



**ALLIANCEBERNSTEIN®**

First Quarter 2018

# CAPITAL MARKETS OUTLOOK

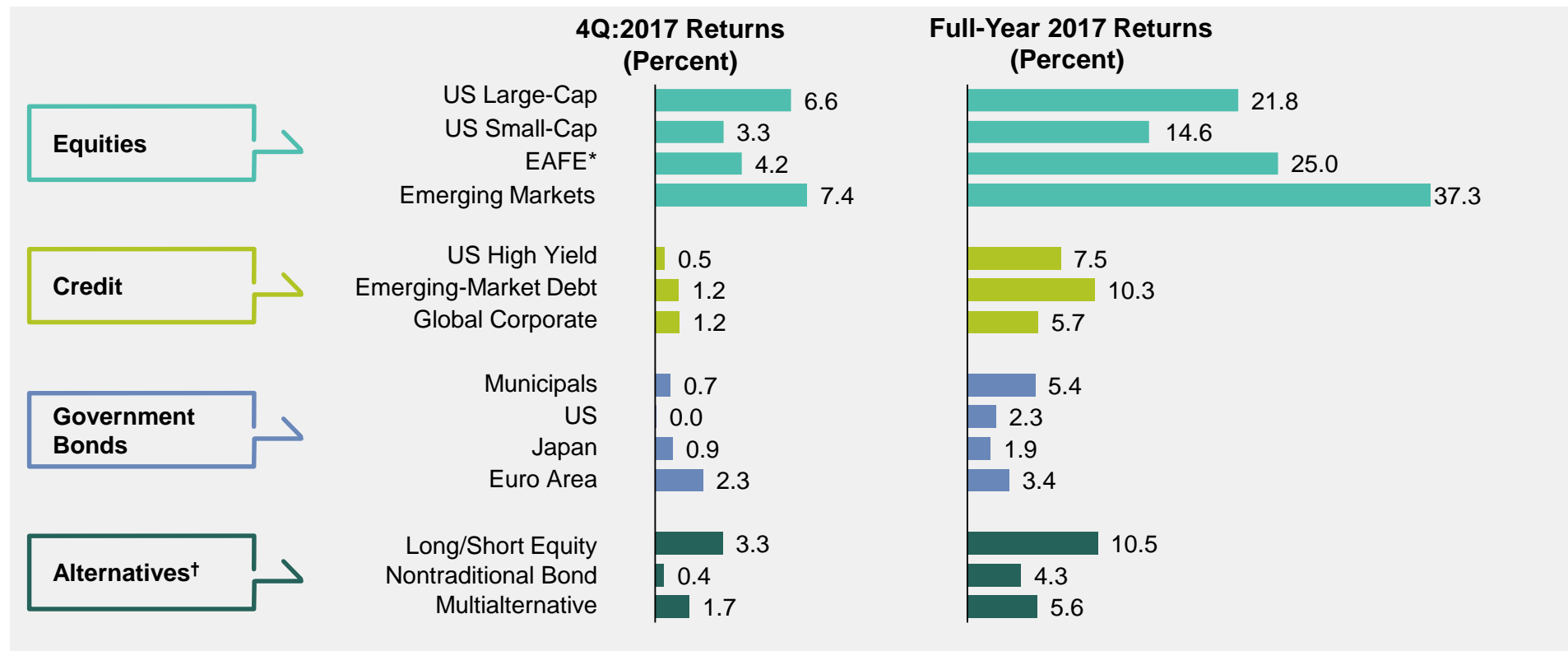
The information herein reflects prevailing market conditions and our judgments, which are subject to change, as of the date of this document. In preparing this document, we have relied upon and assumed, without independent verification, the accuracy and completeness of all information available from public sources. Opinions and estimates may be changed without notice and involve a number of assumptions that may not prove valid. There is no guarantee that any forecasts or opinions in this material will be realized. Information should not be construed as investment advice.

Investment Products Offered:

- Are Not FDIC Insured
- May Lose Value
- Are Not Bank Guaranteed

# 2017 Returns Recap: Everything Is Awesome

## Returns in US Dollars



As of December 31, 2017

**Past performance does not guarantee future results.**

Global corporates and Japan and euro-area government bonds in hedged USD terms. All other non-US returns in unhedged USD terms. An investor cannot invest directly in an index, and its performance does not reflect the performance of any AllianceBernstein (AB) portfolio. The unmanaged index does not reflect the fees and expenses associated with the active management of a portfolio.

\*Europe, Australasia and the Far East

†Returns reflect Morningstar US open-end fund category averages.

Source: Bloomberg Barclays, Morningstar, MSCI, S&P and AB



# 2018 Baseline Forecast: “Goldilocks” Is Still in the Driver’s Seat

## Base Case

- + **Growth:** Another year of solid global growth; 3.2%, similar to 2017
- + **Inflation:** Gradual increase in underlying inflation/wages as we move through 2018
- + **Fiscal Policy:** Gentle stimulus at global level
- + **China:** “Quality” of growth now assuming greater importance
- + **Politics, Populism and Geopolitics:** Important risks remain

## Central Bank Response

- + **Global:** Gradual withdrawal of monetary accommodation
- + **Fed:** Four rate hikes expected in 2018
- + **ECB:** Asset purchases to end in September; rates to rise in 1Q:2019
- + **BOJ:** Likely to stay the course; focus on yield level rather than volume of purchases
- + **PBC:** Increased focus on containing leverage risk

## Market Implications

- + **Risk Assets:** Still a generally benign backdrop, but risks higher than they were
- + **Core Yields:** Further rise likely, led by the US and Europe; Japan still anchored
- + **USD:** Fed rate hikes may help USD reverse some of last year’s lost ground
- + **EM Risk:** Higher core yields/stronger USD point to slightly less supportive backdrop; continue to be selective

As of December 31, 2017

**Current analysis does not guarantee future results.**

Fed: US Federal Reserve; ECB: European Central Bank; BOJ: Bank of Japan; PBC: People’s Bank of China; EM: emerging market

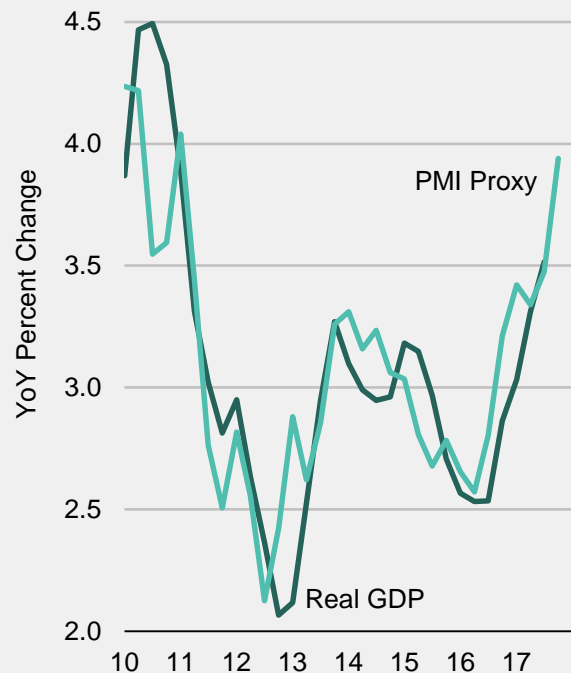
Source: AB



# Global Cyclical Outlook: The Recovery Gains Strength and Breadth

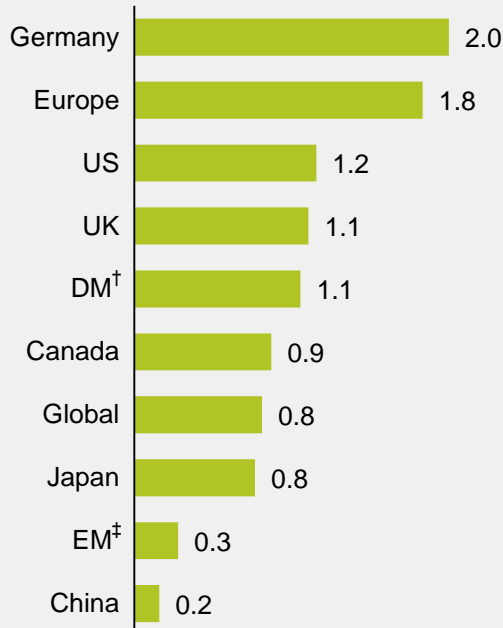
Trade Cycle Shifts to Higher Gear

Global Real GDP and PMI Proxy



Manufacturing PMIs

December 2017\*



Global Trade and IP Growth

Three-Month Moving Average



As of December 31, 2017

**Historical analysis does not guarantee future results.**

\*Standard deviation from mean

†DM: developed markets

‡EM: emerging markets

Source: Haver Analytics and IHS Markit



# Inflation Remains Low Today, but Cyclical/Structural Forces on the Horizon

Inflation Backdrop	Rearview Mirror Past 5–10 Years	Strategic Horizon Next 2–5 Years	Secular Horizon 5+ Years
Demographics	↓	↑	↑
Globalization/Populism	↓	↑	↑↑
Debt Overhang	↓	↔	↑
Technology	↓	↓↓	↓↓
Monetary Regime	↔	↑	↑↑
<b>Net Impact</b>	↓↓	↑	↑↑

As of January 3, 2018

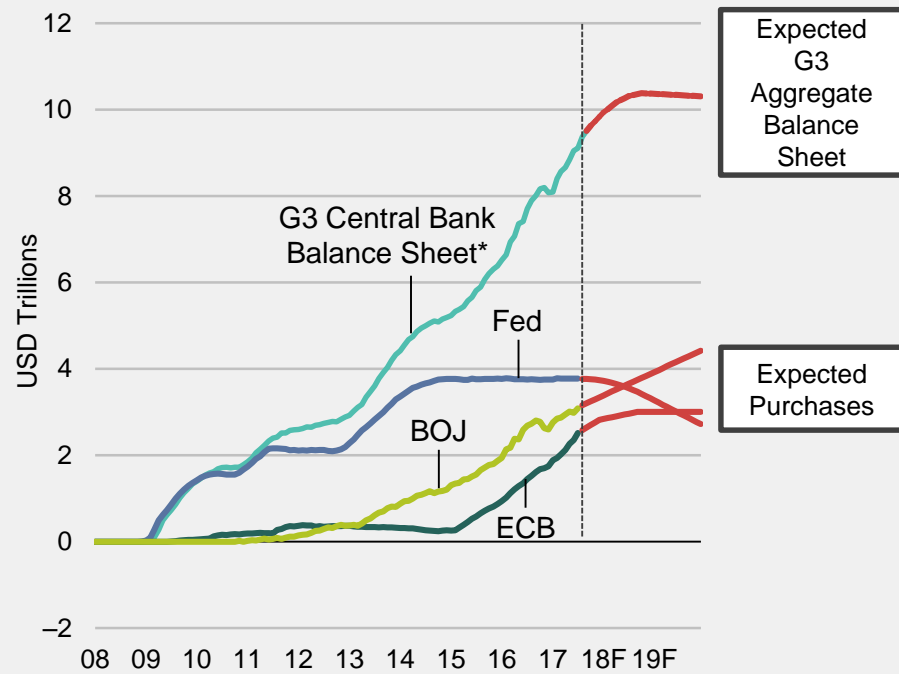
**Historical analysis and current forecasts do not guarantee future results.**

Source: AB

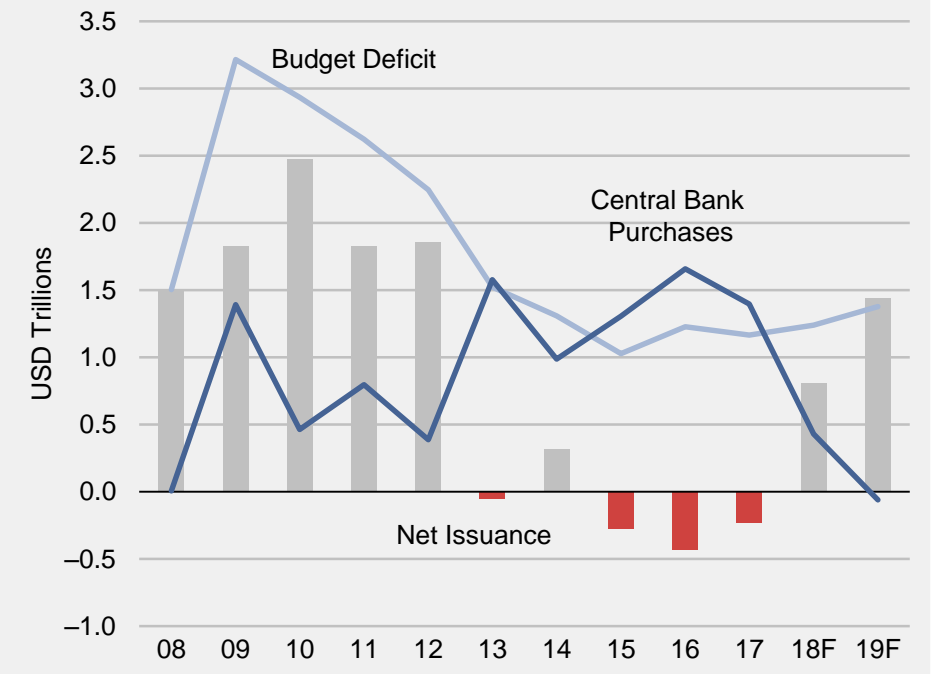


# Central Banks (Ever So Slowly) Beginning to Remove the Punch Bowl...

## Aggregated DM Central Bank Balance Sheet and Flow of Purchases



## G3 Net Issuance



As of September 30, 2017

**Historical analysis and current forecasts do not guarantee future results.**

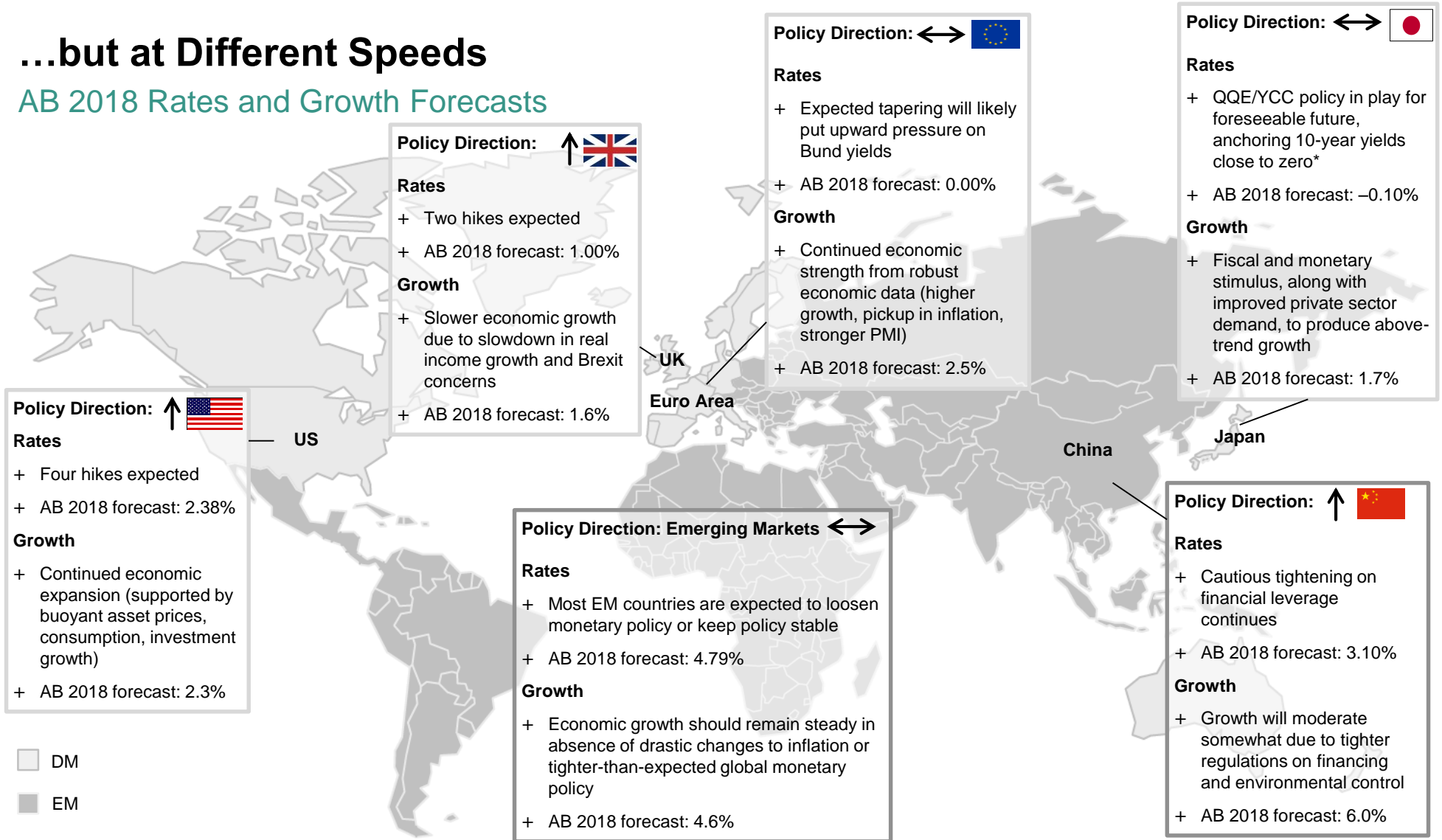
\*G3 is the US, euro area and Japan.

Source: Bloomberg, International Monetary Fund and AB



# ...but at Different Speeds

## AB 2018 Rates and Growth Forecasts



As of December 31, 2017

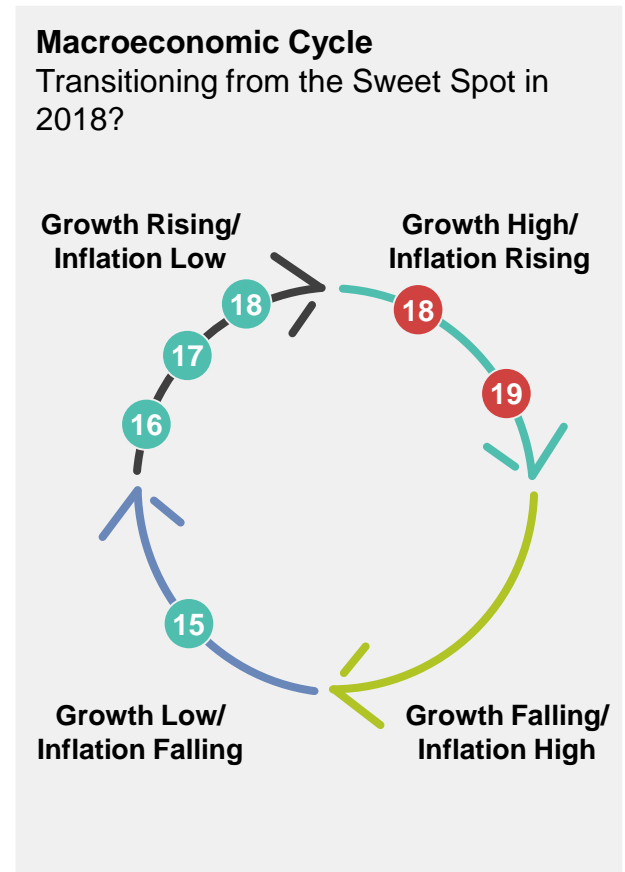
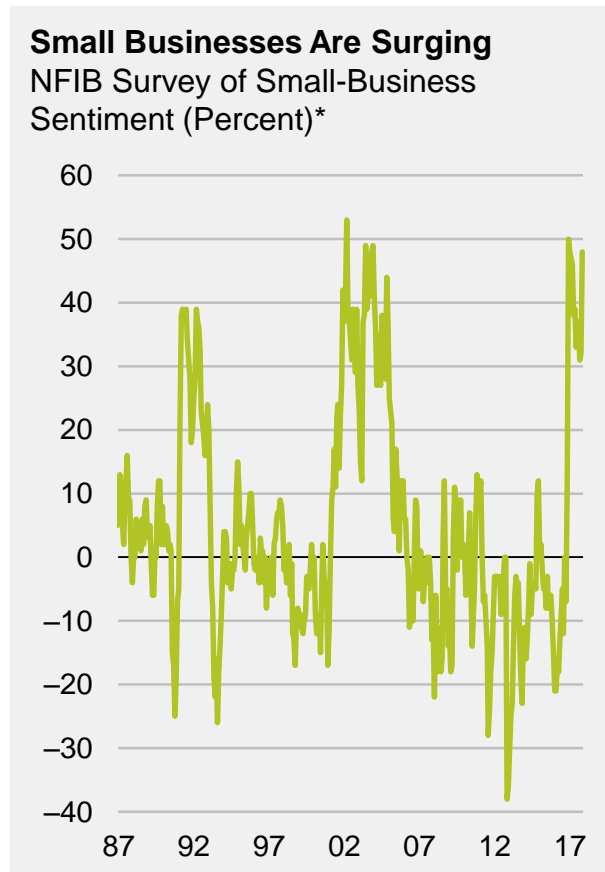
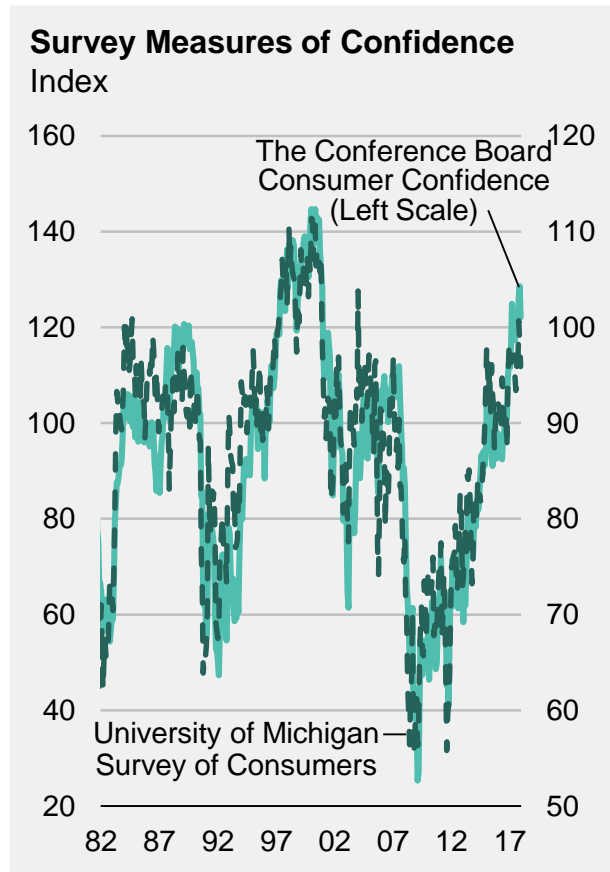
**Current analysis and forecasts do not guarantee future results.**

\*QQE: quantitative and qualitative easing; YCC: yield-curve control

Source: AB



# US Growth Continues to Expand, but 2H:2018 May Mark an Inflection Point



As of December 31, 2017

**Historical analysis and current forecasts do not guarantee future results.**

\*NFIB: National Federation of Independent Business

Source: The Conference Board, Thomson Reuters Datastream and AB



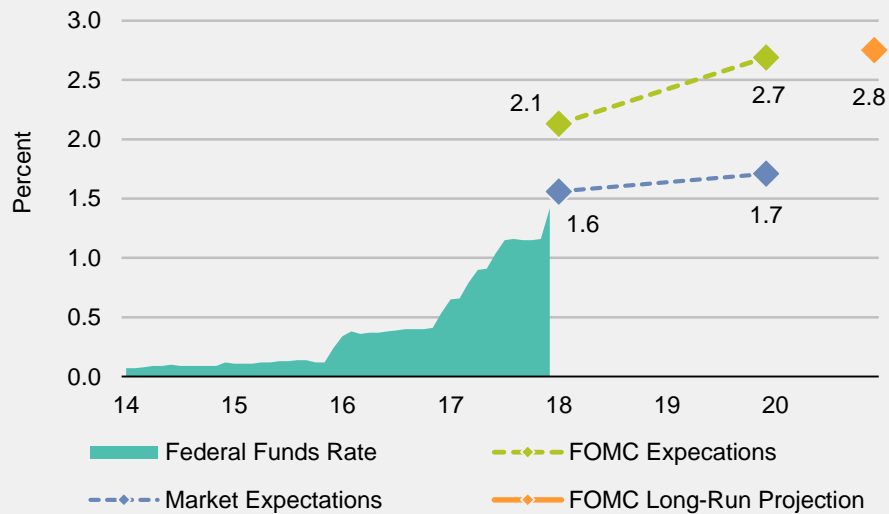


# US Monetary Policy: Tightening Sails On...

...but with a Largely New Crew

## Federal Funds Rate Expectations

FOMC and Market Expectations for the Fed Funds Rate\*

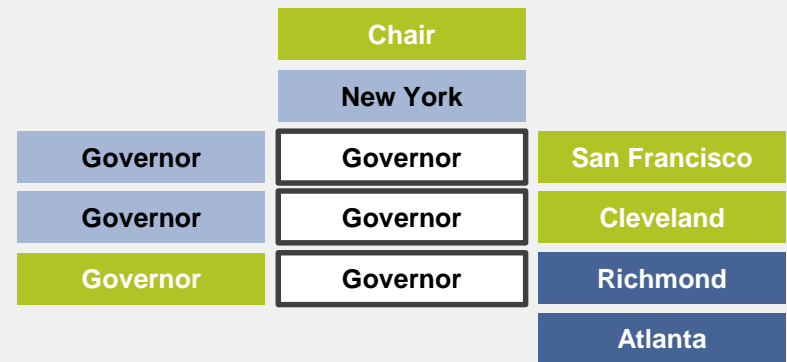


### FOMC September 2017 Forecasts

	2017	2018	2019	2020	Long Run
Change in real GDP, 4Q to 4Q	2.4	2.1	2.0	1.8	1.8
Unemployment rate, 4Q	4.3	4.1	4.1	4.2	4.6
PCE Inflation, 4Q to 4Q†	1.6	1.9	2.0	2.0	2.0

## A Whole New Fed: FOMC

Less Experienced Hands at the Helm Increase the Possibility of a Policy Misstep



■ Experienced ■ Recently Appointed ■ Leaving/Retiring □ Open Positions

As of December 31, 2017

**Historical analysis and current forecasts do not guarantee future results.**

\*FOMC: Federal Open Market Committee; market expectations are the federal funds rate priced into the Fed future market as of September 20, 2017 FOMC meeting date.

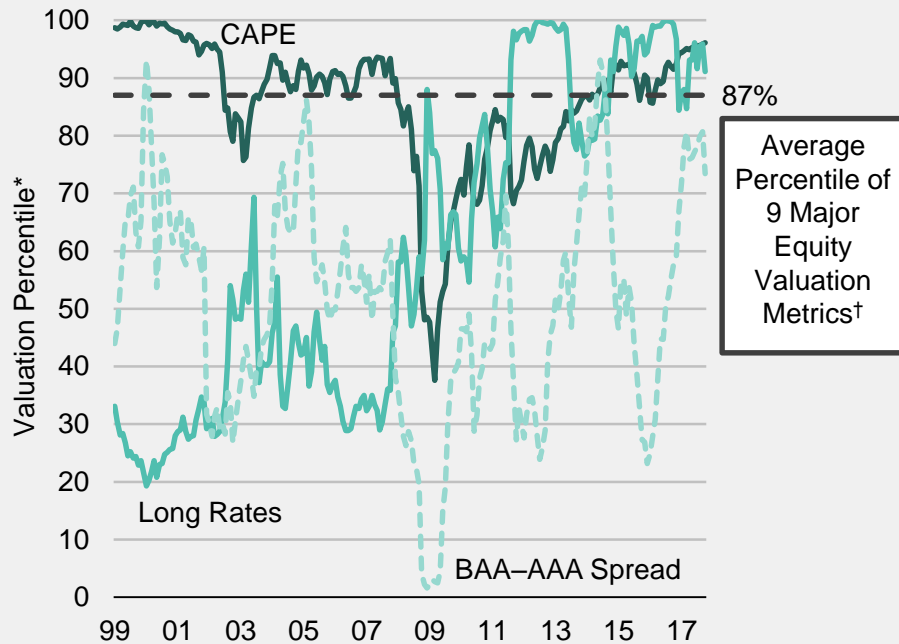
†PCE: personal consumption expenditures

Source: Bloomberg, Federal Reserve and AB

# The Investor's Conundrum

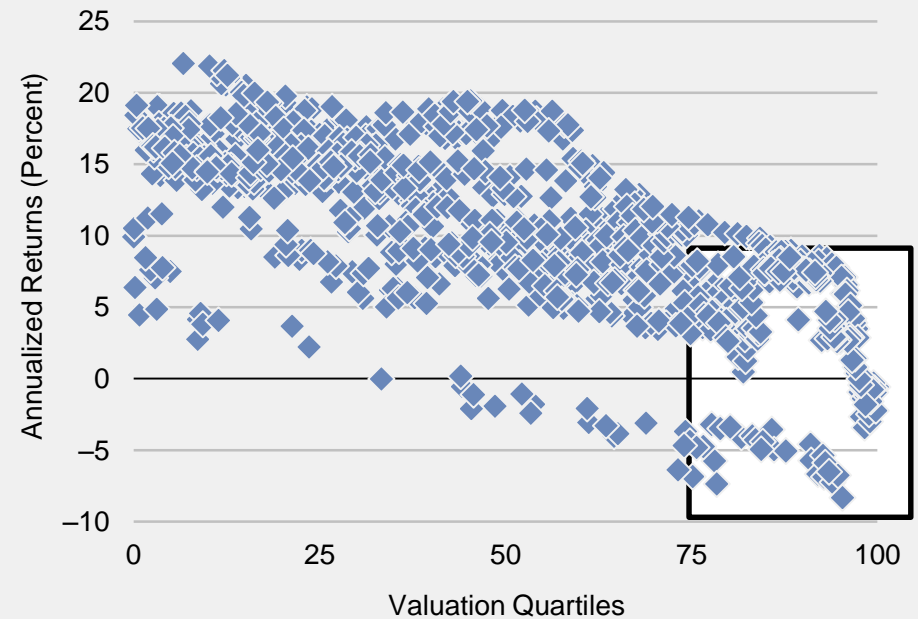
Strong Growth and Low Inflation vs. High Valuations and Low/Rising Yields

## Valuation Frustration: Both Bonds and Equities Appear Expensive



## High Valuations, Modest Returns‡

After Periods of Top-Quartile Valuations, Large-Cap Stocks Delivered Single-Digit/Negative Returns 99% of the Time



As of December 1, 2017

**Historical analysis does not guarantee future results.**

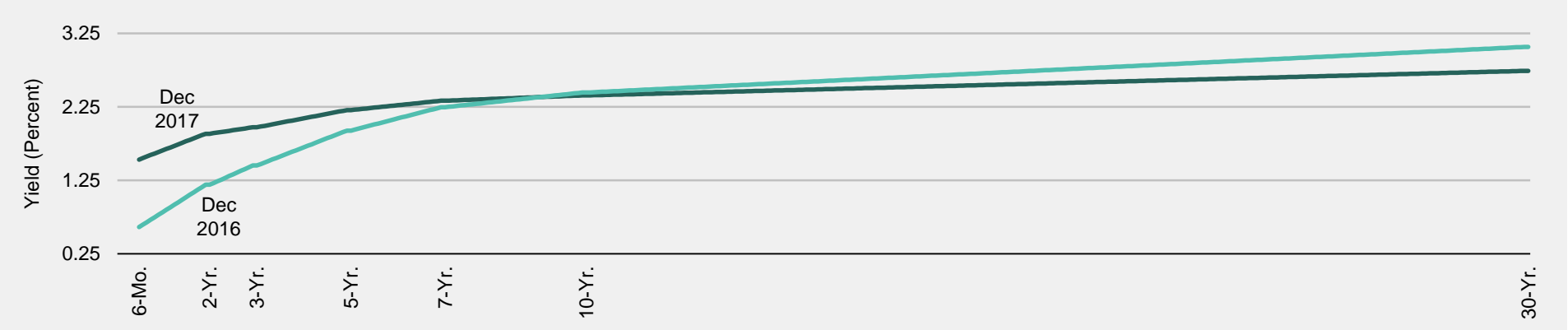
\*Since 1900 for S&P 500 and 1919 for credit spreads. †Equity valuation metrics are: price/earnings, cyclically-adjusted price/earnings (CAPE), price/EBITDA, price/free cash flow, price/sales, forward P/E (best), enterprise value/EBITDA and price/book. ‡Subsequent 10-year annualized S&P 500 returns and S&P 500 valuation percentile levels for the cyclically-adjusted price-to-earnings (CAPE) ratio are calculated from December 30, 1927, the inception date of the S&P 500 Price Index. The bracketed area reflects the top-quartile (75%–100%).

Source: Bloomberg, Goldman Sachs, Robert J. Shiller and AB



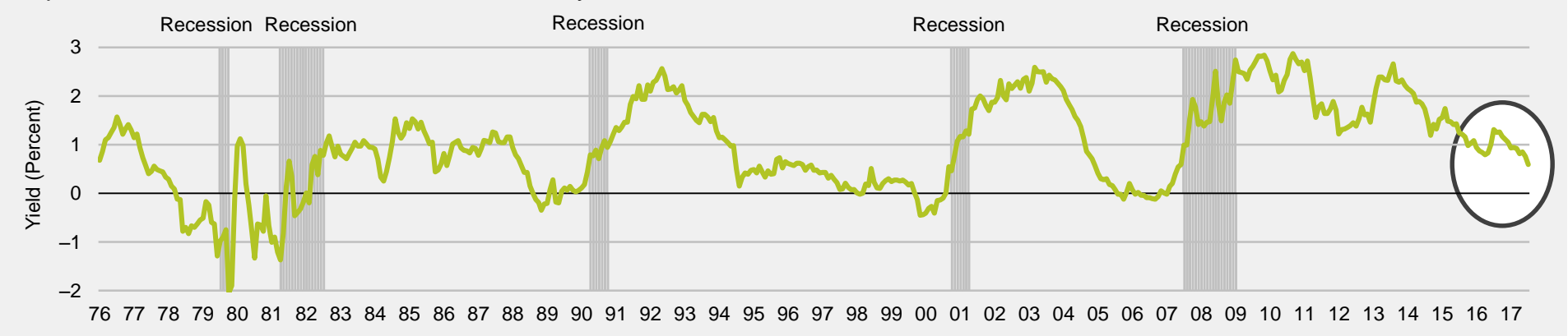
# The US Yield Curve Has Flattened. Is a Recession Near?

Though the Curve Has Flattened...



...the Curve Is Not Inverted and the Global Growth Backdrop Remains Solid

Gap Between Two-Year and 10-Year US Treasury Yields



As of December 31, 2017

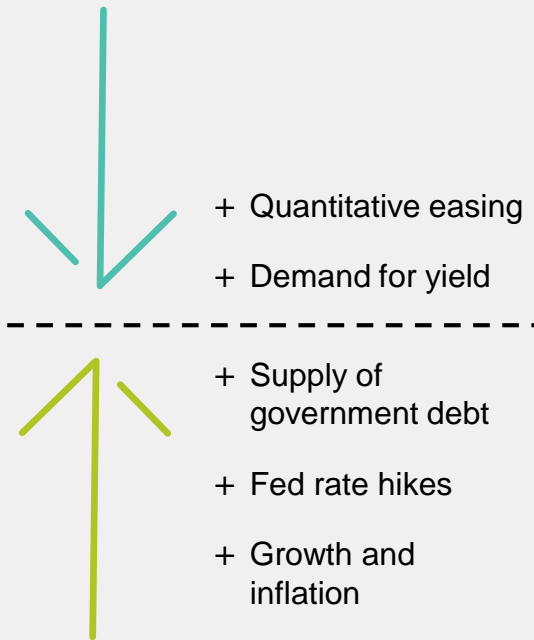
**Historical analysis does not guarantee future results.**

Source: Bloomberg, Thomson Reuters and AB

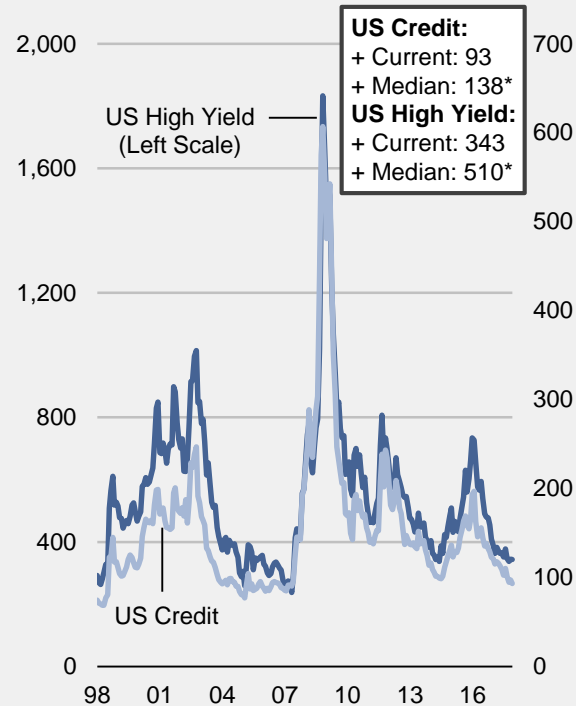


# Cloudy Outlook Warrants Balance Between Rates and Credit Risks

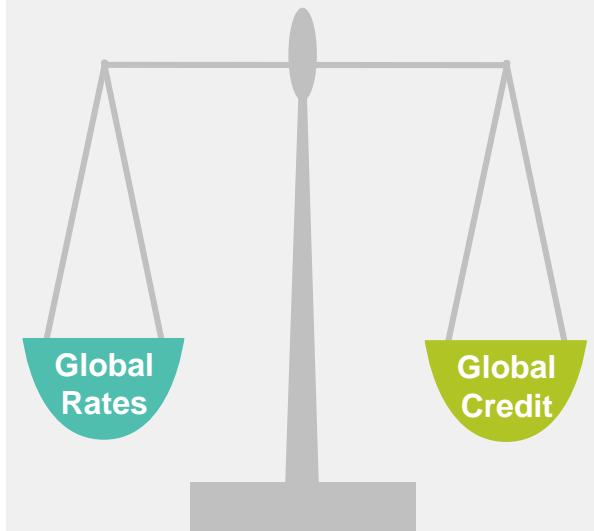
## Counteracting Forces Have Cast a Fog on Direction of Yield Curve...



## ...and Corporate Spreads Are at the Lower End of Historical Range... Basis Points



## ...Making It Critical to Balance Your Rates and Credit Exposures



Through December 31, 2017

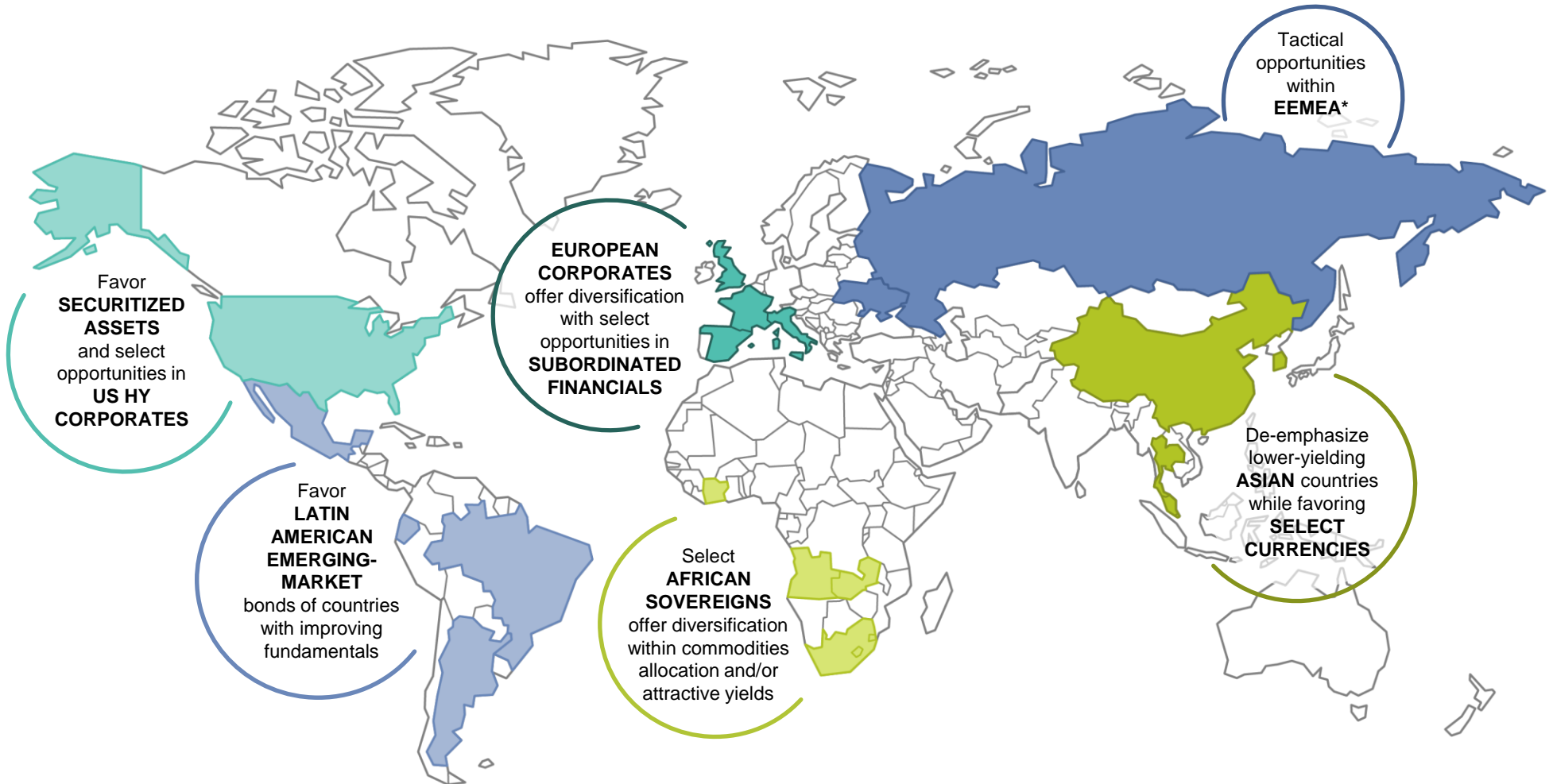
**Current analysis does not guarantee future results.**

US credit is represented by Bloomberg Barclays US Aggregate Corporates and US high yield by Bloomberg Barclays US Corporate High Yield.

\*Median calculated using monthly spreads going back to January 1998

Source: AB

# Globalize Credit for Maximum Access to Opportunities



As of December 31, 2017

**Current analysis does not guarantee future results.**

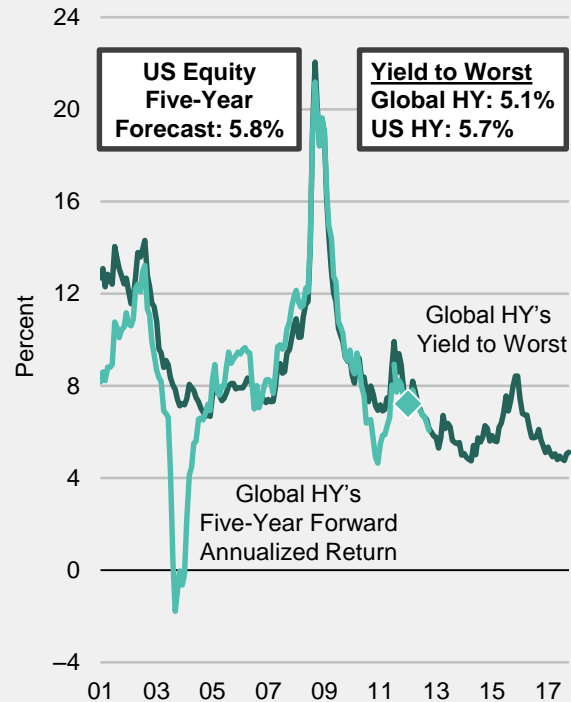
\*Eastern Europe, the Middle East and Africa

Source: AB

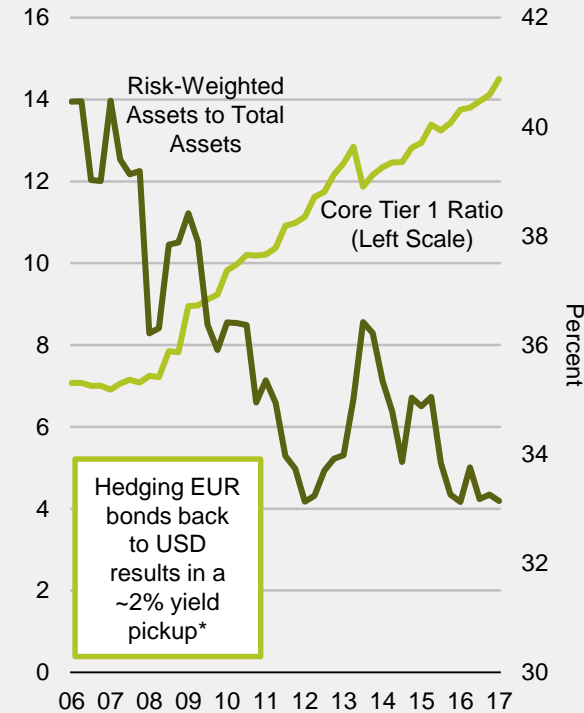


# Selectivity Within Corporate Credit Remains Critical

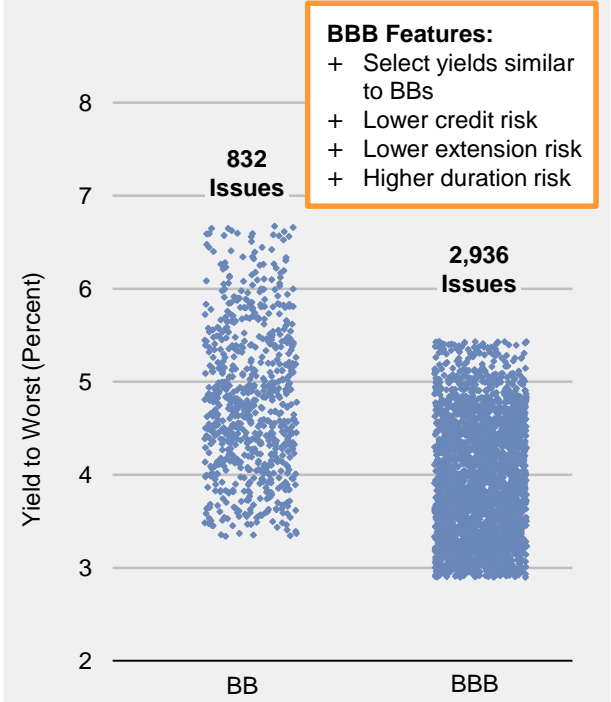
## Yield Often Indicates Future Returns Yield to Worst and Forward Return



## European Financials Benefit from Improving Fundamentals Backdrop



## BBBs Offer Relative Value and Diversification vs. BBs US Credit Bonds



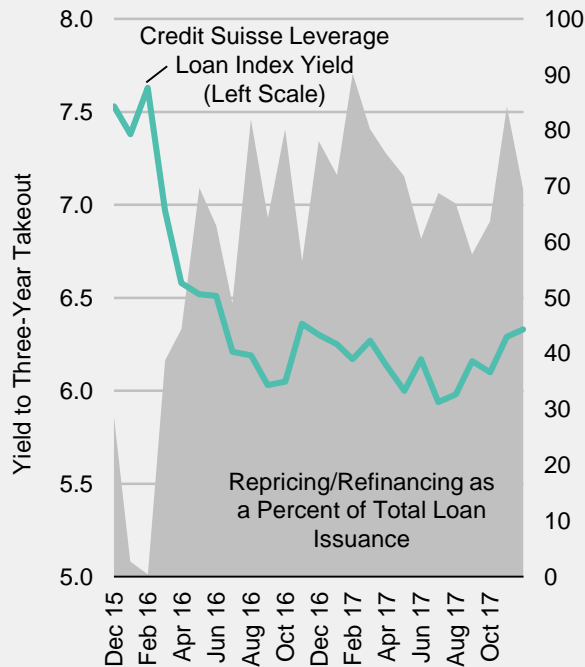
Left and right displays as of December 31, 2017 (except equity forecast as of June 30, 2017); middle display through September 30, 2017

**Historical analysis does not guarantee future results.** Global high yield is represented by Bloomberg Barclays Global Corporate High Yield (USD Hedged); US high yield by Bloomberg Barclays US Corporate High Yield; BBB by Bloomberg Barclays US Aggregate BBB Corporates and BB by Bloomberg Barclays US High Yield Corporates BB. Core Tier 1 ratios provided by Morgan Stanley European credit strategy research on western European banks. \*Annualized hedging benefit uses one-month currency forwards. An investor cannot invest directly in an index, and its performance does not reflect the performance of any AB portfolio. The unmanaged index does not reflect the fees and expenses associated with the active management of a portfolio.

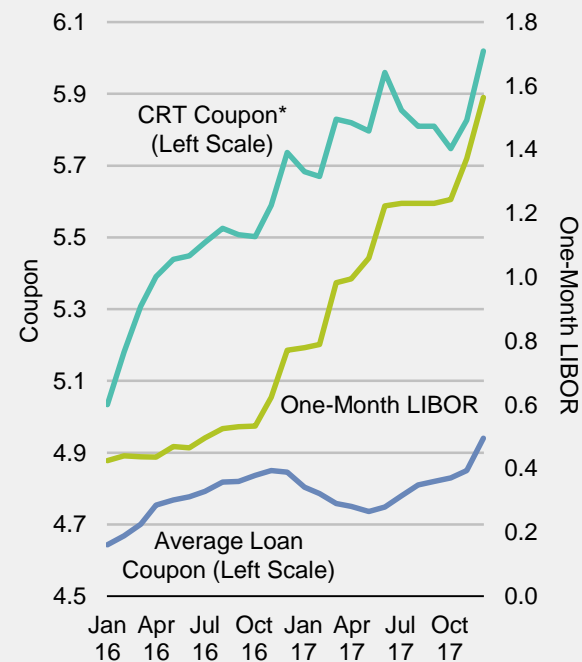
Source: Bloomberg Barclays, Morgan Stanley and AB

# Floating-Rate Exposure? Try Credit Risk–Transfer Securities (CRTs)

## Demand Has Pushed Bank Loan Yields Lower, Incentivizing Refinancing



## Loans Have Not Benefited from LIBOR Rising but CRTs Have



## CRTs Have More Attractive Features than Loans...

- + Both have a *floating-rate structure* but CRTs offer:
  - + Better liquidity
  - + Better fundamentals
  - + Better portfolio diversification

## ...and Comparable Yields

Asset	Approximate Loss-Adjusted Yield (Percent)
CRTs	2.5–6.0
Bank Loans	4.0–14.0

As of December 31, 2017

**Historical analysis does not guarantee future results.**

\*Last cash flow and equity coupons

Source: Bloomberg, Credit Suisse, J.P. Morgan and AB



# Amid Potential for Near-Term Volatility, Emerging-Market Opportunities Exist

## Ongoing Near-Term Political Noise Warrants Caution...

### Newspaper Headlines



“Bad Nafta Outcome Could Hit Cooperation on Security, Mexico Says”

—Bloomberg (Nov 2017)



“Turkey and the US Face the End of a Promising Partnership”

—Financial Times (Oct 2017)



“Venezuela Ruled in Default by Trade Group After Bond Payment Delays”

—Reuters (Nov 2017)

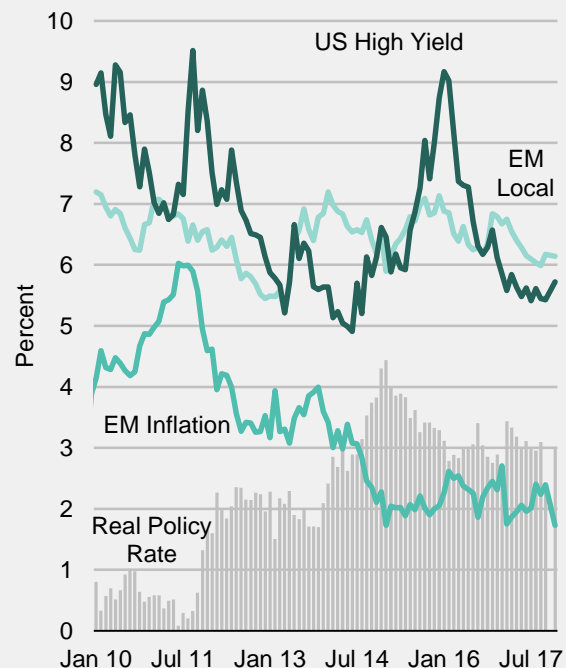


“Brazil House Speaker Delays Pension Reform Vote to February”

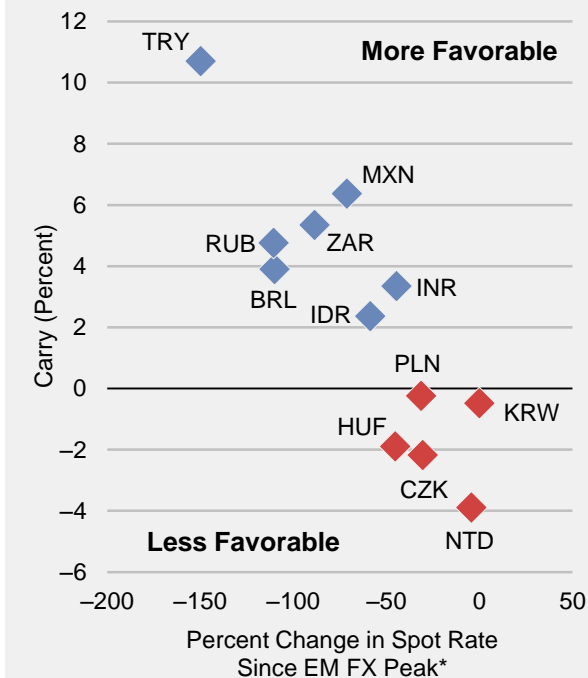
—Reuters (Dec 2017)

## ...but Local-Currency EM Yields Offer Income Potential...

### Policy Rates and Inflation



## ...and Some EM Currencies Offer Attractive Carry



As of December 31, 2017

**Historical analysis does not guarantee future results.**

EM local is represented by J.P. Morgan Government Bond–Emerging Markets Global Diversified. An investor cannot invest directly in an index, and its performance does not reflect the performance of any AB portfolio. The unmanaged index does not reflect fees and expenses associated with the active management of a portfolio.

\*EM FX valuations generally peaked on April 29, 2011.

Source: Bloomberg, J.P. Morgan and AB





# Take a Worldview on Interest-Rate Exposure, Too

## Rising Rates Don't Always Have to Derail Bonds\*

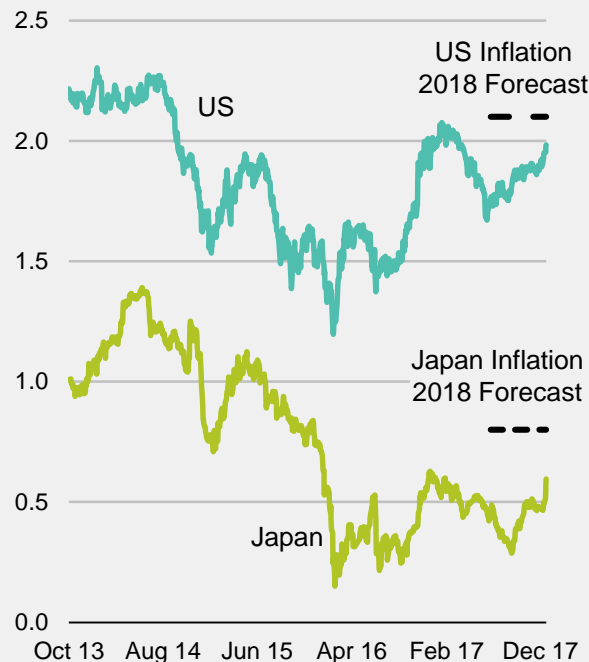
Expected Total Returns (Percent)

US Aggregate		Change in US High-Yield Spreads (b.p.)			
		-50	0	50	100
Change in US Treasury Yields (b.p.)	100	-1.4	-1.8	-2.1	-2.4
	50	0.9	0.6	0.2	-0.1
	0	3.2	2.9	2.6	2.2

US High Yield		Change in US High-Yield Spreads (b.p.)			
		-50	0	50	100
Change in US Treasury Yields (b.p.)	100	5.3	3.8	2.2	0.6
	50	6.4	4.9	3.3	1.8
	0	7.5	6.0	4.4	2.9

## Japanese and US Inflation-Linked Bonds Offer Value

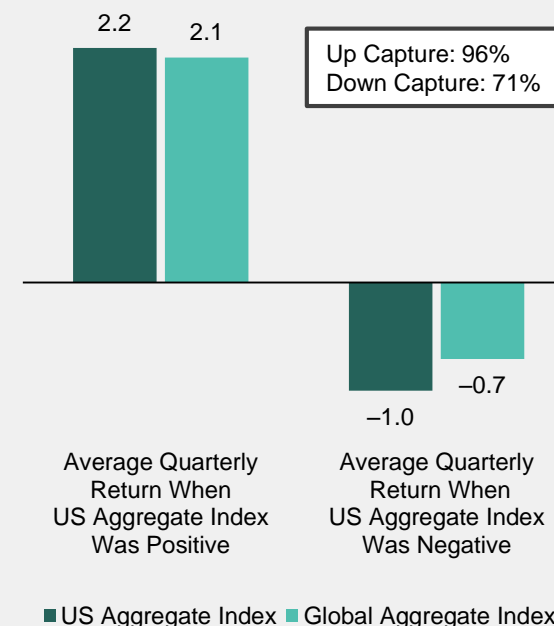
B/E Inflation for 10-Year Rates (Percent)†



## Global Outperforms When US Falls

Up vs. Down Capture‡

(March 1990–December 2017)



As of December 31, 2017

**Past performance does not guarantee future results.** \*The scenario analysis assesses the potential impact of instantaneous changes in US high-yield spreads and a parallel shift in the US Treasury yield curve on the Bloomberg Barclays US Aggregate and US High Yield indices. Expected returns incorporate the impact of roll and carry over the subsequent 12 months. †B/E: break-even. ‡Bar height might differ due to rounding. Global bonds hedged is represented by Bloomberg Barclays Global Aggregate Hedged to USD and US bonds by Bloomberg Barclays US Aggregate. An investor cannot invest directly in an index, and its performance does not reflect the performance of any AB portfolio. The unmanaged index does not reflect fees and expenses associated with the active management of a portfolio.

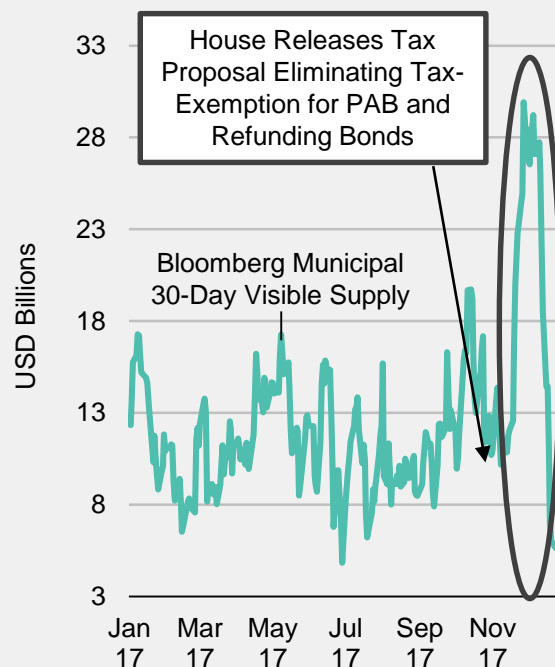
Source: Bloomberg Barclays and AB



# Tax Reform Should Not Thwart Municipal Market Outlook

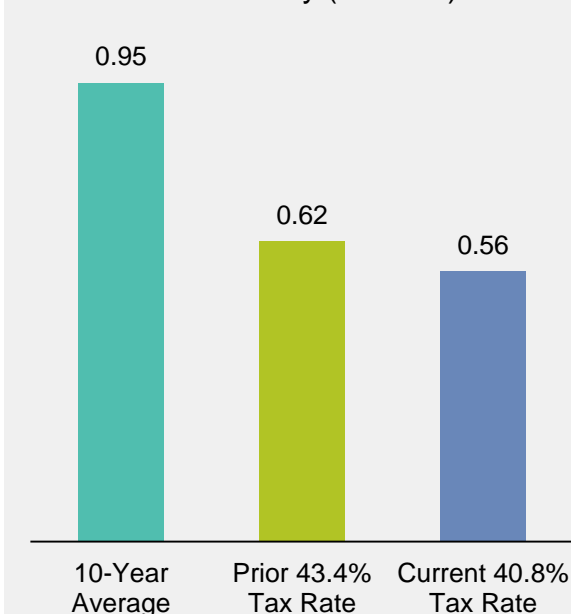
Tax Reform Element	Impact on the Municipal Market
Elimination of Advance Refunding Bonds*	↑ Lower supply
Reduction in Personal Income Tax Rates	↓ Reduce after-tax yield advantage of municipals
Increase in AMT Exemption†	↑ Fewer people subject to AMT; PAB could see more demand‡
Cap on SALT Deduction§	↑ Increase in demand for in-state munis in high-tax states
Cut in Corporate Tax Rates	↓ Reduced demand from corporations

## Expected 2018 Supply Remains Supportive of Technicals



## Tax Reform Shouldn't Significantly Disrupt Municipal Valuations

After-Tax Yield Advantage: 10-Year AAA vs. 10-Year Treasury (Percent)



As of December 31, 2017

**Past performance does not guarantee future results.**

\*Advance refunding bonds allow a municipal issuer to take advantage of lower interest rates when the outstanding bonds are not currently callable.

†AMT: alternative minimum tax

‡PAB: private activity bonds

§SALT: state and local tax

Source: Bloomberg and AB

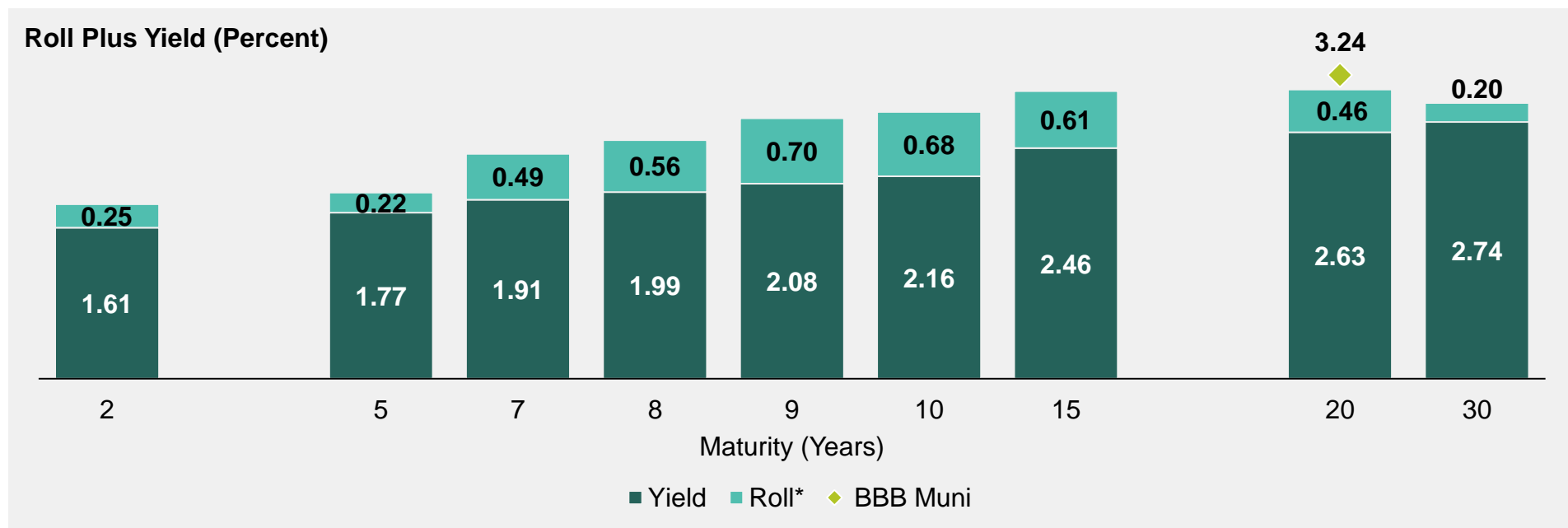


# Municipals: Balance Intermediate Quality with Longer-Maturity Credit

+ **Shorter Bonds:** Consider short-maturity municipals vs. comparable-maturity taxable bonds given the increase in short-term yields

+ **Intermediate Bonds:** Focus on roll and carry

+ **Longer Bonds:** Dip down in credit for an extra yield pickup to capitalize on below-trend inflation, positive economic growth and continued Fed rate hikes



As of December 31, 2017

**Historical analysis does not guarantee future results.**

Nominal yields. A credit rating is a measure of the quality and safety of a bond or portfolio, based on the issuer's financial condition. AAA is highest (best) and D is lowest (worst). Ratings are subject to change. Bloomberg Barclays long indices are used for each respective rating category. Roll and yield are for AA-rated municipal bonds.

\*Roll is the natural price gain that a bond experiences as it ages, assuming interest rates are unchanged. Yield advantage shown is for 10-year municipal securities. Short taxable bonds are represented by Bloomberg Barclays US Aggregate 1–3 Year ex Government.

Source: Bloomberg Barclays, Investment Company Institute, J.P. Morgan, Municipal Market Data, US Federal Reserve and AB

# Valuations Elevated, but Earnings Bear Watching

## Equity Valuations Are Elevated

Index	P/FE	20-Year Median
S&P 500	20.0x	16.7x
S&P MidCap 400	22.1	18.3
S&P SmallCap 600	25.1	19.0
MSCI EAFE	16.1	14.3
MSCI World	18.4	16.1
MSCI ACWI	17.8	15.3
MSCI EM	14.2	11.8

## MSCI ACWI Earnings Growth and Forward Estimates



As of December 31, 2017

**Past performance, historical analysis and current forecasts do not guarantee future results.** Not all sectors perform the same.

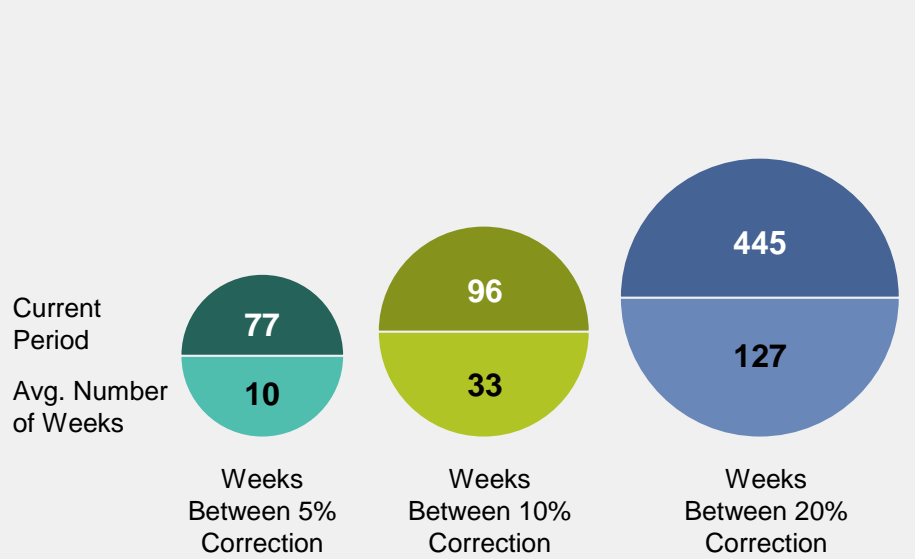
An investor cannot invest directly in an index, and its performance does not reflect the performance of any AB portfolio. The unmanaged index does not reflect the fees and expenses associated with the active management of a portfolio.

Source: Bloomberg, FactSet, MSCI and S&P

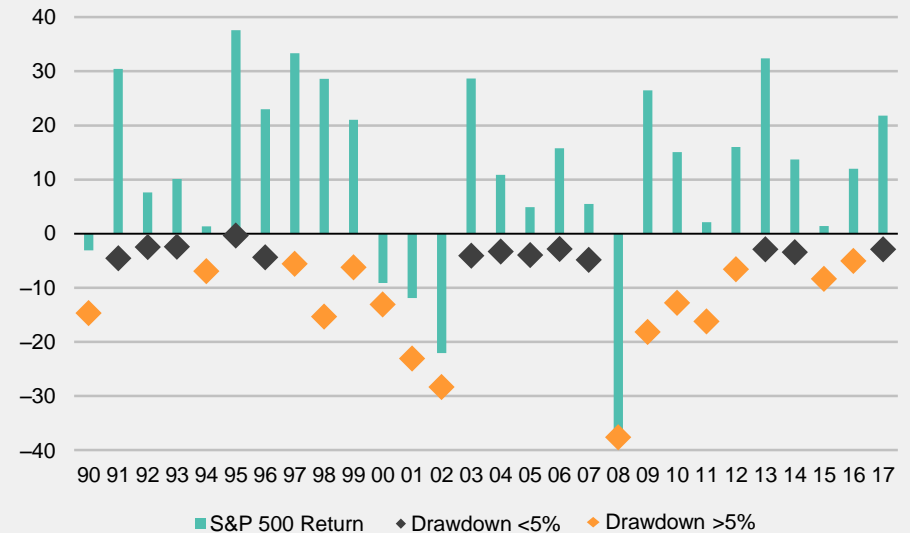


# Worried About a Correction? Prepare Accordingly

## Time Between Market Corrections US Large-Cap Stocks (Since 1928)



## Stocks Usually Rebound After Large Intra-Year Declines S&P 500 Total Returns by Calendar Year (Percent)



	Drawdown Count	Drawdown Depth	Length (Days)	Time to 50% Rebound (Days)	Time to 100% Rebound (Days)	Fwd. 3-Mo. Return Post-Drawdown	Fwd. 12-Mo. Return Post-Drawdown
S&P 500	39	-8%	17	7	69	11%	16%

As of December 31, 2017

**Past performance and historical analysis do not guarantee future results.**

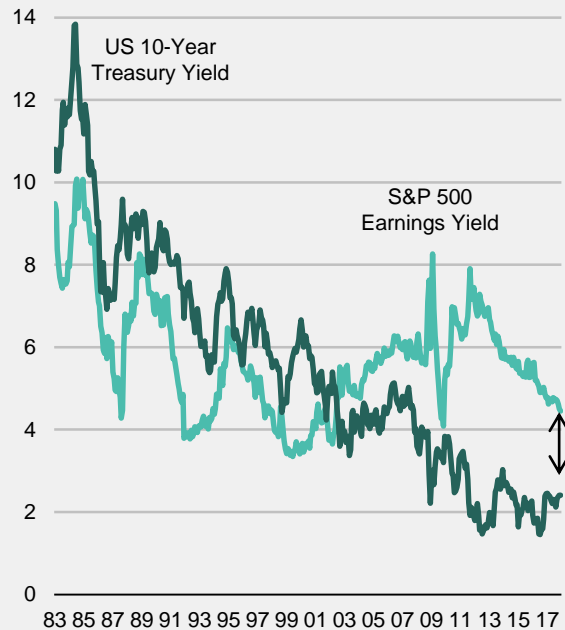
Source: Ned Davis Research, Northern Trust, S&P and AB



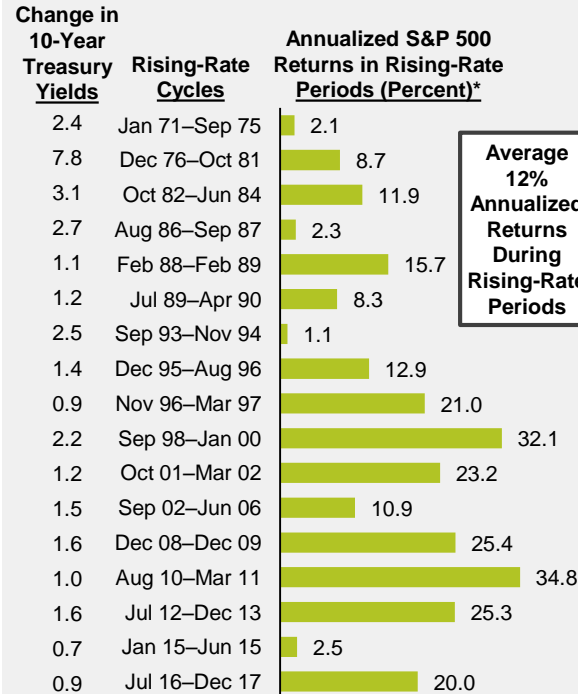
# Rising Rates Often Do Not Derail Equities, but Selectivity Is Key

## Large Gaps Between Stock and Bond Yields Are Rare

### Stock Earnings Yields vs. Bond Yields (Percent)

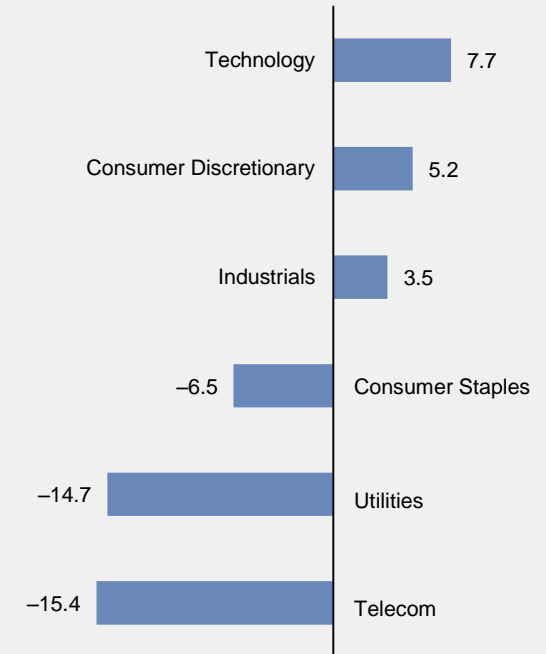


## Equities Have Fared Well in Rate-Hike Cycles



## Not All Sectors Perform the Same

### Sector Relative Returns During Taper Tantrum (Percent)†



Left and middle displays as of December 31, 2017; right display as of December 31, 2016

**Past performance and historical analysis do not guarantee future results.**

\*Based on peak-to-trough rate cycles for the corresponding periods of S&P 500. Rising-rate environments are defined as periods during which the US 10-year Treasury yield rose by more than 70 basis points.

†Periods ending December 31, 2016; taper tantrum is from May 1, 2013, through December 31, 2016.

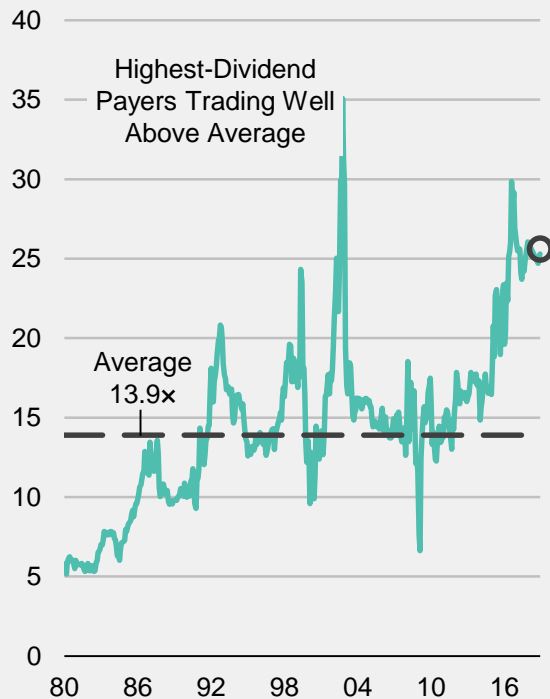
Source: FactSet, Russell Investments and AB



# High Yielders Remain Expensive vs. High ROE and Persistent Growers

## Bond Proxies Are Costly

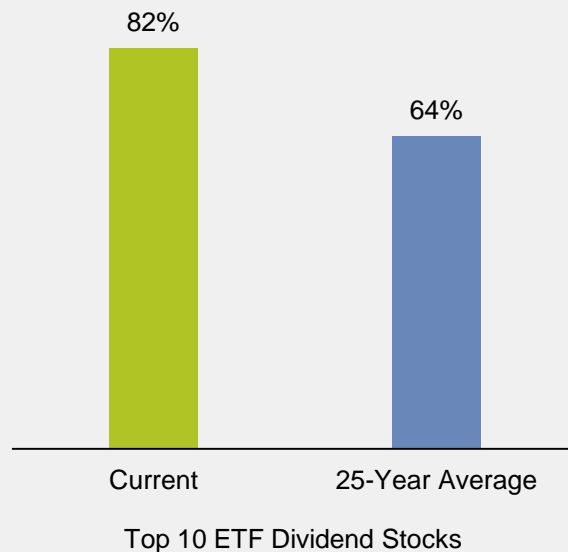
Price/Earnings Ratio (x)\*



## Payout Ratios Are Unsustainable

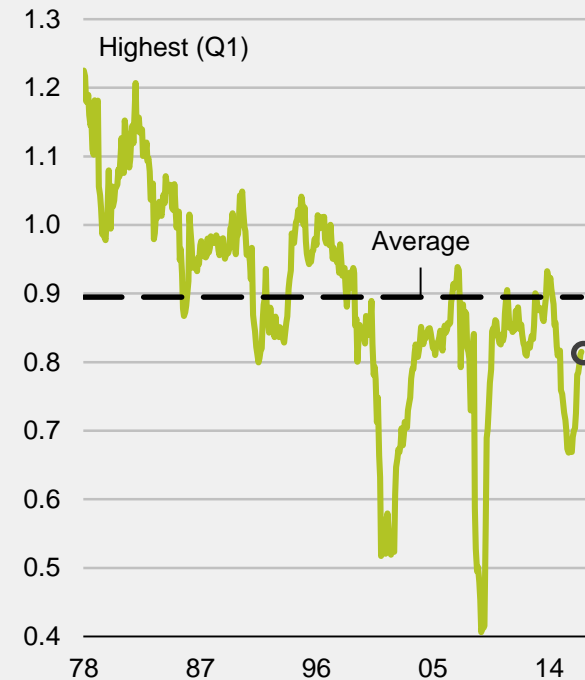
Payout Ratio, Trailing 12 Months

The most-held dividend stocks are paying out more than 80% of their earnings, significantly higher than their historical average



## Instead, Look for Profitability

Price/Earnings Ratio of Highest-ROE Companies vs. Market†



As of December 31, 2017

**Historical analysis does not guarantee future results.**

\*Highest 20% of dividend payers among 1,500 US-listed stocks in the AB equity universe, excluding 33 companies that do not currently have a P/E ratio because they are not profitable

†Highest 20% of earnings growth and return on equity (ROE) among 1,500 US-listed stocks in the AB equity universe, excluding 33 companies that do not currently have a P/E ratio because they are not profitable

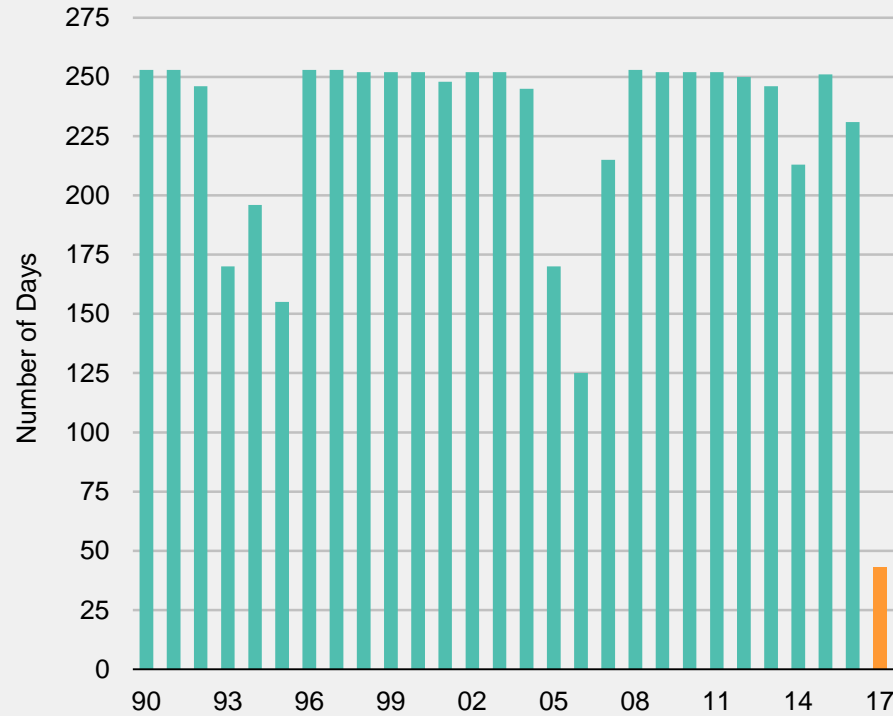
Source: FactSet, Russell Investments and AB



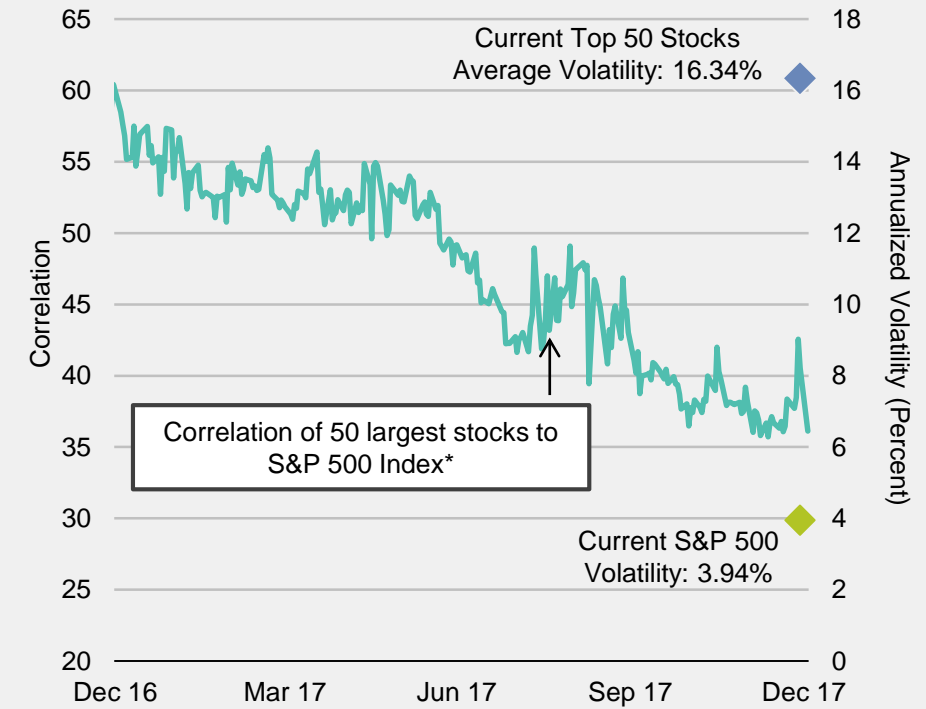
# Beneath the Surface, All Is Not Calm

## Abnormally Low Volatility in 2017

Number of Days the VIX Has Closed >12



## Large-Stock Volatility Much Higher than Broad Market



As of December 31, 2017

**Historical analysis does not guarantee future results.** An investor cannot invest directly in an index, and its performance does not reflect the performance of any AB portfolio. The unmanaged index does not reflect the fees and expenses associated with the active management of a portfolio.

\*Correlation of S&P 500 option prices and prices of single-stock options on the 50 largest S&P 500 constituents (January 2018 maturities). Correlations represented by CBOE implied correlation Index (KCJ). KCJ CBOE Index represents the expected average correlation of S&P option prices and prices of single-stock options on the 50 largest components of the S&P 500. Correlation is calculated using January 2018 equity options and December 2017 S&P options.

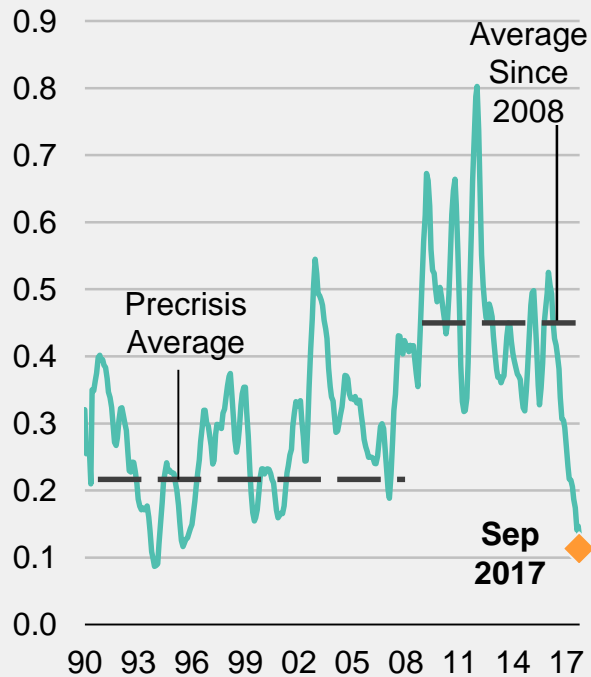
Source: Bloomberg, Chicago Board Options Exchange, Empirical Research Partners, FactSet, Russell Investments, Thomson Reuters I/B/E/S and AB



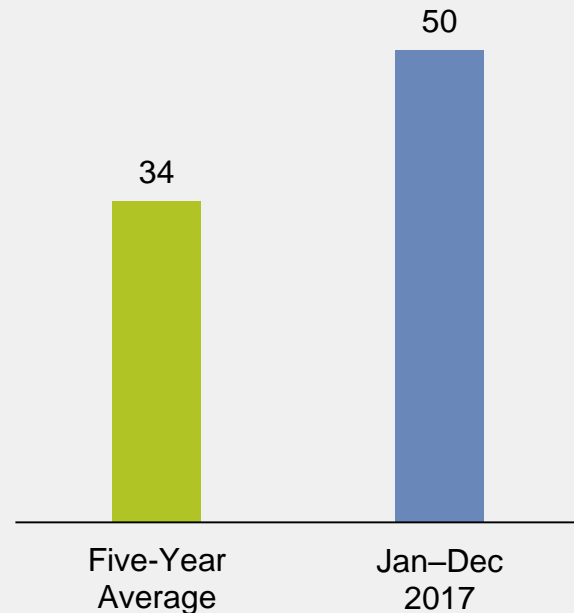


# It Pays to Be Active in Moderate-Return Environments

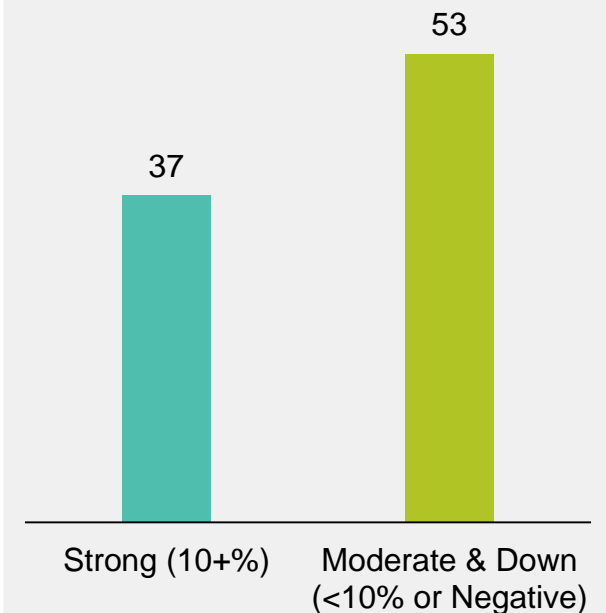
## Intra-Stock Market Correlations\* Well Below Precrisis Levels



## Active Managers Snap Back in 2017† Active Managers Outperforming (Percent Beating Benchmark)



## Active Managers Tend to Do Best in Challenging Markets‡ Percent Beating Benchmark



Left display as of September 30, 2017; middle and right displays as of December 31, 2017

**Historical analysis does not guarantee future results.**

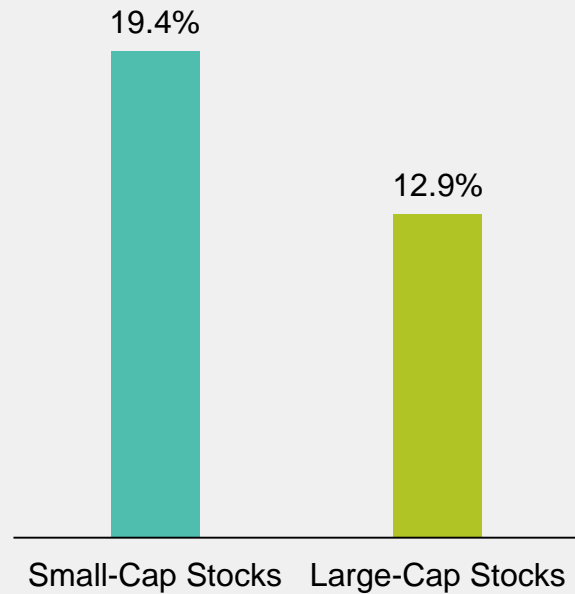
\*Correlation uses a six-month moving average. Latest figure is from September 30, 2017. Precrisis average is from 1990 to 2007. †Measured by the average outperformance of active managers in the Large Value/Growth/Blend, Mid Value/Growth/Blend and Small Value/Growth/Blend Morningstar categories vs. the respective benchmarks. ‡Measured by the average annual outperformance of active managers in the Large Blend Morningstar category vs. each fund's primary prospectus benchmark over the past 20 years.

Source: Bloomberg, FactSet, Morningstar, Russell Investments, Thomson Reuters I/B/E/S and AB

# Small Caps: Inefficiencies, Information Advantage and Be Active

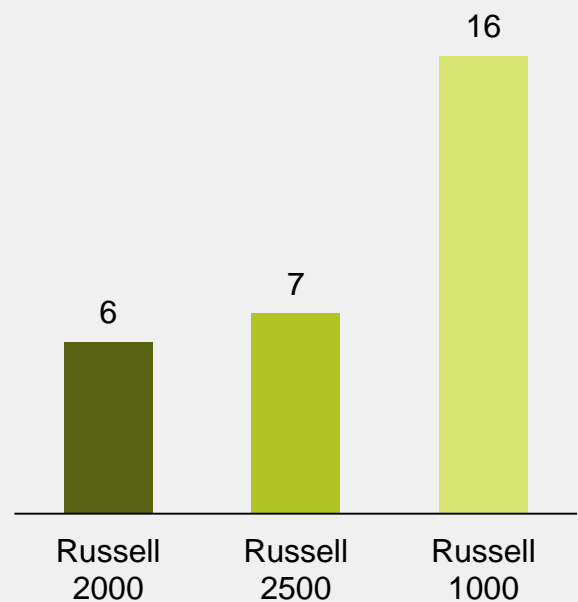
## Small Caps Likely to Get Bigger Earnings Boost from Tax Cuts

Potential Increase in EPS Given New 21% Corporate Rate



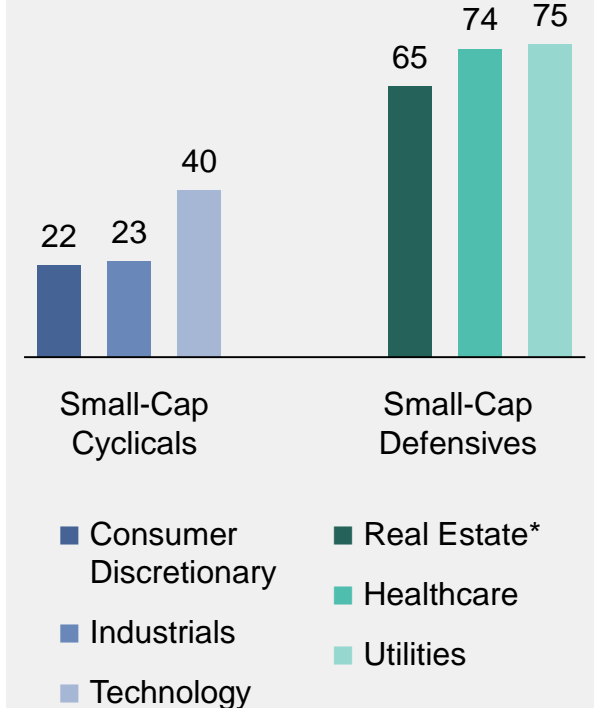
## Scant Research Coverage for Smaller Companies Creates Inefficiencies

Average Number of Analysts Covering Small Caps



## Historical Percentiles

Price-to-Forward-Earnings Multiple Relative to Russell 2000



As of December 31, 2017

**Historical analysis does not guarantee future results.**

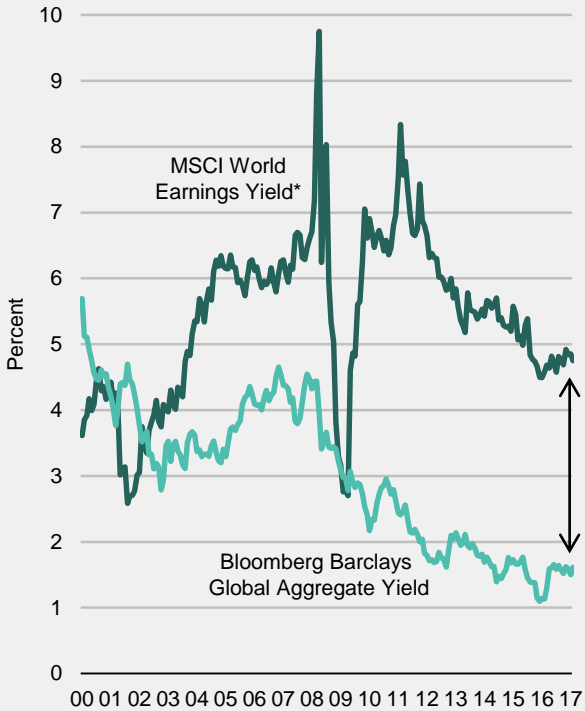
\*Real estate sector adjusted for mortgage REITs post-GICS sector reconstitution to make it comparable with historical data.

Source: Bloomberg, FactSet, Morningstar, Russell Investments, Thomson Reuters I/B/E/S and AB

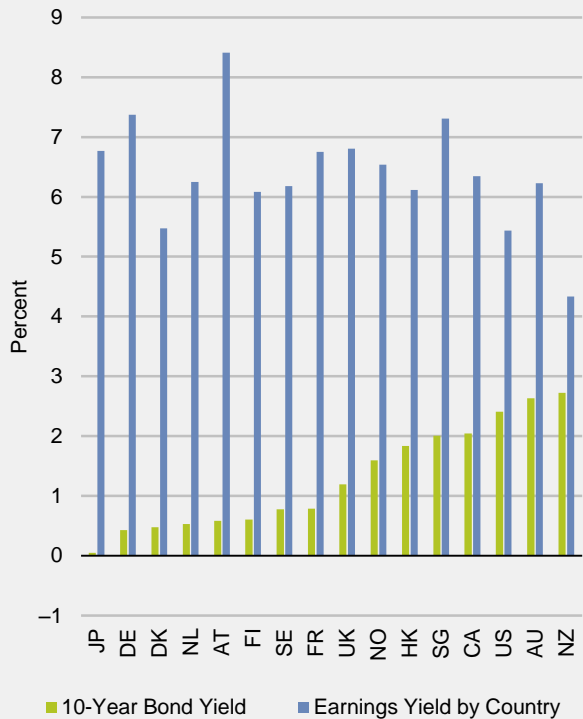


# Large Gap Between Stock and Bond Yields Persists Globally; Be Selective

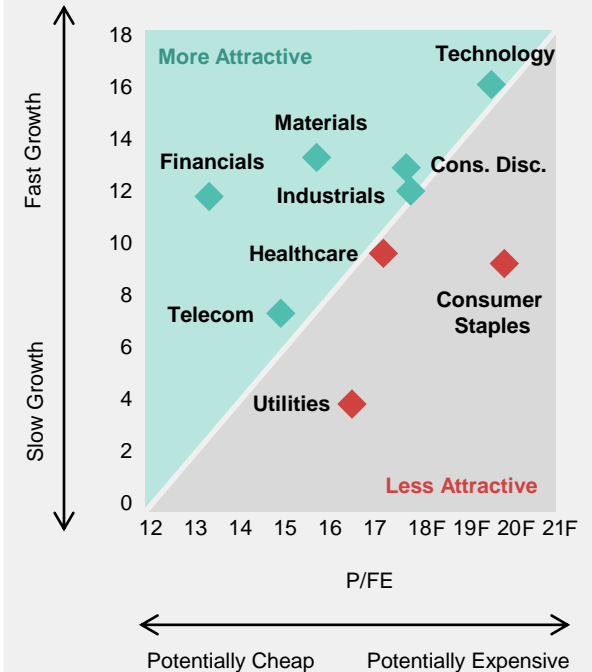
**Globally, Yield Is Best Found with Equities**



**Bond Yields Are Not Keeping Up with Equity Yields in Most Countries**



**I/B/E/S Five-Year Growth Forecast† Percent**



As of December 31, 2017

**Past performance and historical analysis do not guarantee future results.**

\*MSCI World earnings yield calculated using reciprocal of the price/earnings ratio for the next 12 months. Indices are used for comparison purposes only. An investor generally cannot invest in an index.

†Excludes energy

Source: Bloomberg Barclays, FactSet, MSCI, S&P Compustat, Thomson Reuters I/B/E/S, Worldscope and AB



# A Word About Risk

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## **Important Risk Information Related to Investing in Equity and Short Strategies**

All investments involve risk. Equity securities may rise and decline in value due to both real and perceived market and economic factors as well as general industry conditions.

A short strategy may not always be able to close out a short position on favorable terms. Short sales involve the risk of loss by subsequently buying a security at a higher price than the price at which it sold the security short. The amount of such loss is theoretically unlimited (since it is limited only by the increase in value of the security sold short). In contrast, the risk of loss from a long position is limited to the investment in the long position, since its value cannot fall below zero. Short selling is a form of leverage. To mitigate leverage risk, a strategy will always hold liquid assets (including its long positions) at least equal to its short position exposure, marked to market daily.

## **Important Risk Information Related to Investing in Emerging Markets and Foreign Currencies**

Investing in emerging-market debt poses risks, including those generally associated with fixed-income investments. Fixed-income securities may lose value due to market fluctuations or changes in interest rates. Longer-maturity bonds are more vulnerable to rising interest rates. A bond issuer's credit rating may be lowered due to deteriorating financial condition; this may result in losses and potentially default, or failure to meet payment obligations. The default probability is higher in bonds with lower, noninvestment-grade ratings (commonly known as "junk bonds").

There are other potential risks when investing in emerging-market debt. Non-US securities may be more volatile because of the associated political, regulatory, market and economic uncertainties; these risks can be magnified in emerging-market securities. Emerging-market bonds may also be exposed to fluctuating currency values. If a bond's currency weakens against the US dollar, this can negatively affect its value when translated back into US-dollar terms.

## **Bond Ratings Definition**

A measure of the quality and safety of a bond or portfolio, based on the issuer's financial condition, and not based on the financial condition of the fund itself. AAA is highest (best) and D is lowest (worst). Ratings are subject to change. Investment-grade securities are those rated BBB and above. If applicable, the Pre-Refunded category includes bonds which are secured by US government securities and therefore are deemed high-quality investment grade by the advisor.

# Index Definitions

Following are definitions of the indices referred to in this presentation. It is important to recognize that all indices are unmanaged and do not reflect fees and expenses associated with the active management of a mutual fund portfolio. Investors cannot invest directly in an index, and its performance does not reflect the performance of any AB mutual fund.

- + **Bloomberg Barclays Global Aggregate Bond Index:** Measure of global investment-grade debt from 24 local currency markets and includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed- and emerging-markets issuers.
- + **Bloomberg Barclays Global Aggregate Corporate Bond Index:** Tracks the performance of investment-grade corporate bonds publicly issued in the global market and found in the Global Aggregate. (Represents global corporate on slide 1.)
- + **Bloomberg Barclays Global High-Yield Bond Index:** Provides a broad-based measure of the global high-yield fixed-income markets. It represents the union of the US High Yield, Pan-European High Yield, US Emerging Markets High Yield, CMBS High Yield and Pan-European Emerging Markets High Yield indices.
- + **Bloomberg Barclays Global High-Yield Corporate Index:** A multi-currency measure of the global high yield corporate debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and the corporate sector of the Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. The Global High Yield Corporate Index is a component of the Global High Yield Index and subsequently a component of the Multiverse Index, along with the Global Aggregate, Euro Treasury High Yield and EM Local Currency Government Indices.
- + **Bloomberg Barclays Global Treasury: Euro Bond Index:** Includes fixed-rate, local-currency sovereign debt that makes up the Euro Area Treasury sector of the Global Aggregate Index. (Represents euro-area government bonds on slide 1.)
- + **Bloomberg Barclays Global Treasury: Japan Bond Index:** Includes fixed-rate, local-currency sovereign debt that makes up the Japanese Treasury sector of the Global Aggregate Index. (Represents Japan government bonds on slide 1.)
- + **Bloomberg Barclays Municipal Bond Index:** A rules-based, market value-weighted index engineered for the long-term tax-exempt bond market. (Represents municipals on slide 1.)
- + **Bloomberg Barclays US Aggregate Bond Index:** A broad-based benchmark that measures the investment-grade, US dollar-denominated, fixed-rate, taxable bond market, including US Treasuries, government-related and corporate securities, mortgage-backed securities (MBS [agency fixed-rate and hybrid ARM pass-throughs]), asset-backed securities (ABS), and commercial mortgage-backed securities (CMBS).
- + **Bloomberg Barclays US Corporate High-Yield Bond Index:** Represents the corporate component of the Bloomberg Barclays US High Yield Index. (Represents US high yield on slide 1.) **Bloomberg Barclays US Corporate Bond Index:** Measures the investment-grade, fixed-rate, taxable corporate bond market and includes USD-denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

# Index Definitions (continued)

- + **Bloomberg Barclays US Treasury Index:** Includes fixed-rate, local-currency sovereign debt that makes up the US Treasury sector of the Global Aggregate Index. (Represents US government bonds on slide 1.)
- + **Bloomberg Barclays US Treasury Inflation-Linked Bond Index:** Measures the performance of the US Treasury Inflation-Protected Securities market.
- + **J.P. Morgan Emerging Market Bond Index Global:** A benchmark index for measuring the total return performance of government bonds issued by emerging-market countries that are considered sovereign (issued in something other than local currency) and that meet specific liquidity and structural requirements. In order to qualify for index membership, the debt must be more than one year to maturity, have more than \$500 million outstanding, and meet stringent trading guidelines to ensure that pricing inefficiencies don't affect the index. (Represents emerging-market debt on slide 1.)
- + **J.P. Morgan Government Bond-Emerging Markets Global Diversified Index:** A comprehensive global emerging markets index of local government bond debt. To qualify, a country's gross national income (GNI) per capita must be below the GNI per capita level that is adjusted yearly by the growth rate of the world GNI per capita, provided by the World Bank, for three consecutive years.
- + **MSCI All Country World Index:** A market capitalization weighted index designed to provide a broad measure of equity-market performance throughout the world.
- + **MSCI EAFE Index:** A free float-adjusted, market capitalization-weighted index designed to measure developed-market equity performance, excluding the US and Canada. It consists of 22 developed-market country indices. (Represents EAFE on slide 1.)
- + **MSCI Emerging Markets Index:** A free float-adjusted, market capitalization-weighted index designed to measure equity market performance in the global emerging markets. It consists of 21 emerging-market country indices. (Represents emerging markets on slide 1.)
- + **MSCI World Index:** A market capitalization-weighted index that measures the performance of stock markets in 24 countries.
- + **Russell 2500 Index:** A broad index featuring 2,500 stocks that cover the small and mid cap market capitalizations. The Russell 2500 is a market cap weighted index that includes the smallest 2,500 companies covered in the Russell 3000 universe of United States-based listed equities.
- + **S&P 500 Index:** Includes a representative sample of 500 leading companies in leading industries of the US economy. (Represents US large-cap on slide 1.)
- + **S&P MidCap 400 Index:** Provides investors with a benchmark for mid-sized companies. The index measures the performance of mid-sized companies, reflecting the distinctive risk and return characteristics of this market segment.
- + **S&P SmallCap 600 Index:** Measures the small-cap segment of the U.S. equity market. The index is designed to track companies that meet specific inclusion criteria to ensure that they are liquid and financially viable.

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