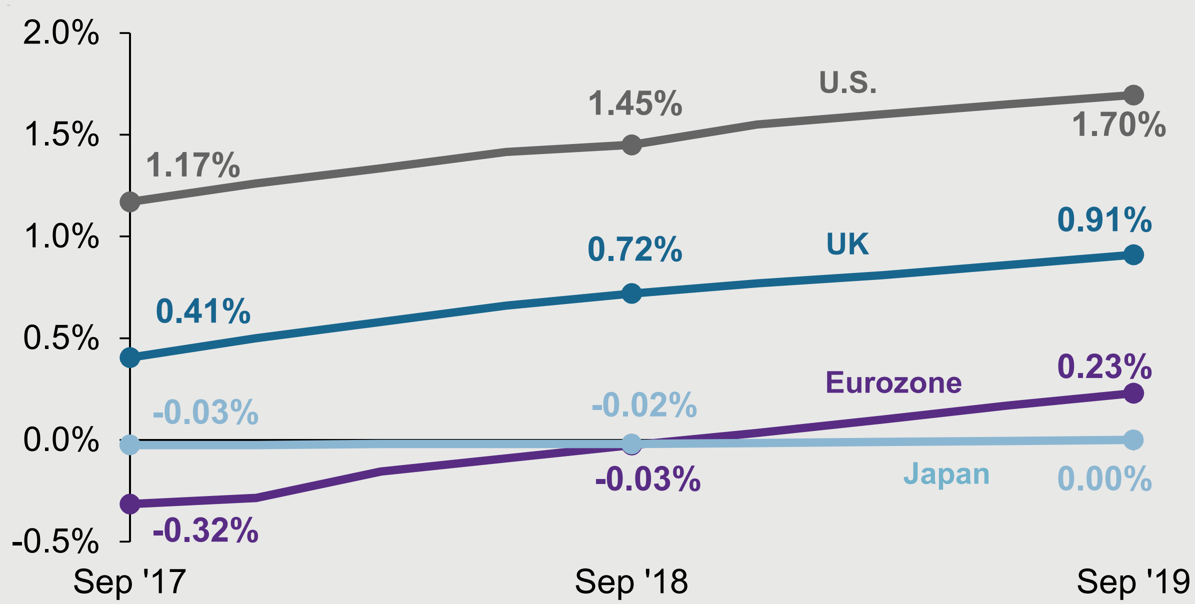
Source: FactSet, Federal Reserve, J.P. Morgan Asset Management.
Market expectations are the federal funds rates priced into the fed futures market as of the date of the June 2017 FOMC meeting.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Global monetary and fiscal policy

Global central bank balance sheet expansion*

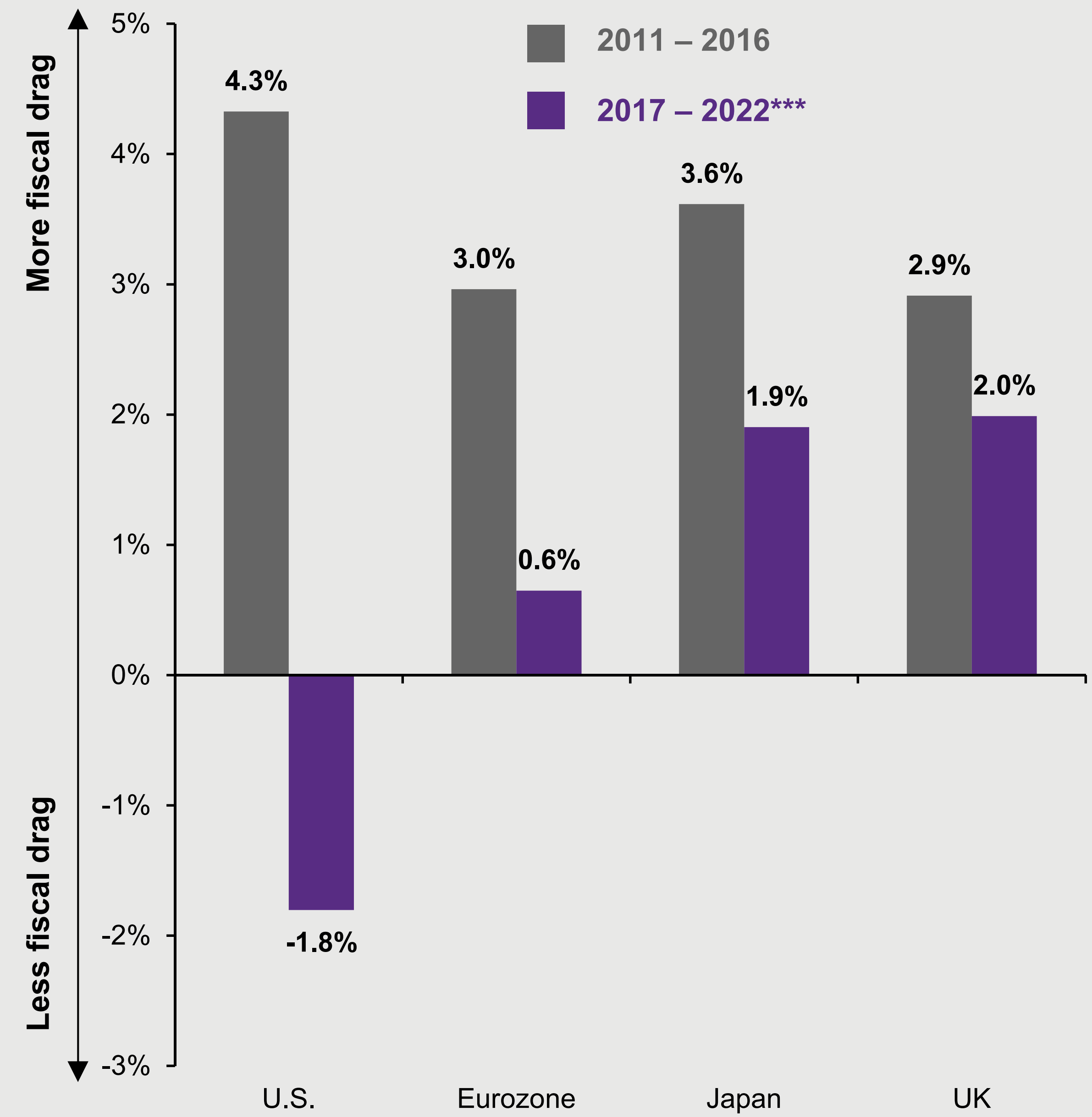
USD billions, balance sheet expansion planned for next 12 months

Market expectations for target policy rate**



Fiscal drag

Reduction in structural deficits, % of potential GDP

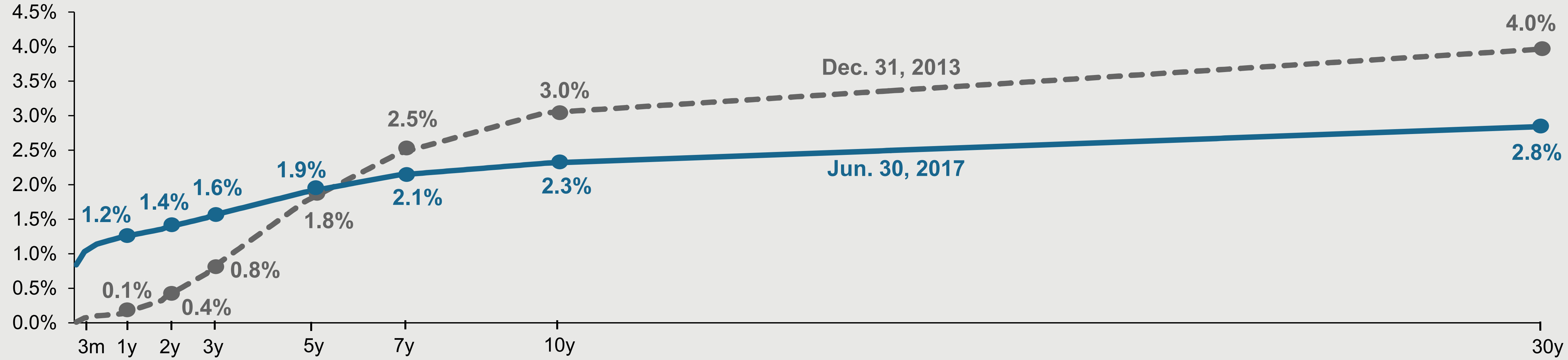


Source: J.P. Morgan Asset Management; (Top left) Bank of England, Bank of Japan, European Central Bank, FactSet, Federal Reserve System, J.P. Morgan Global Economic Research; (Bottom left) Bloomberg; (Right) IMF.
*Includes the Bank of Japan (BoJ), Bank of England (BoE), European Central Bank (ECB) and Federal Reserve. Balance sheet expansion assumes no more quantitative easing (QE) from the BoE, tapering of ECB QE to 0 from end of 2017 over one year, tapering of BoJ QE to 20trn JPY by end of 2018, 0 by mid-2019, and tapering of Fed QE per the June FOMC statement. **Target policy rates for Japan are estimated using EuroYen 3m futures contracts less a risk premium of 6bps. ***Eurozone forecasts past 2018 are JPMAM estimates calculated by aggregating individual country data. Government deficits are calculated by the IMF as the general government structural balance. The structural balance excludes the normal impact of the business cycle, providing a clearer measure of the independent impact of changes in government spending and taxation on demand in the economy.
Guide to the Markets – U.S. Data are as of June 30, 2017.

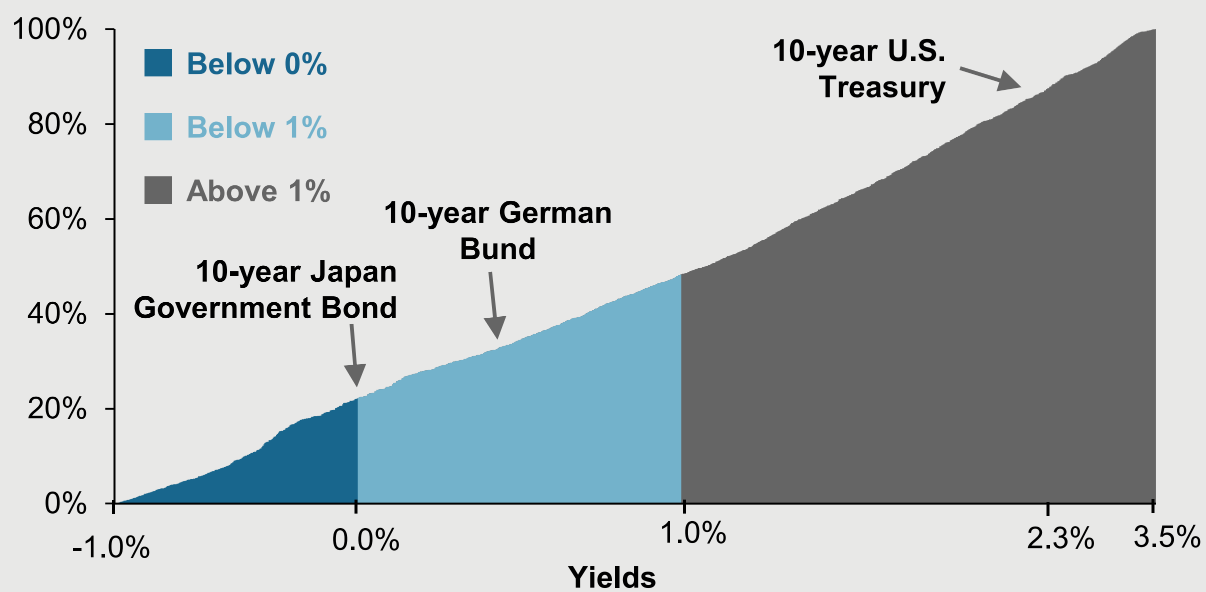
Bond market dynamics

Yield curve

U.S. Treasury yield curve

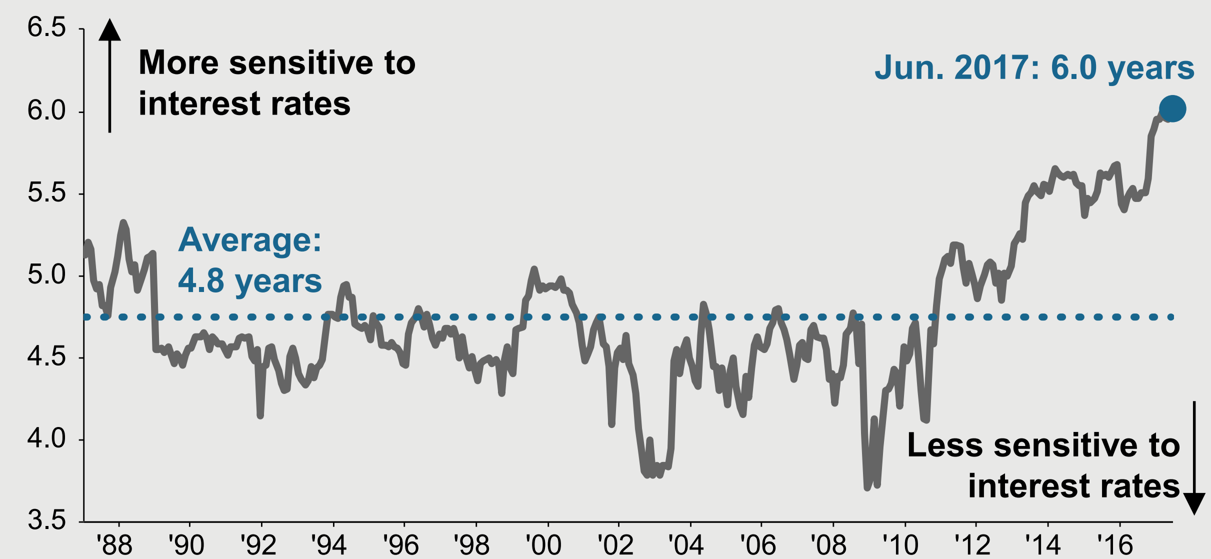


Breakdown of DM government bonds by yield



Duration of Barclays U.S. Aggregate

Years



Source: FactSet, J.P. Morgan Asset Management; (Bottom left) Bloomberg, BofA/Merrill Lynch. (Bottom right) Barclays, Bloomberg.
The Developed Market Government Bond Index is the Bank of America/Merrill Lynch Global Government Index. Duration measures the sensitivity of the price of a bond to a change in interest rates. The higher the duration the greater the sensitivity bond is to movements in the interest rate.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Themes this Quarter

- Economic update
- Interest rate update/expectations
- **Equity market assumptions**
- What should investors do?

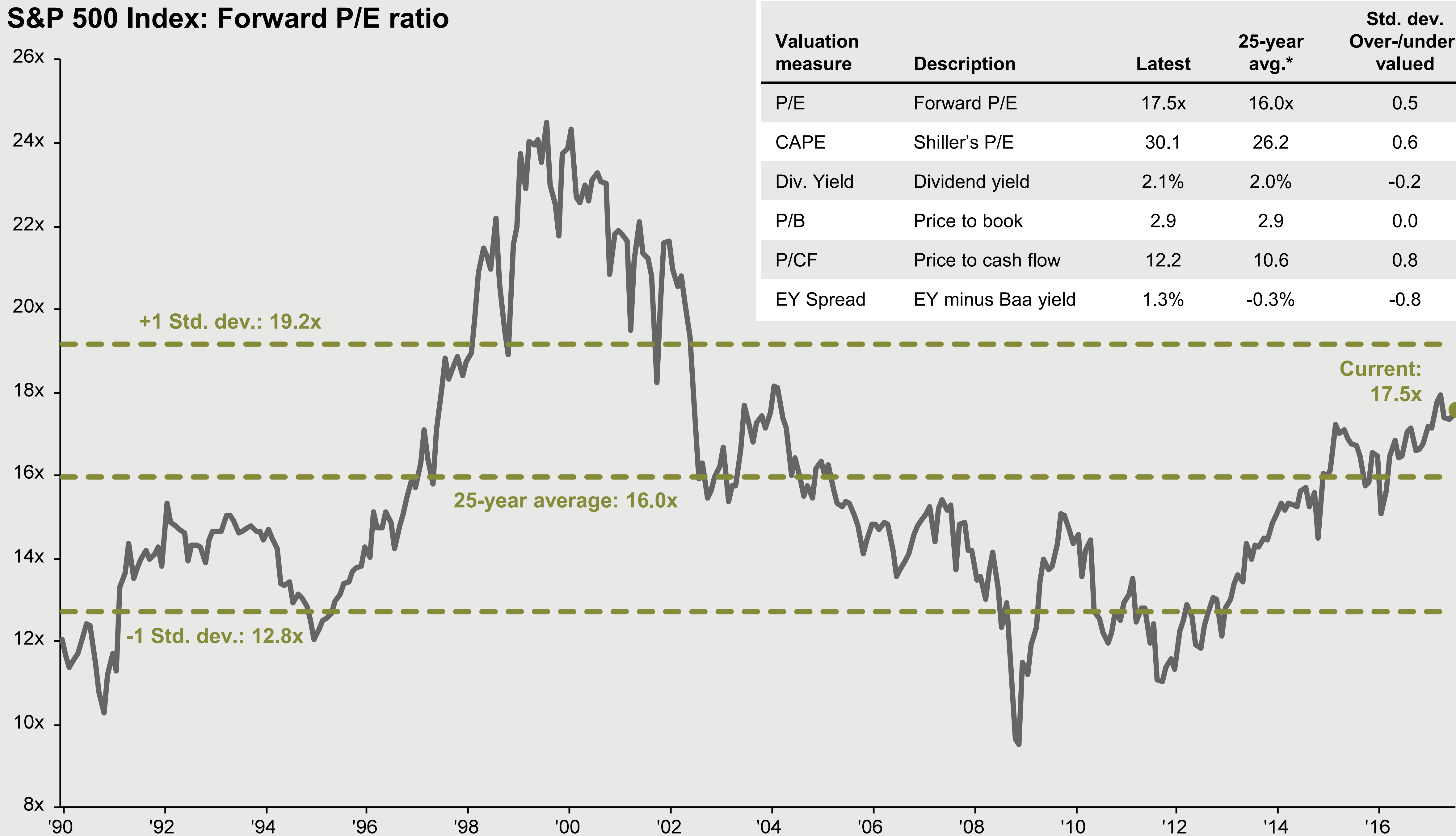
S&P 500 Index at inflection points

S&P 500 Price Index

Characteristic	Mar. 2000		Oct. 2007		Jun. 2017
Index level	1,527	→	1,565	→	2,423
P/E ratio (fwd.)	27.2x	→	15.7x	→	17.5x
Dividend yield	1.1%	→	1.8%	→	2.1%
10-yr. Treasury	6.2%	→	4.7%	→	2.3%

Source: Compustat, FactSet, IBES, Federal Reserve, Standard & Poor's, J.P. Morgan Asset Management.
Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price to earnings ratio is a bottom-up calculation based on the most recent S&P 500 Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of June 30, 2017.

S&P 500 valuation measures



Valuation measure	Description	Latest	25-year avg.*	Std. dev. Over-/under-valued
P/E	Forward P/E	17.5x	16.0x	0.5
CAPE	Shiller's P/E	30.1	26.2	0.6
Div. Yield	Dividend yield	2.1%	2.0%	-0.2
P/B	Price to book	2.9	2.9	0.0
P/CF	Price to cash flow	12.2	10.6	0.8
EY Spread	EY minus Baa yield	1.3%	-0.3%	-0.8

Source: FactSet, FRB, IBES, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.
Price to earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since December 1989, and FactSet for June 30, 2017. Average P/E and standard deviations are calculated using 25 years of FactSet history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-month consensus dividend divided by most recent price. Price to book ratio is the price divided by book value per share. Price to cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 25 years for each measure.
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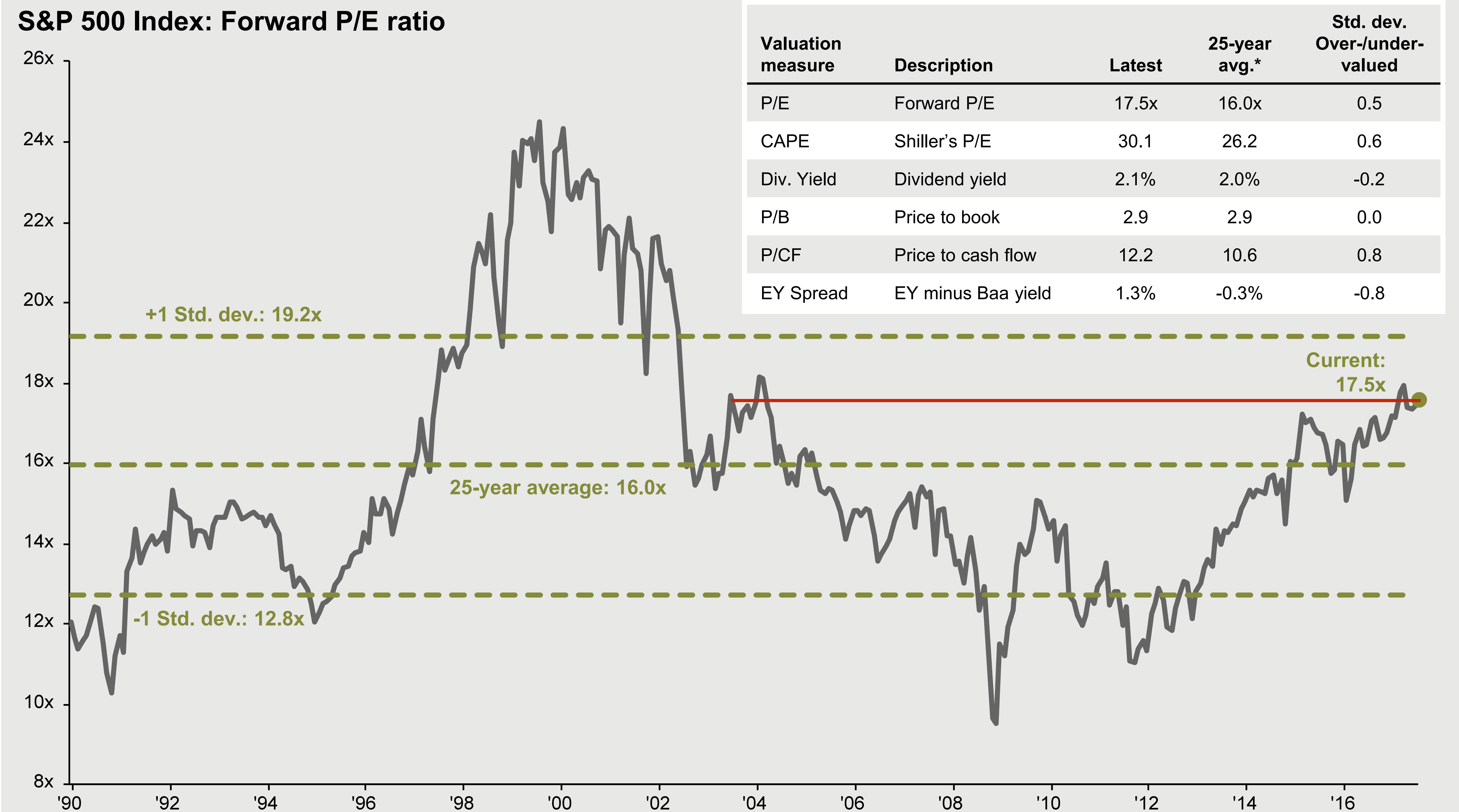
Guide to the Markets – U.S. Data are as of June 30, 2017.

S&P 500 valuation measures

Equities



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S&P 500 valuation measures

S&P 500 Index: Forward P/E ratio

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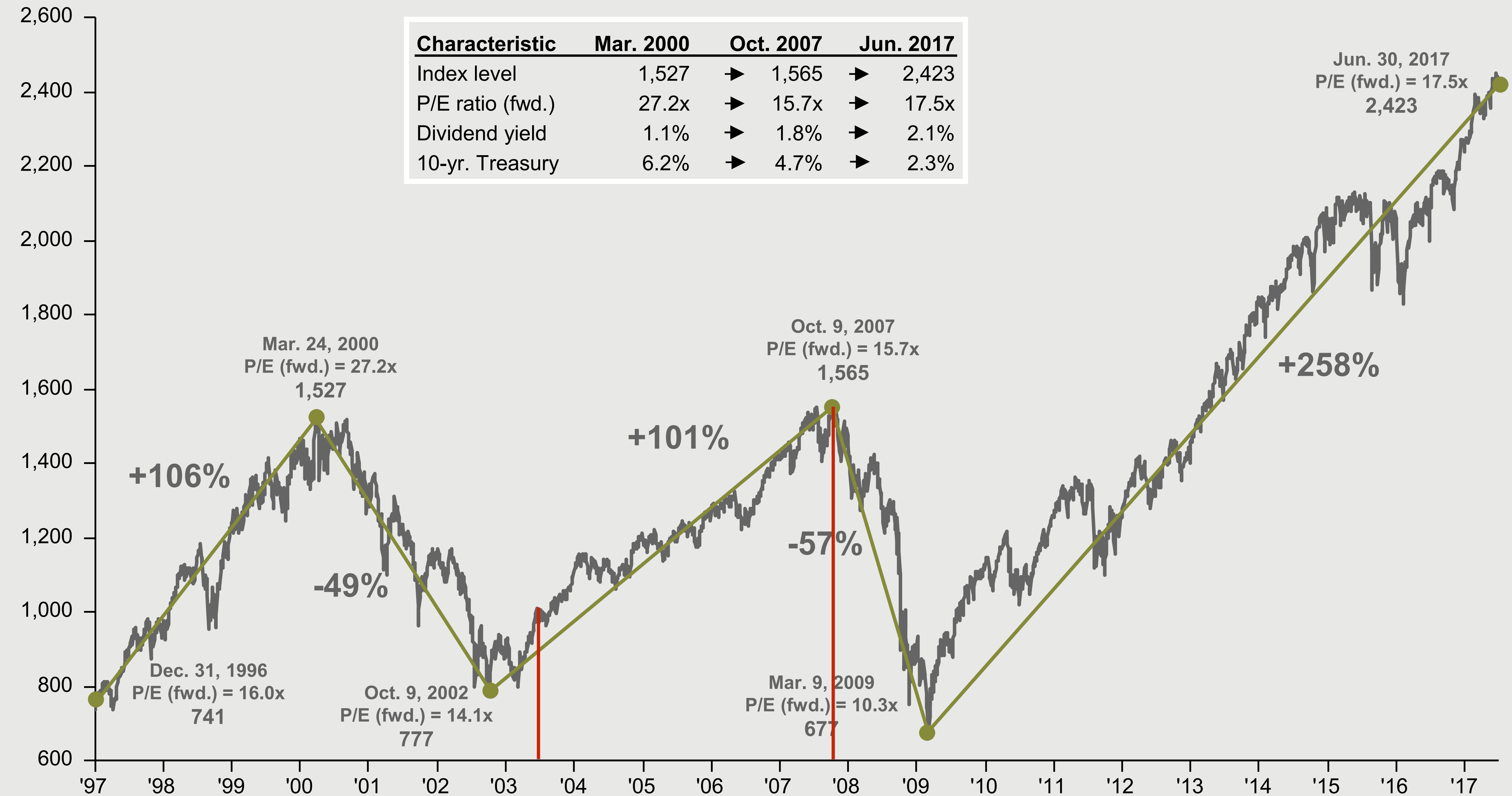
Guide to the Markets – U.S. Data are as of June 30, 2017.

S&P 500 Index at inflection points

Equities

S&P 500 Price Index



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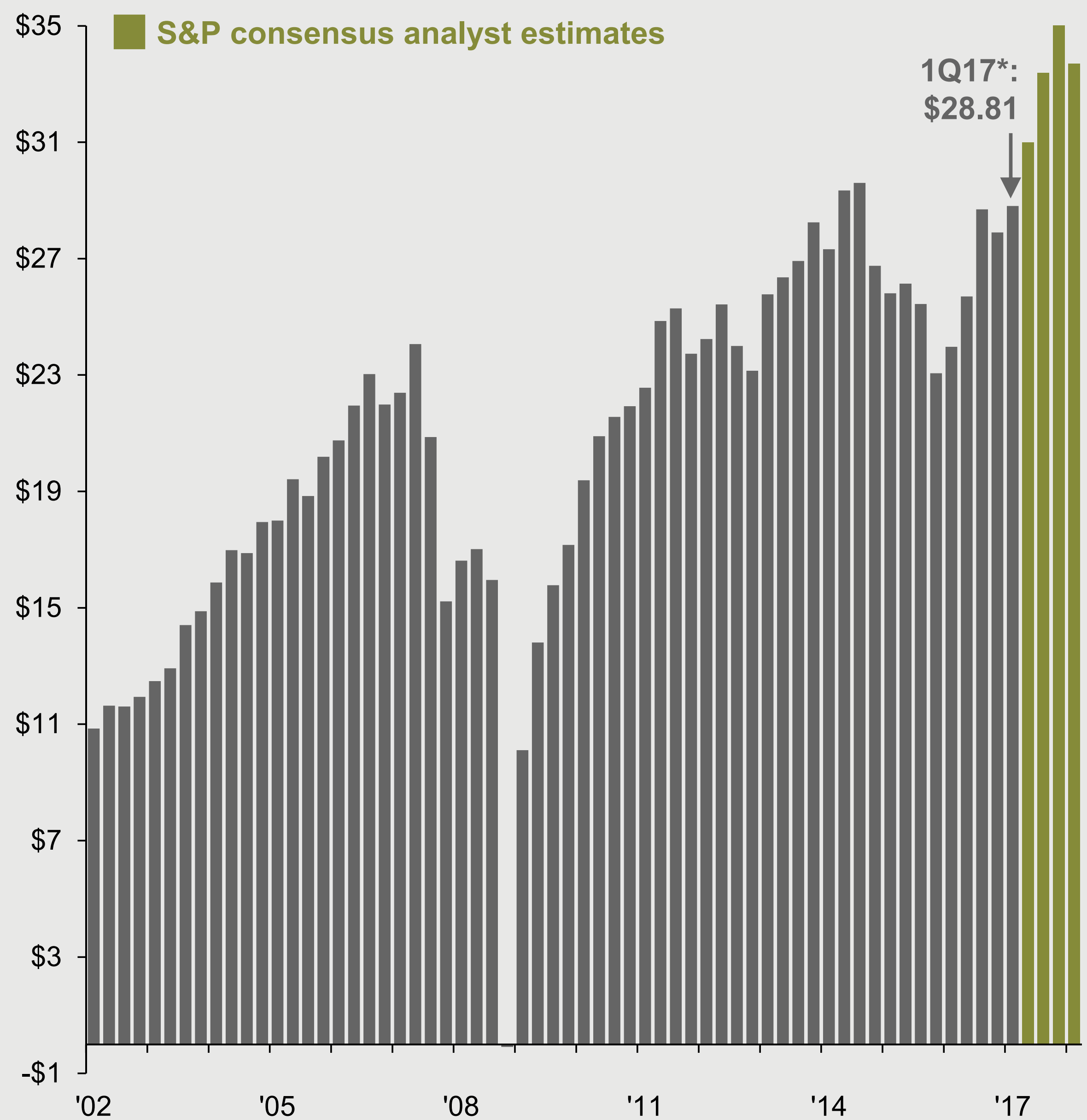
S&P 500 earnings per share

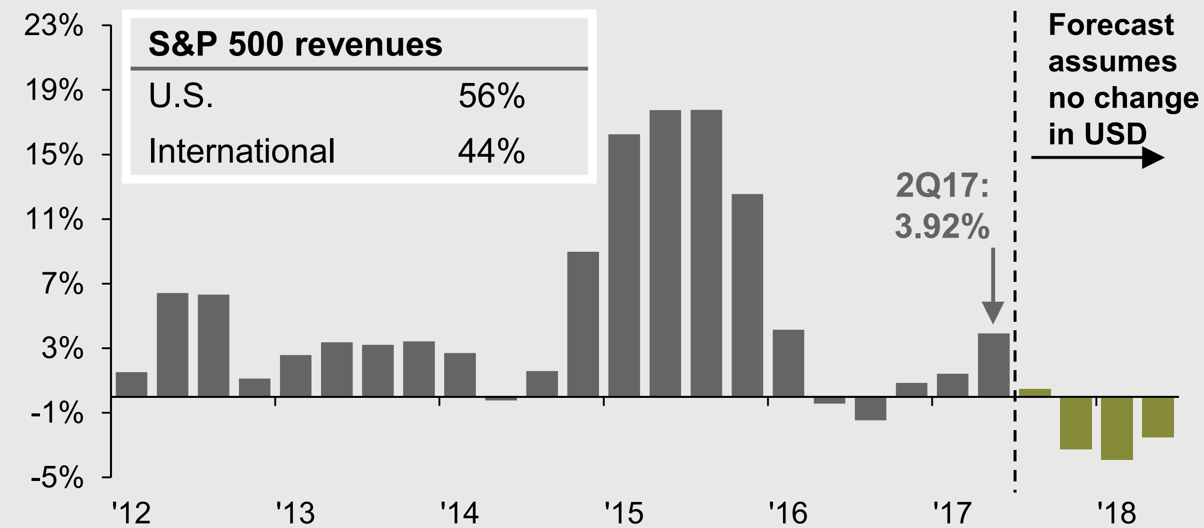
Index quarterly operating earnings



U.S. dollar

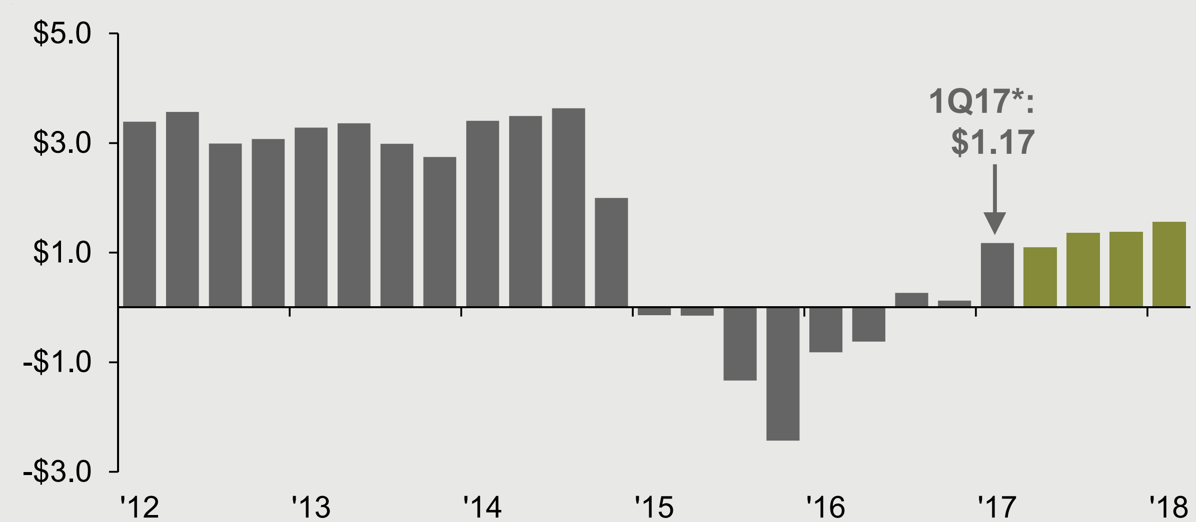
Year-over-year % change**, quarterly, USD major currencies index

S&P 500 revenues	
U.S.	56%
International	44%



Energy sector earnings

Energy sector contribution to S&P 500 EPS, quarterly

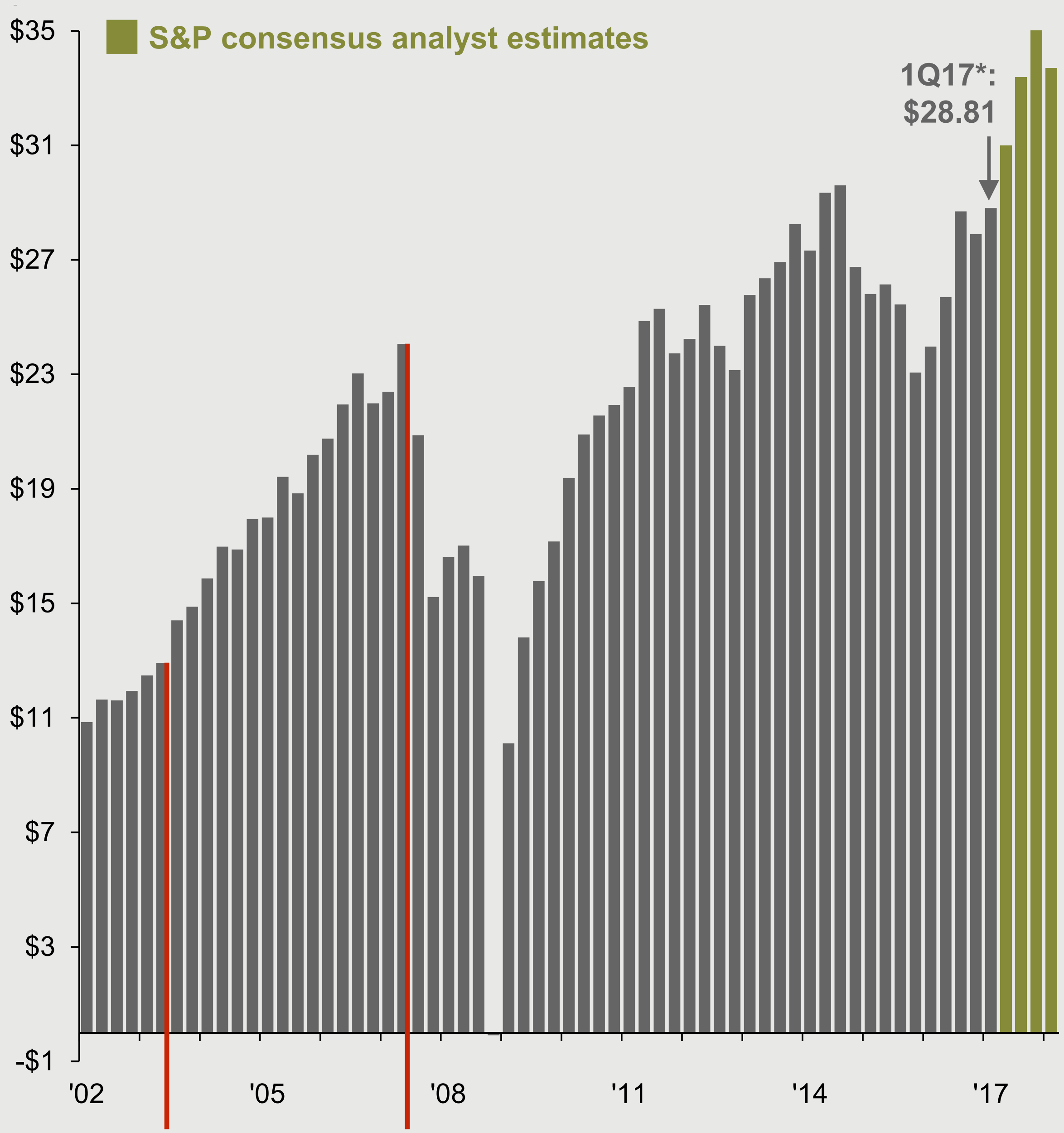


Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management; (Top right) Federal Reserve, S&P 500 individual company 10k filings, S&P Index Alert.
EPS levels are based on operating earnings per share. Earnings estimates are Standard & Poor's consensus analyst expectations. Past performance is not indicative of future returns. Currencies in the Trade Weighted U.S. Dollar Major Currencies Index are: British pound, euro, Swedish krona, Australian dollar, Canadian dollar, Japanese yen and Swiss franc. *1Q17 earnings are calculated using actual earnings for 98.6% of S&P 500 market cap and earnings estimates for the remaining companies. **Year-over-year change is calculated using the quarterly average for each period. USD forecast assumes no change in the U.S. dollar from its June 30, 2017 level.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Corporate profits

S&P 500 earnings per share

Index quarterly operating earnings



U.S. dollar

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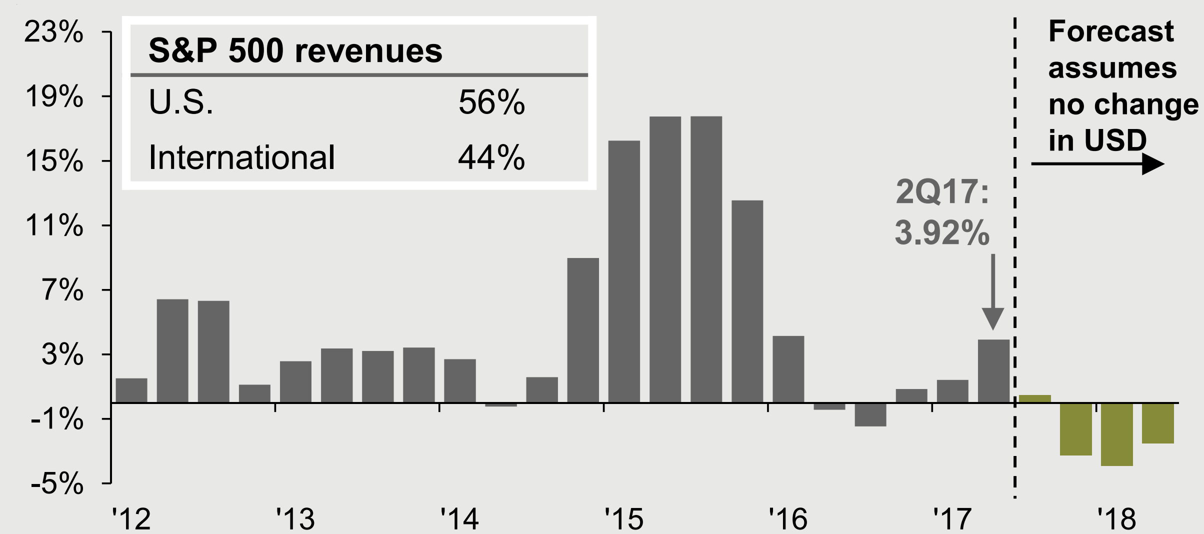
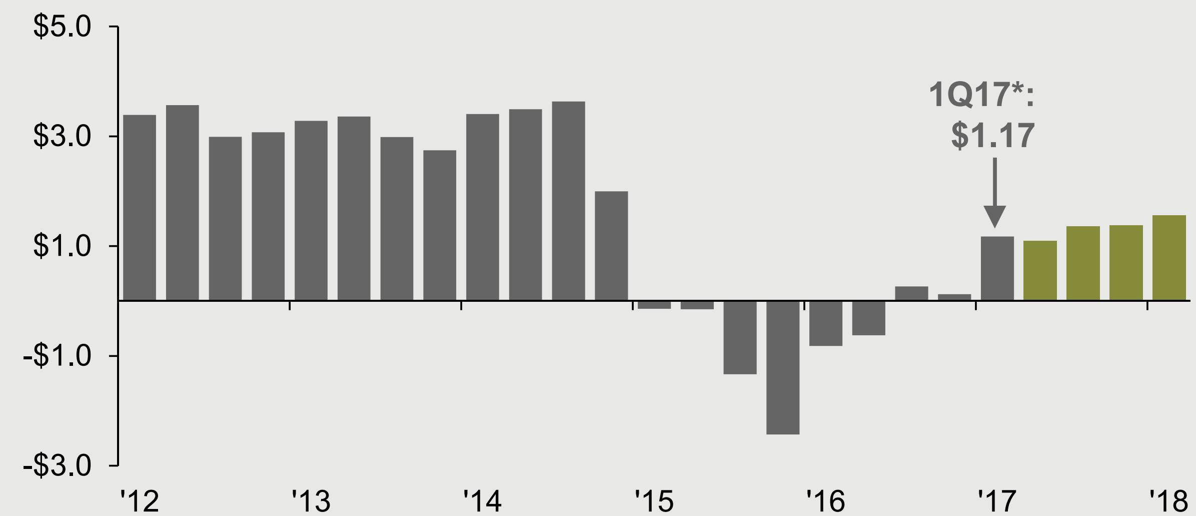


Energy sector earnings

Energy sector contribution to S&P 500 EPS, quarterly



Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management; (Top right) Federal Reserve, S&P 500 individual company 10k filings, S&P Index Alert.
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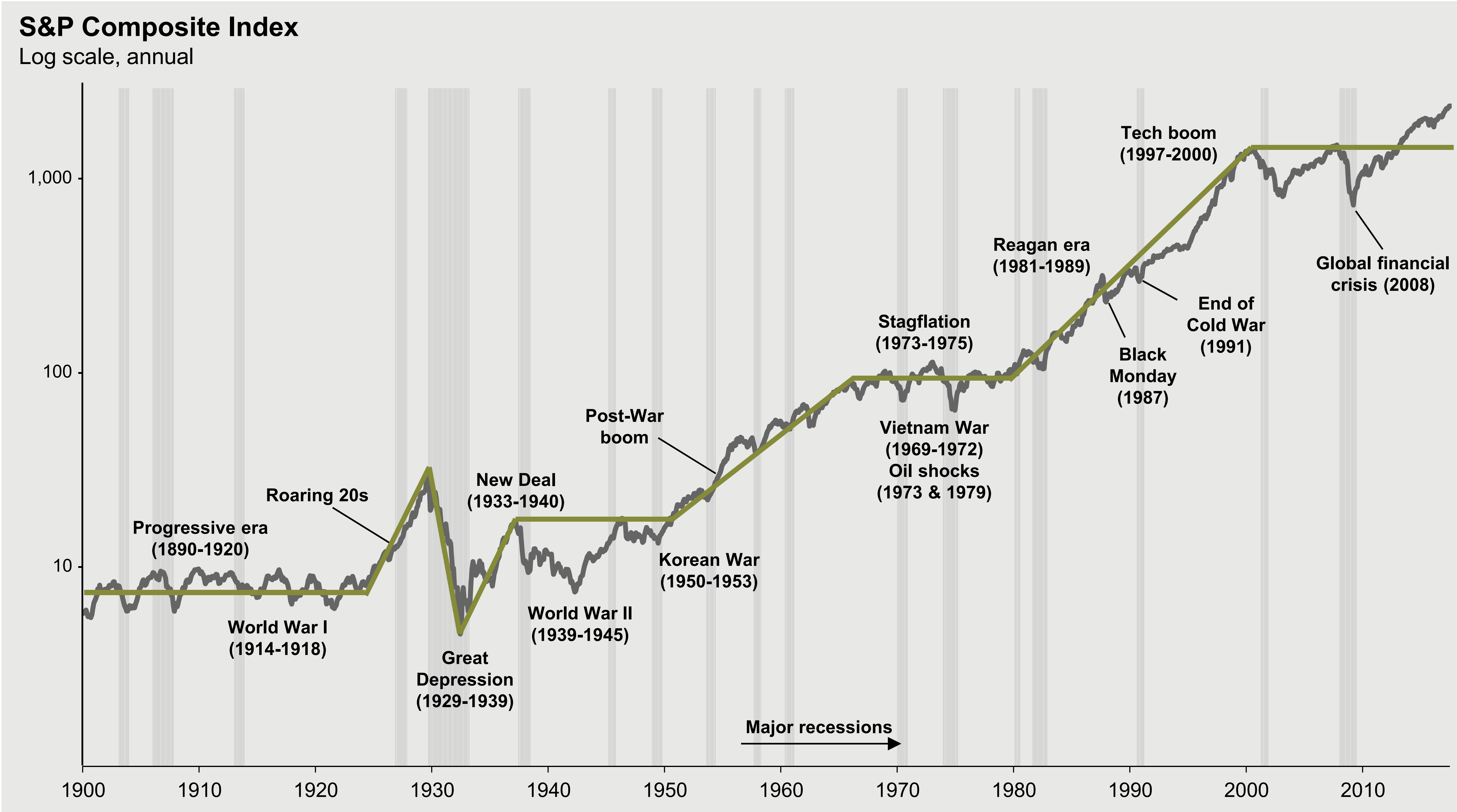
Stock market since 1900

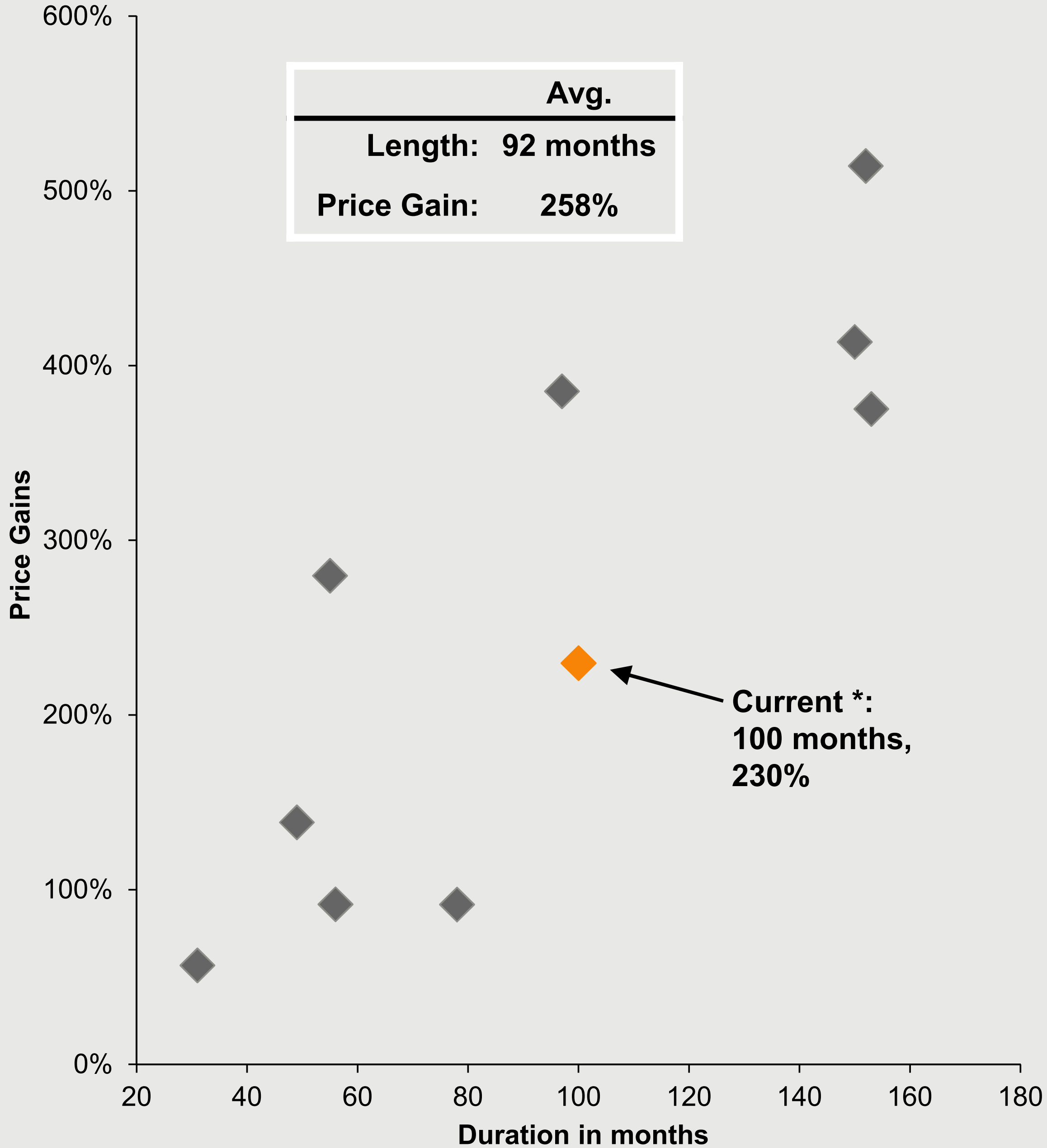


Source: FactSet, NBER, Robert Shiller, J.P. Morgan Asset Management.
Data shown in log scale to best illustrate long-term index patterns.
Past performance is not indicative of future returns. Chart is for illustrative purposes only.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Bull markets

Equities

Length and size of equity bull markets



Dimensions of equity bull markets

Start Date	Duration in Mths	Rank	Price Gains, %	Rank	P/E at Peak	Rank
Mar. '09	100*	4	229.7*	6	20.8	4
Mar. '03	56	7	83.9	9	20.7	5
Jan. '88	152	2	516.4	1	28.0	1
Jan. '75	153	1	362.4	4	20.1	7
Jul. '70	31	10	56.6	10	18.1	9
Jul. '62	78	6	91.4	8	18.5	8
Jul. '49	150	3	413.5	2	22.5	2
May '42	49	9	138.5	7	21.7	3
Jul. '32	55	8	279.7	5	16.8	10
Sep. '21	97	4	385.3	3	20.2	6

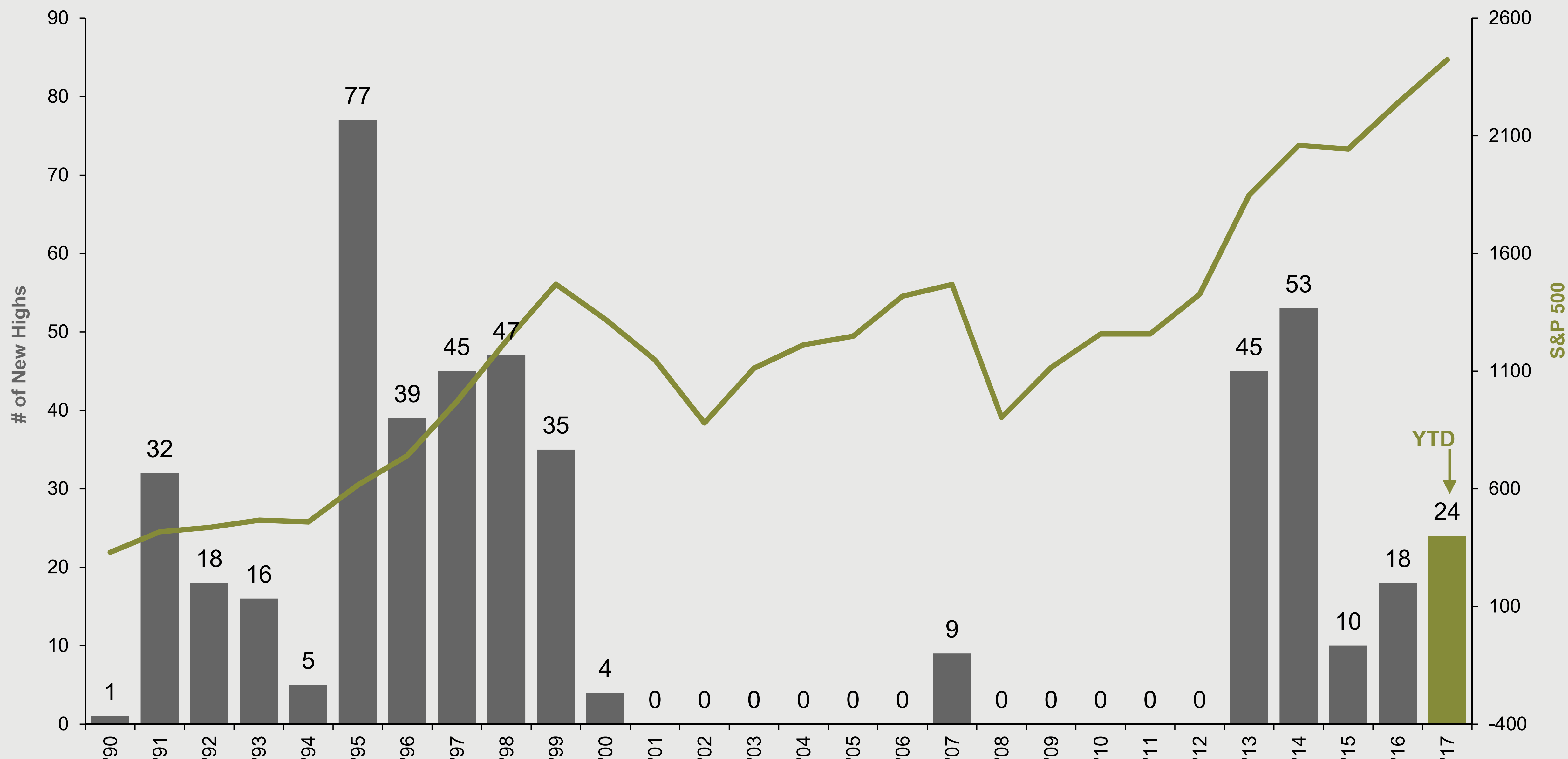
Source: Standard and Poors, Robert Shiller, Yale University Department of Economics, Factset, J.P. Morgan Asset Management. *Denotes current market dimensions, which are as of 6/30/2017, not necessarily market peak. P/E ratios use lagged as reported earnings from Robert Shiller's data, except for values since 6/30/2016, which are estimated using Standard and Poor's data for earnings estimates. Bull markets are defined as a period of market gains without a 20% of greater decline in equity prices. For illustrative purposes only.
Guide to the Markets – U.S. Data are as of June 30, 2017.

J.P.Morgan Asset Management

All-time equity market highs

New highs in an equity bull market tend to cluster together

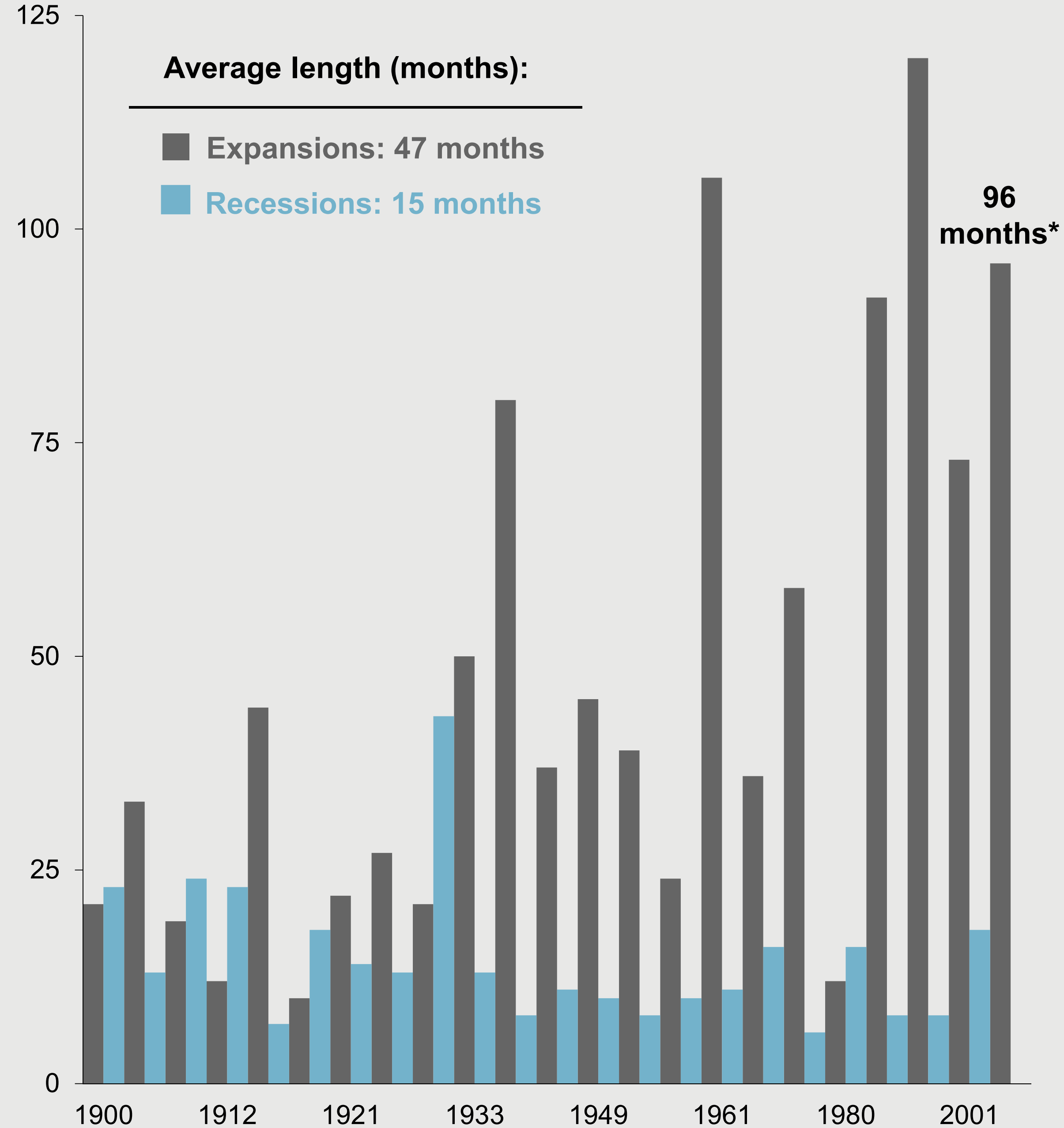
S&P 500 price index and the number of new all-time highs ticked each year since 1991



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of June 30, 2017.

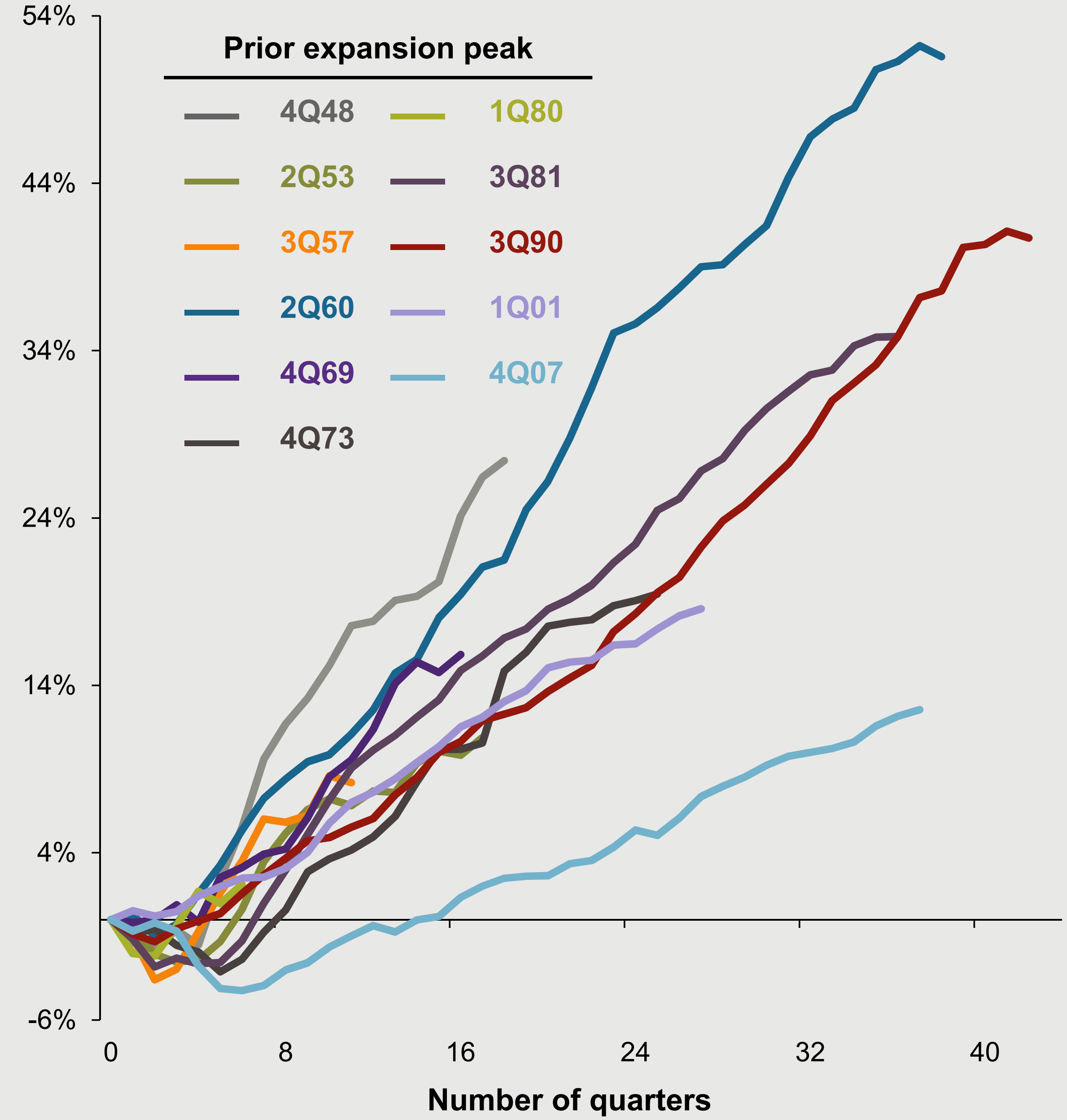
The length and strength of expansions

Length of economic expansions and recessions



Strength of economic expansions

Cumulative real GDP growth since prior peak, percent



Source: BEA, NBER, J.P. Morgan Asset Management. *Chart assumes current expansion started in July 2009 and continued through June 2017, lasting 96 months so far. Data for length of economic expansions and recessions obtained from the National Bureau of Economic Research (NBER). These data can be found at www.nber.org/cycles/ and reflect information through June 2017.
Guide to the Markets – U.S. Data are as of June 30, 2017.

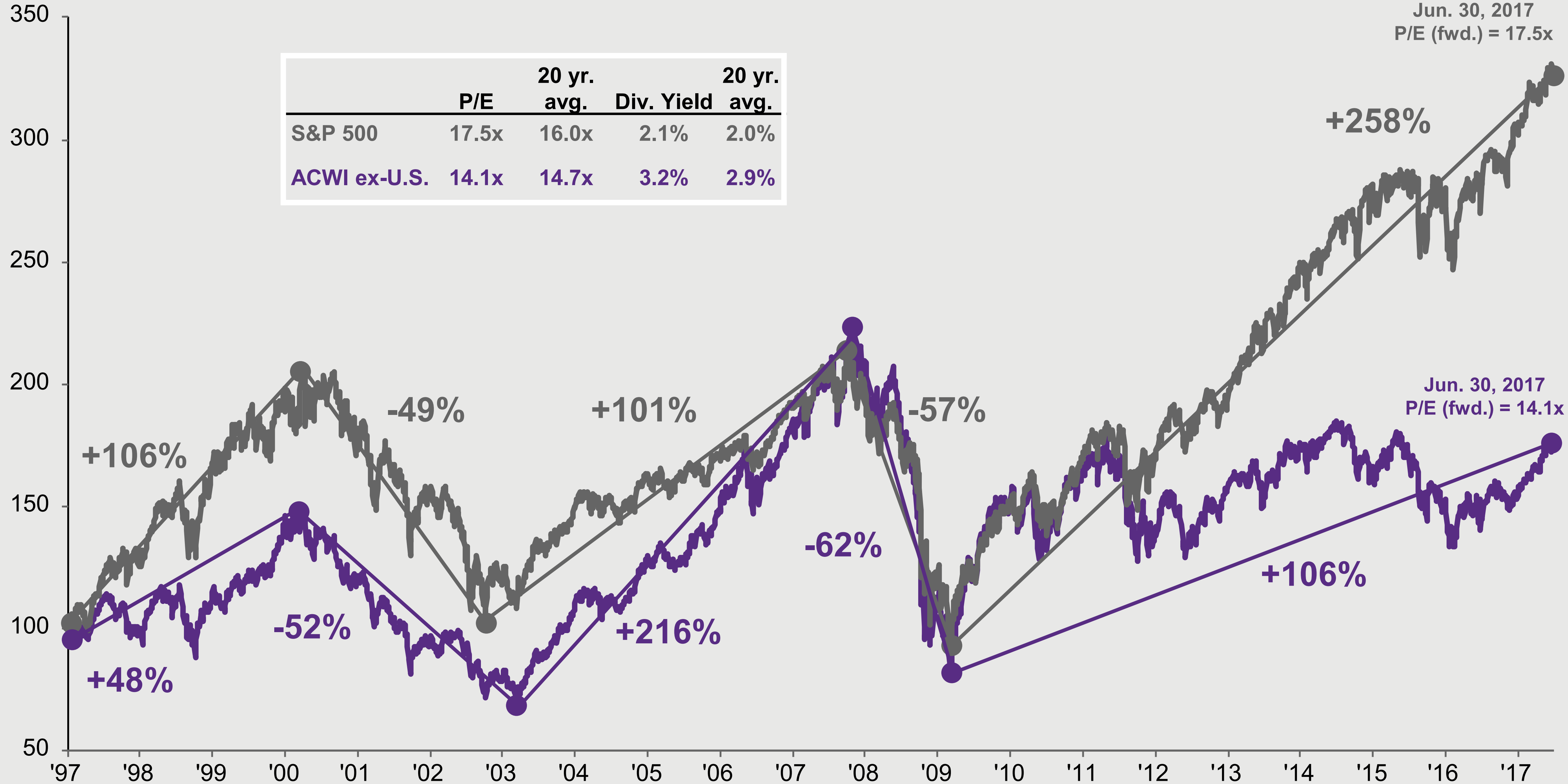
U.S. and international equities at inflection points

International

MSCI All Country World ex-U.S. and S&P 500 Index

Dec. 1996 = 100, U.S. dollar, price return

	P/E	20 yr. avg.	Div. Yield	20 yr. avg.
S&P 500	17.5x	16.0x	2.1%	2.0%
ACWI ex-U.S.	14.1x	14.7x	3.2%	2.9%

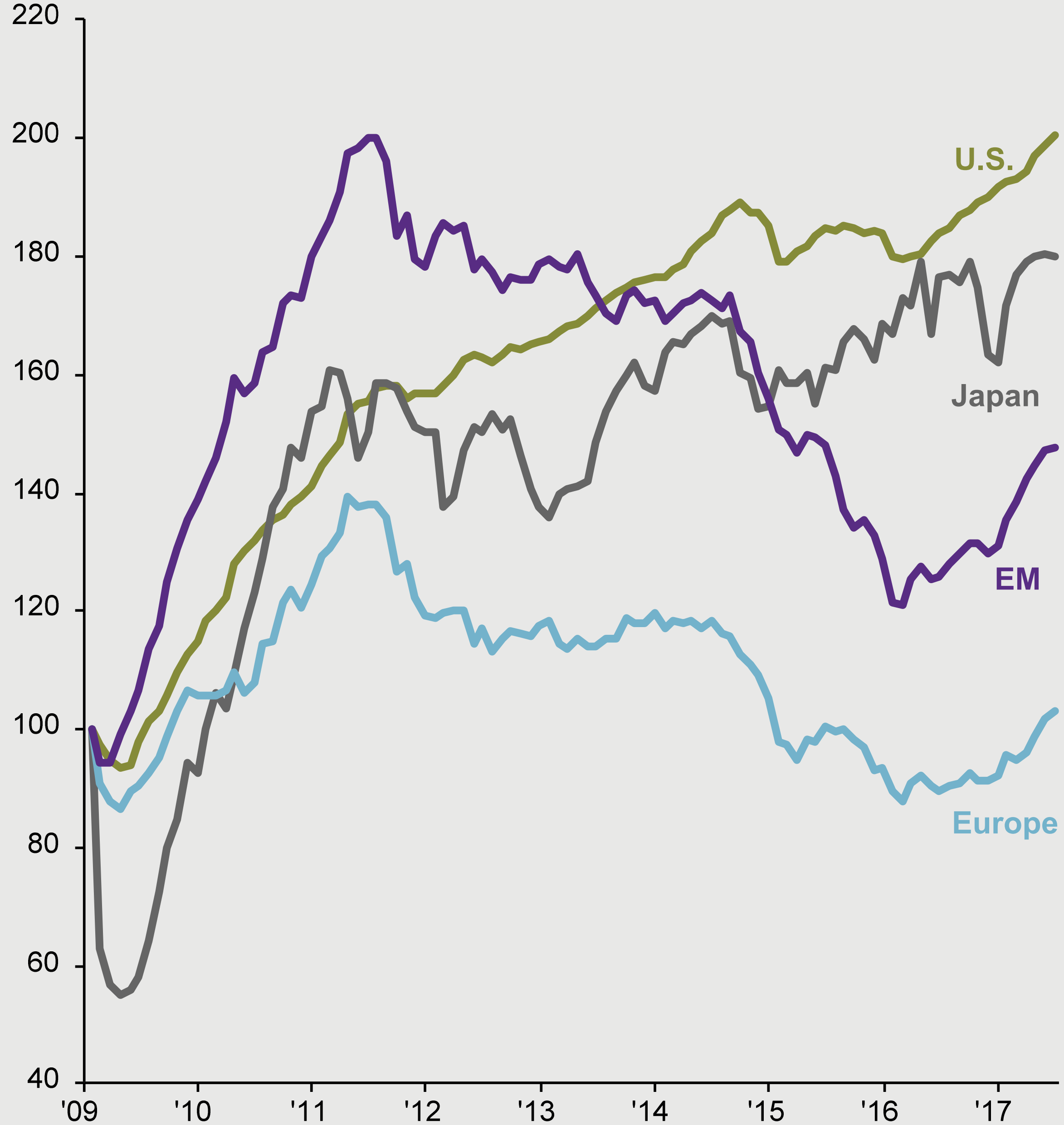


Source: MSCI, Standard & Poor's, FactSet, J.P. Morgan Asset Management.
Forward price to earnings ratio is a bottom-up calculation based on the most recent index price, divided by consensus estimates for earnings in the next twelve months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns. Dividend yield is calculated as consensus estimates of dividends for the next twelve months, divided by most recent price, as provided by FactSet Market Aggregates.
Guide to the Markets – U.S. Data are as of June 30, 2017.

International equity earnings and valuations

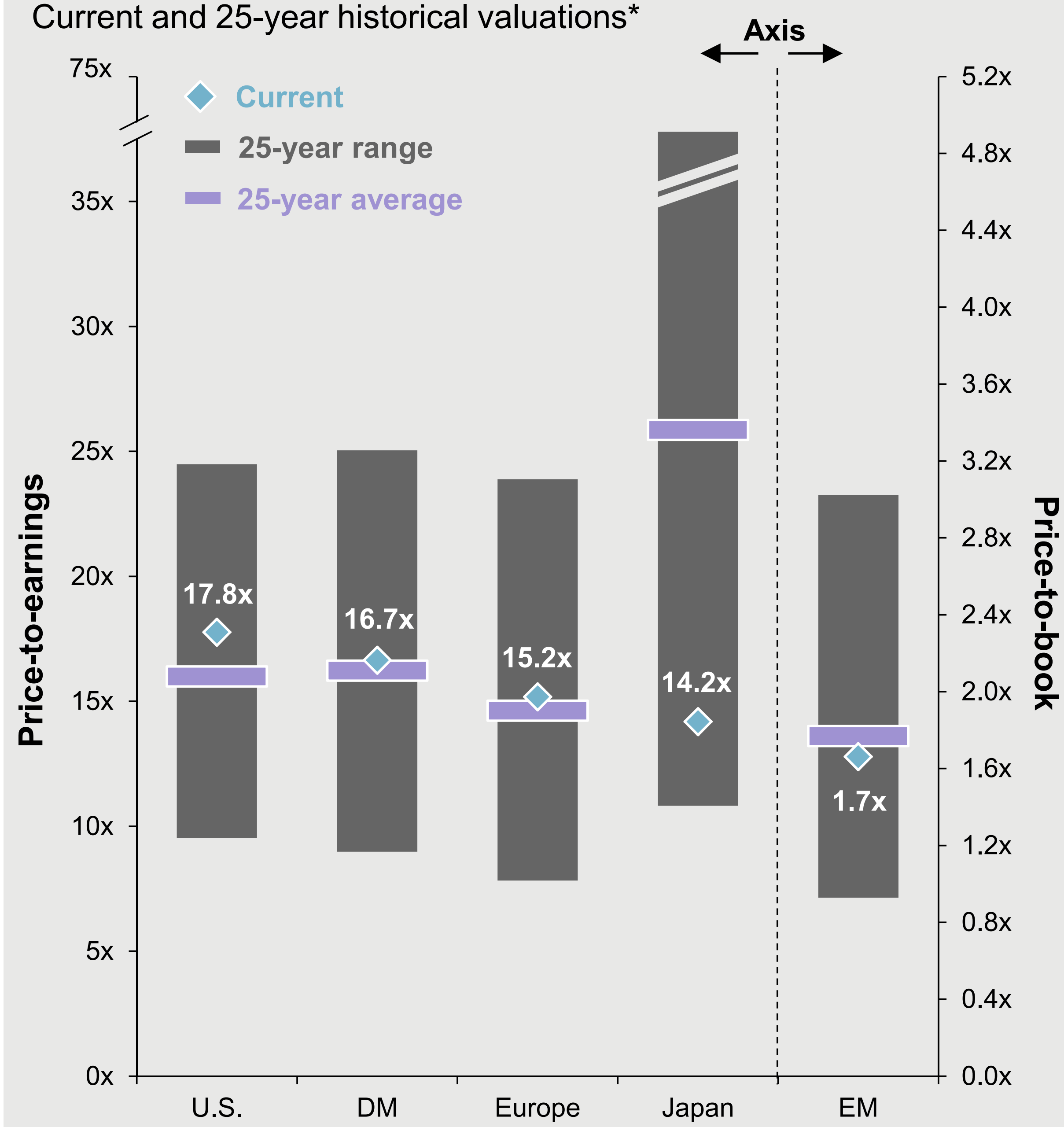
Global earnings

EPS, U.S. dollar, NTMA, Jan. 2009 = 100



Global valuations

Current and 25-year historical valuations*

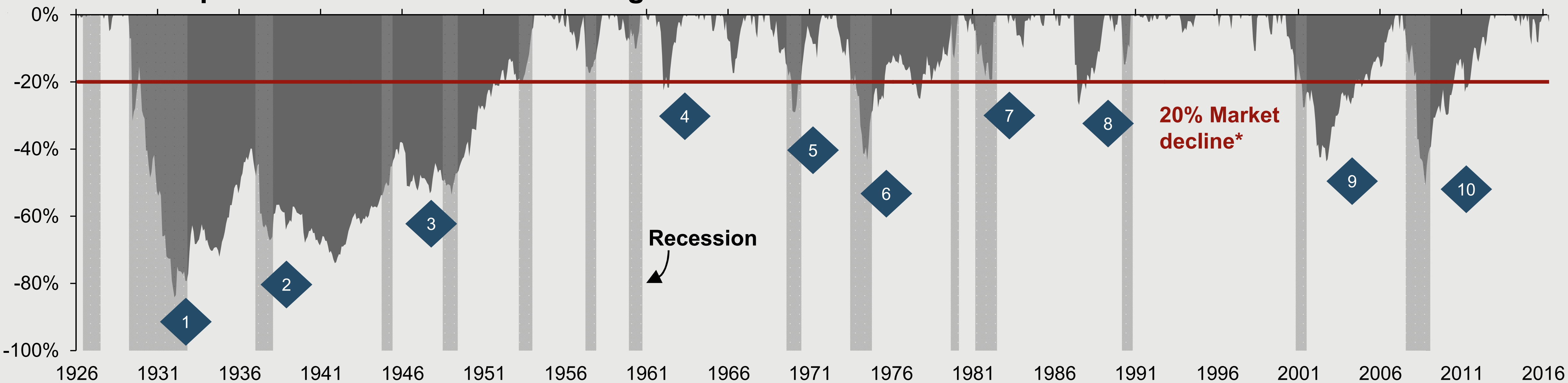


Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.
*Valuations refer to NTMA P/E for Europe, U.S., Japan and Developed Markets and P/B for emerging markets. Valuation and earnings charts use MSCI indices for all regions/countries, except for the U.S., which is the S&P 500. All indices use IBES aggregate earnings estimates, which may differ from earnings estimates used elsewhere in the book.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Bear markets and subsequent bull runs

Equities

S&P 500 composite declines from all-time highs



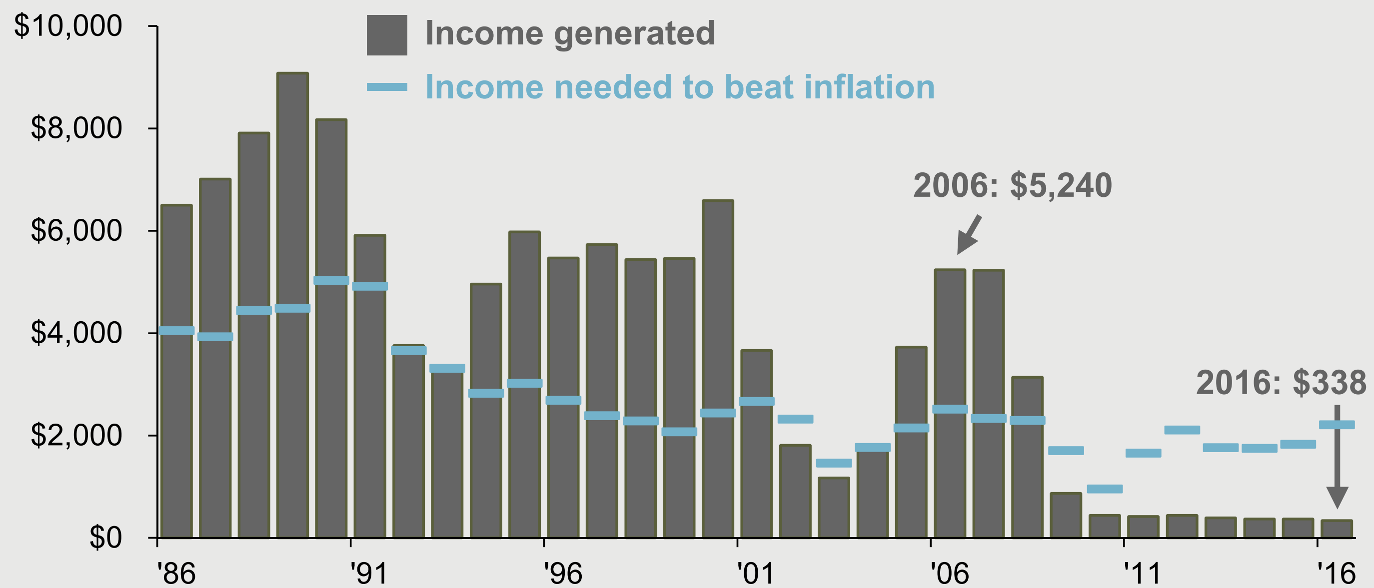
Characteristics of bull and bear markets

	Market Corrections	Bear markets: Market peak	Bear markets: Bear return*	Bear markets: Duration (months)*	Macro environment: Recession	Macro environment: Commodity spike	Macro environment: Aggressive Fed	Macro environment: Extreme valuations	Bull markets: Bull begin date	Bull markets: Bull return	Bull markets: Duration (months)
1	Crash of 1929 - Excessive leverage, irrational exuberance	Sep 1929	-86%	32	◆			◆	Jul 1926	152%	37
2	1937 Fed Tightening - Premature policy tightening	Mar 1937	-60%	61	◆		◆		Mar 1935	129%	23
3	Post WWII Crash - Post-war demobilization, recession fears	May 1946	-30%	36	◆			◆	Apr 1942	158%	49
4	Flash Crash of 1962 - Flash crash, Cuban Missile Crisis	Dec 1961	-28%	6				◆	Oct 1960	39%	13
5	Tech Crash of 1970 - Economic overheating, civil unrest	Nov 1968	-36%	17	◆	◆	◆		Oct 1962	103%	73
6	Stagflation - OPEC oil embargo	Jan 1973	-48%	20	◆	◆			May 1970	74%	31
7	Volcker Tightening - Whip Inflation Now	Nov 1980	-27%	20	◆	◆	◆		Mar 1978	62%	32
8	1987 Crash - Program trading, overheating markets	Aug 1987	-34%	3				◆	Aug 1982	229%	60
9	Tech Bubble - Extreme valuations, .com boom/bust	Mar 2000	-49%	30	◆			◆	Oct 1990	417%	113
10	Global Financial Crisis - Leverage/housing, Lehman collapse	Oct 2007	-57%	17	◆	◆	◆		Oct 2002	101%	60
	Current Cycle								Mar 2009	258%	99
	Averages	-	**-45%**	**24**					-	**156%**	**54**

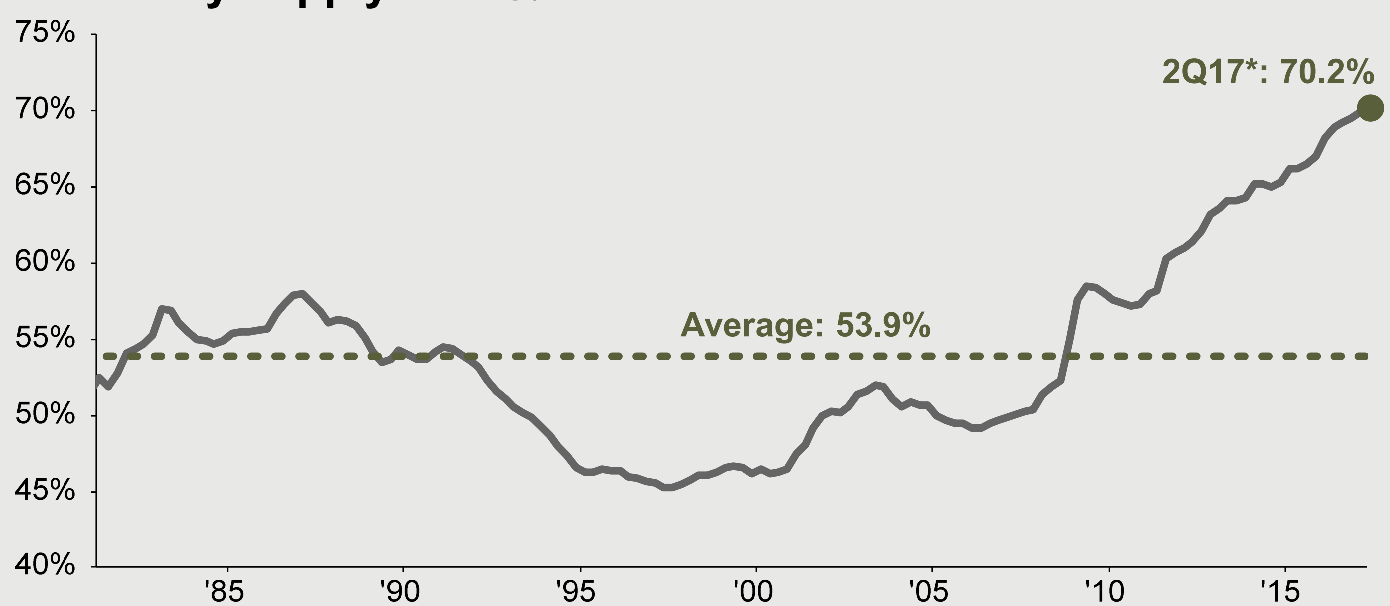
Source: FactSet, NBER, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.
*A bear market is defined as a 20% or more decline from the previous market high. The bear return is the peak to trough return over the cycle. Periods of "Recession" are defined using NBER business cycle dates. "Commodity spikes" are defined as significant rapid upward moves in oil prices. Periods of "Extreme valuations" are those where S&P 500 last 12 months' P/E levels were approximately two standard deviations above long-run averages, or time periods where equity market valuations appeared expensive given the broader macroeconomic environment. "Aggressive Fed Tightening" is defined as Federal Reserve monetary tightening that was unexpected and/or significant in magnitude. Bear and Bull returns are price returns.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Cash accounts

Annual income generated by $100,000 investment in a 6-mo. CD



M2 money supply as a % of nominal GDP



Money supply component	USD billions	Weight in money supply
M2-M1	**$9,990**	**80.0%**
Retail MMMFs	$679	5.4%
Savings deposits	$8,962	71.8%
Small time deposits	$349	2.8%
Institutional MMMFs	**$1,746**	**14.0%**
Cash in IRA & Keogh accounts	**$747**	**6.0%**
Total	**$12,483**	**100.0%**

Investing principles

Source: FactSet, J.P. Morgan Asset Management; (Top left) Bankrate.com; (Bottom left and right) BEA, Federal Reserve, St. Louis Fed.
All cash measures obtained from the Federal Reserve are latest available seasonally adjusted month averages. All numbers are in billions of U.S. dollars. Small-denomination time deposits are those issued in amounts of less than $100,000. All IRA and Keogh account balances at commercial banks and thrift institutions are subtracted from small time deposits. Annual income is for illustrative purposes and is calculated based on the 6-month CD yield on average during each year and $100,000 invested. IRA and Keogh account balances at money market mutual funds are subtracted from retail money funds. Past performance is not indicative of comparable future results. *2Q17 figure is a J.P. Morgan Asset Management estimate.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Correlations between weekly stock returns and interest rate movements

Weekly S&P 500 returns, 10-year Treasury yield, rolling 2-year correlation, June 1963 – June 2017

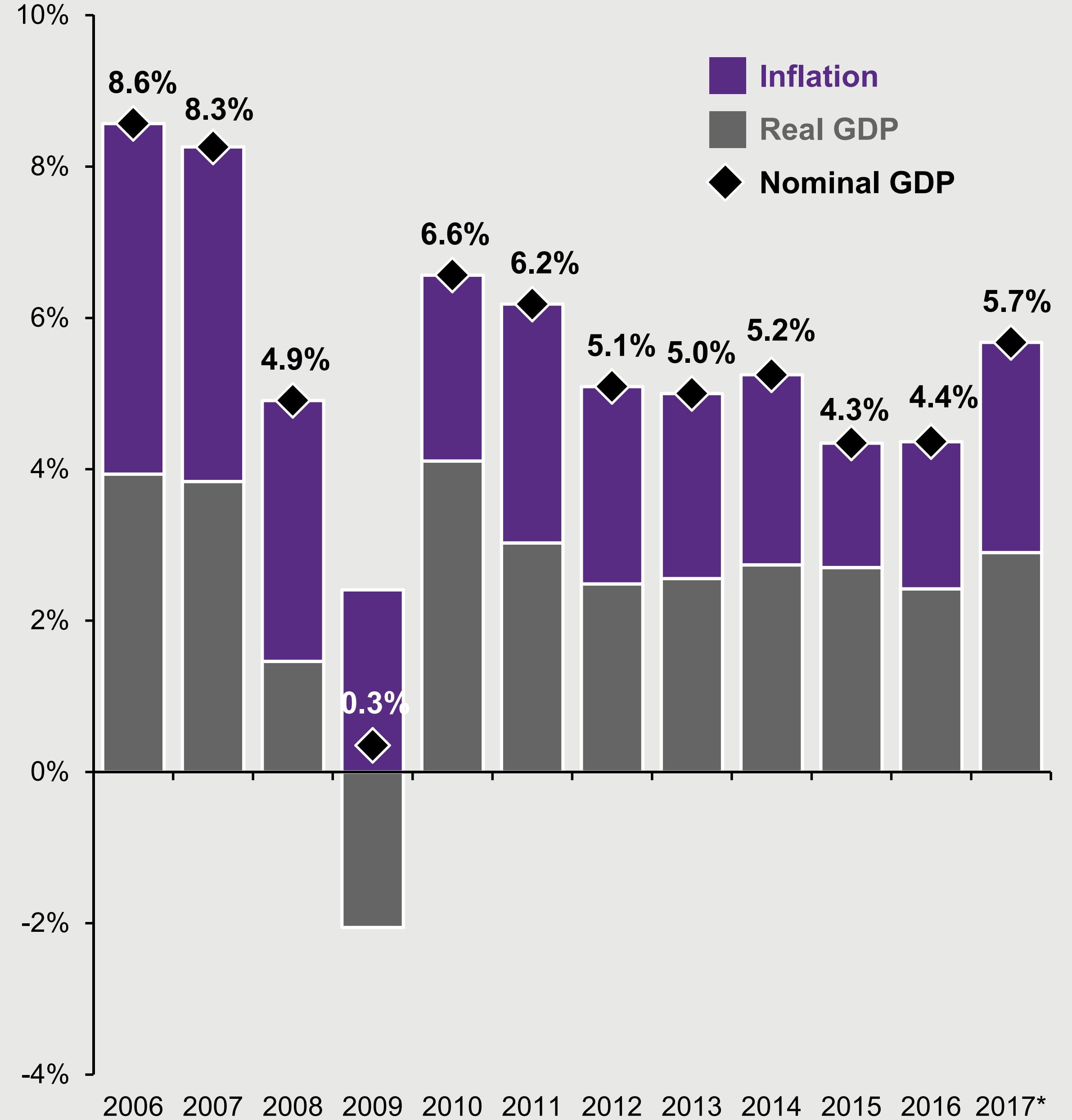
Source: FactSet, Standard & Poor's, FRB, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Markers represent monthly 2-year correlations only.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Global reflation

International

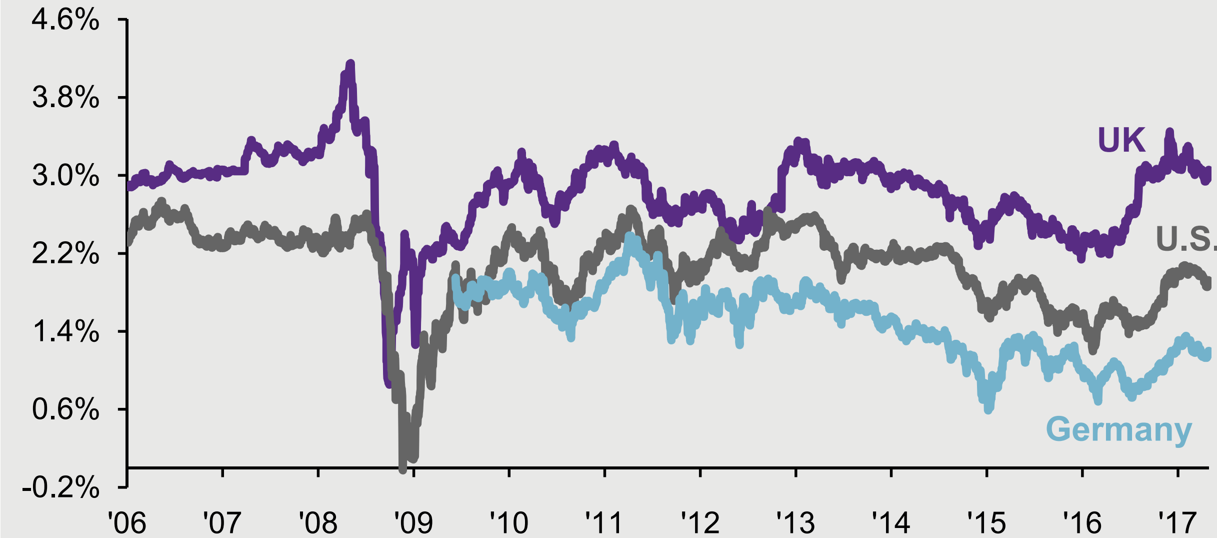
Components of global growth

Nominal GDP growth broken down into real GDP growth and inflation



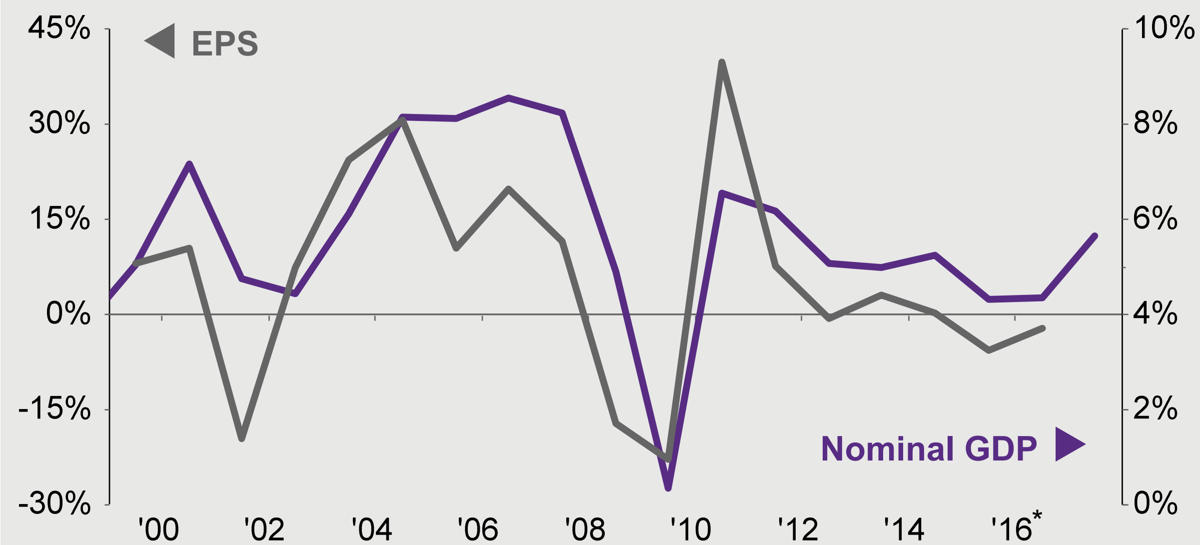
Global inflation breakevens

10-year inflation breakevens**



Global GDP growth and corporate profits

Year-over-year growth, nominal GDP, MSCI AC World trailing EPS



Source: J.P. Morgan Asset Management; (Left) IMF; (Top right) Bloomberg; (Bottom right) IMF, MSCI, FactSet.
Nominal GDP used is based on purchasing power parity (PPP) valuation of country GDP. *2017 global GDP data is an IMF forecast. **Inflation breakevens are calculated by subtracting 10-year inflation-protected securities from 10-year nominal yields. Germany inflation breakeven data begins in June 2009.
Guide to the Markets – U.S. Data are as of June 30, 2017.

Themes this Quarter

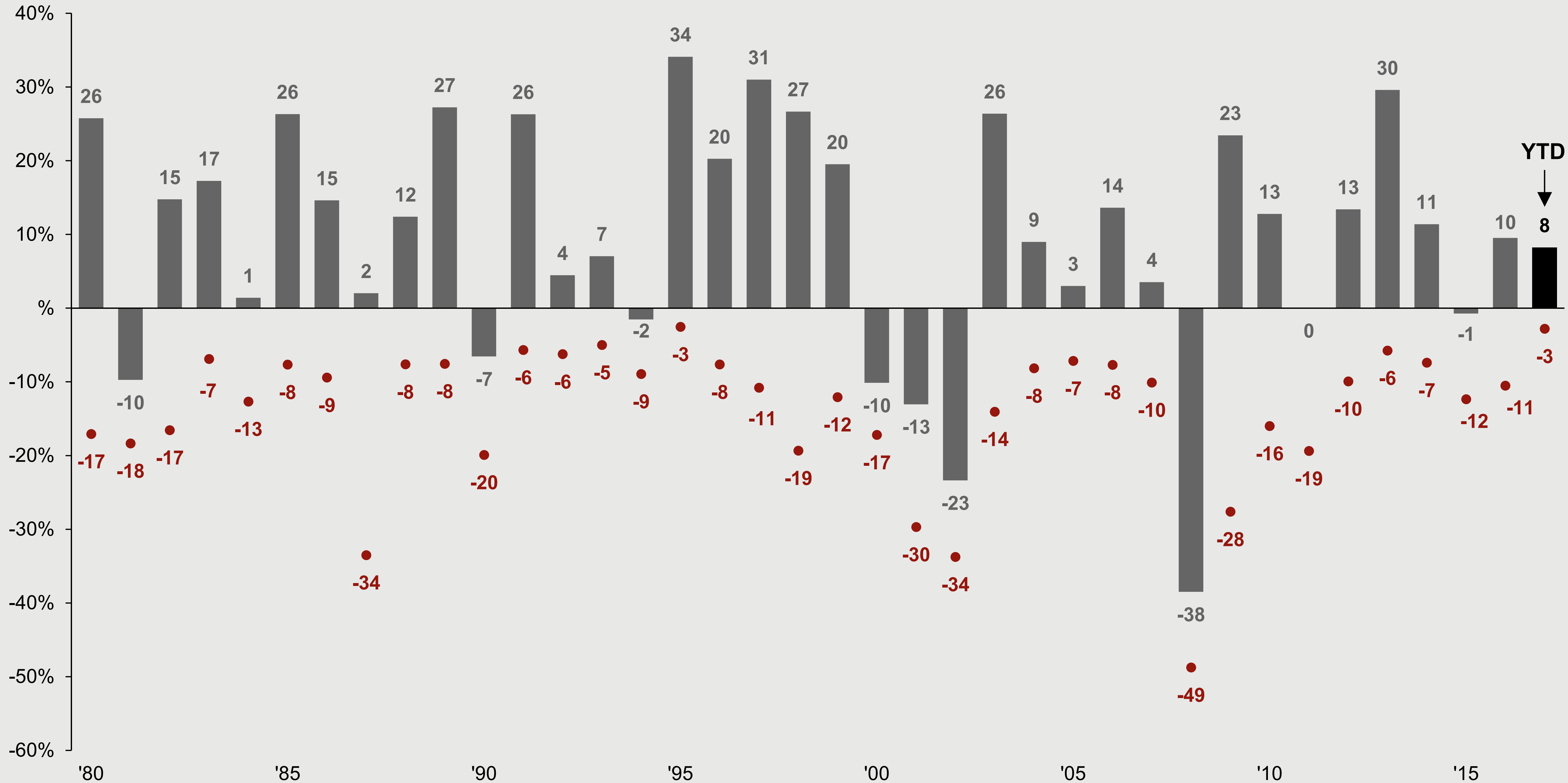
- Economic update
- Interest rate update/expectations
- Equity market assumptions
- **What should investors do?**

Annual returns and intra-year declines

Equities

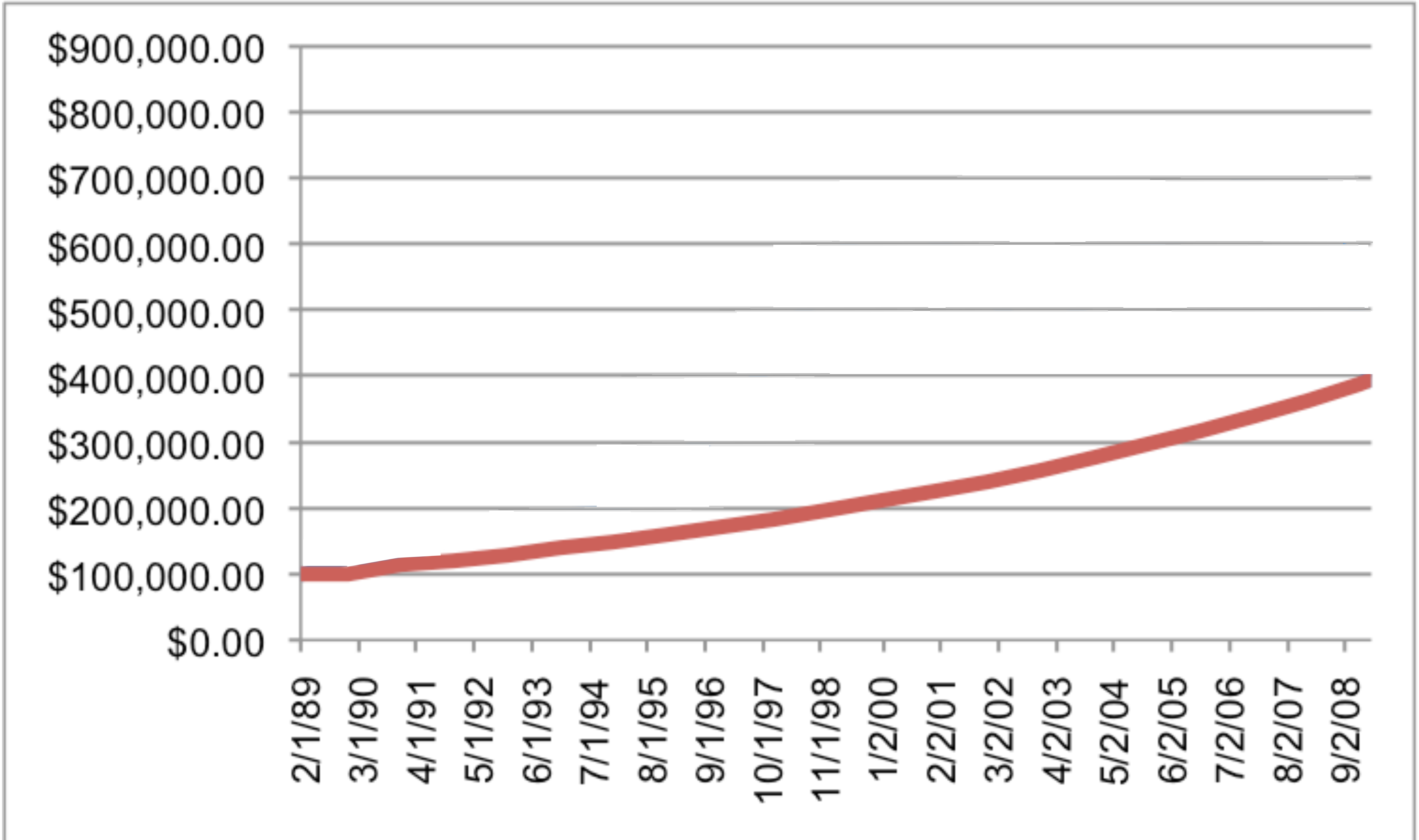
S&P 500 intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.1%, annual returns positive in 28 of 37 years



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2016, over which time period the average annual return was 8.5%. The 2017 bar represents the year-to-date return and is not included in the average annual return calculation.
Guide to the Markets – U.S. Data are as of June 30, 2017.

J.P.Morgan
Asset Management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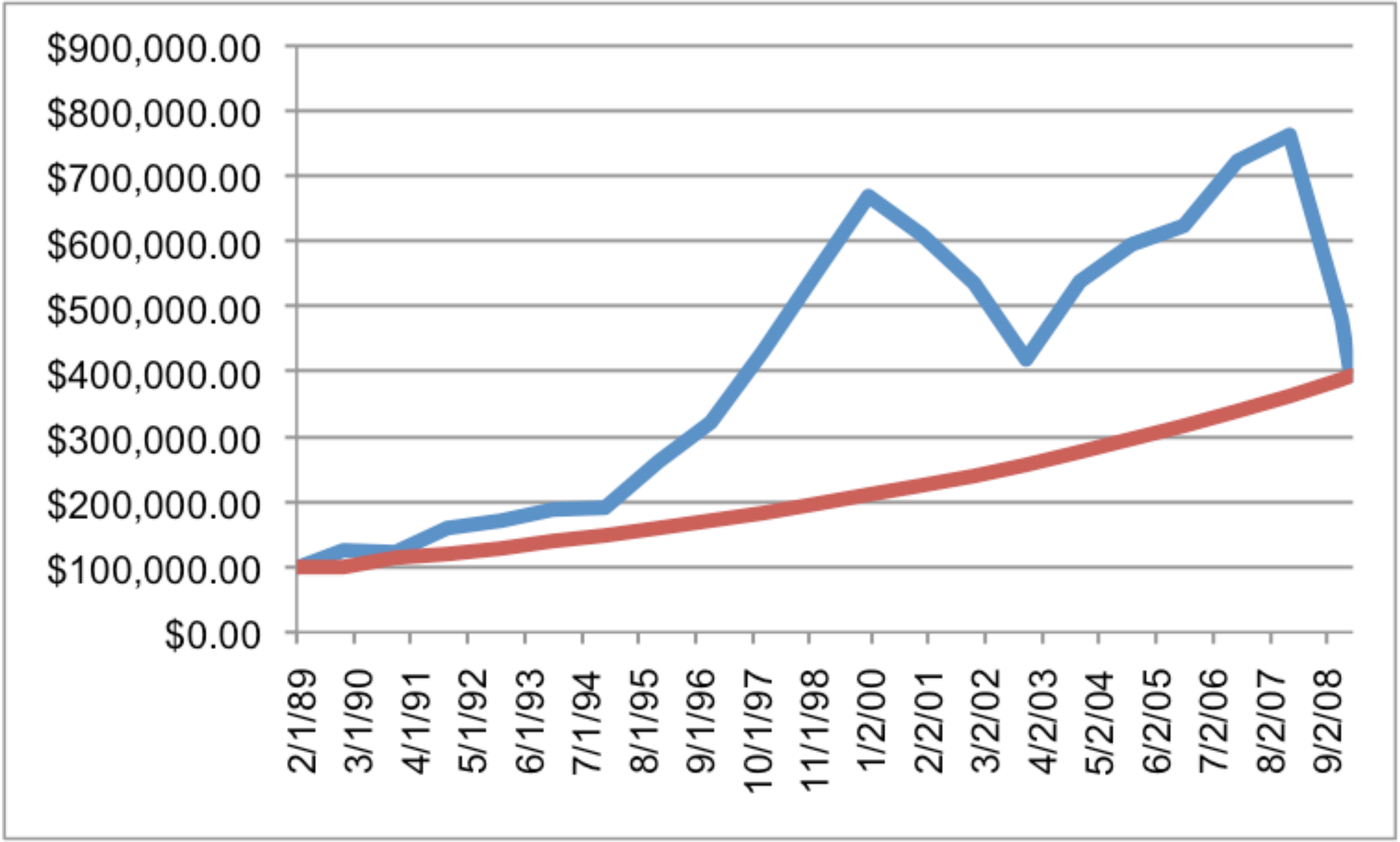
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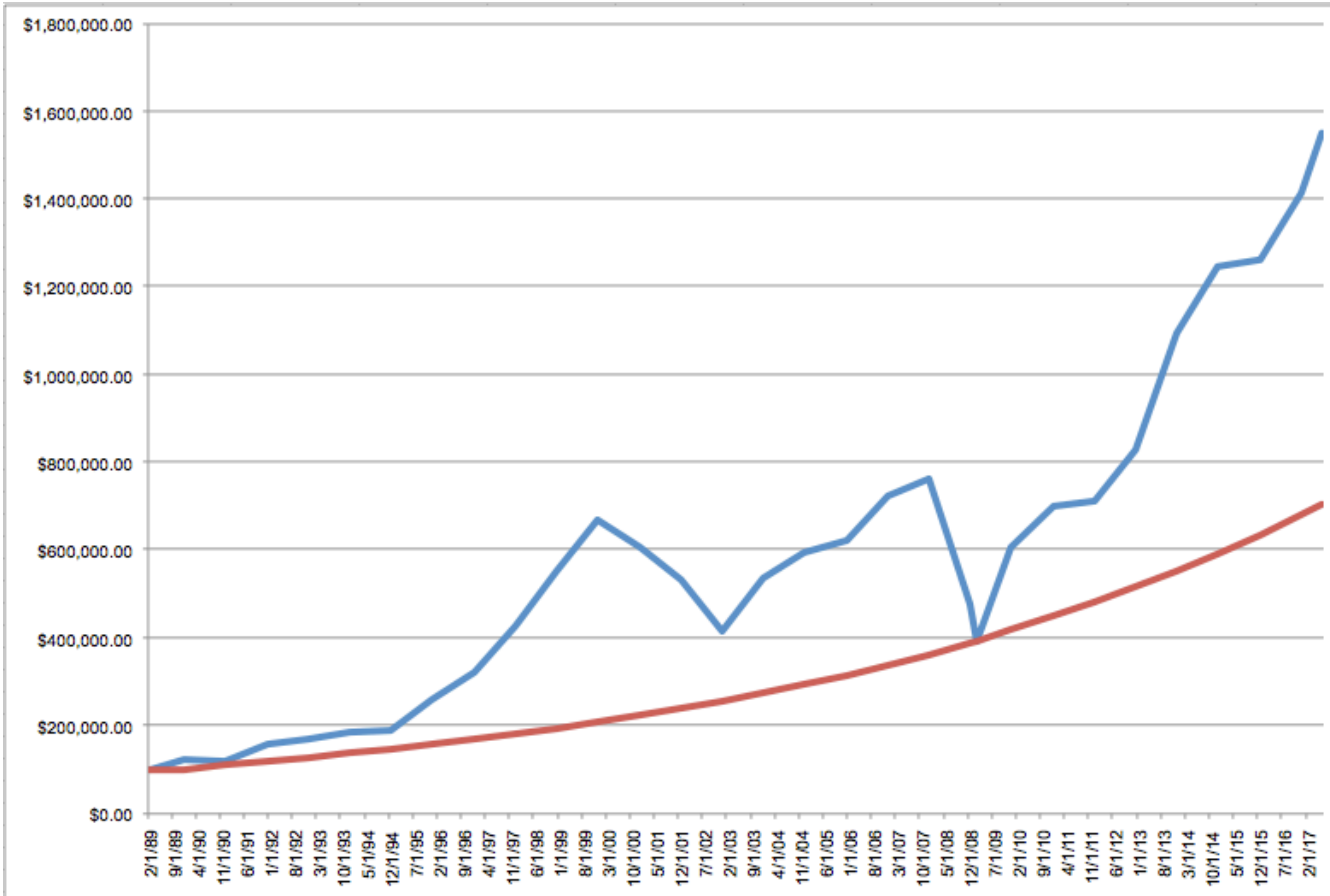
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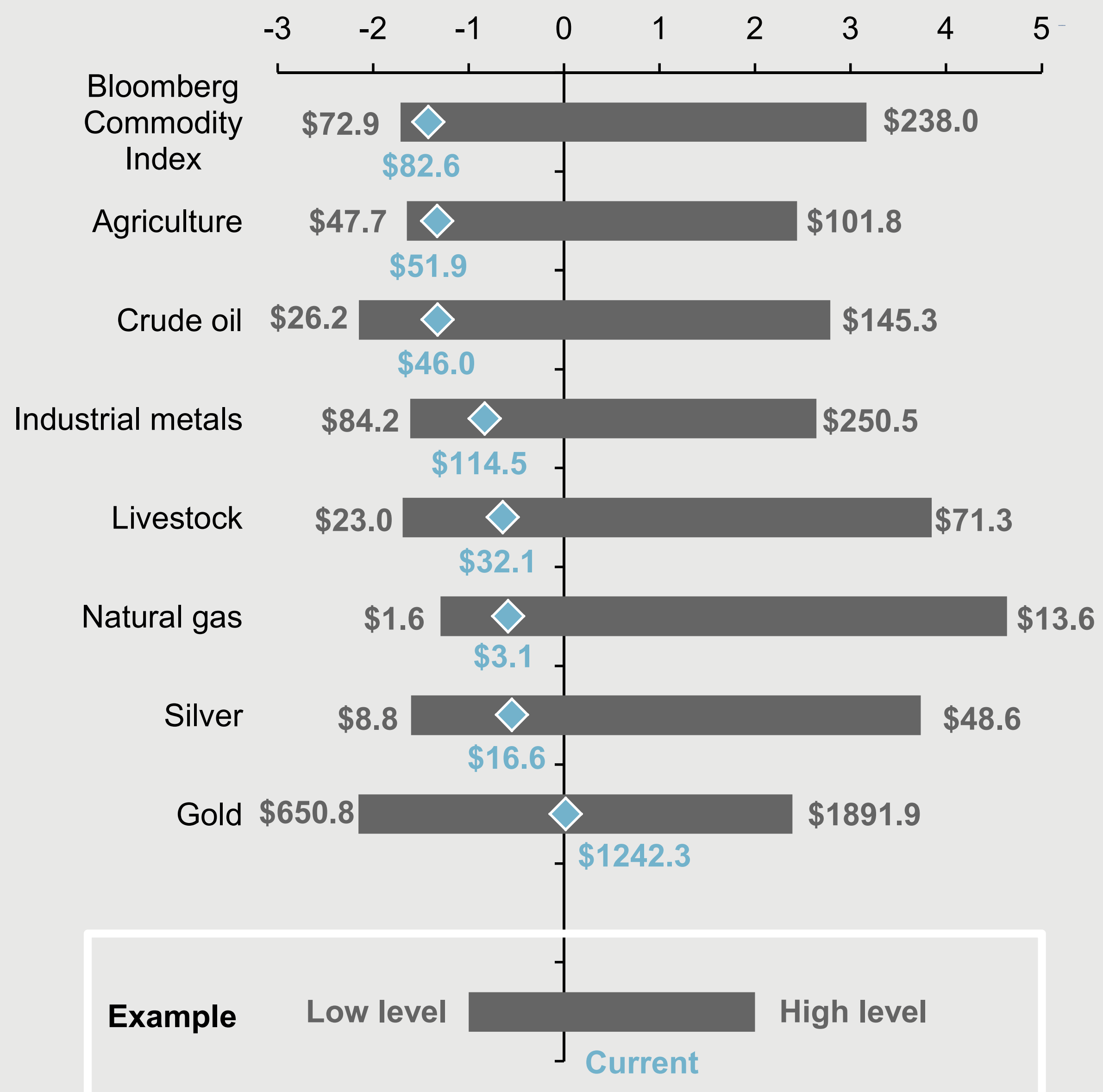
Global commodities

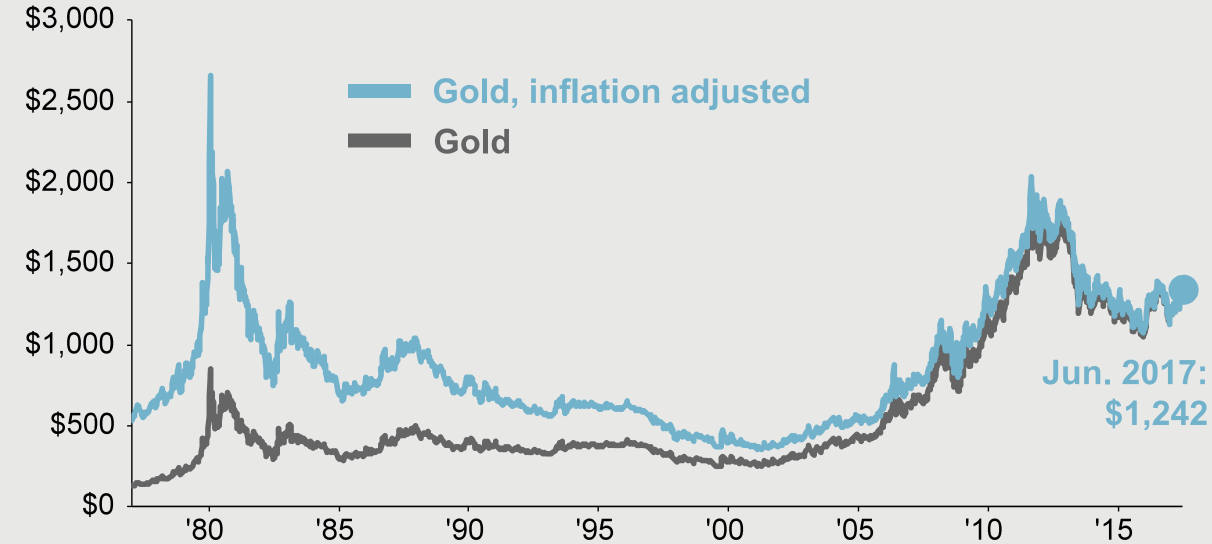
Commodity prices

Commodity price z-scores



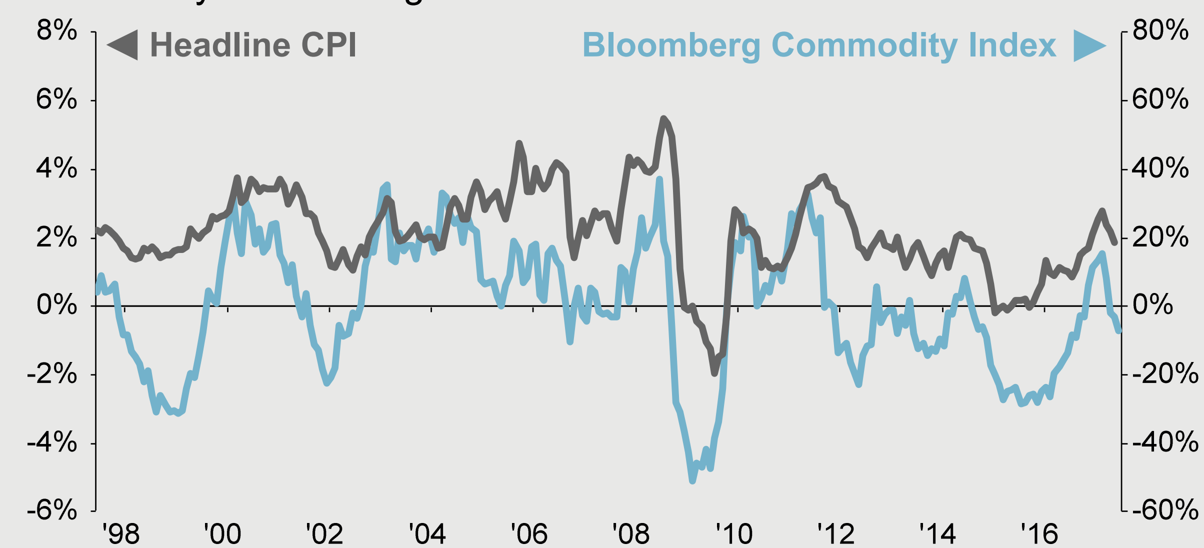
Gold prices

USD per ounce



Commodity prices and inflation

Year-over-year % change



Source: FactSet, J.P. Morgan Asset Management; (Left) Bloomberg, CME; (Top right) BLS, CME; (Bottom right) Bloomberg, BLS.
Commodity prices are represented by the appropriate Bloomberg Commodity sub-index. Crude oil shown is Brent crude. Other commodity prices are represented by futures contracts. Z-scores are calculated using daily prices over the past 10 years.
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Other asset classes

J.P.Morgan Asset Management

YANKE FINANCIAL

CAPITAL MARKETS REVIEW

3Q17

Sector returns

GTM – U.S. | On the Bench

Equities

											2007 - 2016	
2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	YTD	Ann.	Vol.
Energy 34.4%	Cons. Staples -15.4%	Info. Tech 61.7%	Real Estate 32.3%	Utilities 20.0%	Financials 28.8%	Cons. Disc. 43.1%	Real Estate 30.2%	Cons. Disc. 10.1%	Energy 27.4%	Info. Tech 17.2%	Cons. Staples 10.1%	Financials 27.5%
Materials 22.5%	Health Care -22.8%	Materials 48.6%	Cons. Disc. 27.7%	Cons. Staples 14.0%	Cons. Disc. 23.9%	Health Care 41.5%	Utilities 29.0%	Health Care 6.9%	Telecom 23.5%	Health Care 16.1%	Info. Tech 9.9%	Real Estate 26.9%
Utilities 19.4%	Utilities -29.0%	Cons. Disc. 41.3%	Industrials 26.7%	Health Care 12.7%	Real Estate 19.7%	Industrials 40.7%	Health Care 25.3%	Cons. Staples 6.6%	Financials 22.8%	Cons. Disc. 11.0%	Cons. Disc. 9.6%	Energy 22.5%
Info. Tech 16.3%	Telecom -30.5%	Real Estate 27.1%	Materials 22.2%	Real Estate 11.4%	Telecom 18.3%	Financials 35.6%	Info. Tech 20.1%	Info. Tech 5.9%	Industrials 18.9%	Industrials 9.5%	Health Care 9.6%	Materials 22.2%
Cons. Staples 14.2%	Cons. Disc. -33.5%	S&P 500 26.5%	Energy 20.5%	Telecom 6.3%	Health Care 17.9%	S&P 500 32.4%	Cons. Staples 16.0%	Real Estate 4.7%	Materials 16.7%	S&P 500 9.3%	Industrials 7.8%	Industrials 20.7%
Industrials 12.0%	Energy -34.9%	Industrials 20.9%	Telecom 19.0%	Cons. Disc. 6.1%	S&P 500 16.0%	Info. Tech 28.4%	Financials 15.2%	Telecom 3.4%	Utilities 16.3%	Materials 9.2%	Utilities 7.0%	Info. Tech 18.5%
Telecom 11.9%	S&P 500 -37.0%	Health Care 19.7%	S&P 500 15.1%	Energy 4.7%	Industrials 15.3%	Cons. Staples 26.1%	S&P 500 13.7%	S&P 500 1.4%	Info. Tech 13.8%	Utilities 8.8%	S&P 500 6.9%	Cons. Disc. 17.8%
Health Care 7.1%	Industrials -39.9%	Financials 17.2%	Cons. Staples 14.1%	Info. Tech 2.4%	Materials 15.0%	Materials 25.6%	Industrials 9.8%	Financials -1.5%	S&P 500 12.0%	Cons. Staples 8.0%	Telecom 6.4%	S&P 500 16.2%
S&P 500 5.5%	Real Estate -42.3%	Cons. Staples 14.9%	Financials 12.1%	S&P 500 2.1%	Info. Tech 14.8%	Energy 25.1%	Cons. Disc. 9.7%	Industrials -2.5%	Cons. Disc. 6.0%	Financials 6.9%	Materials 6.1%	Telecom 15.0%
Cons. Disc. -13.2%	Info. Tech -43.1%	Energy 13.8%	Info. Tech 10.2%	Industrials -0.6%	Cons. Staples 10.8%	Utilities 13.2%	Materials 6.9%	Utilities -4.8%	Cons. Staples 5.4%	Real Estate 6.4%	Energy 4.3%	Utilities 14.9%
Real Estate -17.9%	Materials -45.7%	Utilities 11.9%	Utilities 5.5%	Materials -9.8%	Energy 4.6%	Telecom 11.5%	Telecom 3.0%	Materials -8.4%	Real Estate 3.4%	Telecom -10.7%	Real Estate 4.3%	Health Care 13.8%
Financials -18.6%	Financials -55.3%	Telecom 8.9%	Health Care 2.9%	Financials -17.1%	Utilities 1.3%	Real Estate 1.6%	Energy -7.8%	Energy -21.1%	Health Care -2.7%	Energy -12.6%	Financials -0.4%	Cons. Staples 11.5%

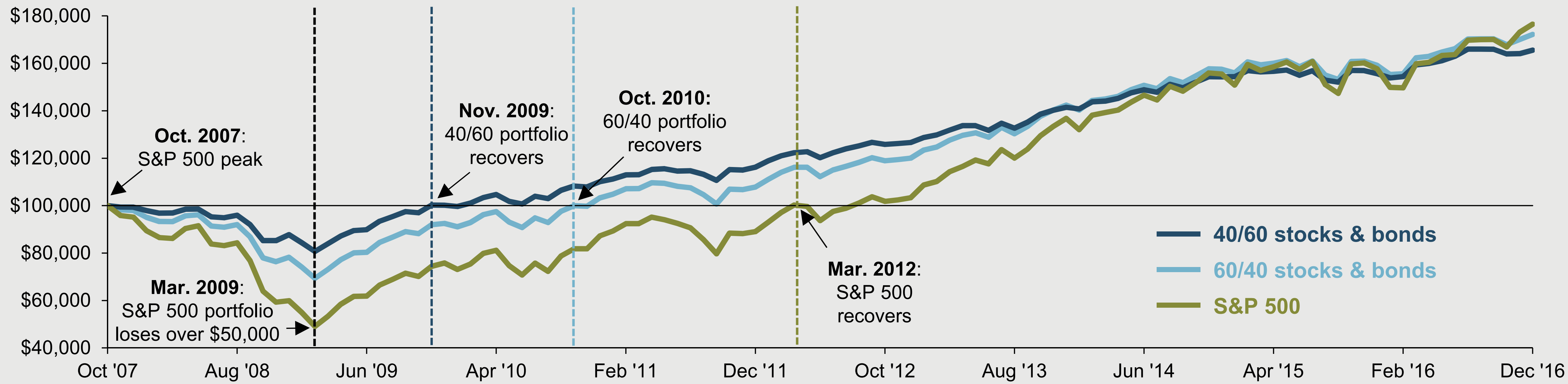
Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.
All data are based on Standard & Poor's GICS indexes and represent total return for stated period. Annualized (Ann.) return and volatility (Vol.) represents period of 12/31/06 – 12/31/16. Please see disclosure page at end for index definitions. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of June 30, 2017.

J.P.Morgan Asset Management

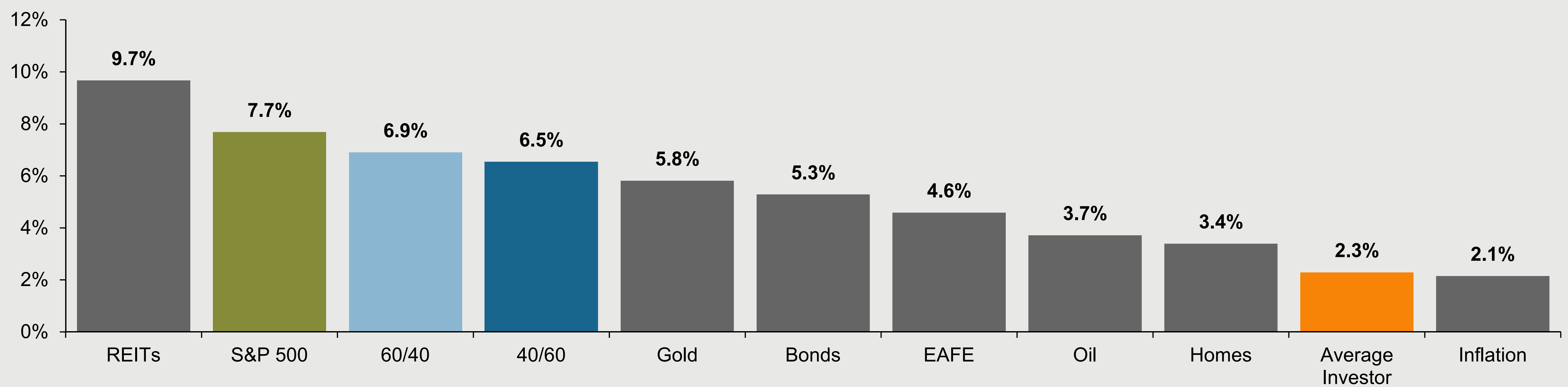
Diversification and the average investor

Investing principles

Portfolio returns: Equities vs. equity and fixed income blend



20-year annualized returns by asset class (1997 – 2016)

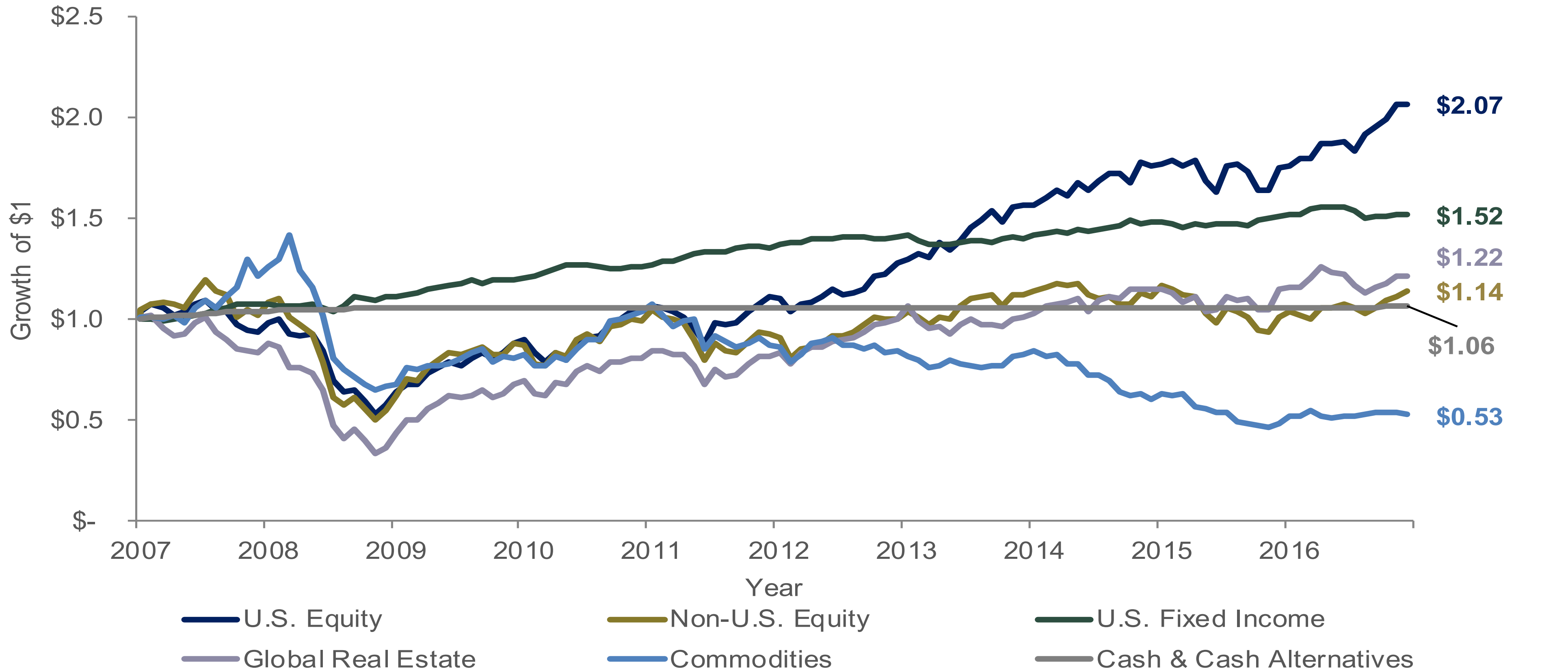


Source: J.P. Morgan Asset Management; (Top) Barclays, FactSet, Standard & Poor's; (Bottom) Dalbar Inc.
Indexes used are as follows: REITS: NAREIT Equity REIT Index, EAFE: MSCI EAFE, Oil: WTI Index, Bonds: Barclays U.S. Aggregate Index, Homes: median sale price of existing single-family homes, Gold: USD/troy oz, Inflation: CPI. 60/40: A balanced portfolio with 60% invested in S&P 500 Index and 40% invested in high quality U.S. fixed income, represented by the Barclays U.S. Aggregate Index. The portfolio is rebalanced annually. Average asset allocation investor return is based on an analysis by Dalbar Inc., which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Returns are annualized (and total return where applicable) and represent the 20-year period ending 12/31/16 to match Dalbar's most recent analysis.
Guide to the Markets – U.S. Data are as of June 30, 2017.

J.P.Morgan Asset Management

Capital Markets

ASSET CLASS RETURNS: GROWTH OF A DOLLAR



Source: Morningstar Direct, as of 3/31/2017

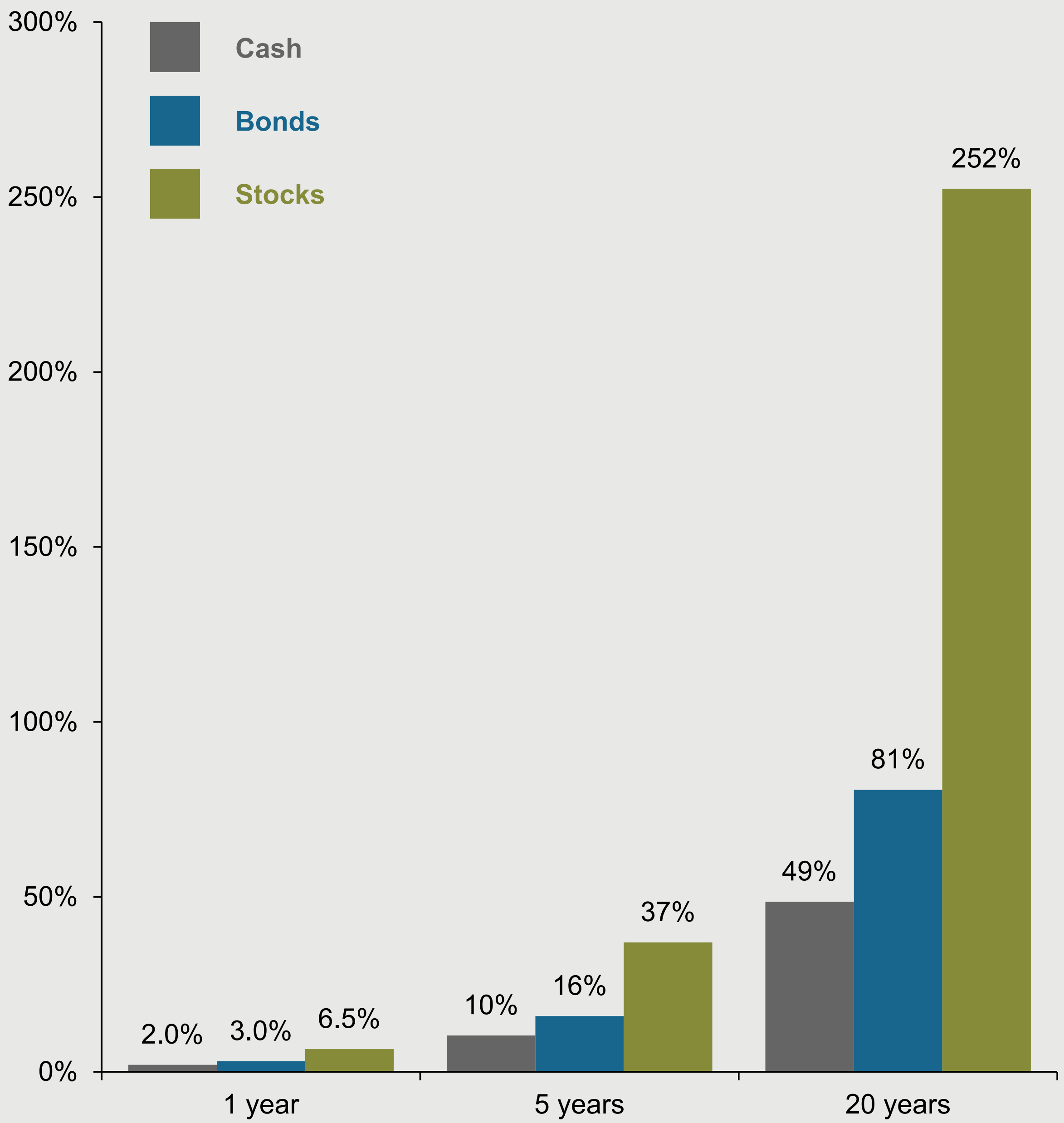
Source: Morningstar Direct, as of 3/31/2017	QTD	YTD	1-Year	3-Year	5-Year	10-Year
U.S. Equity	5.74%	5.74%	18.07%	9.76%	13.18%	7.54%
Non-U.S. Equity	7.86%	7.86%	13.13%	0.56%	4.36%	1.35%
U.S. Fixed Income	0.82%	0.82%	0.44%	2.68%	2.34%	4.27%
Global Real Estate (REITs)	3.18%	3.18%	2.06%	5.09%	6.86%	1.98%
Commodities	-2.33%	-2.33%	8.71%	-13.91%	-9.54%	-6.22%
Cash & Cash Alternatives	0.12%	0.12%	0.34%	0.15%	0.11%	0.61%

 Past performance is not indicative of future results. Please see slides 29-31 for asset class definitions.

The importance of staying invested and limiting losses

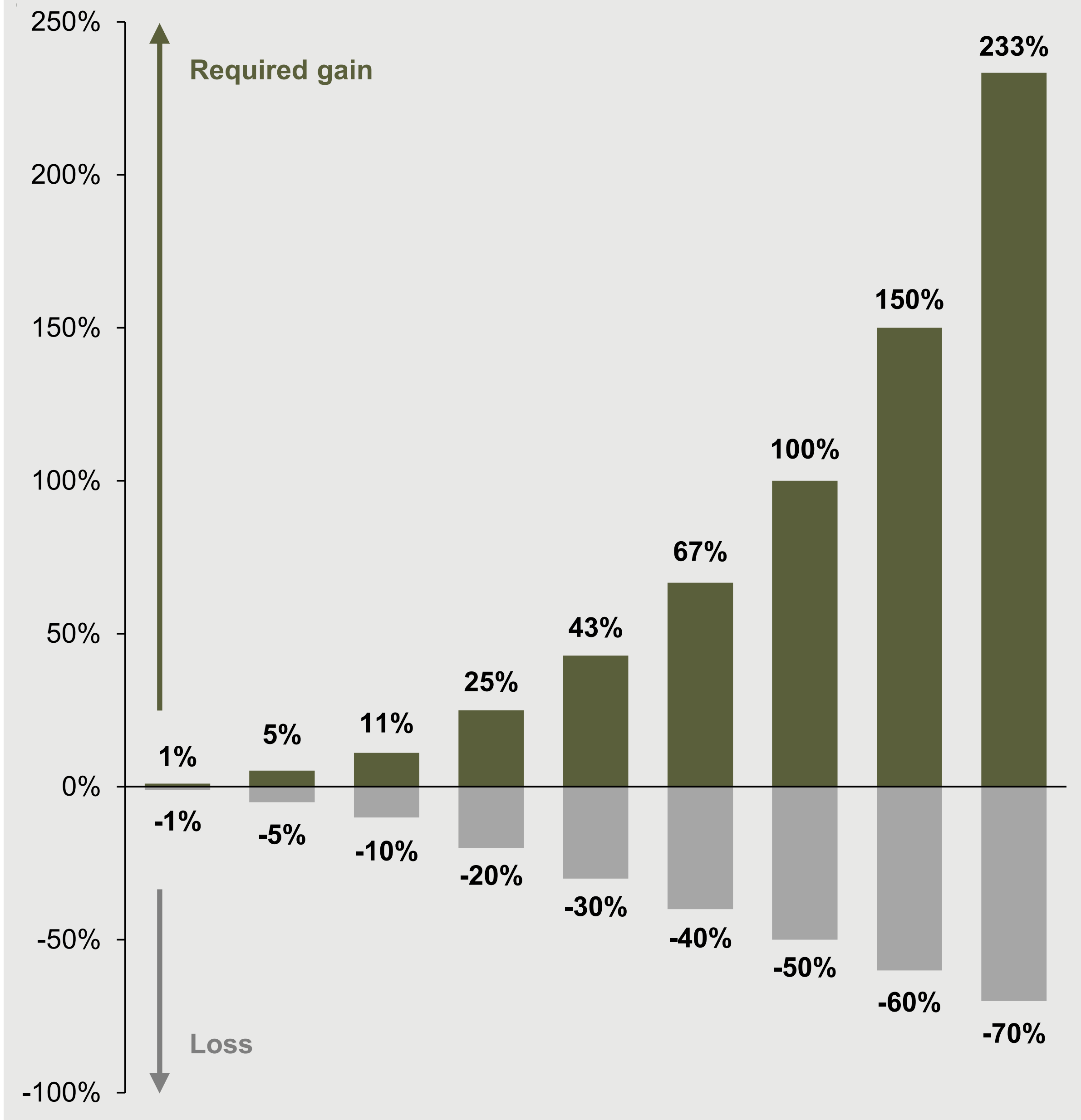
The power of compounding

Cumulative return by holding period*



Gain required to fully recover from a loss

Loss and subsequent gain necessary for full recovery of value



Investing principles

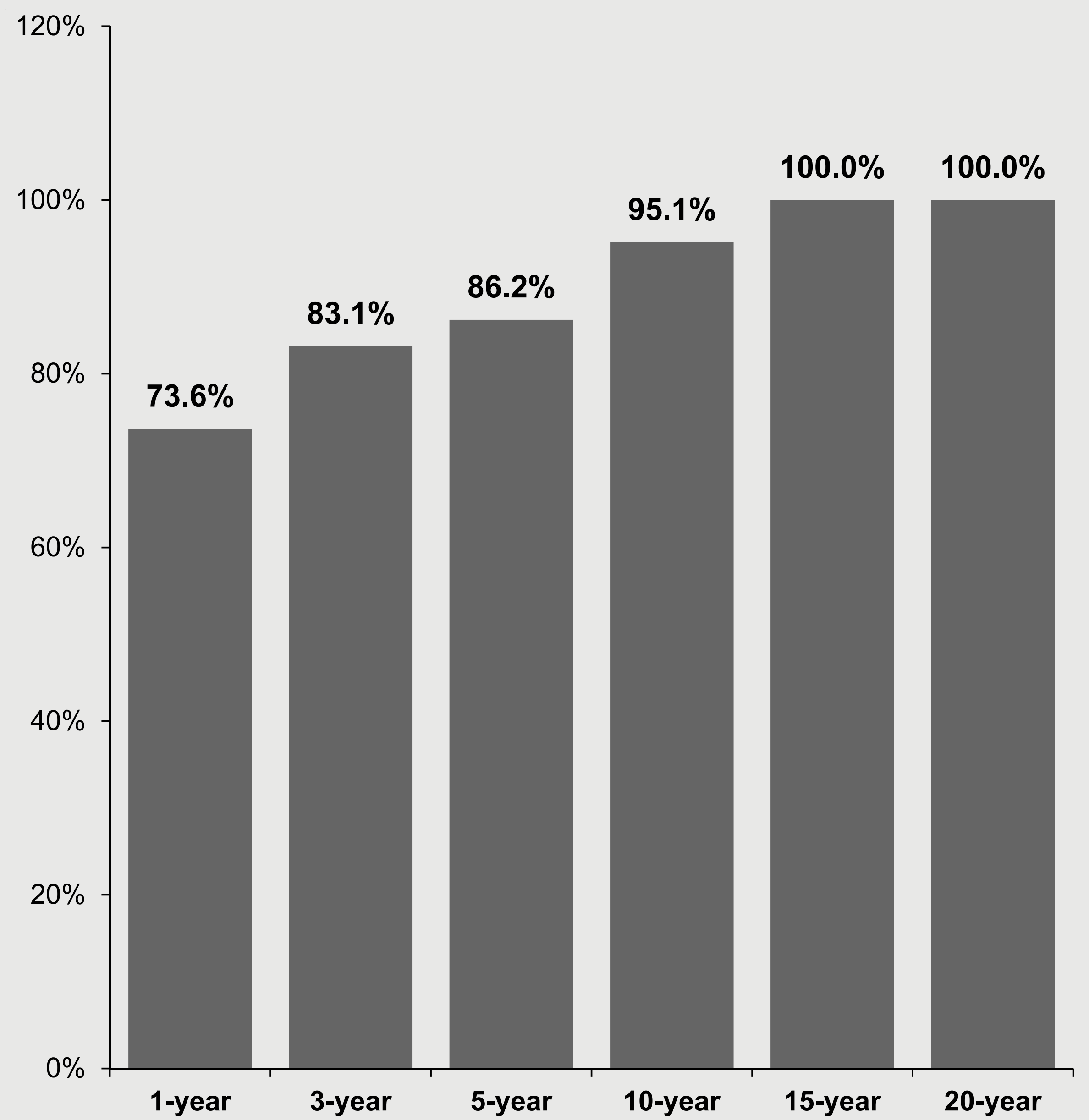
Source: J.P. Morgan Asset Management.
*Asset class growth rates are based on synthetic returns using J.P. Morgan's Long Term Capital Markets Assumptions; projected Bond return is based on assumption for U.S. aggregate bonds; projected Stock return is based on an approximation of the average return assumption among small, medium and large cap U.S. stocks.
Guide to the Markets – U.S. Data are as of June 30, 2017.

J.P.Morgan Asset Management

Investment time horizons

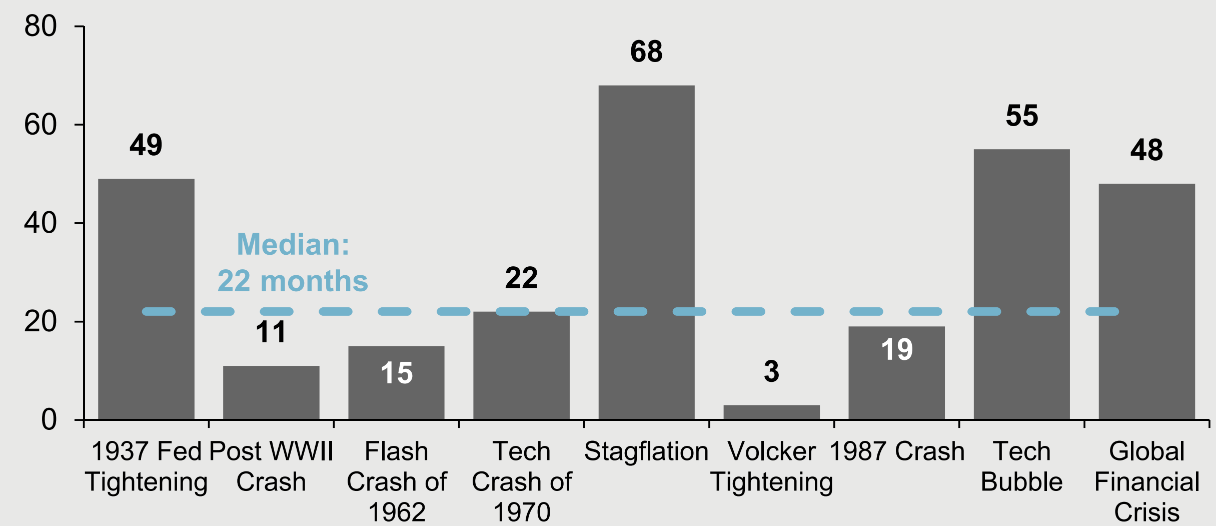
Percent of years of positive stock returns

S&P 500 total return index, annual, 1926–2016, rolling time frames



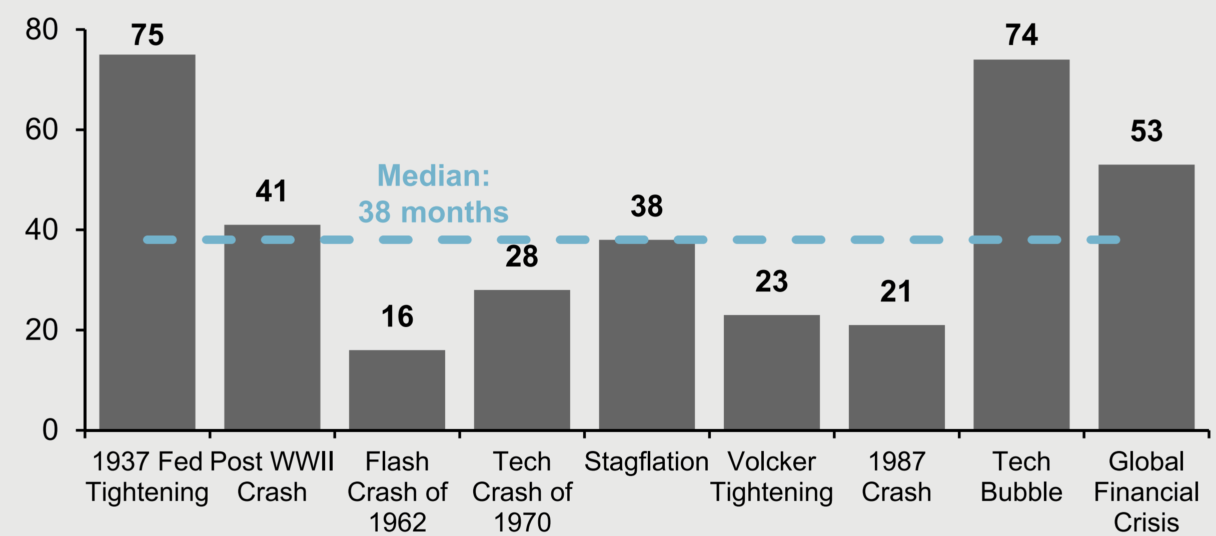
of months to return to prior peak after bear market

S&P 500 Composite total return, monthly, from market low



of months to recover losses in a bear market cycle

S&P 500 total return, monthly, initial investment in peak month



Source: Ibbotson, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of June 30, 2017.

J.P. Morgan Asset Management – Index definitions

All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index**® measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index**® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index**® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index**® measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index**® measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index**® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index**® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index**® measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index** ® measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index** ® measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

Fixed income:

The **Barclays 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Barclays Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Barclays Municipal Index**: consists of a broad selection of investment- grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Barclays US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Barclays US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least $250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Barclays US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Barclays US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Barclays US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**. The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.

J.P. Morgan Asset Management – Index definitions & disclosures

Other asset classes:

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex – U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index - Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

Definitions:

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

Derivatives may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

Equity market neutral strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

Global macro strategies trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

Merger arbitrage strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

Mid-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

Price to forward earnings is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

Real estate investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

Relative Value Strategies maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

Small-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

J.P. Morgan Asset Management – Risks & disclosures

The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

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Unless otherwise stated, all data are as of June 30, 2017 or most recently available.

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J.P.Morgan
Asset Management

CAPITAL MARKETS REVIEW

Reviewing the quarter ended June 30, 2017

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