



MARKET INSIGHTS

Guide to the Markets[®]

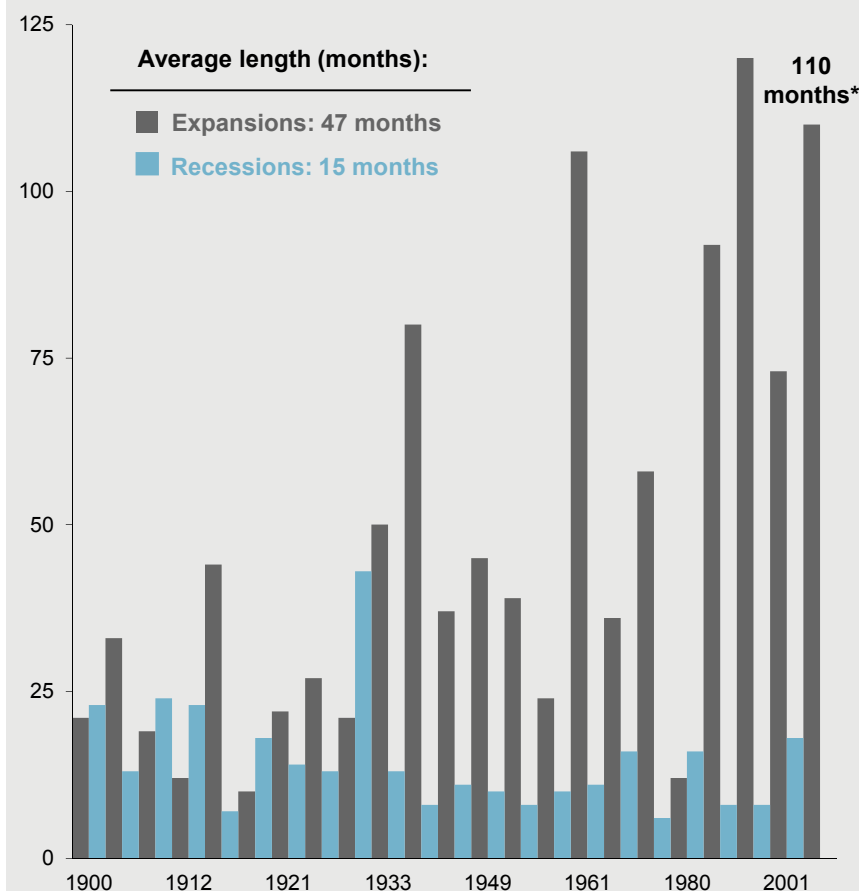
U.S. | 3Q 2018 | As of August 31, 2018

J.P. Morgan



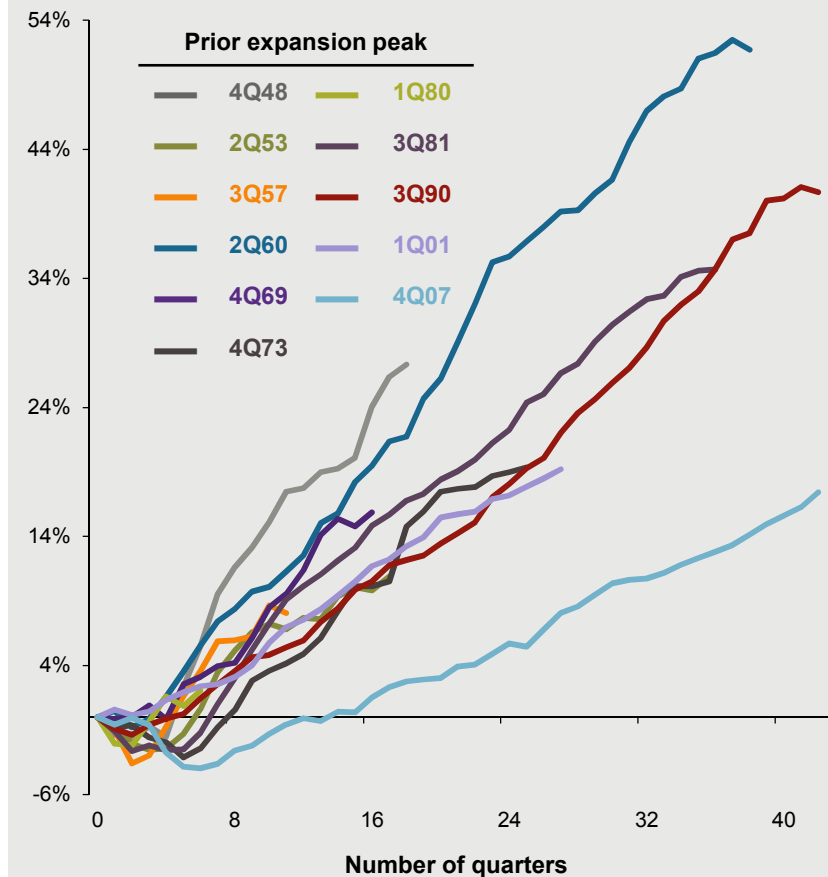
J.P.Morgan
Asset Management

Length of economic expansions and recessions



Strength of economic expansions

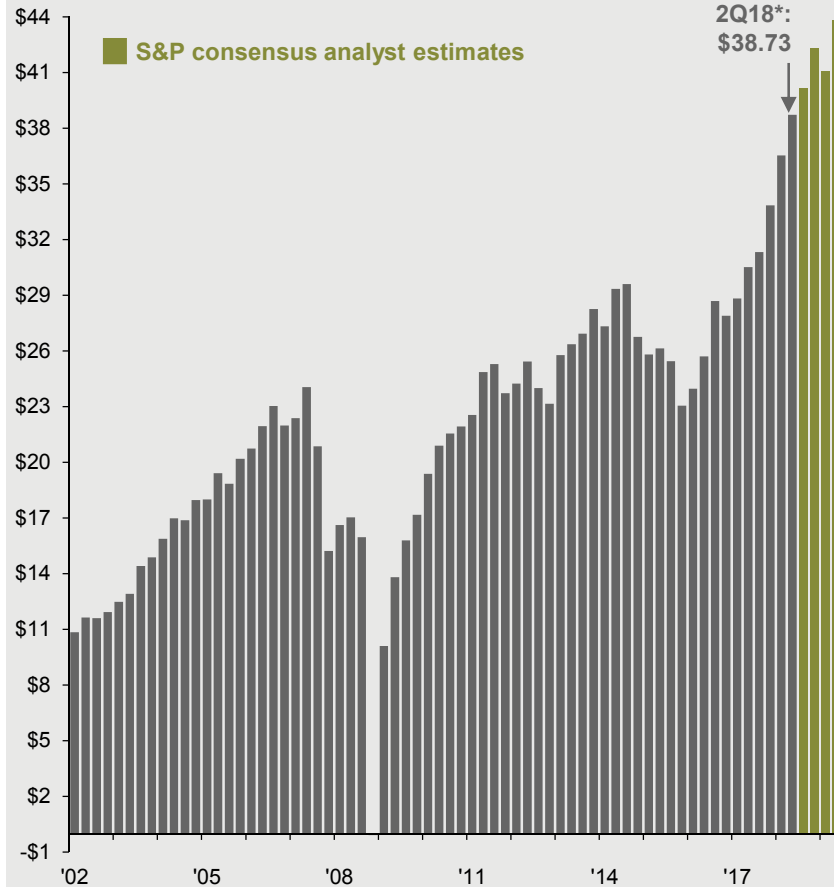
Cumulative real GDP growth since prior peak, percent



Source: BEA, NBER, J.P. Morgan Asset Management. *Chart assumes current expansion started in July 2009 and continued through August 2018, lasting 110 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 August 2018. Guide to the Markets – U.S. Data are as of August 31, 2018.

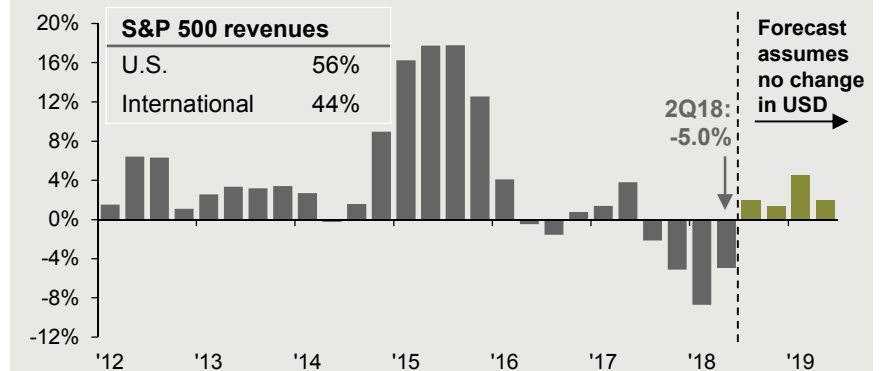
S&P 500 earnings per share

Index quarterly operating earnings



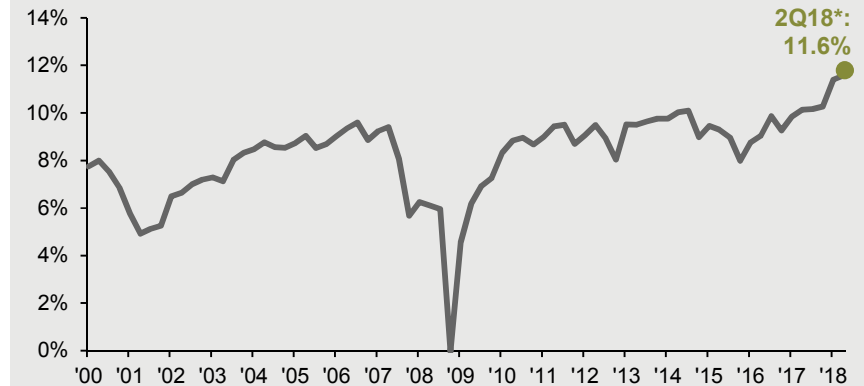
U.S. dollar

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



S&P 500 profit margins

Quarterly operating earnings per share/sales per share

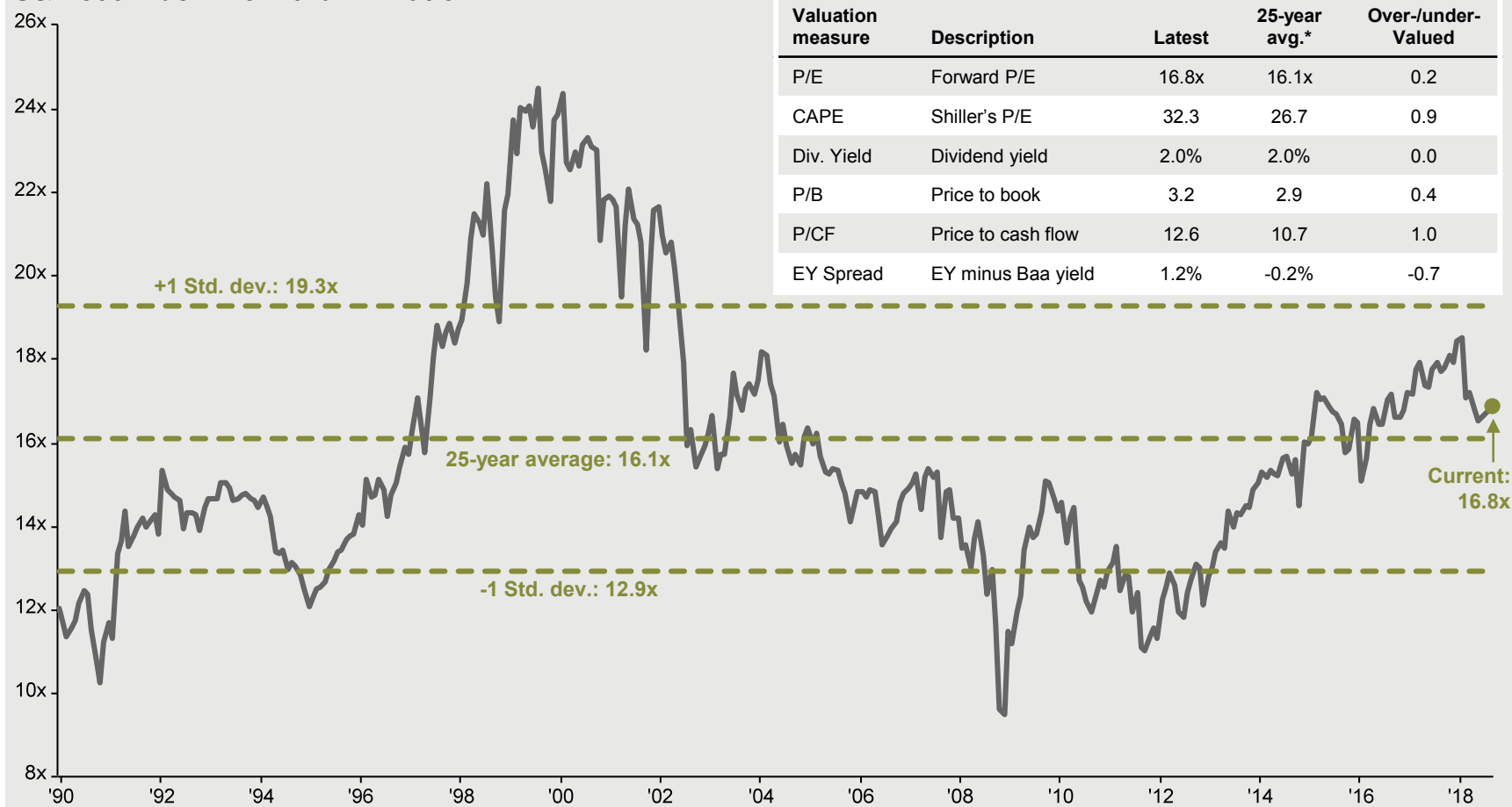


Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management; (Top right) Federal Reserve, S&P 500 individual company 10k filings, S&P Index Alert.

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: Australian dollar, British pound, Canadian dollar, euro, Japanese yen, Swedish krona and Swiss franc. *2Q18 earnings are calculated using actual earnings for 97.8% 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 August 31, 2018 level. S&P 500 revenue breakdown comes from Standard & Poor's S&P 500 2017: Global Sales report as of June 2018.

Guide to the Markets – U.S. Data are as of August 31, 2018.

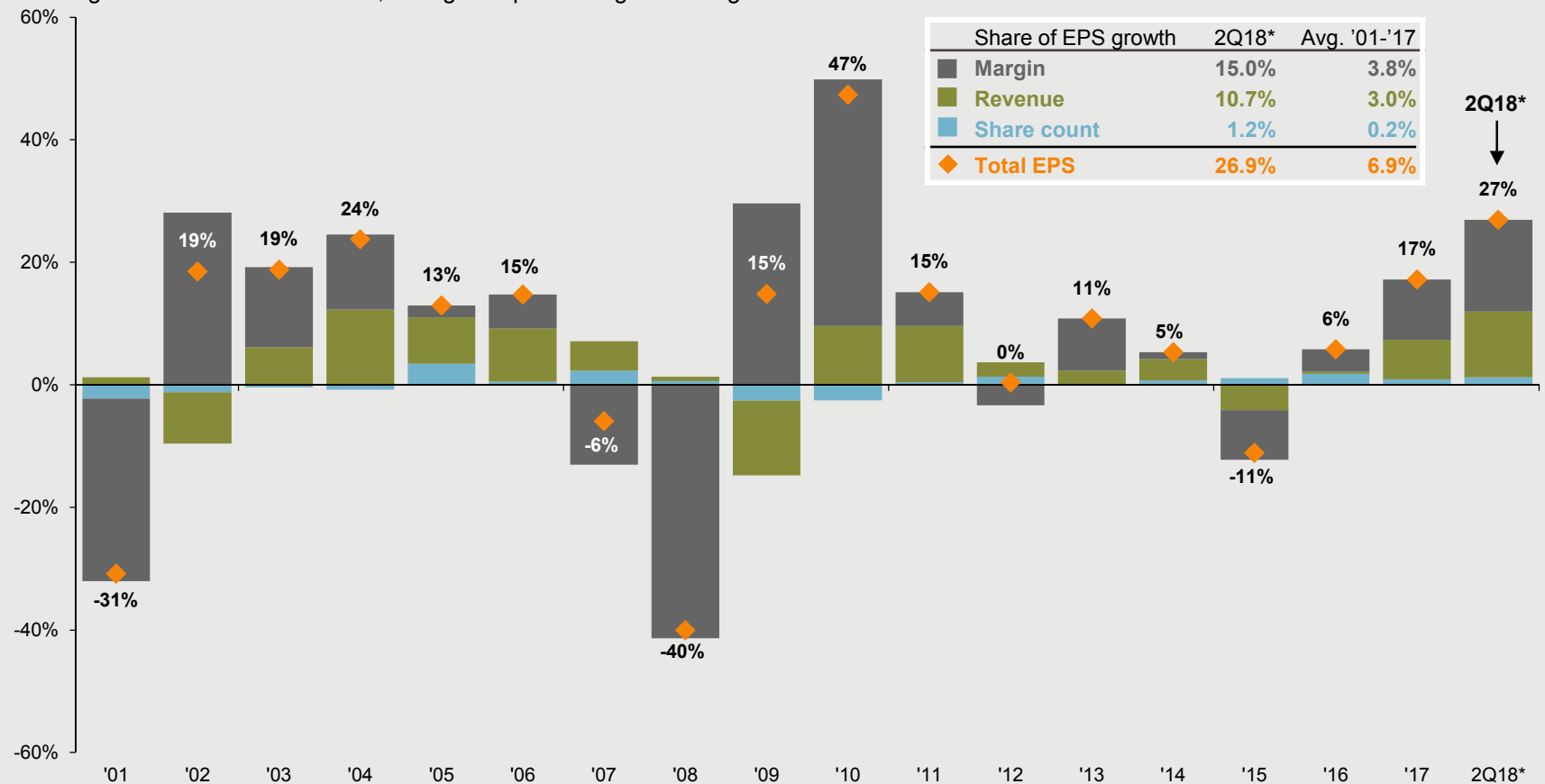
S&P 500 Index: Forward P/E ratio



Source: FactSet, FRB, Robert Shiller, Standard & Poor's, Thomson Reuters, 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 August 31, 2018. 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. *P/CF is a 20-year average due to cash flow data availability. Guide to the Markets – U.S. Data are as of August 31, 2018.

S&P 500 year-over-year EPS growth

Annual growth broken into revenue, changes in profit margin & changes in share count



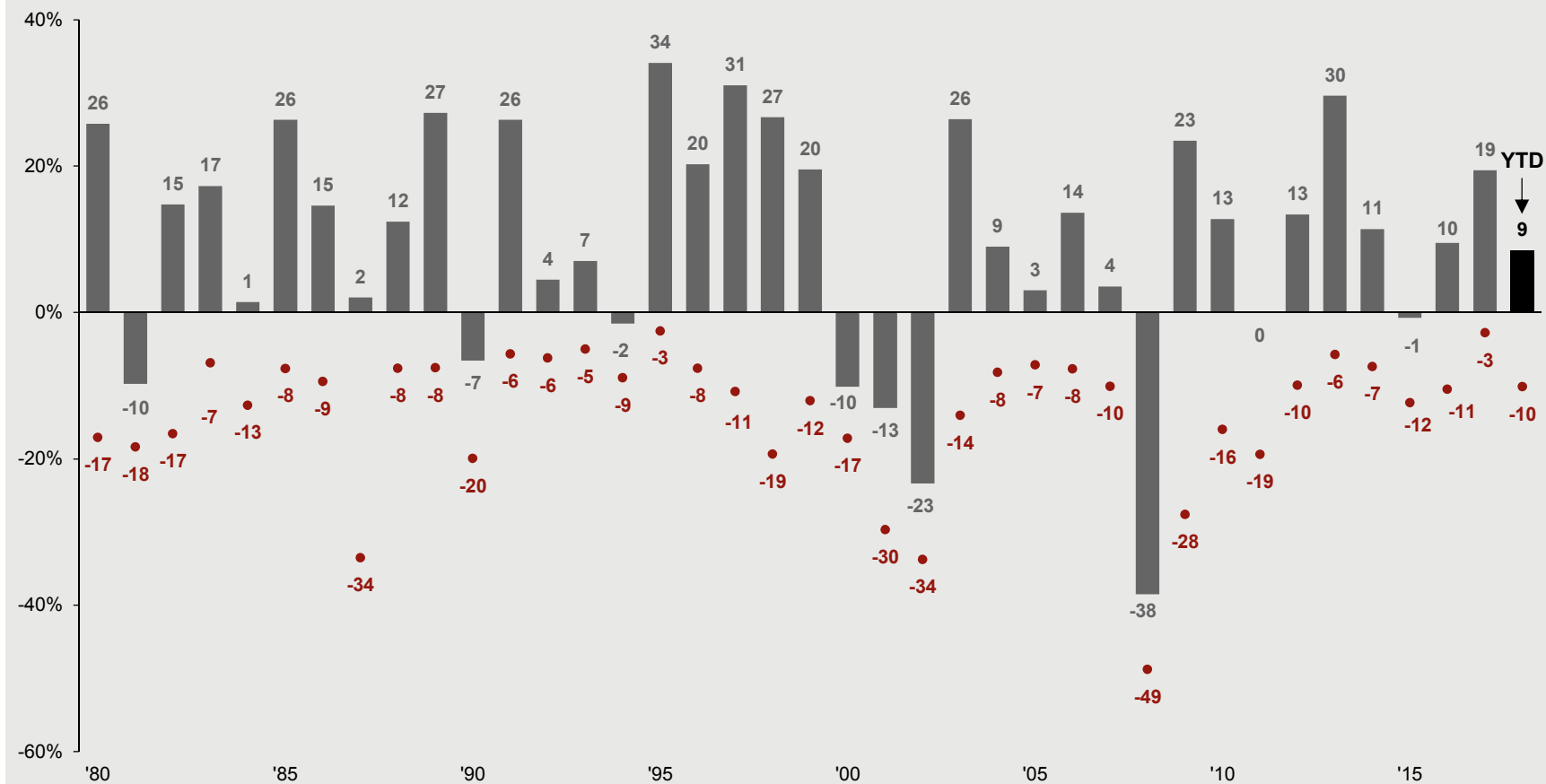
Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.

EPS levels are based on annual operating earnings per share except for 2018 which is quarterly. *2Q18 earnings are calculated using actual earnings for 97.8% of S&P 500 market cap and earnings estimates for the remaining companies. Percentages may not sum due to rounding. Past performance is not indicative of future returns.

Guide to the Markets – U.S. Data are as of August 31, 2018.

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

Despite average intra-year drops of 13.8%, annual returns positive in 29 of 38 years



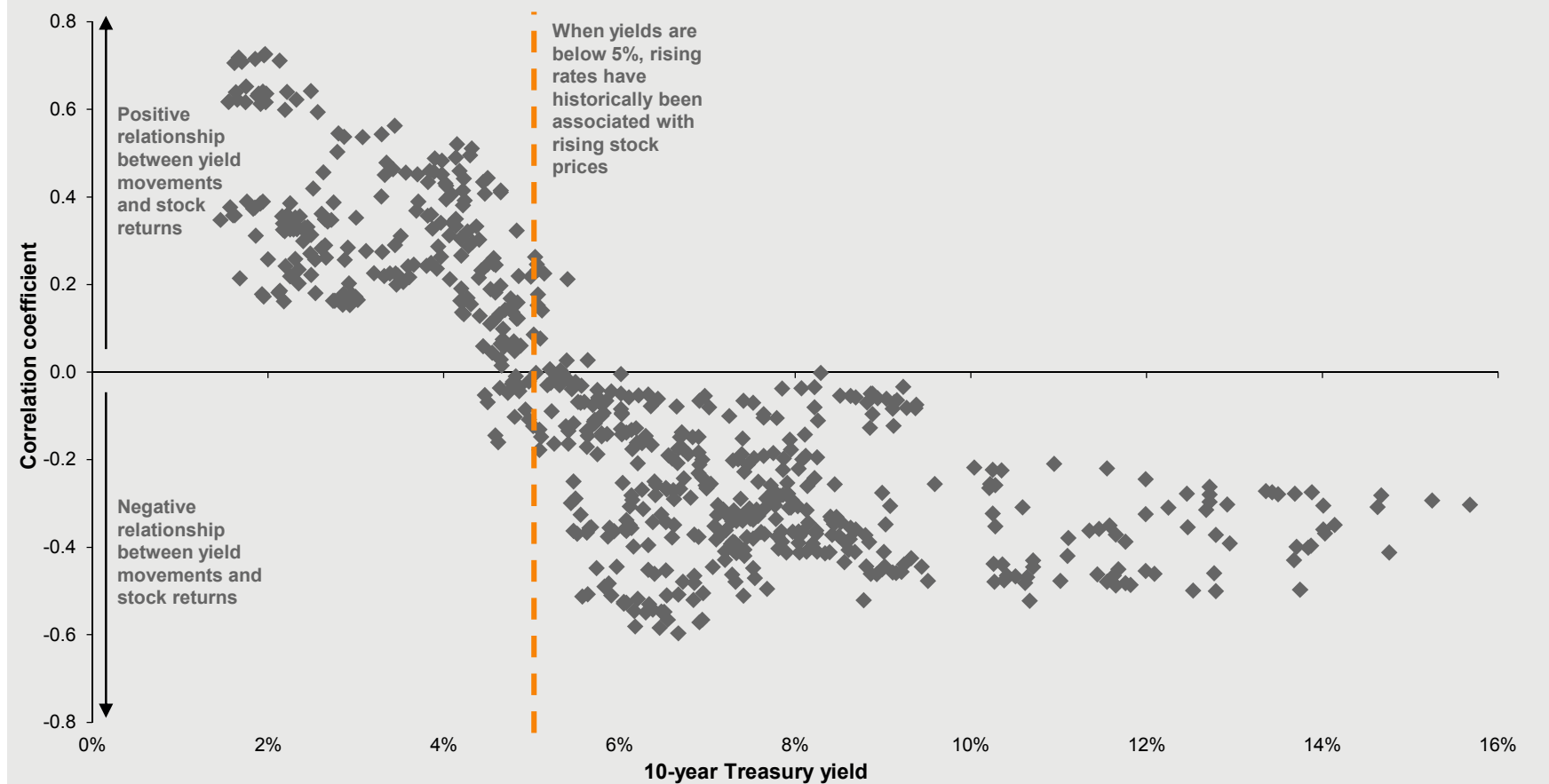
Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.

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 2017, over which time period the average annual return was 8.8%.

Guide to the Markets – U.S. Data are as of August 31, 2018.

Correlations between weekly stock returns and interest rate movements

Weekly S&P 500 returns, 10-year Treasury yield, rolling 2-year correlation, May 1963 – August 2018



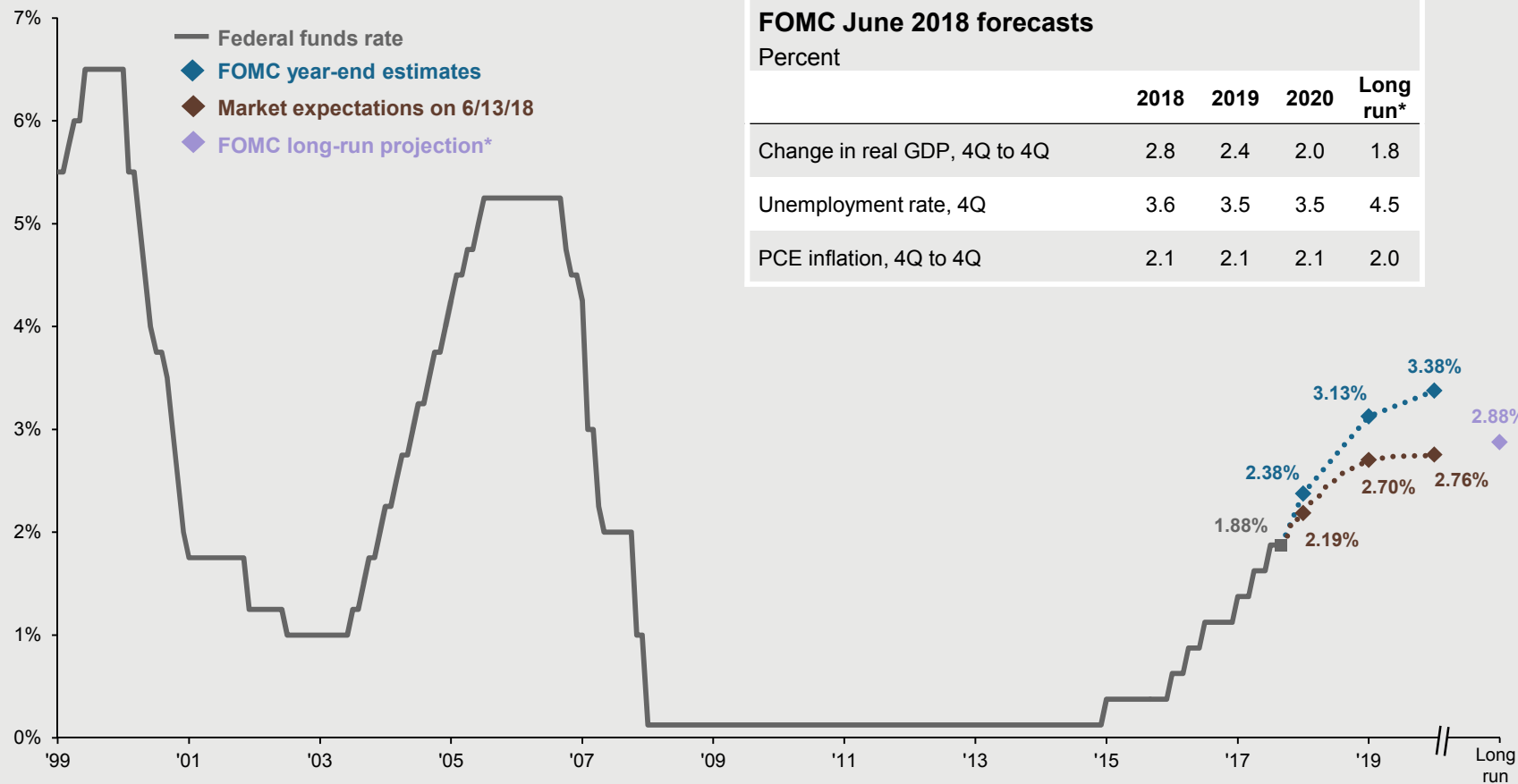
Source: FactSet, FRB, Standard & Poor's, J.P. Morgan Asset Management.

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 August 31, 2018.

Federal funds rate expectations

FOMC and market expectations for the fed funds rate



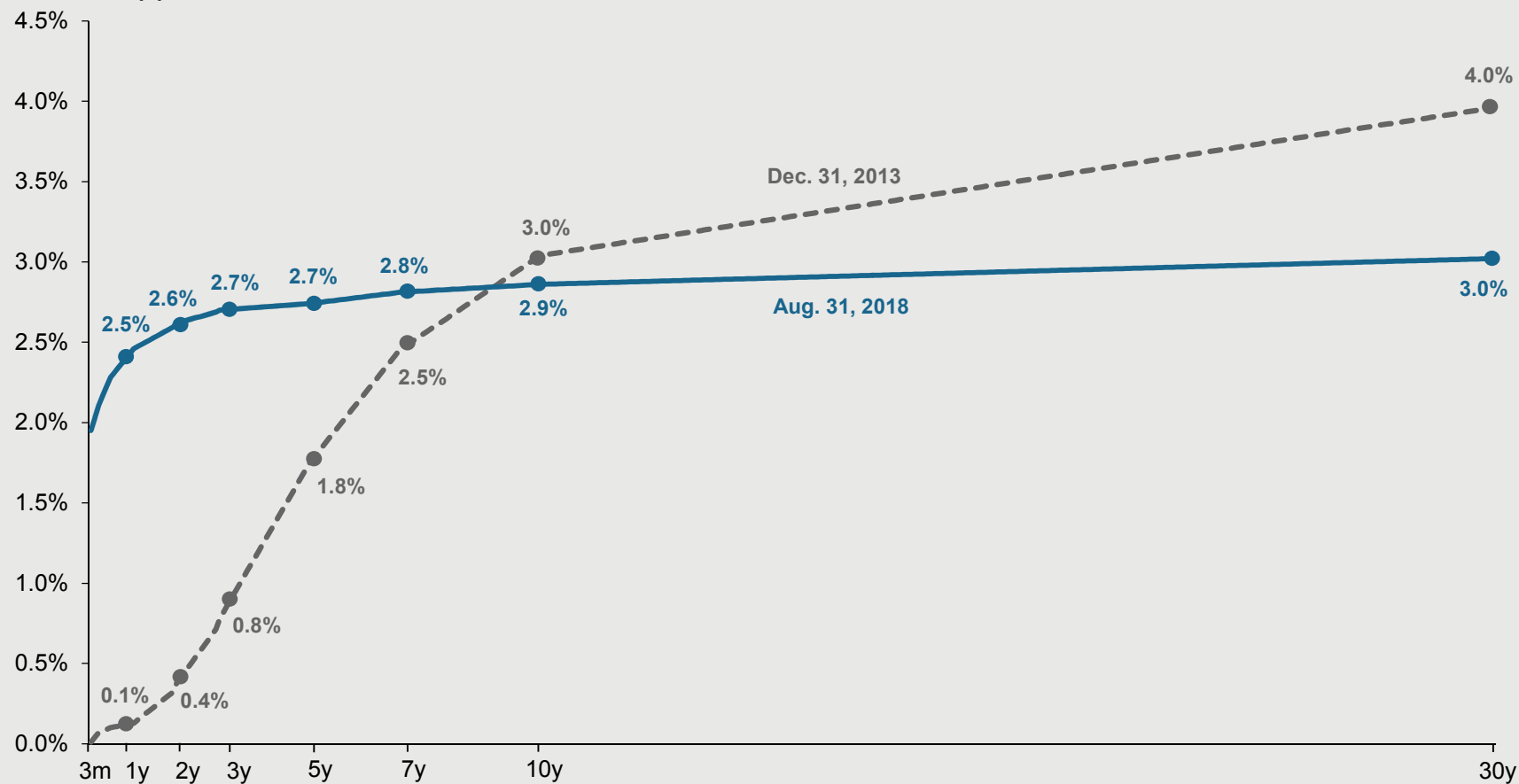
Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.

Market expectations are the federal funds rates priced into the fed futures market as of the date of the June 2018 FOMC meeting. *Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy.

Guide to the Markets – U.S. Data are as of August 31, 2018.

Yield curve

U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of August 31, 2018.

Fixed income sector returns

GTM – U.S. | 40

Fixed income

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD	2008 - 2017	
												Ann.	Vol.
Treas.	13.7%	High Yield	EMD LCL.	TIPS	EMD USD	High Yield	Muni	Muni	High Yield	EMD LCL.	High Yield	High Yield	High Yield
	13.7%	58.2%	15.7%	13.6%	17.4%	7.4%	8.7%	3.8%	17.1%	15.2%	2.0%	8.0%	21.2%
MBS	8.3%	EMD USD	High Yield	Muni	EMD LCL.	MBS	Corp.	MBS	EMD USD	EMD USD	TIPS	EMD USD	EMD LCL.
	8.3%	29.8%	15.1%	12.3%	16.8%	-1.4%	7.5%	1.5%	10.2%	10.3%	0.2%	7.3%	13.0%
Barclays Agg	5.2%	EMD LCL.	EMD USD	Treas.	High Yield	Corp.	EMD USD	EMD USD	EMD LCL.	High Yield	Muni	Corp.	EMD USD
	5.2%	22.0%	12.2%	9.8%	15.8%	-1.5%	7.4%	1.2%	9.9%	7.5%	0.0%	5.6%	11.6%
Muni	1.5%	Corp.	Corp.	Corp.	Corp.	Asset Alloc.	MBS	Treas.	Corp.	Corp.	MBS	Asset Alloc.	Corp.
	1.5%	18.7%	9.0%	8.1%	9.8%	-1.9%	6.1%	0.8%	6.1%	6.4%	-0.5%	5.0%	6.8%
Asset Alloc.	0.1%	Asset Alloc.	Asset Alloc.	Asset Alloc.	Asset Alloc.	Barclays Agg	Barclays Agg	Barclays Agg	Asset Alloc.	Muni	Treas.	Muni	TIPS
	0.1%	14.7%	7.9%	8.1%	7.4%	-2.0%	6.0%	0.5%	4.7%	5.8%	-0.7%	4.9%	6.6%
TIPS	-2.4%	TIPS	Barclays Agg	Barclays Agg	TIPS	Muni	Asset Alloc.	Asset Alloc.	TIPS	Asset Alloc.	Barclays Agg	Barclays Agg	Treas.
	-2.4%	11.4%	6.5%	7.8%	7.0%	-2.2%	5.5%	-0.3%	4.7%	5.3%	-1.0%	4.0%	5.4%
Corp.	-4.9%	Muni	TIPS	EMD USD	Muni	Treas.	Treas.	Corp.	Barclays Agg	Barclays Agg	Asset Alloc.	MBS	Asset Alloc.
	-4.9%	9.9%	6.3%	7.3%	5.7%	-2.7%	5.1%	-0.7%	2.6%	3.5%	-1.2%	3.8%	4.9%
EMD LCL.	-5.2%	Barclays Agg	Treas.	MBS	Barclays Agg	EMD USD	TIPS	TIPS	MBS	TIPS	Corp.	EMD LCL.	Muni
	-5.2%	5.9%	5.9%	6.2%	4.2%	-5.3%	3.6%	-1.4%	1.7%	3.0%	-2.0%	3.6%	4.5%
EMD USD	-12.0%	MBS	MBS	High Yield	MBS	TIPS	High Yield	High Yield	Treas.	MBS	EMD USD	TIPS	Barclays Agg
	-12.0%	5.9%	5.4%	5.0%	2.6%	-8.6%	2.5%	-4.5%	1.0%	2.5%	-4.5%	3.5%	3.0%
High Yield	-26.2%	Treas.	Muni	EMD LCL.	Treas.	EMD LCL.	EMD LCL.	EMD LCL.	Muni	Treas.	EMD LCL.	Treas.	MBS
	-26.2%	-3.6%	4.0%	-1.8%	2.0%	-9.0%	-5.7%	-14.9%	-0.1%	2.3%	-10.5%	3.3%	3.0%

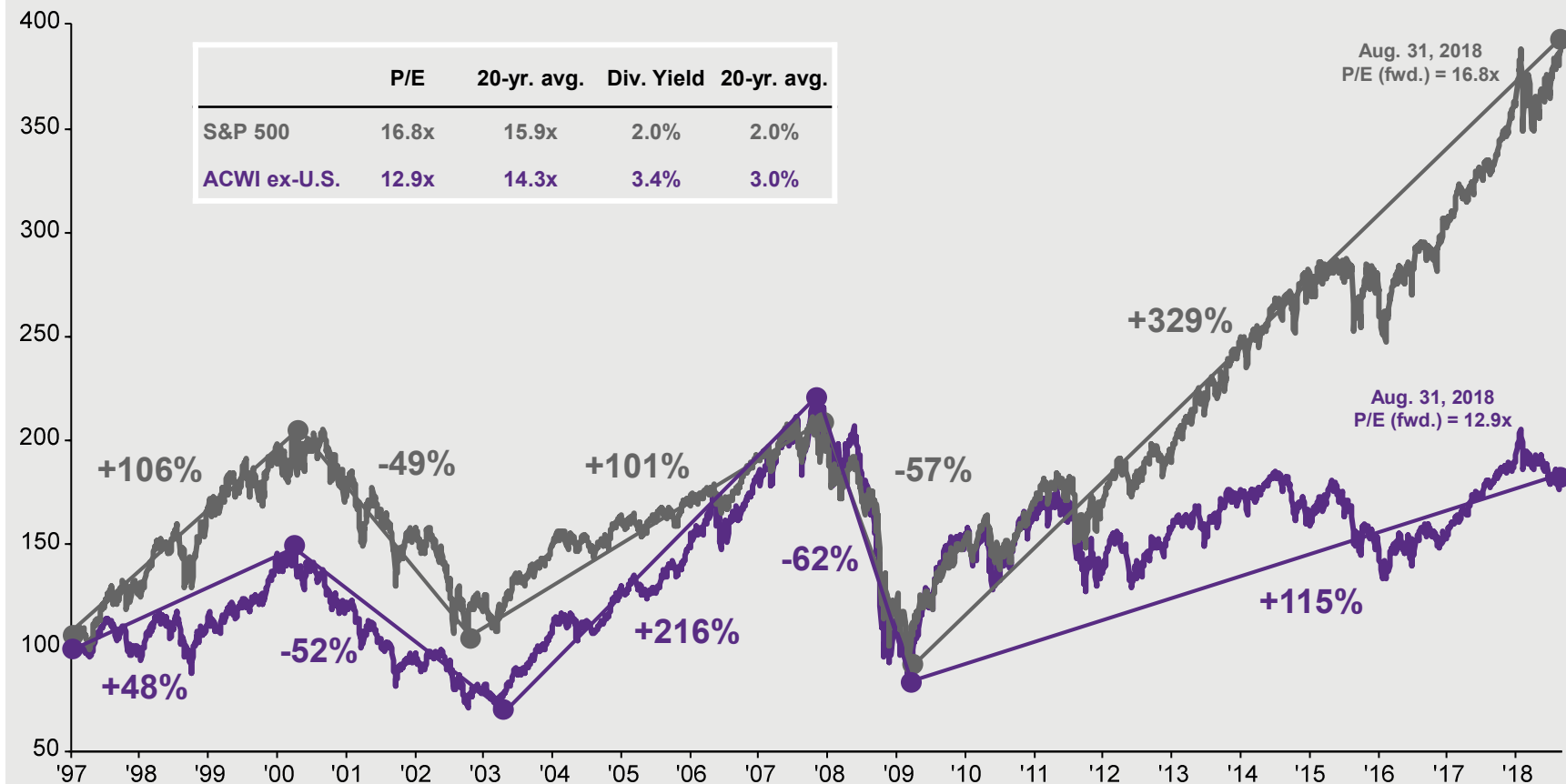
Source: Barclays, Bloomberg, FactSet, J.P. Morgan Global Economic Research, J.P. Morgan Asset Management.

Past performance is not indicative of future returns. Fixed income sectors shown above are provided by Bloomberg unless otherwise noted and are represented by Broad Market: Bloomberg Barclays U.S. Aggregate Index; MBS: Bloomberg Barclays US Aggregate Securitized - MBS Index; Corporate: Bloomberg Barclays U.S. Aggregate Credit - Corporates - Investment Grade; Municipals: Bloomberg Barclays Municipal Bond 10-Year Index; High Yield: Bloomberg Barclays U.S. Aggregate Credit - Corporate - High Yield Index; Treasuries: Bloomberg Barclays Global U.S. Treasury; TIPS: Bloomberg Barclays Global Inflation-Linked - U.S. TIPS; Emerging Debt USD: J.P. Morgan EMBIG Diversified Index; Emerging Debt LCL: J.P. Morgan EM Global Index. The "Asset Allocation" portfolio assumes the following weights: 20% in MBS, 20% in Corporate, 15% in Municipals, 5% in Emerging Debt USD, 5% in Emerging Debt LCL, 10% in High Yield, 20% in Treasuries, 5% in TIPS. Asset allocation portfolio assumes annual rebalancing. Guide to the Markets – U.S. Data are as of August 31, 2018.

J.P.Morgan
Asset Management

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

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



Source: FactSet, MSCI, Standard & Poor's, 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 12 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. Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by FactSet Market Aggregates. Past performance is not a reliable indicator of current and future results.

Guide to the Markets – U.S. Data are as of August 31, 2018.

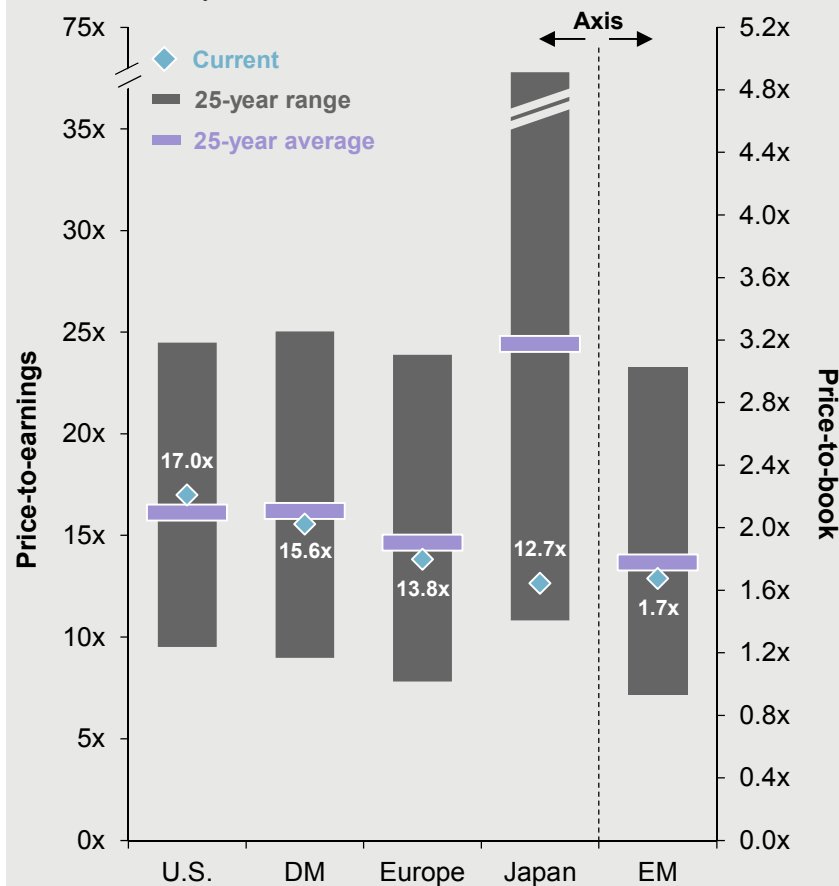
Global earnings

EPS, U.S. dollar, next 12 months, Jan. 2006 = 100



Global valuations

Current and 25-year historical valuations*



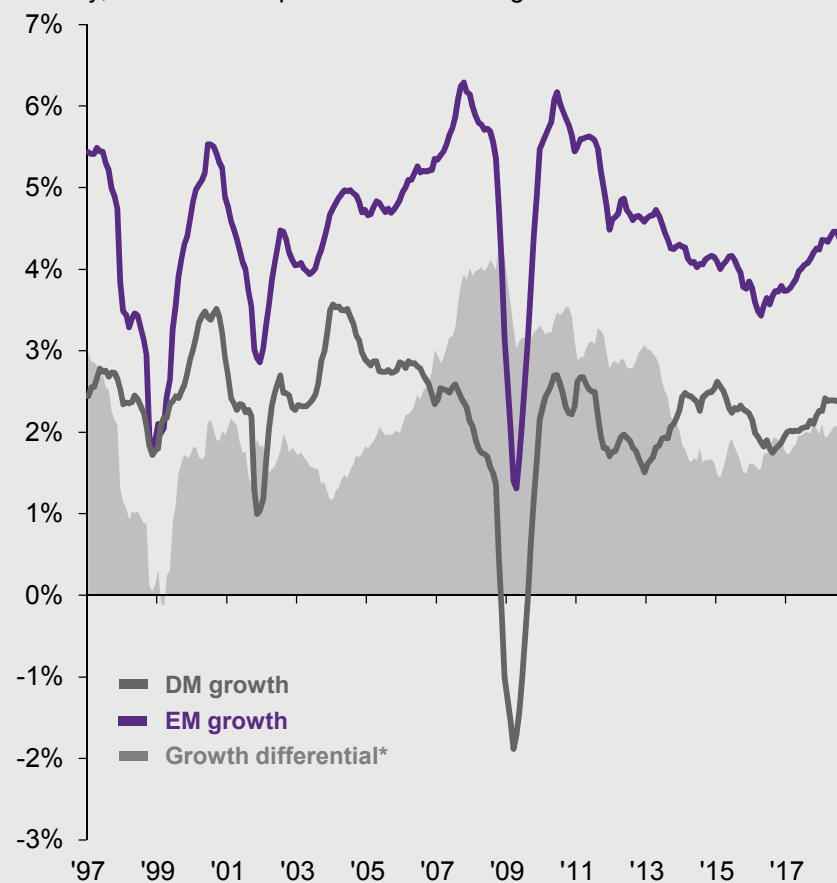
Source: FactSet, MSCI, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.

*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. MSCI Europe includes the eurozone as well as countries not in the currency bloc, such as Norway, Sweden, Switzerland and the UK (which collectively make up 46% of the overall index). Past performance is not a reliable indicator of current and future results.

Guide to the Markets – U.S. Data are as of August 31, 2018.

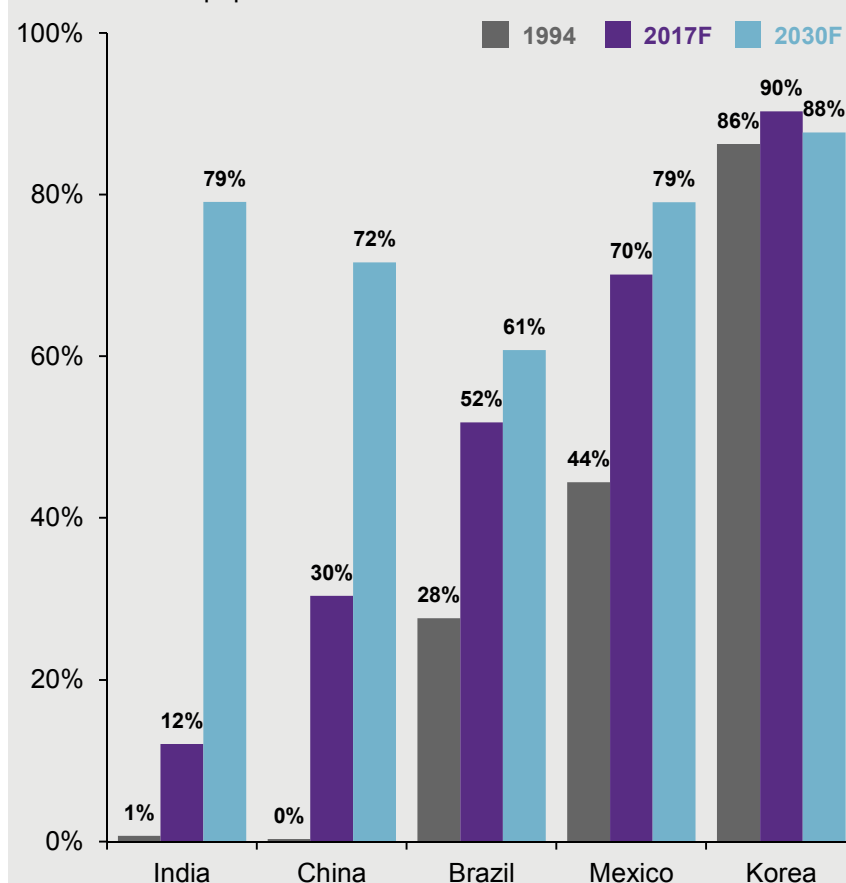
EM vs. DM growth

Monthly, consensus expectations for GDP growth in 12 months



Growth of the middle class

Percent of total population



Source: J.P. Morgan Asset Management; (Left) Consensus Economics; (Right) Brookings Institute.

"Growth differential" is consensus estimates for EM growth in the next 12 months minus consensus estimates for DM growth in the next 12 months, provided by Consensus Economics. Middle class is defined as \$3,600-\$36,000 annual per capita income in purchasing power parity terms. Historical and forecast figures come from the Brookings Development, Aid and Governance Indicators. *Differential is as of July 31, 2018.

Guide to the Markets – U.S. Data are as of August 31, 2018.

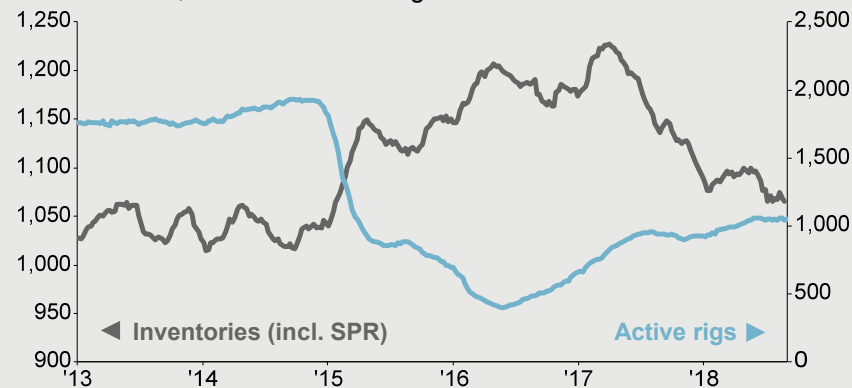
Change in production and consumption of liquid fuels

Production, consumption and inventories, millions of barrels per day

Production	2015	2016	2017	2018*	2019*	Growth since '15
U.S.	15.1	14.9	15.6	17.6	19.0	25.6%
OPEC	38.5	39.4	39.5	39.1	39.0	1.3%
Russia	11.0	11.2	11.2	11.3	11.4	3.6%
Global	96.7	97.1	97.9	99.8	101.9	5.4%
Consumption						
U.S.	19.5	19.7	19.9	20.4	20.6	5.7%
China	12.4	12.8	13.3	13.7	14.2	14.6%
Global	95.4	97.0	98.4	100.1	101.7	6.5%
Inventory Change						
	1.3	0.1	-0.5	-0.2	0.3	

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

Million barrels, number of active rigs

**Price of oil**

WTI crude, nominal prices, USD/barrel



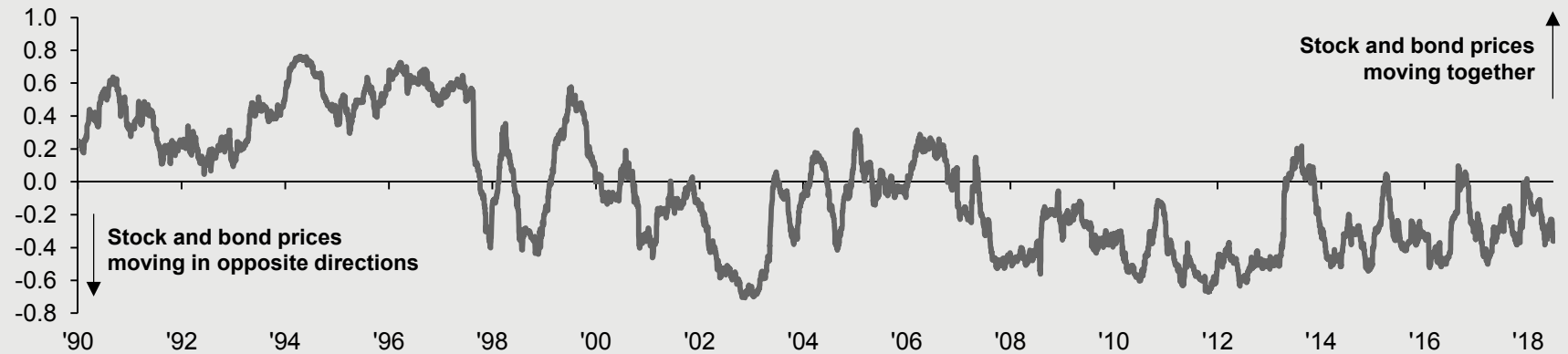
Source: J.P. Morgan Asset Management; (Top and bottom left) EIA; (Right) FactSet; (Bottom left) Baker Hughes.

*Forecasts are from the August 2018 EIA Short-Term Energy Outlook and start in 2018. **U.S. crude oil inventories include the Strategic Petroleum Reserve (SPR). Active rig count includes both natural gas and oil rigs. WTI crude prices are monthly averages in USD using continuous contract NYM prices.

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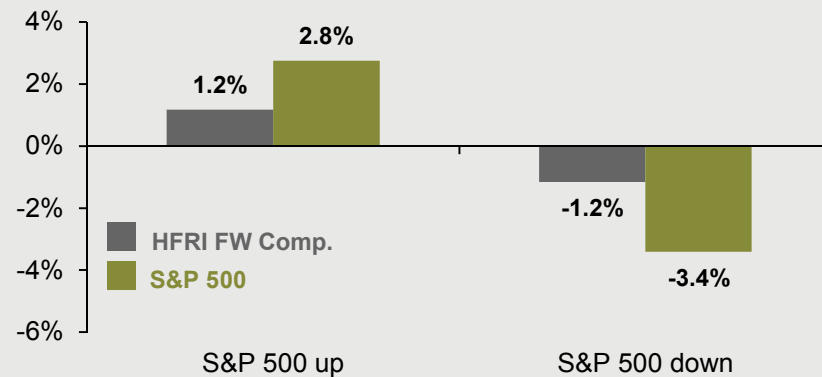
U.S. stock/bond correlations

Rolling 90-day correlation between the S&P 500 and the Bloomberg Barclays U.S. Aggregate



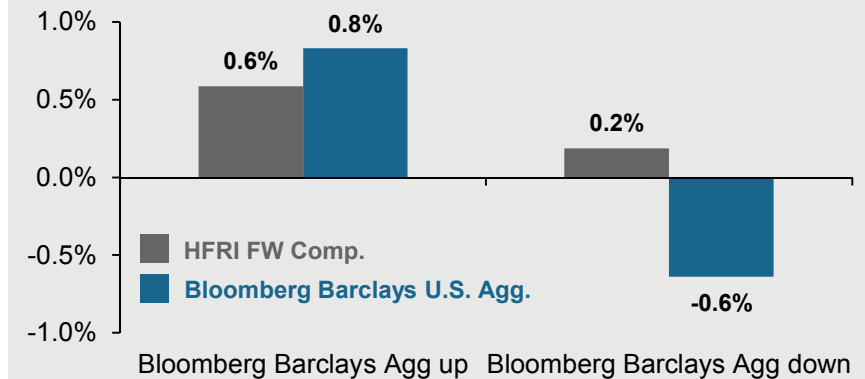
Hedge fund returns in different market environments

Average return in up and down months for S&P 500



Hedge fund returns in different market environments

Average return in up and down months for Bloomberg Barclays Agg.



Source: Barclays, Bloomberg, FactSet, HFRI, Standard & Poor's, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of August 31, 2018.

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

The **Bloomberg 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 **Bloomberg 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 **Bloomberg 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 **Bloomberg 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.

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.

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Unless otherwise stated, all data are as of August 31, 2018 or most recently available.

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