LEADERSHIP SERIES THIRD QUARTER 2018

# Quarterly Market Update


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# Market Summary

# Mixed Bag Amid Fed Tightening and Global Concerns

**Market volatility waxed and waned, as concerns about trade protectionism and global growth percolated. The solid U.S. economic and corporate backdrop—boosted by tax cuts and fiscal stimulus—led to continued tightening by the Federal Reserve, which contributed to ebbing global liquidity and a stronger U.S. dollar. The global expansion has become less synchronized, and the mature business cycle warrants smaller allocation tilts.**

| | MACRO | ASSET MARKETS |
|---|---|---|
| **Q2 2018** | • Global cycle becoming less synchronized | • Dollar rose and non-U.S. asset prices dropped |
| **OUTLOOK** | • Global activity has peaked, and China is shifting to policy easing to address slowdown<br>• U.S. economy strong, but the cycle is becoming more mature as the Fed tightens<br>• Ample corporate liquidity will ultimately not offset tightening central bank liquidity<br>• Trade tensions to remain a headwind | • Monetary shift to reduce global liquidity growth, boost market volatility<br>• Smaller allocation tilts at this point in the cycle<br>• Prioritize diversification, including inflation-resistant assets |

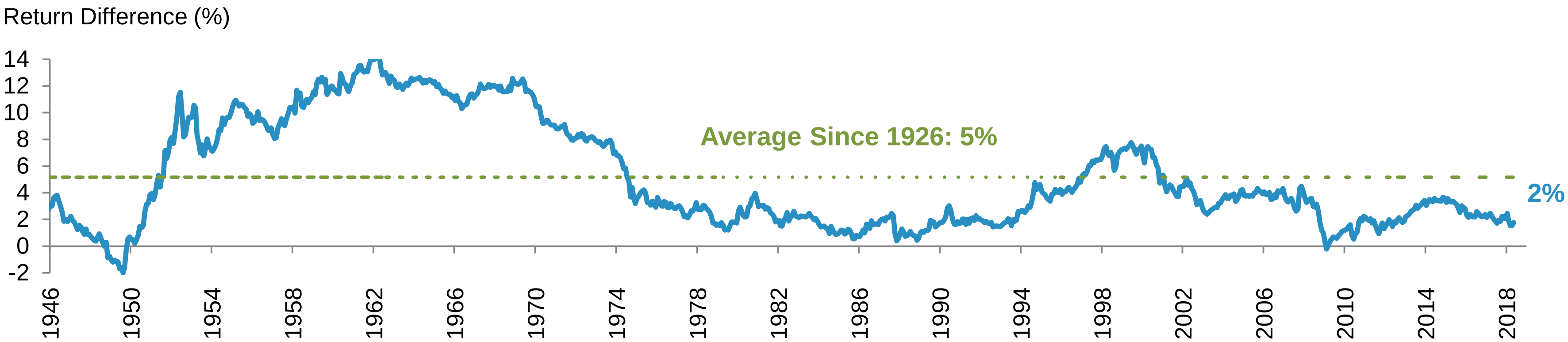
Diversification does not ensure a profit or guarantee against a loss.

# U.S. Equities the Lone Bright Spot During Choppy Q2

**The sturdy domestic economy bolstered U.S. stocks, particularly small caps and REITs, which are less exposed to global trends and trade risk. The rising U.S. dollar provided a headwind for non-U.S. stocks, and emerging-market equities suffered the biggest losses. U.S. interest rates and corporate spreads ticked up modestly, resulting in weak returns across most bond categories.**

| | Q2 2018 (%) | 1-Year (%) | | Q2 2018 (%) | 1-Year (%) |
|---|---|---|---|---|---|
| Real Estate Stocks | 8.5 | 4.9 | Non-U.S. Developed-Country Stocks | -0.8 | 7.4 |
| U.S. Small Cap Stocks | 7.8 | 17.6 | U.S. Corporate Bonds | -0.9 | -0.6 |
| U.S. Large Cap Stocks | 3.4 | 14.4 | Non-U.S. Small Cap Stocks | -1.1 | 12.9 |
| U.S. Mid Cap Stocks | 2.8 | 12.3 | Long Government & Credit Bonds | -1.4 | -0.8 |
| High Yield Bonds | 1.0 | 2.5 | Emerging-Market Bonds | -3.5 | -2.4 |
| Commodities | -0.1 | 5.8 | Gold | -5.5 | 0.7 |
| Investment-Grade Bonds | -0.2 | -0.4 | Emerging-Market Stocks | -7.7 | 8.6 |

**20-Year U.S. Stock Returns Minus IG Bond Returns Since 1926**




Past performance is no guarantee of future results. It is not possible to invest directly in an index. See Appendix for important index information. Assets represented by: Commodities – Bloomberg Commodity Index; Emerging-Market Bonds – JP Morgan EMBI Global Index; Emerging-Market Stocks – MSCI EM Index; Gold – Gold Bullion, LBMA PM Fix; High-Yield Bonds – ICE BofAML High Yield Bond Index; Investment-Grade Bonds – Bloomberg Barclays U.S. Aggregate Bond Index; Non-U.S. Developed-Country Stocks – MSCI EAFE Index; Non-U.S. Small Cap Stocks – MSCI EAFE Small Cap Index; Real Estate Stocks – FTSE NAREIT Equity Index; U.S. Corporate Bonds – Bloomberg Barclays U.S. Credit Index; U.S. Large Cap Stocks – S&P 500 Index; U.S. Mid Cap Stocks – Russell Midcap Index; U.S. Small Cap Stocks – Russell 2000 Index; U.S. Treasury Bonds – Bloomberg Barclays U.S. Treasury Index. Source: Bloomberg Finance L.P., Haver Analytics, Fidelity Investments (AART), as of 6/30/18.

# Stronger Dollar a Boost for U.S. Relative Performance

**After underperforming international stocks during most of 2017, U.S. equities took the lead during the first half of 2018. A weaker dollar aided the performance of international stocks through 2017, but the shift to a rising dollar in the second quarter of 2018 acted as a drag on non-U.S. assets.**



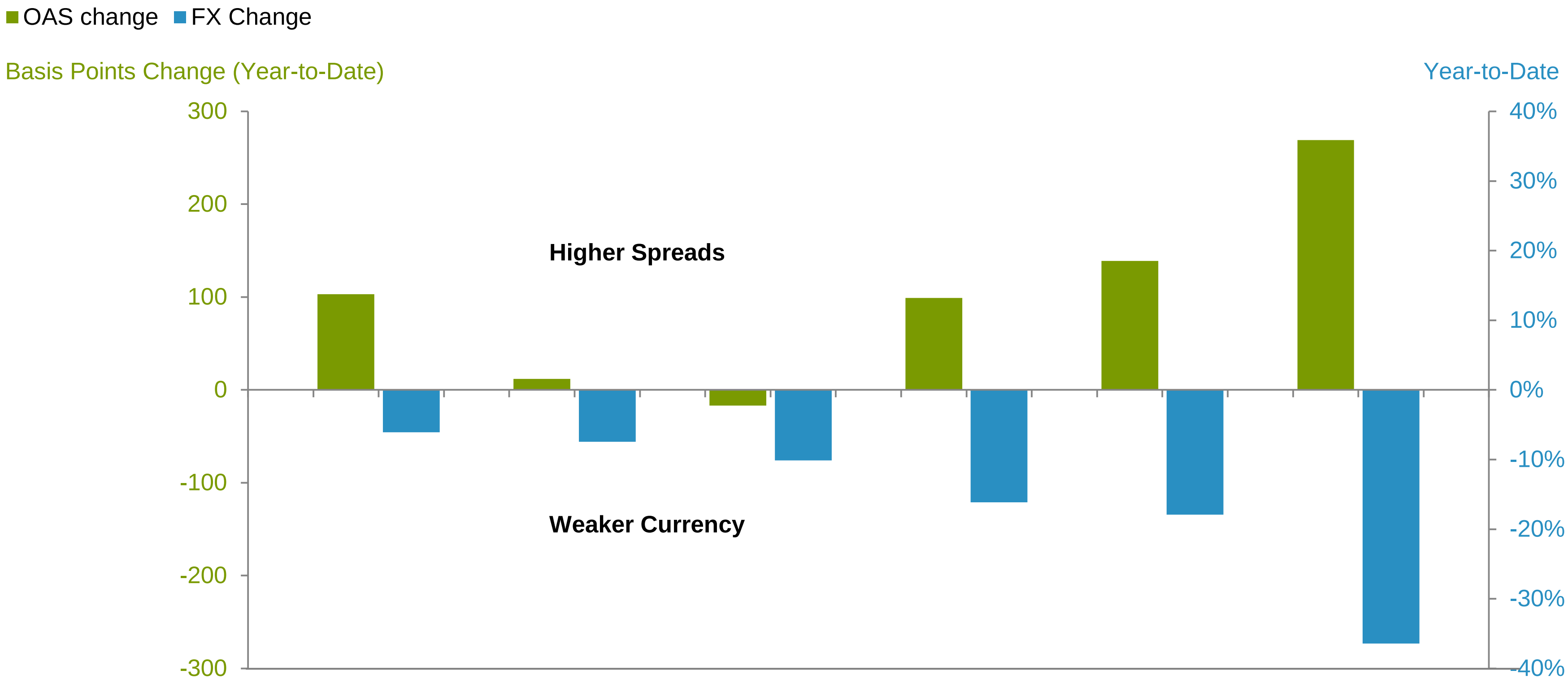
## Relative Performance of U.S. Equities and U.S. Dollar


Past performance is no guarantee of future results. It is not possible to invest directly in an index.
Source: Federal Reserve Board, Standard & Poor's, MSCI, Bloomberg Financial LP, Fidelity Investments (AART), as of 6/30/18.

# Ebbing Dollar Liquidity a Challenge for Emerging Markets

**With the Federal Reserve tightening monetary policy, global dollar liquidity has begun to recede, impacting assets that are most dependent on dollar inflows. Emerging-market bonds, currencies, and equities suffered during Q2, particularly the most vulnerable countries that have large and rising current account deficits and foreign financing needs.**

## Emerging-Market Credit Spreads and FX



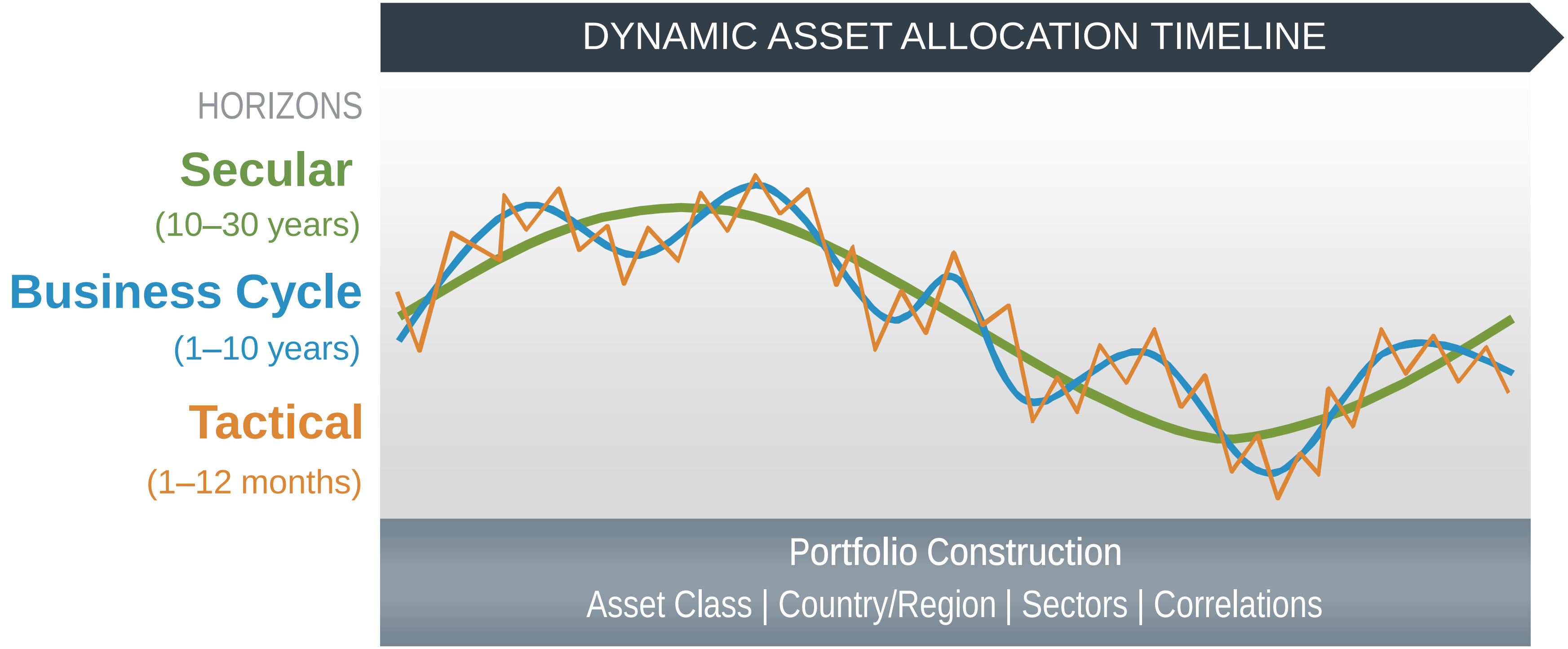

| | Indonesia | India | South Africa | Brazil | Turkey | Argentina |
|---|---|---|---|---|---|---|
| **Current Account 5-year change (ppts)*** | **0.8** | **2.0** | **2.5** | **3.2** | **-0.9** | **-3.8** |

*Percentage point change in current account balance as % of GDP. OAS: Option-adjusted spread.
Source: Official country statistics, Haver Analytics, Bloomberg Financial L.P., Fidelity Investments (AART), as of 6/30/18.

# Economy/Macro Backdrop

# Multi-Time-Horizon Asset Allocation Framework

**Fidelity's Asset Allocation Research Team (AART) believes that asset price fluctuations are driven by a confluence of various factors that evolve over different time horizons. As a result, we employ a framework that analyzes trends among three temporal segments: tactical (short term), business cycle (medium term), and secular (long term).**

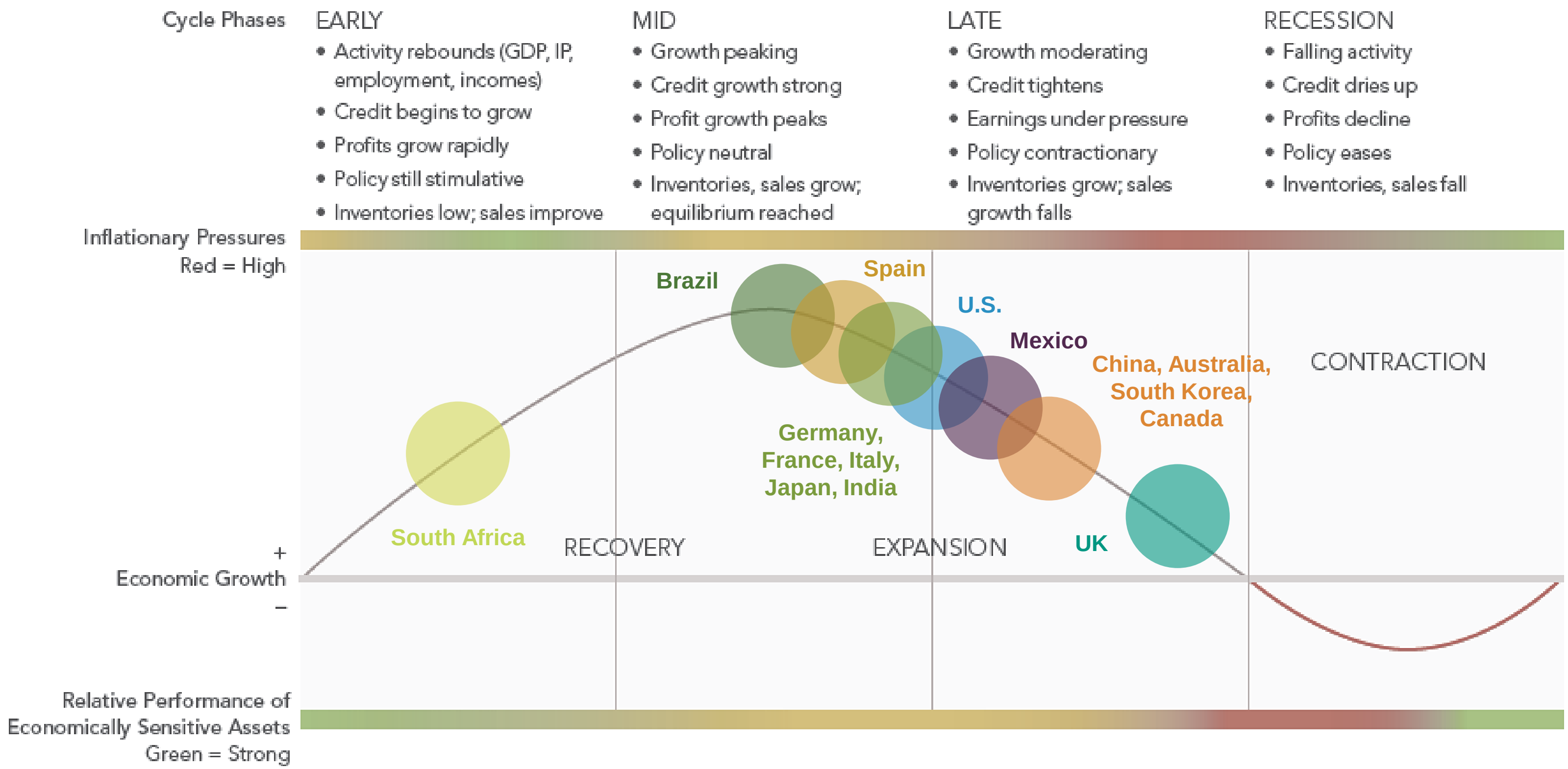



For illustrative purposes only. Source: Fidelity Investments (AART).

# Global Cycle Becoming More Mature, Less Synchronized

**The global economy remains in expansion, but the pace of overall activity is likely past its peak. China's industrial sector has slowed materially and risks of a growth recession are elevated. Many larger economies, including Germany and Japan, have shown signs of maturing. After a generally synchronized global acceleration in 2017, the risks of a growth slowdown may now be higher than generally appreciated.**

## Business Cycle Framework

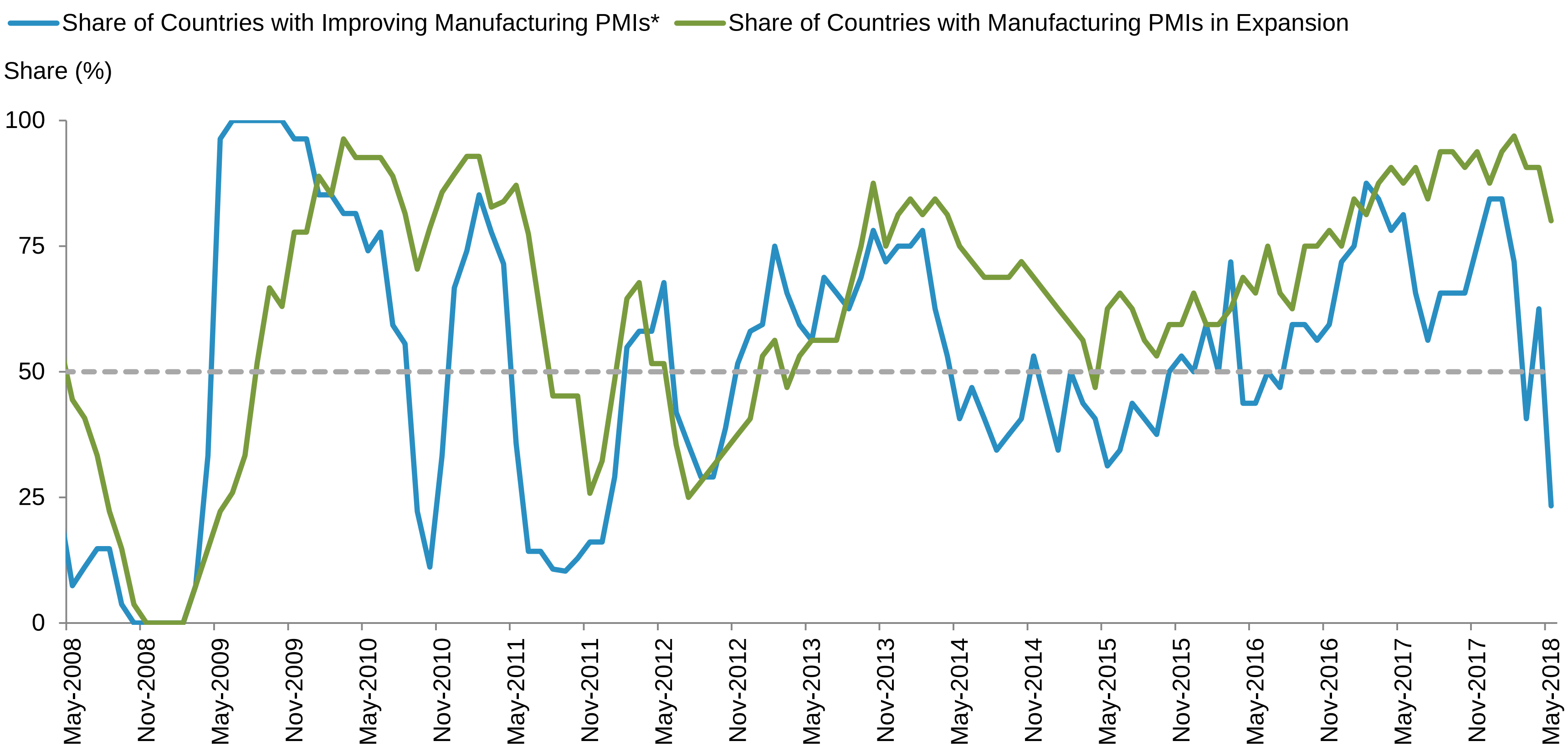



Note: The diagram above is a hypothetical illustration of the business cycle. There is not always a chronological, linear progression among the phases of the business cycle, and there have been cycles when the economy has skipped a phase or retraced an earlier one.
Source: Fidelity Investments (AART), as of 6/30/18.

# World Economy Continues to Grow, but at a Slower Pace

**Global manufacturing activity continues to expand, but the pace of improvement has slowed meaningfully. Manufacturing PMIs in 80% of the world's largest economies are in expansionary territory; however, less than 25% of them are improving on a six-month basis, a large change after several years of improvement. Slowing manufacturing activity is a headwind for export-oriented economies.**

## Global Manufacturing Growth




*Over the past six months. PMI: Purchasing Managers' Index. Shares shown include 30 countries, representing the world's largest economies.
Source: Markit, ISM, Haver Analytics, Fidelity Investments (AART), as of 5/31/18.



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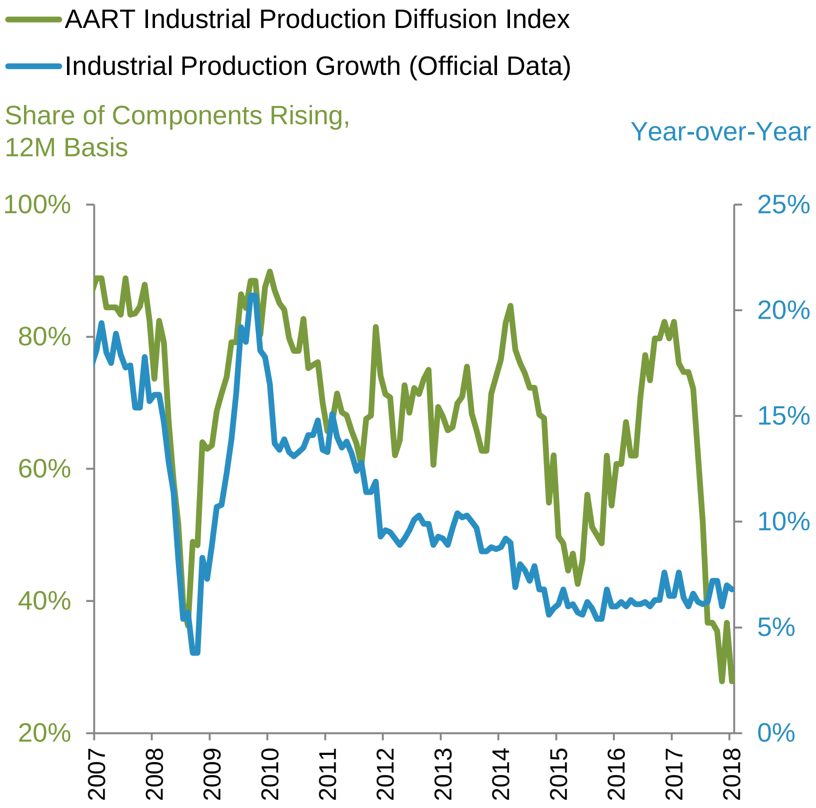
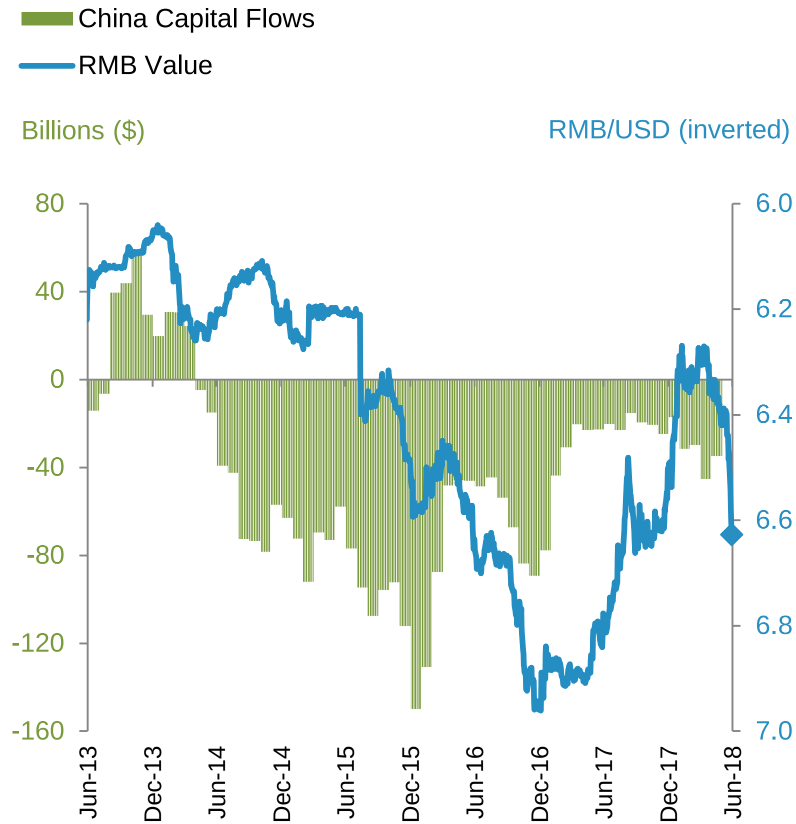
# China Deceleration, Financial Risks Warrant Caution

**Our proprietary industrial production index continues to signal significant weakness, and we believe the Chinese economy is decelerating. Policymakers have shifted to a monetary easing stance and the currency dropped sharply in late Q2. During 2015, weaker growth, policy easing, and currency weakness spurred large capital outflows, generating concerns about financial stability in China's highly indebted corporate sector.**

## China Industrial Activity




## China Capital Flows vs. FX




**LEFT:** Source: China National Bureau of Statistics (official data), Bloomberg Financial L.P., Fidelity Investments (AART), as of 6/30/18.
**RIGHT:** China Capital Flows: AART proxy. Bloomberg Financial L.P., Fidelity Investments (AART), as of 6/30/18.

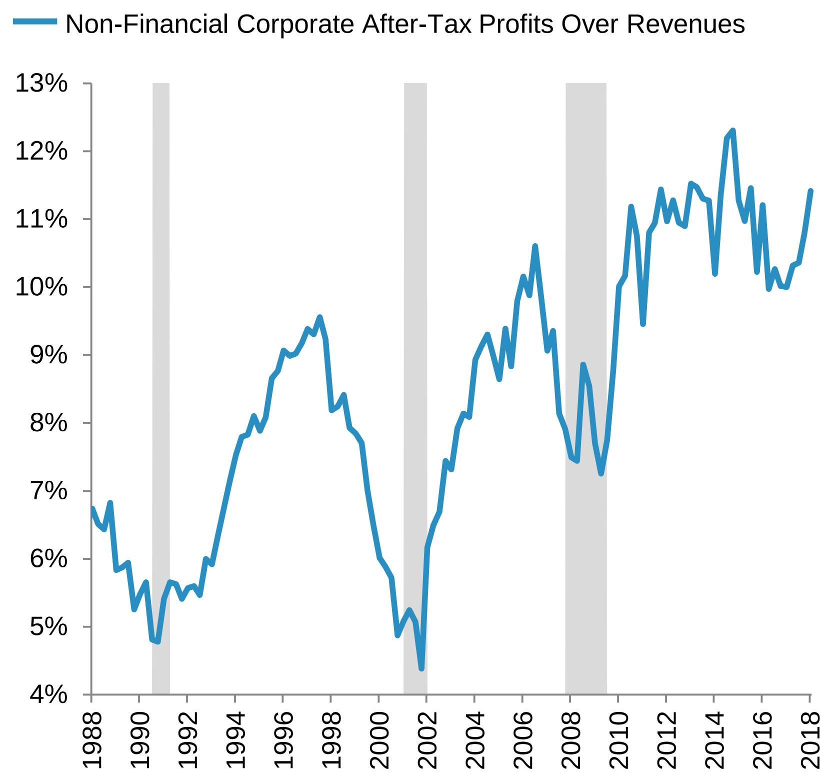
# U.S. Economy a Mix of Mid- and Late-Cycle Dynamics

**The U.S. has remained on a very gradual progression through its business cycle, with mid-cycle dynamics remaining solid but late-cycle trends becoming more evident. As is customary during a late-cycle phase, corporate profit margins have declined from peak levels, but corporate tax cuts and restrained wage growth have allowed margins to stay high and corporate profit growth to remain firm.**

## Mid- to Late-Cycle Phase Transition

| Indicator | Typical Late-Cycle Trends | Current Dynamics: ● Mid-Cycle | Current Dynamics: ● Late-Cycle |
|---|---|---|---|
| Corporate Profits* | Margins decline | ● | ● |
| Inventories | Rise relative to orders | ● | |
| Employment | Pace of hiring slows | ● | |
| Wage Growth* | Accelerates | ● | ● |
| Monetary Policy | Fed tightens, yield curve flattens | | ● |
| Credit | Lending standards tighten | ● | |

## U.S. Profit Margins

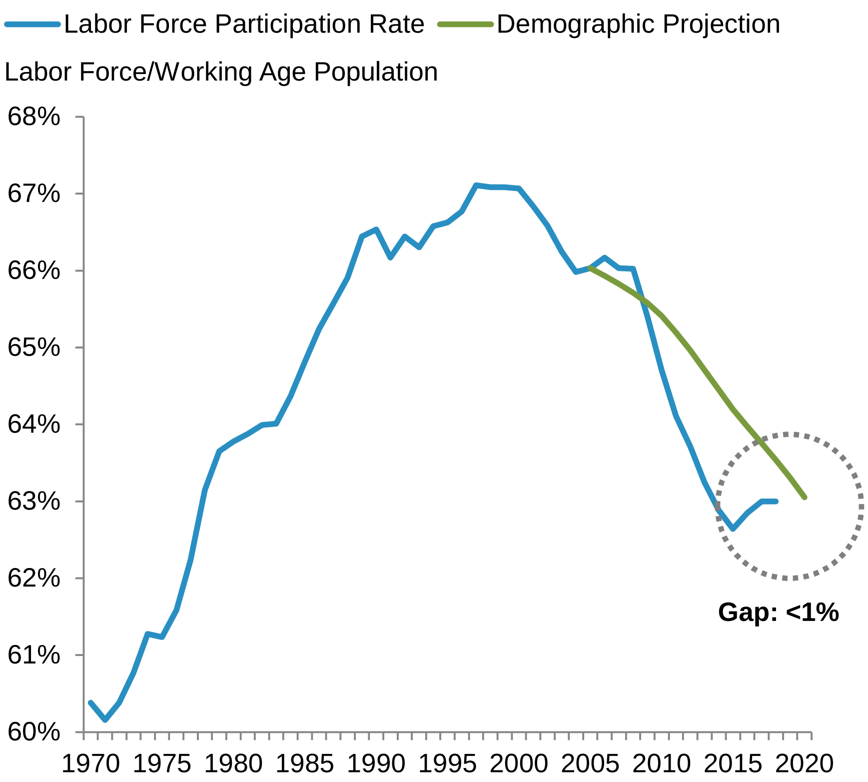



**LEFT:** *Listing of both blue and green circles indicates evidence of both mid- and late-cycle traits. Source: Fidelity Investments (AART), as of 6/30/18.
**RIGHT:** Grey bars represent U.S. recessions. Source: Bureau of Economic Analysis, Haver Analytics, NBER, Fidelity Investments (AART), as of 3/31/18.

# Tighter Labor Markets Support Wages, Inflation

**The labor force participation rate has stabilized, as the strong job market has enticed people to rejoin the workforce. We estimate that much of the prior decline in the participation rate was due to an aging population, and that labor markets are now nearing full employment. Tighter labor markets have put upward pressure on prices, with various measures of wages and consumer inflation accelerating over the past three years.**

## Labor Force Participation Rate




## Inflation Measures

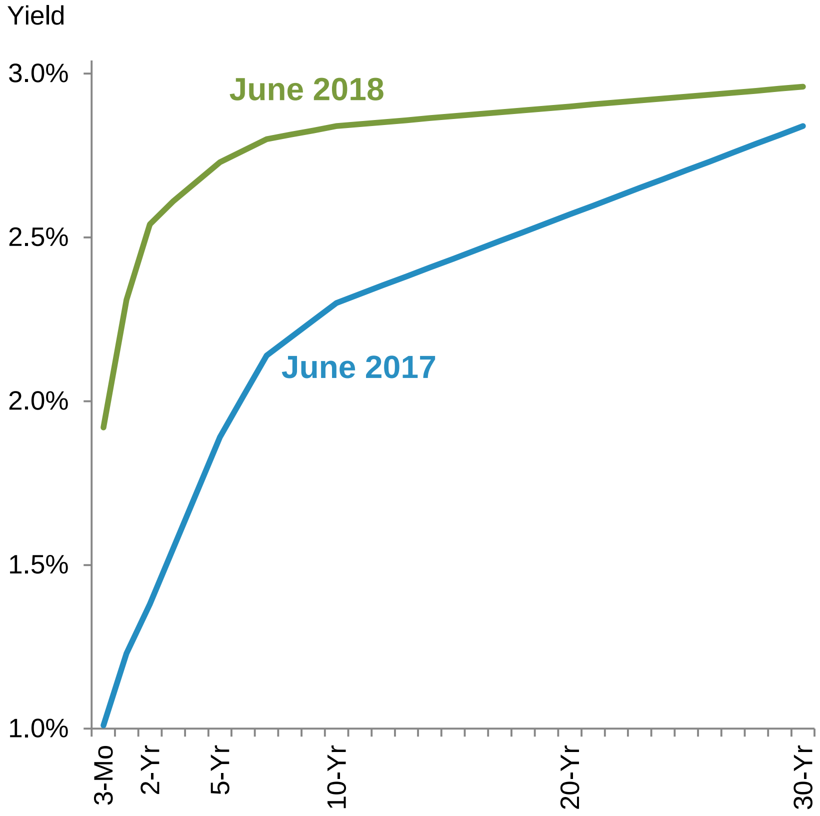
| | 2015 YoY (%) | 2018 YoY (%) | Trend |
|---|---|---|---|
| Avg. Hourly Earnings | 2.4 | 2.7 | ↑ |
| Employment Cost Index | 2.0 | 2.7 | ↑ |
| Atlanta Fed Wage Tracker | 3.1 | 3.2 | ↑ |
| Core CPI | 2.0 | 2.2 | ↑ |
| Oil Price (WTI) | -30 | 63 | ↑ |
| Headline CPI | 0.5 | 2.8 | ↑ |

**CHART:** Source: Fidelity calculation (Demographic Projection); Census Bureau, Bureau of Labor Statistics, (Participation Rate); Haver Analytics, Fidelity Investments (AART), as of 5/31/18.
**TABLE:** Source: Bureau of Labor Statistics, Federal Reserve Bank of Atlanta, Haver Analytics, Fidelity Investments (AART), as of 6/30/18.

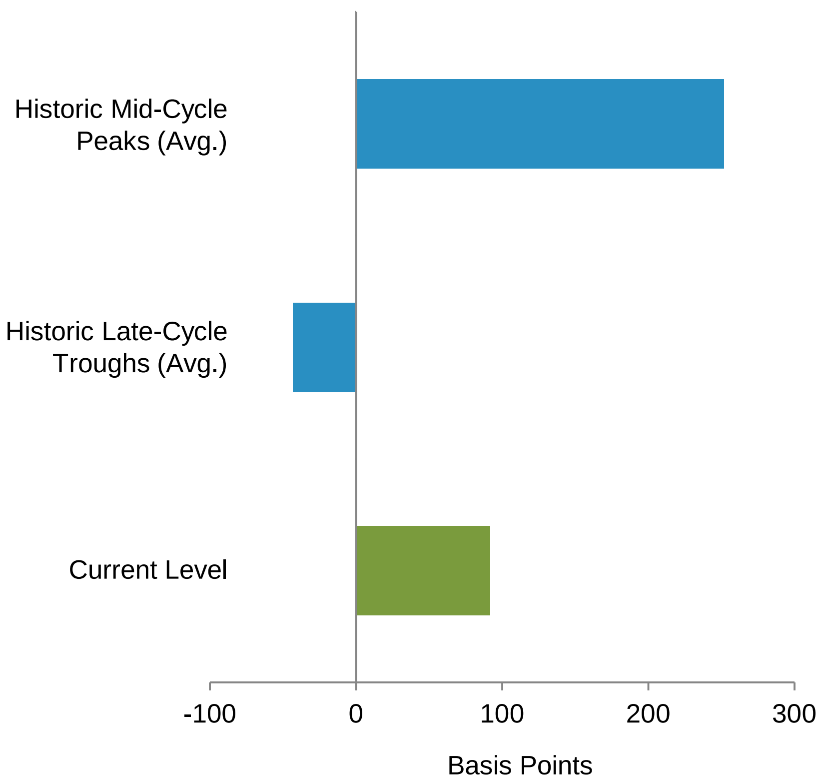
# Yield Curve Has Flattened but Still Positively Sloped

**The yield curve is an important indicator, having inverted before the previous seven U.S. recessions. In June, the Federal Reserve hiked policy rates for the seventh time this cycle, pushing up short-term rates and causing the yield curve to flatten. The curve, however, remains positively sloped and steep relative to prior late cycles, and U.S. credit and financial conditions have yet to tighten measurably.**

## U.S. Treasury Yield Curve




## Yield Curve (10-Year Minus 3-Month Yield)




**LEFT:** Source: Bloomberg Financial L.P., Fidelity Investments (AART), as of 6/30/18.
**RIGHT:** Data since 1950. Source: Bloomberg Financial L.P., Fidelity Investments (AART), as of 6/30/18.

# Fed Typically Hikes Through a Yield Curve Inversion

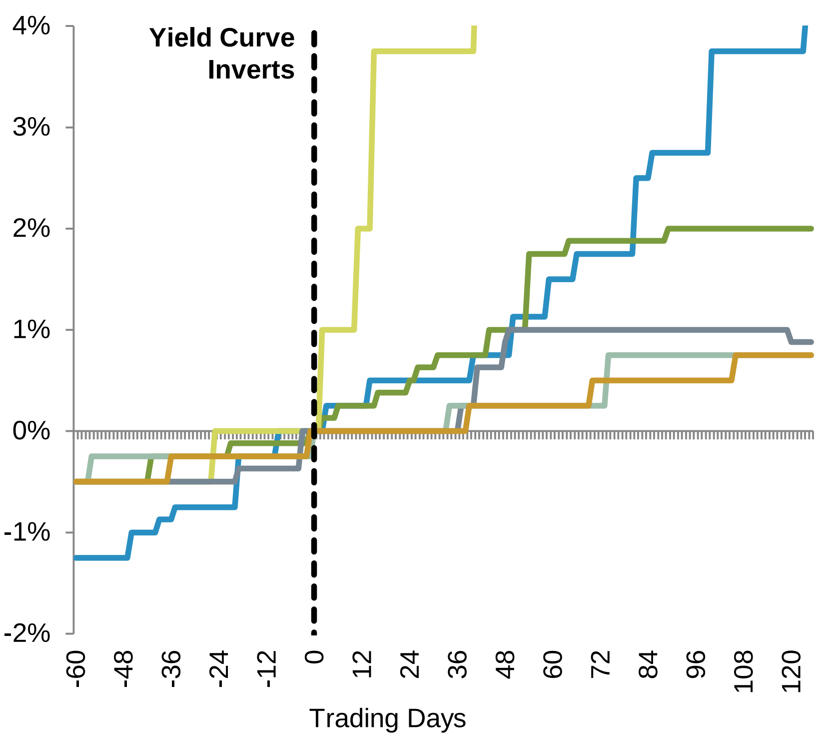
**Over the past six tightening cycles, the Fed has responded to falling unemployment and rising wages by hiking rates until the yield curve was flat. In each case, the Fed continued to raise rates as inflation and wage growth trended higher and the curve inverted. This suggests that as long as wages are rising and labor markets remain tight, the Fed is likely to continue raising rates even if the yield curve inverts.**

## Fed Funds Rate at Yield Curve Inversions

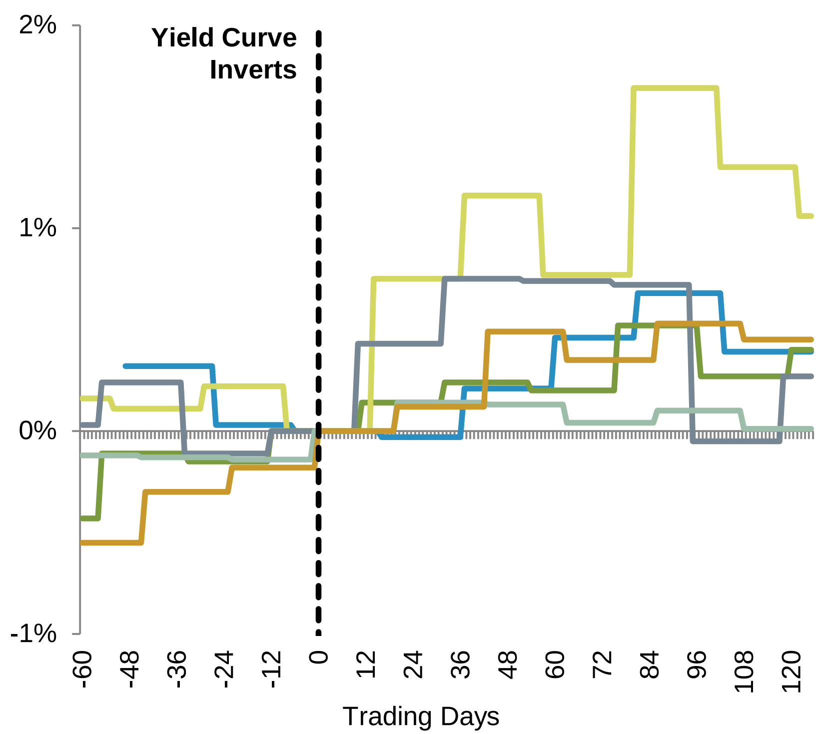
## Wage Growth at Yield Curve Inversions

1973 1978 1980 1988 2000 2006

Target Rate Change




Average Hourly Earnings Change (Year-over-Year)

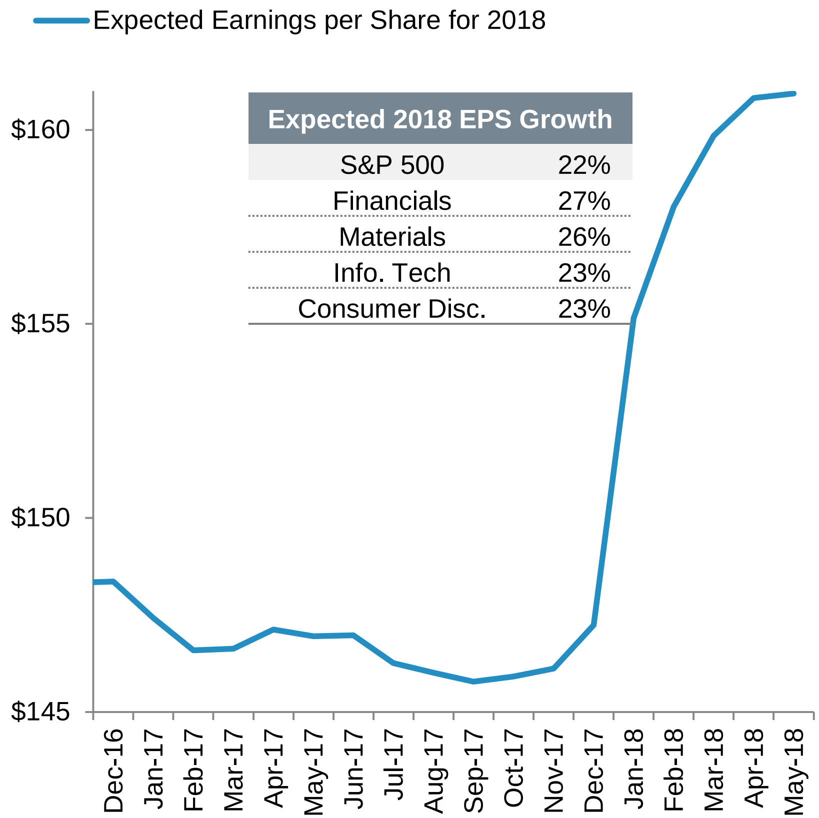



**LEFT** and **RIGHT:** Includes instances when the 10–2 year Treasury yield curve initially inverted during Fed tightening cycles
Source: Federal Reserve Board, Bureau of Labor Statistics, Bloomberg Financial L.P., Fidelity Investments (AART), as of 6/30/18.

# U.S. Corporate Backdrop is Strong, Helped by Tax Cuts

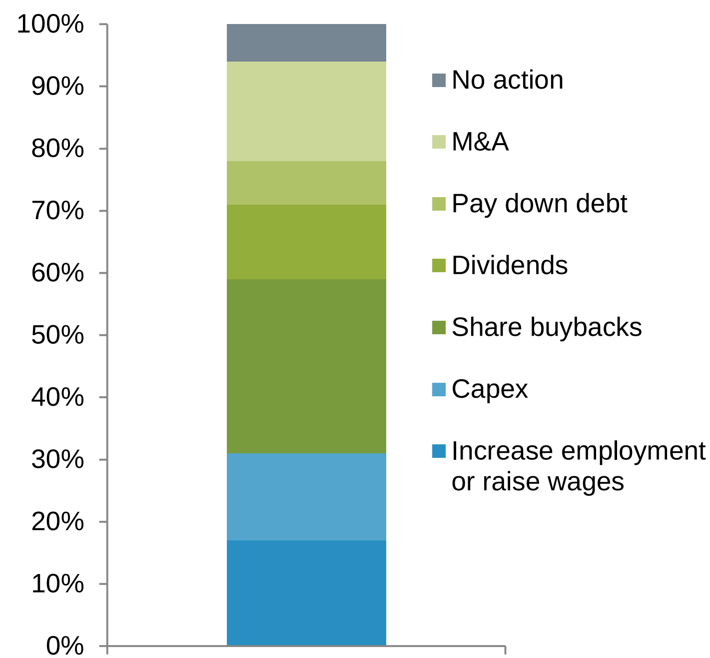
**Pro-business policies have helped boost earnings expectations, especially for sectors with higher effective tax rates, such as financials. Lower tax burdens and access to offshore cash provide companies with additional spending capacity. We expect the windfall to be used for a wide variety of activities, including investor-friendly actions (buybacks, dividends, M&A) as well as some direct boosts to the real economy (wages, capex).**

## S&P 500 2018 EPS Growth Expectations




| Expected 2018 EPS Growth | |
|---|---|
| S&P 500 | 22% |
| Financials | 27% |
| Materials | 26% |
| Info. Tech | 23% |
| Consumer Disc. | 23% |

## Fidelity Analyst Survey: Use of Corporate Cash



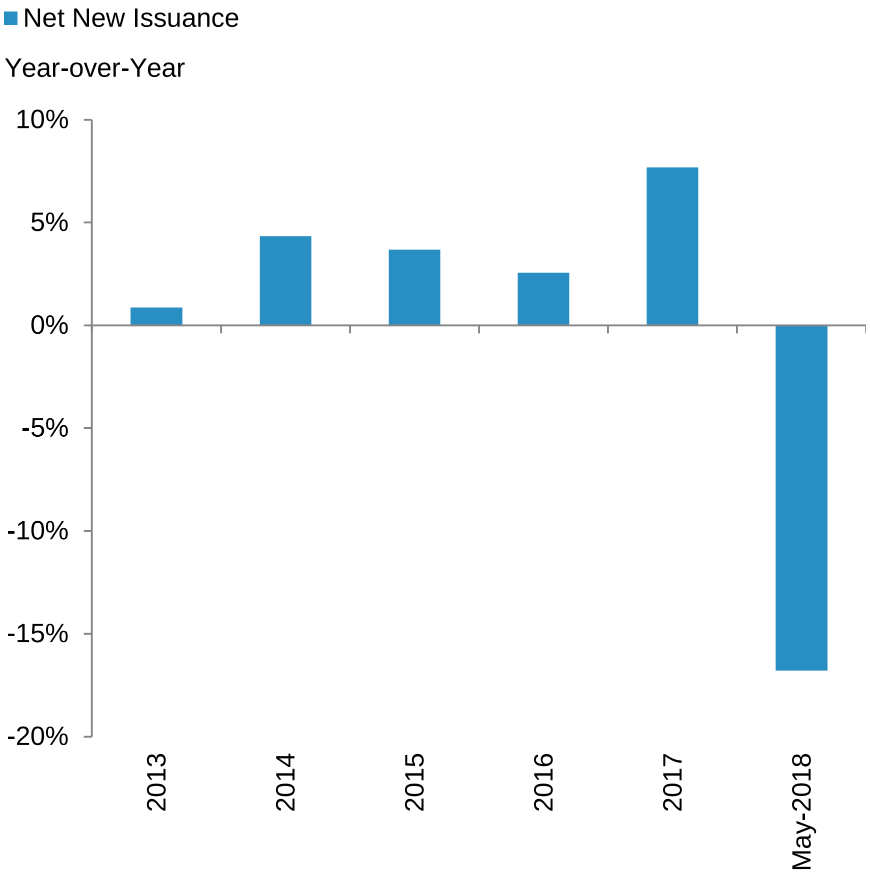

**What do you expect companies will do with extra cash from tax cuts?**

**LEFT:** EPS: earnings per share. Past performance is no guarantee of future results. Source: Standard & Poor's, Fidelity Investments (AART), as of 5/31/18. **RIGHT:** Source: Fidelity Investments (AART), as of 6/30/18.

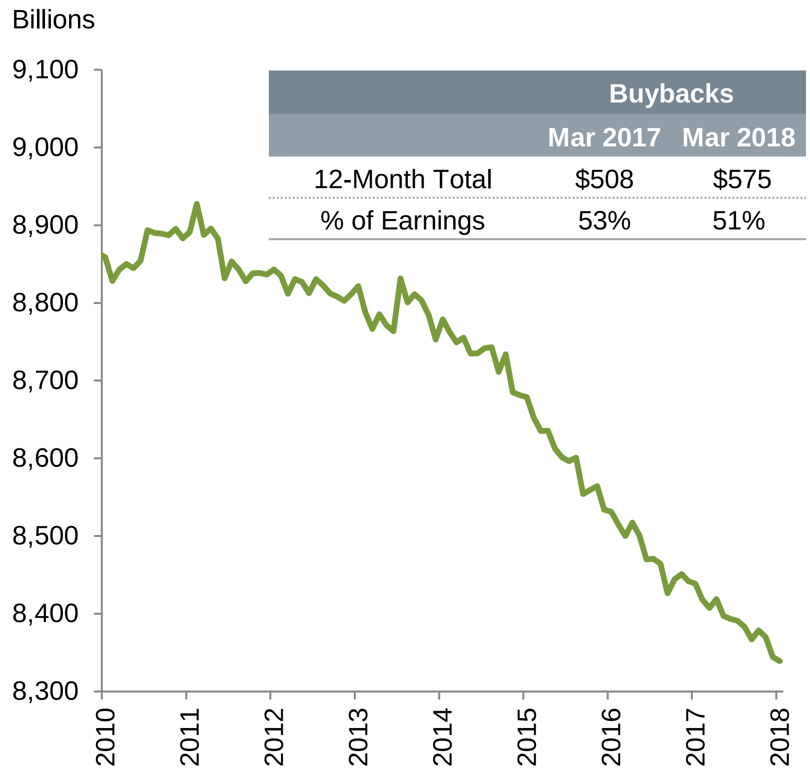
# Corporate Liquidity Positive for Bond and Stock Technicals

**Lower tax rates and higher cash flows reduce the need for corporations to raise capital, lowering the supply of U.S. corporate securities. Less bond issuance has provided a technical support to credit markets, whereas a wave of stock buybacks has reduced the equity share count, supporting equity-market technicals. This tailwind from corporate liquidity may fade as the effects from tax reform dwindle over the coming year.**

## U.S. Corporate Bond Issuance




## S&P 500 Share Count



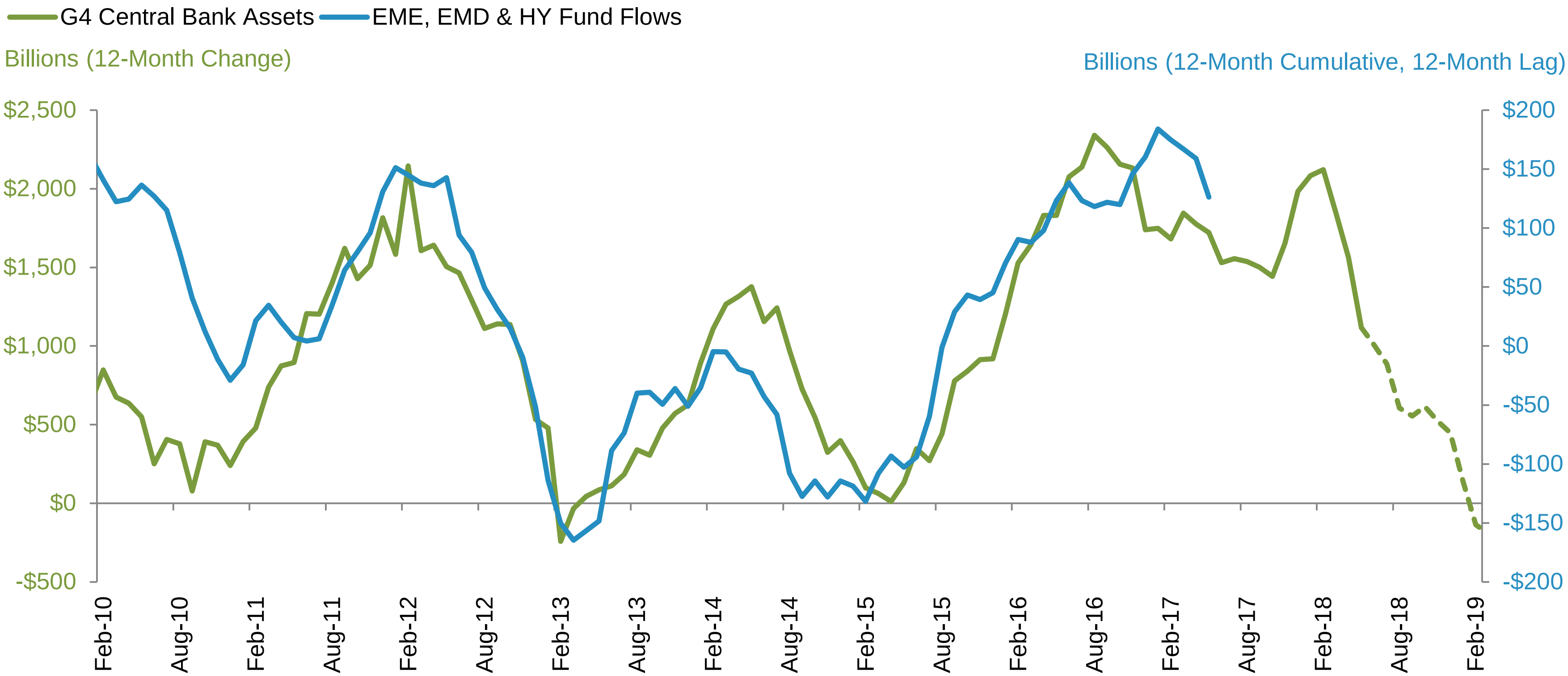

| | Buybacks | |
|---|---|---|
| | Mar 2017 | Mar 2018 |
| 12-Month Total | $508 | $575 |
| % of Earnings | 53% | 51% |

**LEFT:** Source: SIFMA, Fidelity Investments (AART), as of 5/31/18.
**RIGHT:** Share count represents the divisor (Free Float Market Cap/Price) of the S&P 500. Source: Standard & Poor's, Fidelity Investments (AART), as of 6/30/18.

# QE Unwind is Challenging Global Liquidity Growth

**We believe global growth and inflation are firm enough to keep policymakers moving toward tighter monetary policy. Major central bank balance sheets grew by roughly $2 trillion in 2017, but growth will drop to nearly zero over the next 12 months as the Fed further reduces its balance sheet and the ECB ends quantitative easing. The paring of liquidity may challenge demand for less liquid assets and maintain elevated asset-market volatility.**

## Fed, ECB, BOJ, BOE Balance Sheets and Asset Flows

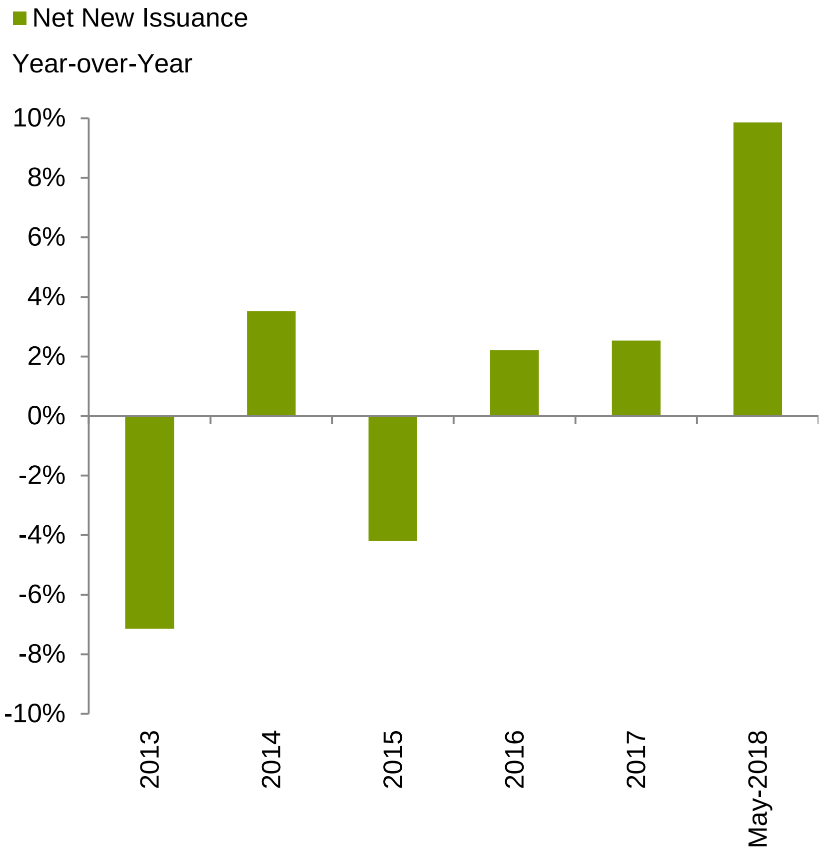



Fund Flows: Mutual funds and ETFs. EME: Emerging-Market Equity. EMD: Emerging-Market Debt. HY: High Yield.
Dotted line estimates future central bank assets: Fed to roll-off balance sheet assets by lesser of stated caps or total bonds maturing each month; ECB to purchase EUR30B of monthly purchases in Q3 and EUR15B per month in Q4; BOJ to purchase at annualized rate of average purchases over last 12 months; BOE to keep balance sheet constant. Source: Federal Reserve (Fed), Bank of England (BOE), European Central Bank (ECB), Bank of Japan (BOJ), EPFR, Haver Analytics, Fidelity Investments (AART), as of 5/31/18.

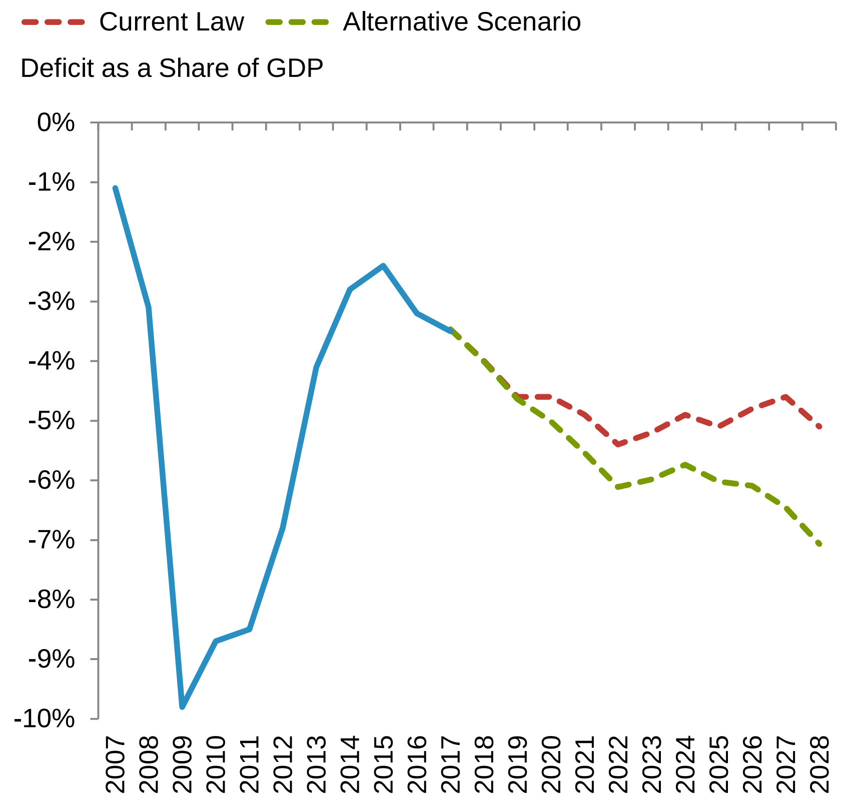
# Higher Deficits Add to Supply of Treasury Bonds

**After several years of shrinking federal budget deficits and restrained net new issuance of Treasuries, the trend has shifted. Tax cuts and budget increases have raised deficit forecasts and point to a challenging medium-term outlook. Along with the Federal Reserve allowing maturing Treasury bonds to roll off its balance sheet, the higher deficits have caused new issuance to jump and represent a technical upward pressure on bond yields.**

## U.S. Treasury Bond Issuance




## U.S. Fiscal Deficit

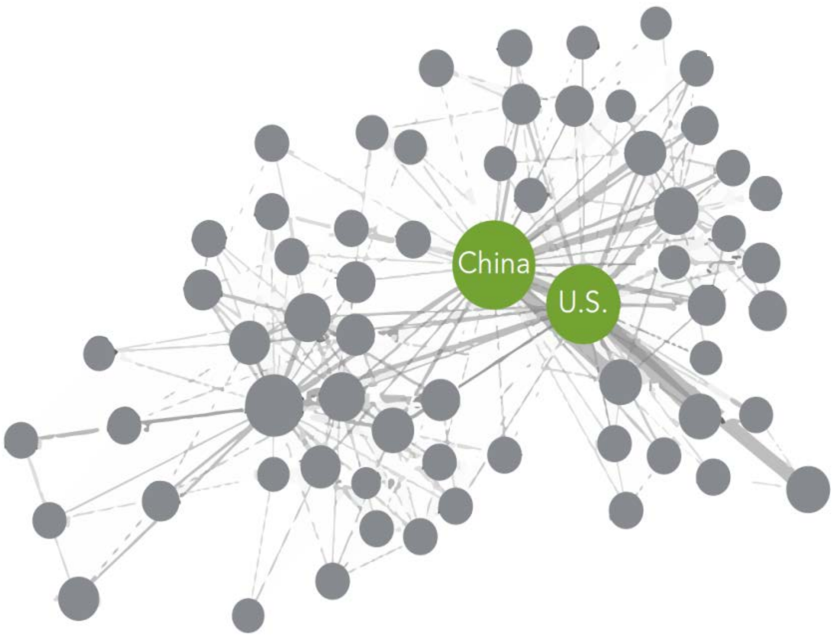



**LEFT:** Source: SIFMA, Fidelity Investments (AART), as of 5/31/18.
**RIGHT:** Alternative scenario, projected by the CBO, assumes various expiring policies will be extended, including recent tax cuts and higher budget caps.
Source: Congressional Budget Office, Haver Analytics, Fidelity Investments (AART), as of 4/8/18.

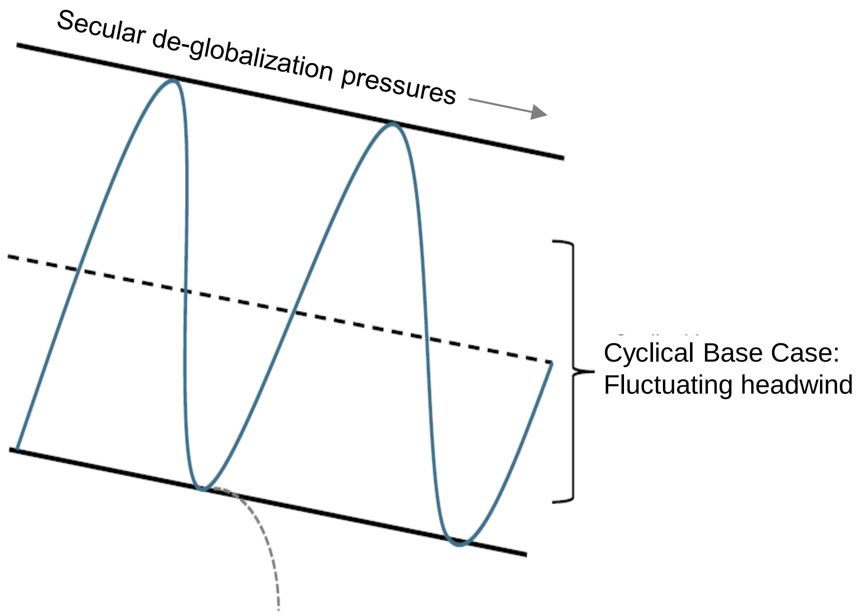
# Aggressive U.S. Trade Posture is a Major Risk

**China and the U.S. are the central players in the highly integrated global trade network, and U.S. efforts to confront China's trade and investment policies represent a significant risk to the global economy. We believe the world has shifted to a long-term, slow-moving de-globalization trend. Within that channel, trade tensions represent an inflationary impulse and a cyclical headwind, but an all-out trade war is not the most likely scenario.**

## Global Trade Interdependence




## De-Globalization Pressures



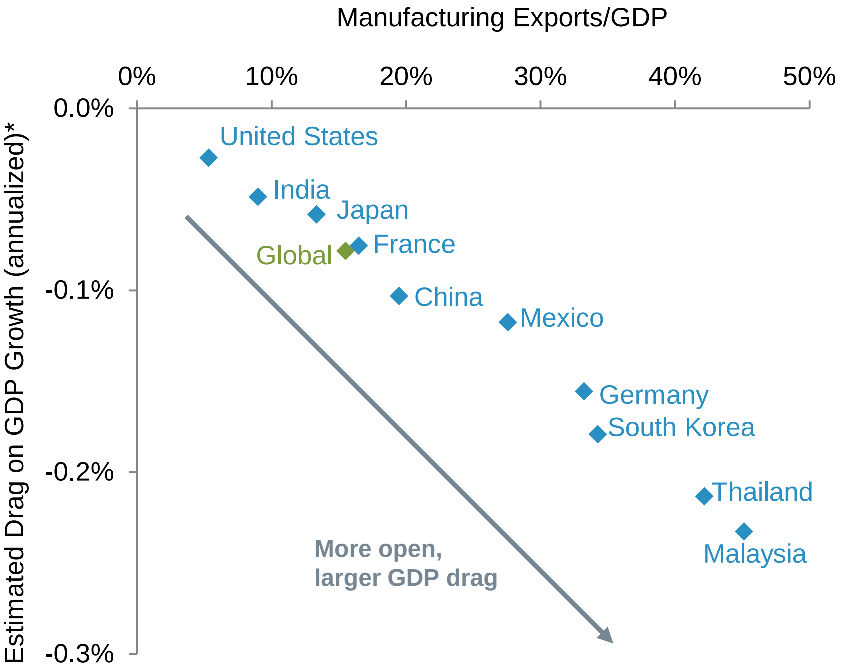

**LEFT:** The size of the circles represents total trade. The thickness of lines represents the volume of trade flows. The size of the circle and proximity to other countries represents importance and interconnectedness. Grey circles represent other countries. Source: International Monetary Fund, Haver Analytics, Fidelity Investments (AART), as of 12/31/15.

**RIGHT**: For illustrative purposes only. Source: Fidelity Investments (AART), as of 6/30/18.

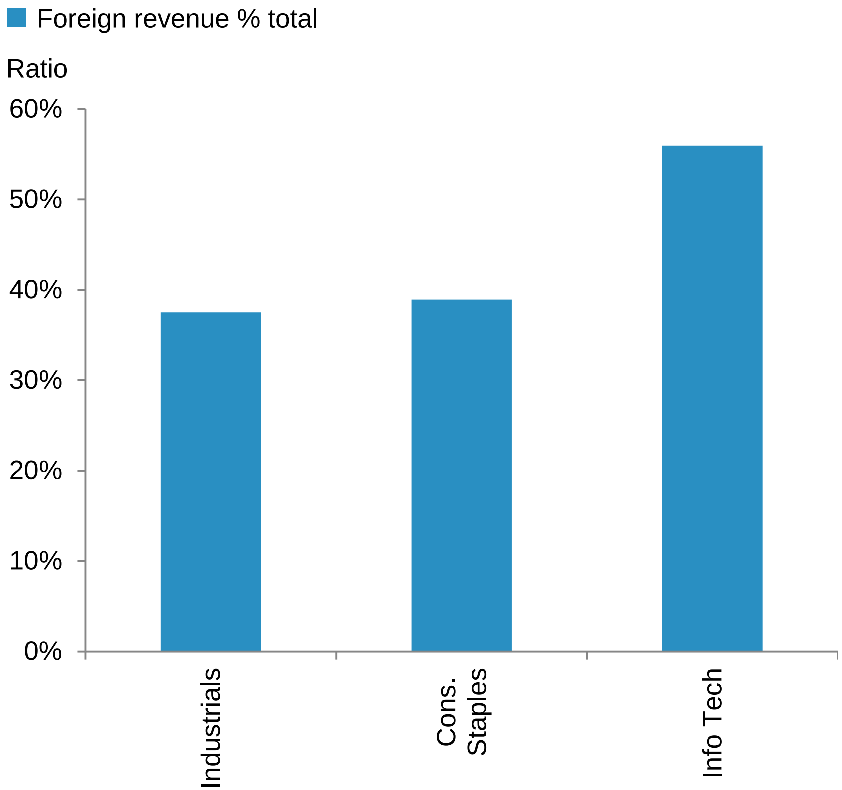
# Open Economies and Sectors Most Exposed to Trade Risk

**In the event of greater protectionism, entities most at risk are the countries, industries, and companies that are most dependent on global trade, investment, and supply chains. Manufacturing-based, export-oriented nations such as South Korea and Germany are more susceptible to trade wars than the more closed U.S. economy, but U.S. equity sectors such as technology are highly dependent on global revenues and supply chains.**

## Trade Impact on Growth




## U.S. Sector Global Exposure




**LEFT:** *Differential of our 20-year secular GDP forecast assuming manufacturing exports as a share of GDP stop growing.
Source: International Monetary Fund, Haver Analytics, Fidelity Investments (AART), as of 5/31/18.
**RIGHT**: Sectors as defined by the Global Industry Classification Standard (GICS®).
Source: S&P 500 company data (sector revenue), FactSet, Fidelity Investments (AART), as of 3/31/18.



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# Outlook: Market Assessment

**Fidelity's Business Cycle Board, composed of portfolio managers responsible for a variety of global asset allocation strategies, believes the current backdrop provides opportunities within certain asset classes. However, global economic momentum may have peaked and elevated volatility may be driven by risks to the monetary, political, and economic outlooks. Smaller asset allocation tilts are merited at this point in the cycle.**

## Business Cycle

U.S. between mid- and late-cycle phase

Global economy in expansion, but drivers of future growth have peaked

Export-oriented countries have softened

## Risks

Monetary and trade policy will contribute to elevated volatility

China's uncertain cyclical outlook

## Asset allocation implications

Current environment warrants smaller asset allocation tilts

Select opportunities exist within asset classes

For illustrative purposes only. Source: Fidelity Investments (AART).

# Asset Markets

# Energy Stocks Led U.S. Markets; EM Assets Lagged

**The sharp rise in oil prices during Q2 spurred energy stocks to big gains, and consumer discretionary stocks jumped into the lead on a year-to-date basis amid a strong consumer backdrop. Emerging-market equities logged broad-based declines during the quarter, and a lackluster Q2 kept most fixed income asset categories in the red on a year-to-date basis.**

## U.S. Equity Styles Total Return

| | Q2 | YTD |
|---|---|---|
| Small Caps | 7.8% | 7.7% |
| Growth | 5.9% | 7.4% |
| Large Caps | 3.4% | 2.6% |
| Mid Caps | 2.8% | 2.3% |
| Value | 1.7% | -1.2% |

## U.S. Equity Sectors Total Return

| | Q2 | YTD |
|---|---|---|
| Energy | 13.5% | 6.8% |
| Consumer Discretionary | 8.2% | 11.5% |
| Info Tech | 7.1% | 10.9% |
| Real Estate | 6.1% | 0.8% |
| Utilities | 3.7% | 0.3% |
| Health Care | 3.1% | 1.8% |
| Materials | 2.6% | -3.1% |
| Telecom Services | -0.9% | -8.4% |
| Consumer Staples | -1.5% | -8.5% |
| Financials | -3.2% | -4.1% |
| Industrials | -3.2% | -4.7% |

## International Equities and Global Assets Total Return

| | Q2 | YTD |
|---|---|---|
| ACWI ex-USA | -2.2% | -3.4% |
| | | |
| Canada | 4.9% | -2.7% |
| EAFE | -0.8% | -2.4% |
| Europe | -0.9% | -2.7% |
| EAFE Small Cap | -1.1% | -1.1% |
| Japan | -2.1% | -1.8% |
| | | |
| EM Asia | -5.6% | -4.9% |
| Emerging Markets | -7.7% | -6.5% |
| EMEA | -10.0% | -10.8% |
| Latin America | -17.7% | -11.0% |
| | | |
| Commodities | -0.1% | -0.9% |
| Gold | -5.5% | -3.1% |

## Fixed Income Total Return

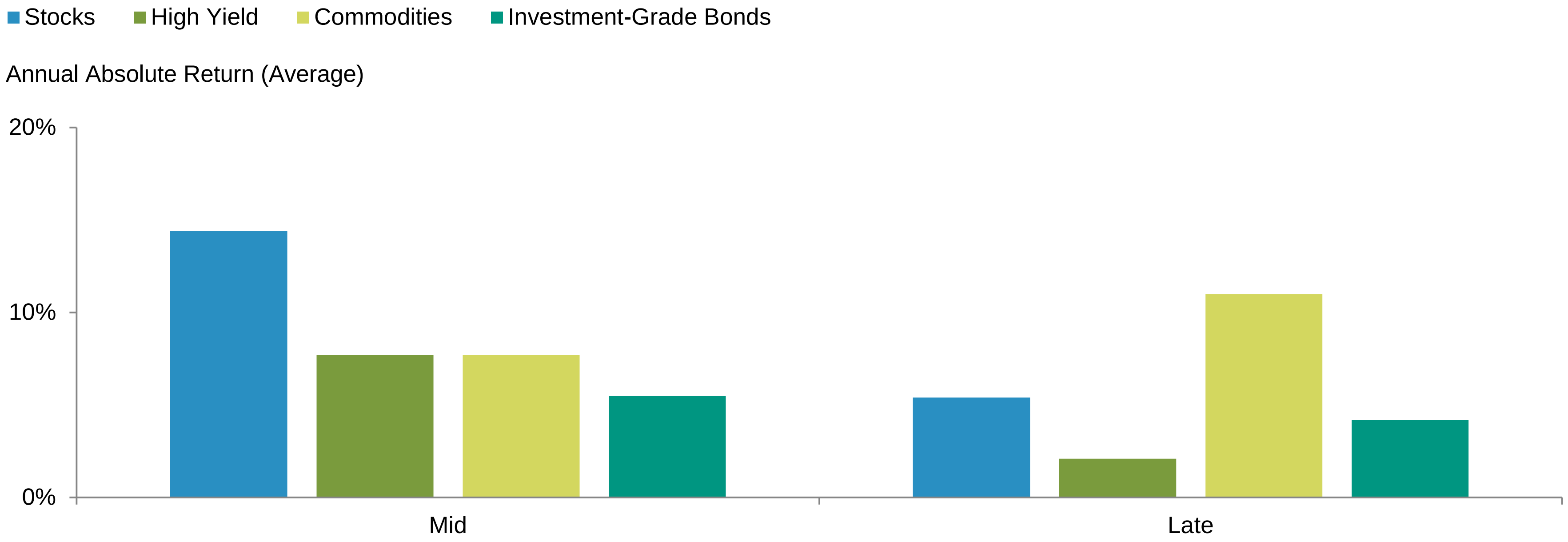
| | Q2 | YTD |
|---|---|---|
| High Yield | 1.0% | 0.1% |
| Municipal | 0.9% | -0.2% |
| TIPS | 0.8% | 0.0% |
| Leveraged Loan | 0.7% | 2.2% |
| ABS | 0.4% | 0.0% |
| MBS | 0.2% | -1.0% |
| Treasuries | 0.1% | -1.1% |
| Agency | 0.0% | -0.5% |
| CMBS | 0.0% | -1.2% |
| Aggregate | -0.2% | -1.6% |
| Credit | -0.9% | -3.0% |
| Long Govt & Credit | -1.4% | -5.0% |
| EM Debt | -3.5% | -5.2% |

EM: Emerging Markets. For indexes and other important information used to represent above asset categories see Appendix. Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indexes are unmanaged. Sector returns represented by S&P 500 sectors. Sector investing involves risk. Because of its narrow focus, sector investing may be more volatile than investing in more diversified baskets of securities. Source: FactSet, Fidelity Investments (AART), as of 6/30/18.

# Historical Playbook for Mid- and Late-Cycle Phases

**Historically, the mid-cycle phase has tended to favor riskier asset classes, while late cycles have had the most mixed performance of any business-cycle phase. The late cycle often has featured more limited overall upside and less confidence in equity performance, though stocks typically outperformed bonds. Inflation-resistant assets, such as commodities, energy stocks, short-duration bonds, and TIPS, have performed relatively well.**

## Asset Class Performance in Mid- and Late-Cycle Phases (1950–2010)




### Mid Cycle: Strong Asset Class Performance
- Favor economically sensitive assets
- Broad-based gains

### Late Cycle: Mixed Asset Class Performance
- Favor inflation-resistant assets
- Gains more muted

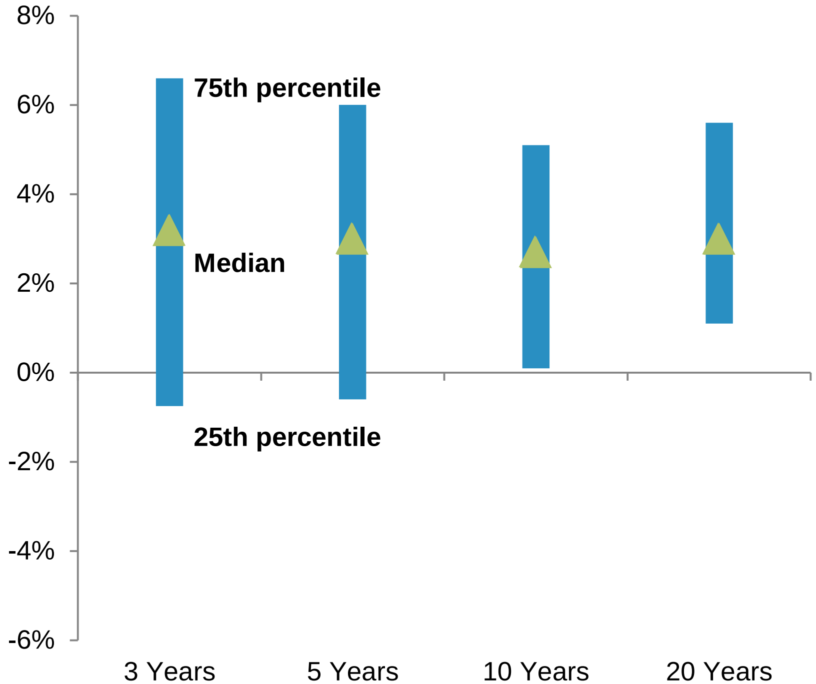
TIPS: Treasury Inflation-Protected Securities. Past performance is no guarantee of future results. Asset class total returns are represented by indexes from the following sources: Fidelity Investments, Morningstar, and Bloomberg Barclays. Fidelity Investments source: a proprietary analysis of historical asset class performance, which is not indicative of future performance.

# Cyclical Risk Turns Asymmetrical in the Late-Cycle Phase

**Over the intermediate term (3 to 5 years), the starting point in the business cycle has a meaningful impact on the expected distribution of asset returns. Mid-cycle starting points tend to provide a positive skew to a diversified portfolio's returns. Late-cycle starting points tend to experience positive returns on average, but they also exhibit greater equity-market drawdowns and volatility, which widens the expected range of returns.**

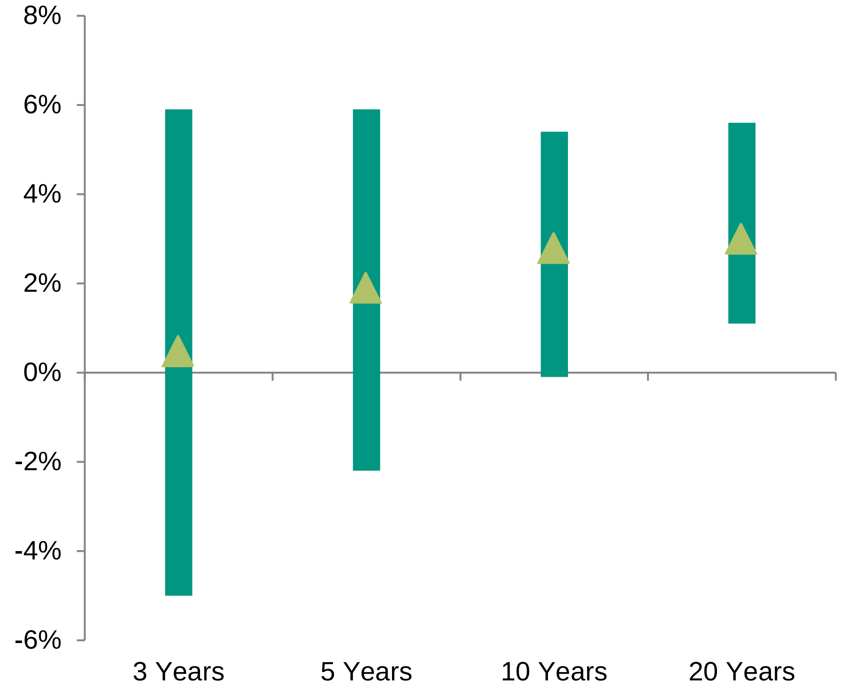
## Portfolio Returns Starting in Mid Cycle

Annualized Real Return




## Portfolio Returns Starting in Late Cycle

Annualized Real Return



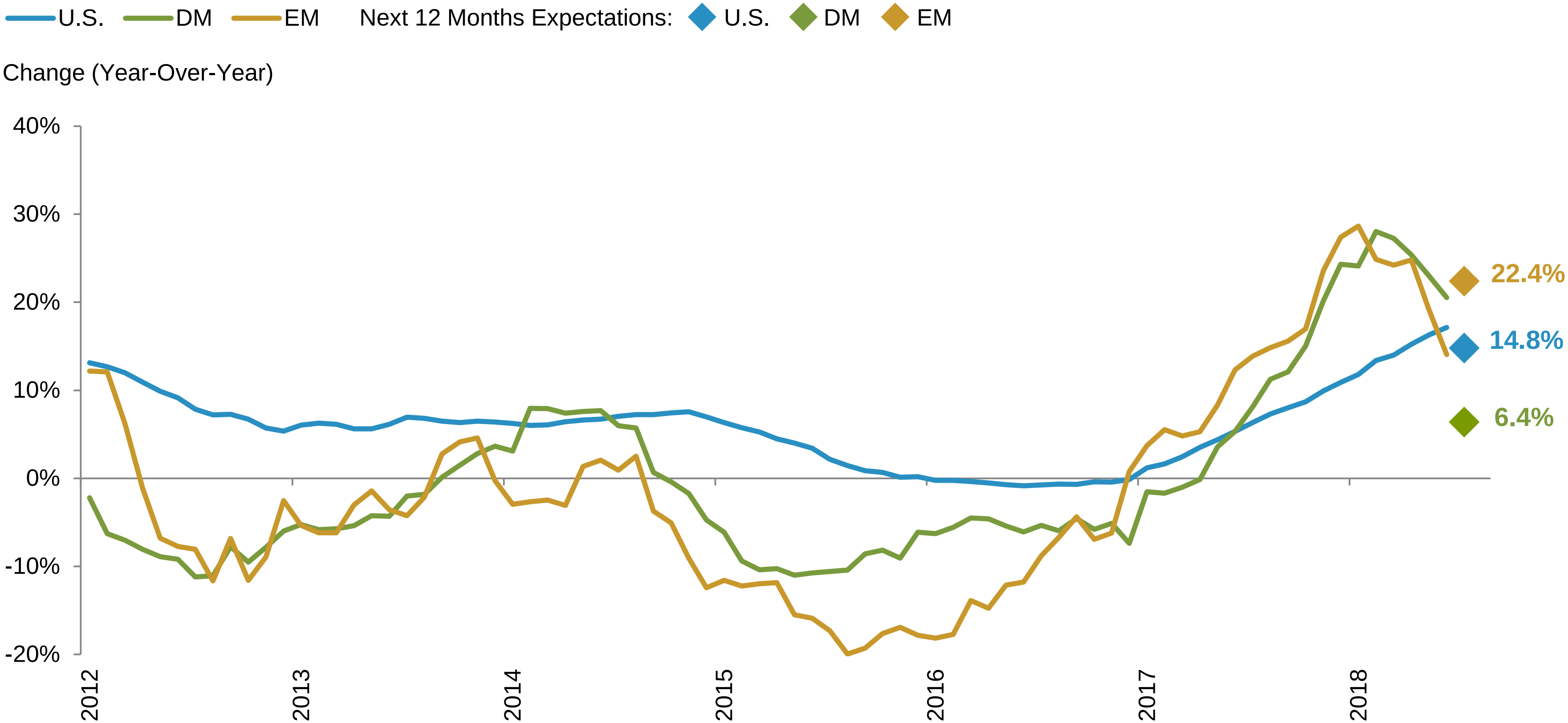

**Sample Portfolio:** 40% Domestic Equity • 20% Foreign Equity • 30% IG Bonds • 10% HY Bonds

For illustrative purposes only. Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indexes are unmanaged. Diversification does not ensure a profit or guarantee against a loss. See Appendix for important index information.
Portfolio based on Dow Jones U.S. Total Stock Market Index, MSCI ACWI ex-USA Index, Bloomberg Barclays Aggregate Index, ICE BofAML U.S. High Yield Index, as of 6/30/18.

# U.S. and International Earnings-Growth Trends Decouple

**The two-year period of accelerating global synchronized earnings growth appears to be over. Boosted by corporate tax cuts, U.S. earnings growth continues to improve, whereas international developed- and emerging-market profit growth has moderated from high levels. Forward estimates are more reasonable for developed markets, but lofty expectations may pose a challenge for emerging markets.**

## Global EPS Growth (Trailing 12 Months)

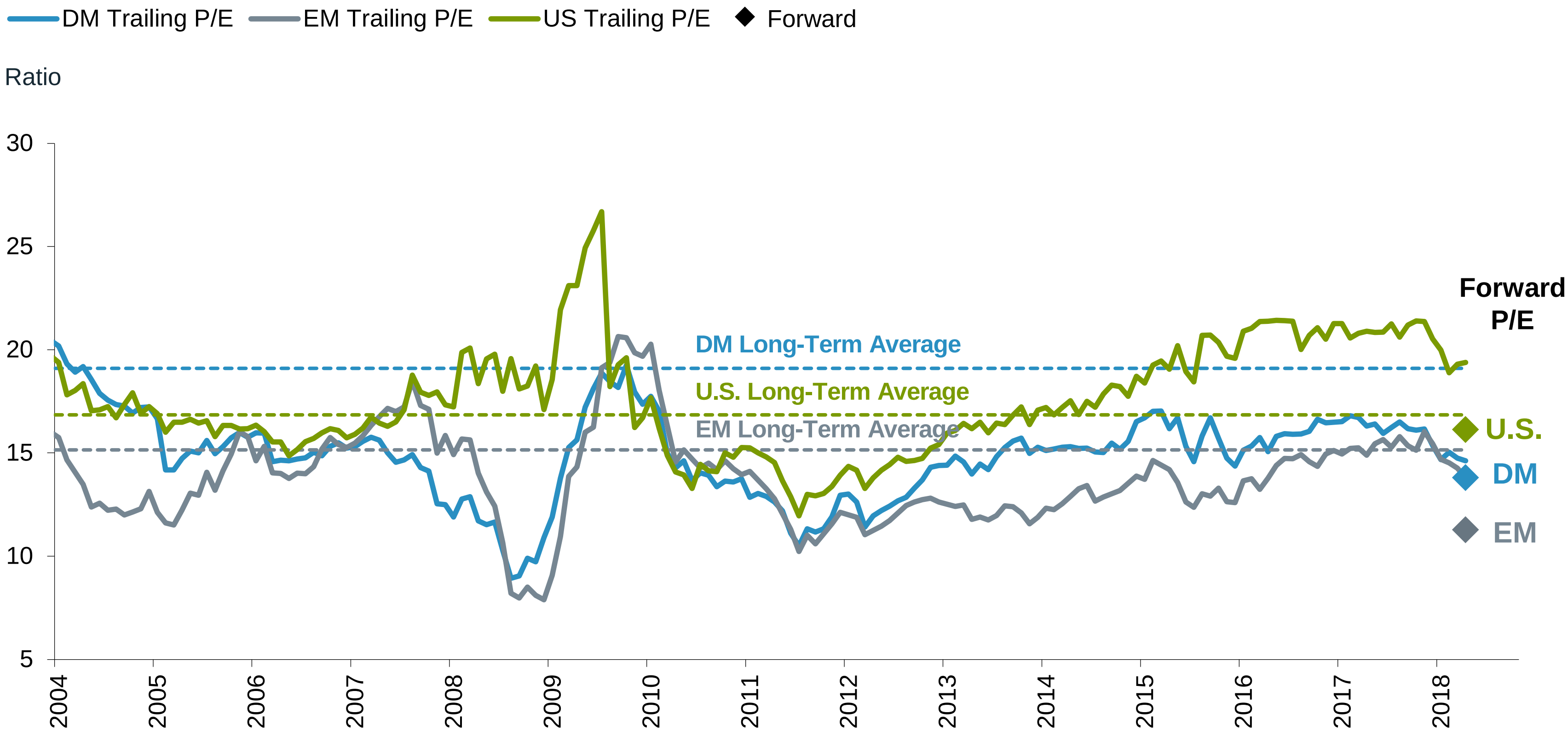



Past performance is no guarantee of future results. DM: Developed Markets. EM: Emerging Markets. EPS: Earnings per share.
Source: MSCI, FactSet, Fidelity Investments (AART), as of 6/30/18.

# Equity Valuations Mixed Relative to History

**On a one-year trailing-earnings basis relative to their own histories, U.S. price-to-earnings ratios are above their historical average, and international developed and emerging markets are below their long-term averages. The tax-cut boost to U.S earnings has helped compress P/E multiples in recent months, and the forward valuations appear more reasonable relative to history.**

## International Market P/E Ratios

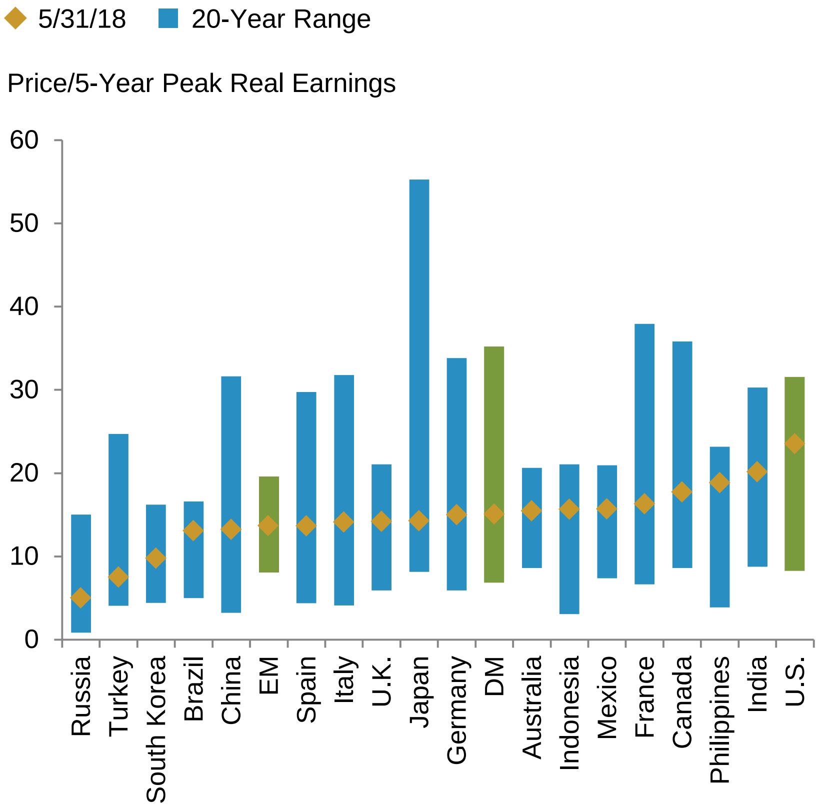



DM: Developed Markets. EM: Emerging Markets. Past performance is no guarantee of future results. You cannot invest directly in an index. See Appendix for important index information. Price-to-earnings ratio (P/E): stock price divided by earnings per share. Also known as the multiple, P/E gives investors an idea of how much they are paying for a company's earnings power. Long-term average P/E for Emerging Markets includes data for 1988–2017. Long-term average P/E for Developed Markets includes data for 1973–2016, U.S. 1926–2017. Foreign Developed – MSCI EAFE Index, Emerging Markets – MSCI EM Index. Source: FactSet, Fidelity Investments (AART) as of 6/30/18.

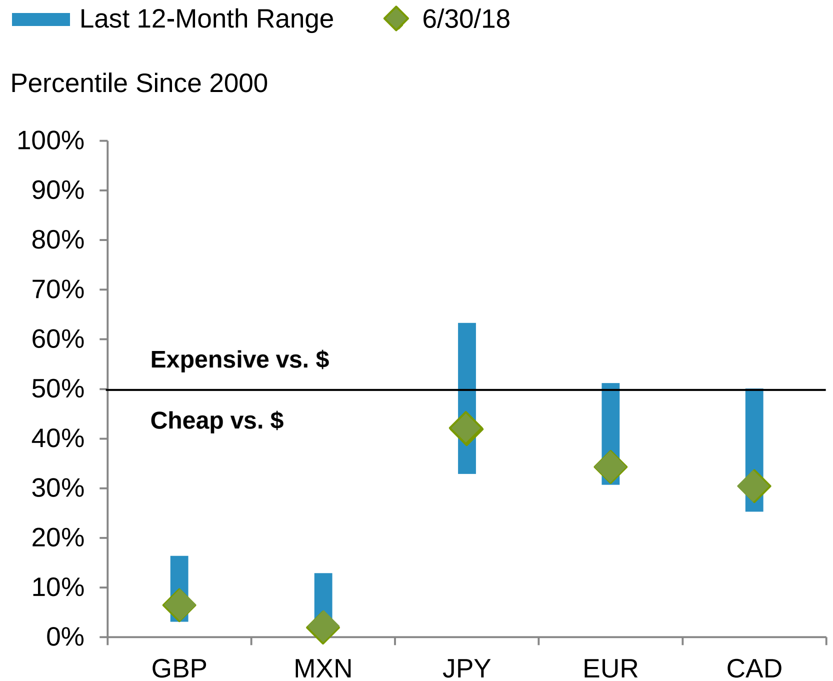
# Non-U.S. Equity Valuations More Attractive, Dollar Mixed

**Using five-year peak-inflation-adjusted earnings, P/E ratios for international developed and emerging markets remain lower than those for the U.S., providing a relatively favorable long-term valuation backdrop for non-U.S. stocks. U.S. dollar strength in Q2 made its valuation less attractive relative to all other major currencies, although we believe some—such as the euro—are roughly at fair value versus the dollar.**

## Cyclical P/Es




## Valuation of Major Currencies vs. USD




DM: Developed Markets. EM: Emerging Markets. Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indexes are unmanaged. See Appendix for important index information. **LEFT:** Price-to-earnings (P/E) ratio (or multiple): stock price divided by earnings per share, which indicates how much investors are paying for a company's earnings power. Five-year peak earnings are adjusted for inflation. Source: FactSet, countries' statistical organizations, Haver Analytics, Fidelity Investments (AART), as of 5/31/18. **RIGHT:** GBP – British pound; MXN– Mexican peso; JPY – Japanese yen; EUR – euro; CAD – Canadian dollar. Source: Federal Reserve Board, Haver Analytics, Fidelity Investments (AART), as of 6/30/18.

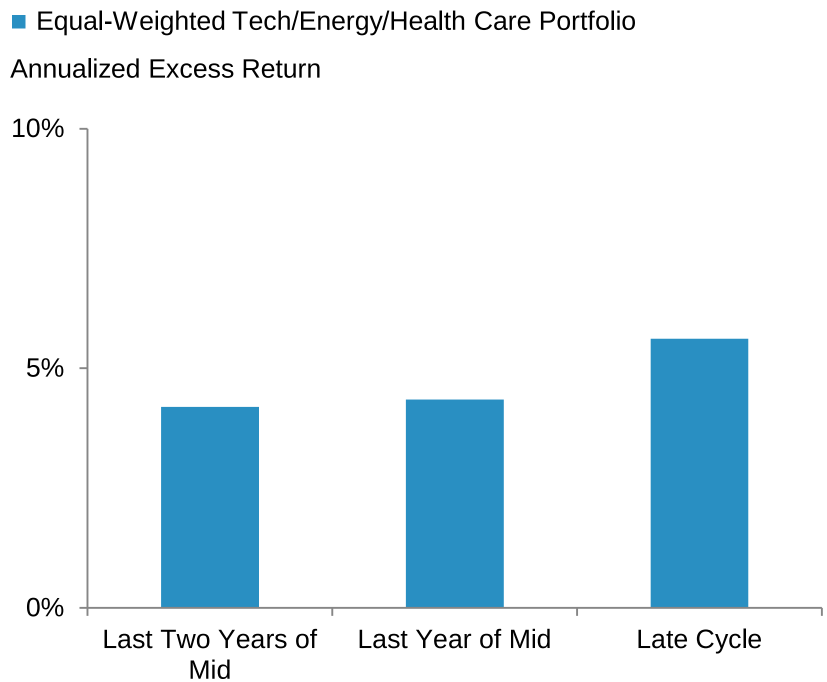
# Sector Considerations: Intermediate-Term Cycle View

**A disciplined business-cycle approach to sector allocation can produce active returns by favoring industries that may benefit from cyclical trends. By choosing a blended portfolio of sectors that have historically performed well in the current and potentially upcoming cycle phases—for example, info tech (mid cycle), energy (late cycle), and health care (recession)—it may be possible to generate excess returns.**

## Business-Cycle Approach to Sectors

| Sector | Early | Mid | Late | Recession |
|---|---|---|---|---|
| Financials | + | | | |
| Real Estate | ++ | | | -- |
| Consumer Discretionary | ++ | | -- | |
| Info. Tech | + | + | -- | -- |
| Industrials | ++ | + | | -- |
| Materials | | -- | ++ | - |
| Consumer Staples | - | | + | ++ |
| Health Care | - | | ++ | ++ |
| Energy | -- | | ++ | |
| Telecom | -- | | | ++ |
| Utilities | -- | - | + | ++ |

## Illustrative Info. Tech/Energy/Health Care Portfolio Relative Performance: 1962–2010

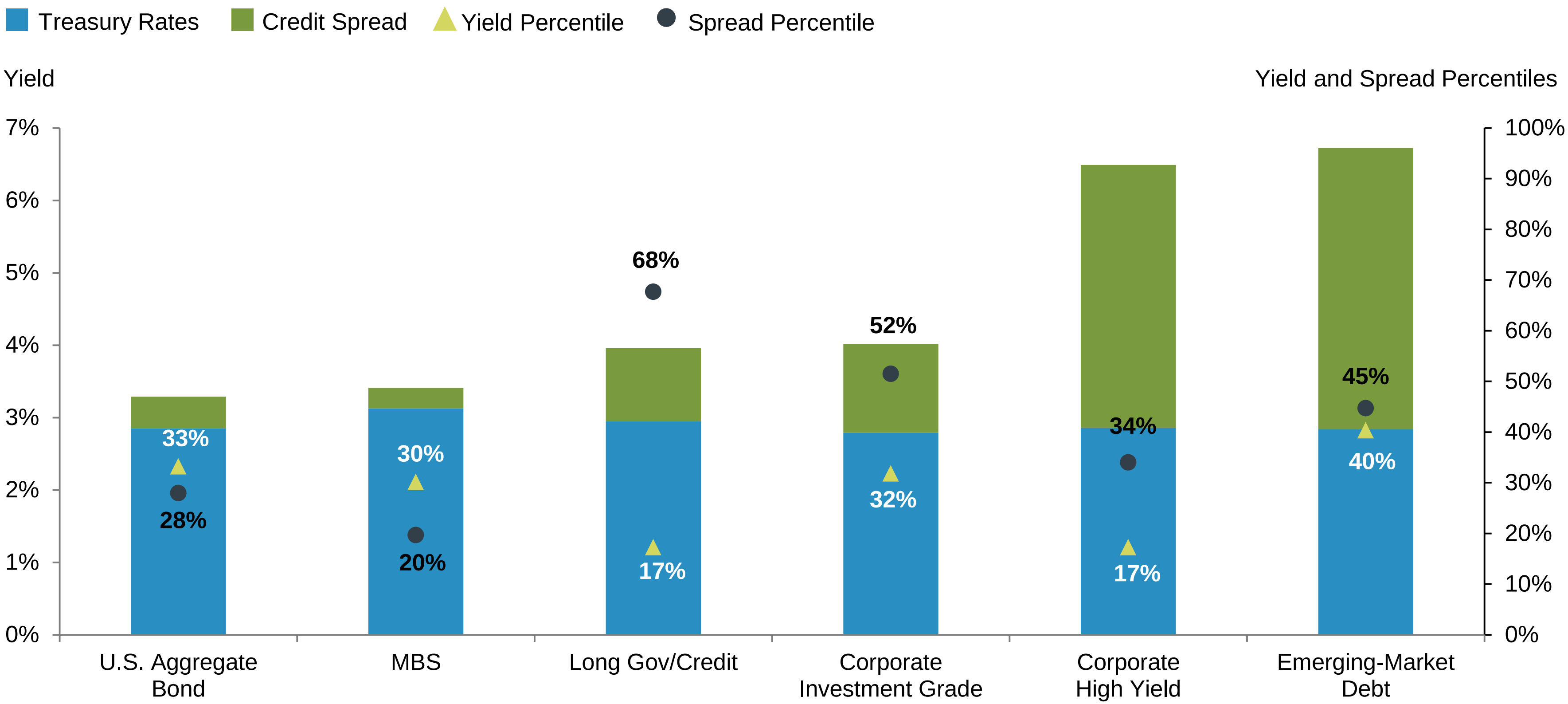



Past performance is no guarantee of future results. Sectors as defined by GICS. **LEFT:** Unshaded (white) portions above suggest no clear pattern of over- or underperformance vs. broader market. Double +/– signs indicate that the sector is showing a consistent signal across all three metrics: full-phase average performance, median monthly difference, and cycle hit rate. A single +/– indicates a mixed or less consistent signal. Source: The Business-Cycle Approach to Sector Investing, Fidelity Investments (AART), October 2016. **RIGHT:** This chart is an illustrative example of the potential impact of choosing sectors that historically perform well in the current and potentially upcoming two phases of the business cycle (mid/late/recession). Analysis selects one sector from each of the three phases (mid, late, recession) that demonstrated outperformance in one of those phases. Sectors shown are equal weighted (33.3%). Analysis excludes early cycle because an early cycle is unlikely to occur in the next several years. Sector returns represented by S&P 500 sectors. Source: Haver Analytics, Fidelity Investments (AART), as of 12/31/17.

# Higher Yields and Spreads Improved Bond Valuations

**Interest rates rose modestly in Q2, and bond yields generally remained well below their historical averages. Credit spreads also widened, but the magnitude varied across fixed income categories. Emerging-market debt and U.S. investment-grade corporate spreads widened the most and ended the quarter near historical averages, while high-yield credit spreads remained relatively unchanged.**

## Fixed Income Yields and Spreads (1993–2018)

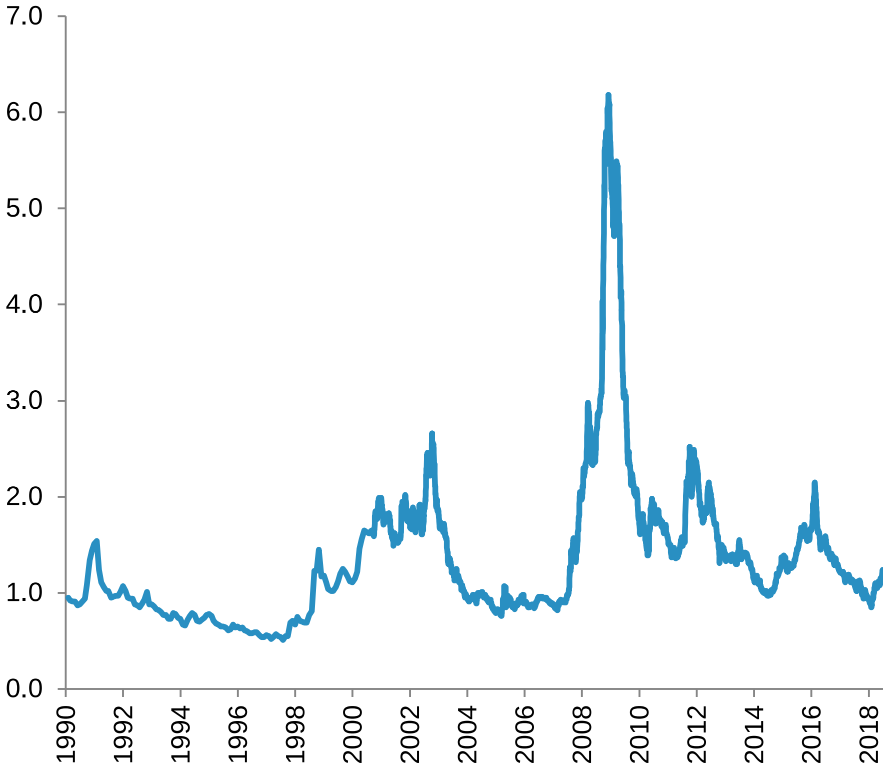



Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indexes are unmanaged. See Appendix for important index information. Percentile ranks of yields and spreads based on historical period from 1993 to 2018. MBS: mortgage-backed security. Source: Bloomberg Barclays, Bank of America Merrill Lynch, JP Morgan, Fidelity Investments (AART), as of 6/30/18.

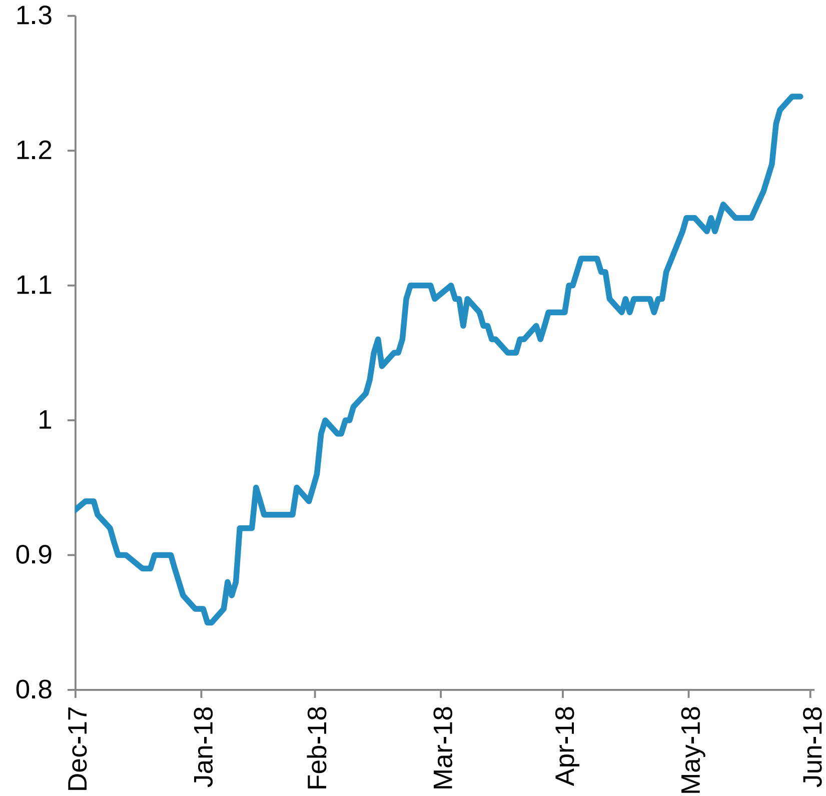
# Corporate Spreads Widened from Tight Levels

**After tightening during 2017 and reaching a cycle low in early 2018, corporate bond spreads widened meaningfully in recent months. Spreads have been negatively impacted by a maturing business cycle, increased M&A activity, softer non-U.S. demand, and relative-value concerns. However, they are still well below the post-crisis average, and corporate fundamentals remain firm.**

## U.S. IG Corporate Bond Spreads (1990–2018)




## U.S. IG Corporate Bond Spreads (2018 YTD)

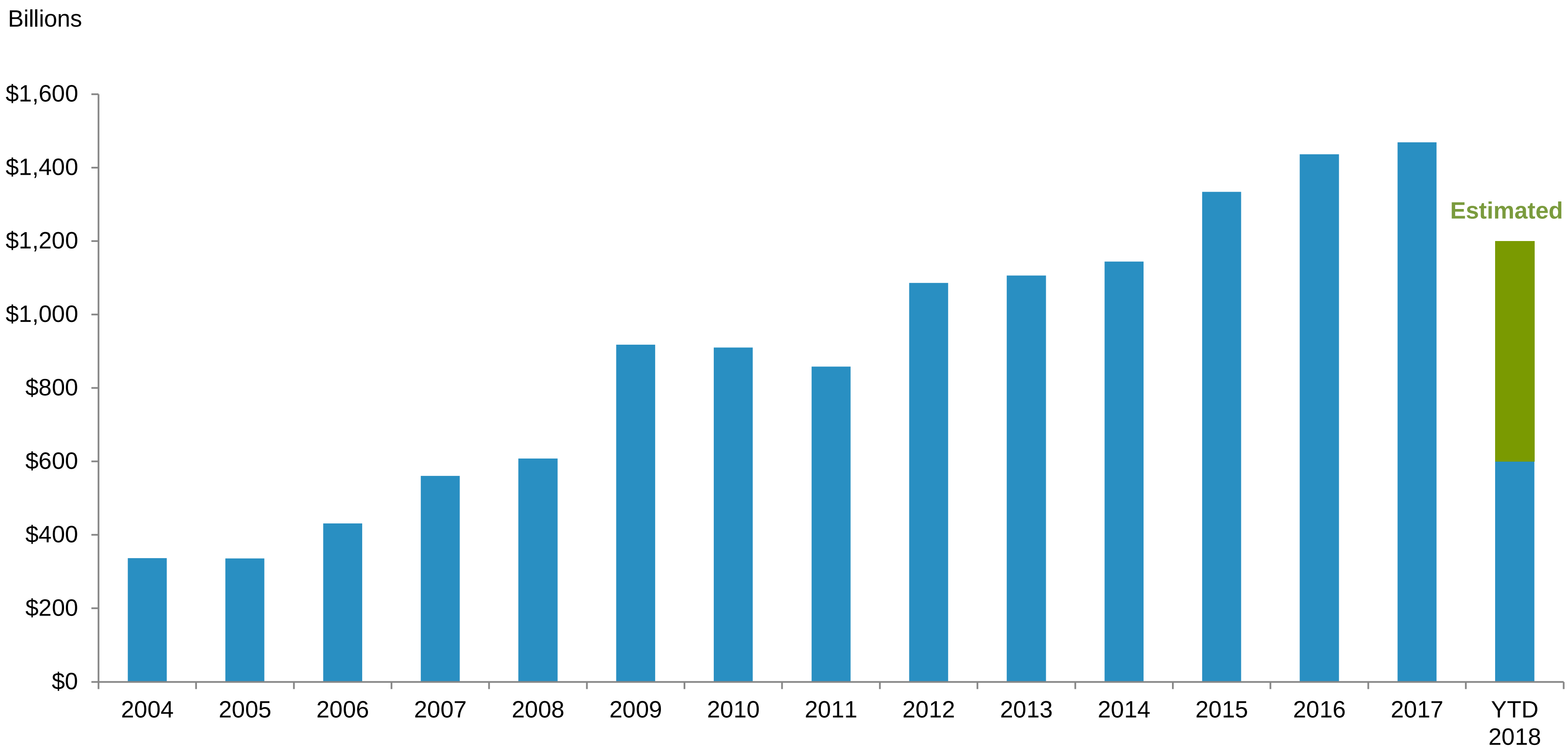



IG: Investment Grade. Source: Barclays Capital, Bloomberg, Fidelity Investments as of 6/30/18.

# Bond Issuance Softened but Remains Substantial

**Investment-grade bond issuance remains substantial, and higher M&A activity could keep it on pace to surpass $1 trillion, as it has the past few years. High issuance could weigh on leverage ratios and overall spreads, and the once-heavy demand from non-U.S. investors has declined due to higher hedging costs. However, many deals remained oversubscribed despite soft new-issuance performance.**

## Investment-Grade Corporate Bond Issuance (Gross)




Green bar represents estimate from Barclays Capital. Source: Barclays Capital, Fidelity Investments as of 5/31/18.

# Long-Term Themes

# Performance Rotations Underscore Need for Diversification

**The performance of different assets has fluctuated widely from year to year, and the magnitude of returns can vary significantly among asset classes in any given year—even among asset classes that are moving in the same direction. A portfolio allocation with a variety of global assets illustrates the potential benefits of diversification.**

## Periodic Table of Returns

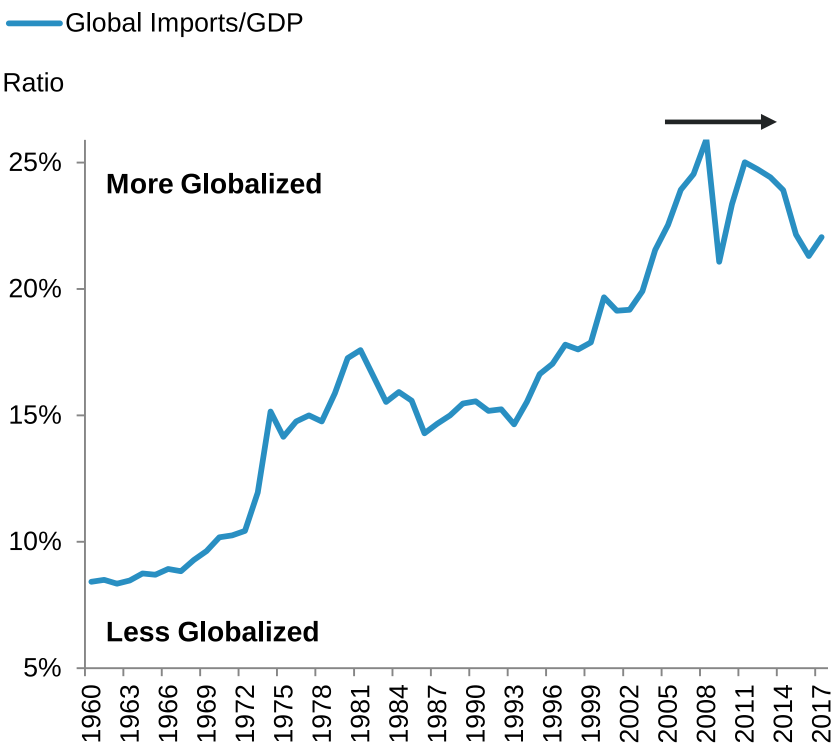
| 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018* | Legend |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18% | 75% | 17% | 38% | 35% | 35% | 35% | 66% | 32% | 14% | 26% | 56% | 32% | 35% | 35% | 40% | 5% | 79% | 28% | 8% | 20% | 39% | 28% | 5% | 21% | 38% | 8% | Small Cap Stocks |
| 17% | 33% | 8% | 37% | 23% | 33% | 29% | 34% | 26% | 8% | 10% | 47% | 26% | 21% | 33% | 16% | -20% | 58% | 27% | 8% | 19% | 34% | 14% | 3% | 18% | 30% | 7% | Growth Stocks |
| 15% | 20% | 3% | 37% | 23% | 29% | 21% | 27% | 12% | 5% | 4% | 39% | 21% | 14% | 27% | 12% | -26% | 37% | 19% | 4% | 18% | 33% | 13% | 1% | 18% | 26% | 3% | Large Cap Stocks |
| 15% | 19% | 2% | 30% | 22% | 24% | 20% | 24% | 8% | 2% | -2% | 37% | 18% | 12% | 22% | 11% | -34% | 32% | 18% | 4% | 18% | 32% | 12% | 1% | 12% | 22% | 1% | REITs |
| 11% | 19% | 1% | 28% | 22% | 22% | 14% | 21% | -1% | -2% | -6% | 31% | 17% | 7% | 18% | 7% | -36% | 28% | 17% | 2% | 16% | 23% | 11% | 1% | 12% | 15% | 1% | High-Yield Bonds |
| 8% | 17% | 0% | 20% | 16% | 20% | 9% | 21% | -3% | -4% | -9% | 31% | 11% | 5% | 16% | 6% | -36% | 27% | 16% | 2% | 16% | 19% | 6% | 0% | 11% | 15% | 1% | 60% Large Cap 40% IG Bonds |
| 8% | 10% | -1% | 18% | 15% | 13% | 3% | 12% | -5% | -4% | -15% | 29% | 11% | 5% | 12% | 5% | -37% | 26% | 15% | 0% | 16% | 7% | 5% | -4% | 9% | 13% | -1% | Commodities |
| 7% | 10% | -2% | 15% | 11% | 10% | -3% | 7% | -9% | -12% | -16% | 28% | 9% | 5% | 11% | 2% | -38% | 20% | 15% | -4% | 15% | 3% | 3% | -4% | 8% | 9% | -1% | Value Stocks |
| 5% | 10% | -2% | 15% | 6% | 2% | -18% | 3% | -14% | -20% | -20% | 24% | 8% | 4% | 9% | -1% | -38% | 19% | 12% | -12% | 11% | -2% | -2% | -5% | 7% | 8% | -2% | Investment-Grade Bonds |
| 4% | 4% | -3% | 12% | 6% | -3% | -25% | -1% | -22% | -20% | -22% | 19% | 7% | 3% | 4% | -2% | -43% | 18% | 8% | -13% | 4% | -2% | -4% | -15% | 3% | 4% | -2% | Non-U.S. Developed-Country Stocks |
| -12% | -1% | -7% | -5% | 4% | -12% | -27% | -5% | -31% | -21% | -28% | 4% | 4% | 2% | 2% | -16% | -53% | 6% | 7% | -18% | -1% | -10% | -17% | -25% | 2% | 1% | -7% | Emerging-Market Stocks |

*Year-to-date. Past performance is no guarantee of future results. Diversification/asset allocation does not ensure a profit or guarantee against loss. It is not possible to invest directly in an index. All indexes are unmanaged. See Appendix for important index information. Asset classes represented by: Commodities – Bloomberg Commodity Index; Emerging-Market Stocks – MSCI Emerging Markets Index; Non-U.S. Developed-Country Stocks – MSCI EAFE Index; Growth Stocks – Russell 3000 Growth Index; High-Yield Bonds – ICE BofAML U.S. High Yield Index; Investment-Grade Bonds – Bloomberg Barclays U.S. Aggregate Bond Index; Large Cap Stocks – S&P 500 Index; Real Estate/REITs – FTSE NAREIT All Equity Total Return Index; Small Cap Stocks – Russell 2000 Index; Value Stocks – Russell 3000 Value Index. Source: Morningstar, Standard & Poor's, Haver Analytics, Fidelity Investments (AART), as of 6/30/18.

# Secular Trend: Peak Globalization

**After decades of rapid global integration, economic openness stalled in recent years amid political pressures in many advanced economies. Changes to global rules may pose risks for incumbent companies, industries, and countries that have benefited the most from the rise of a rule-based global order. These risks include potentially higher inflation, lower productivity and profit margins, and higher political risk.**

## Trade Globalization




## Secular Risks for Asset Markets

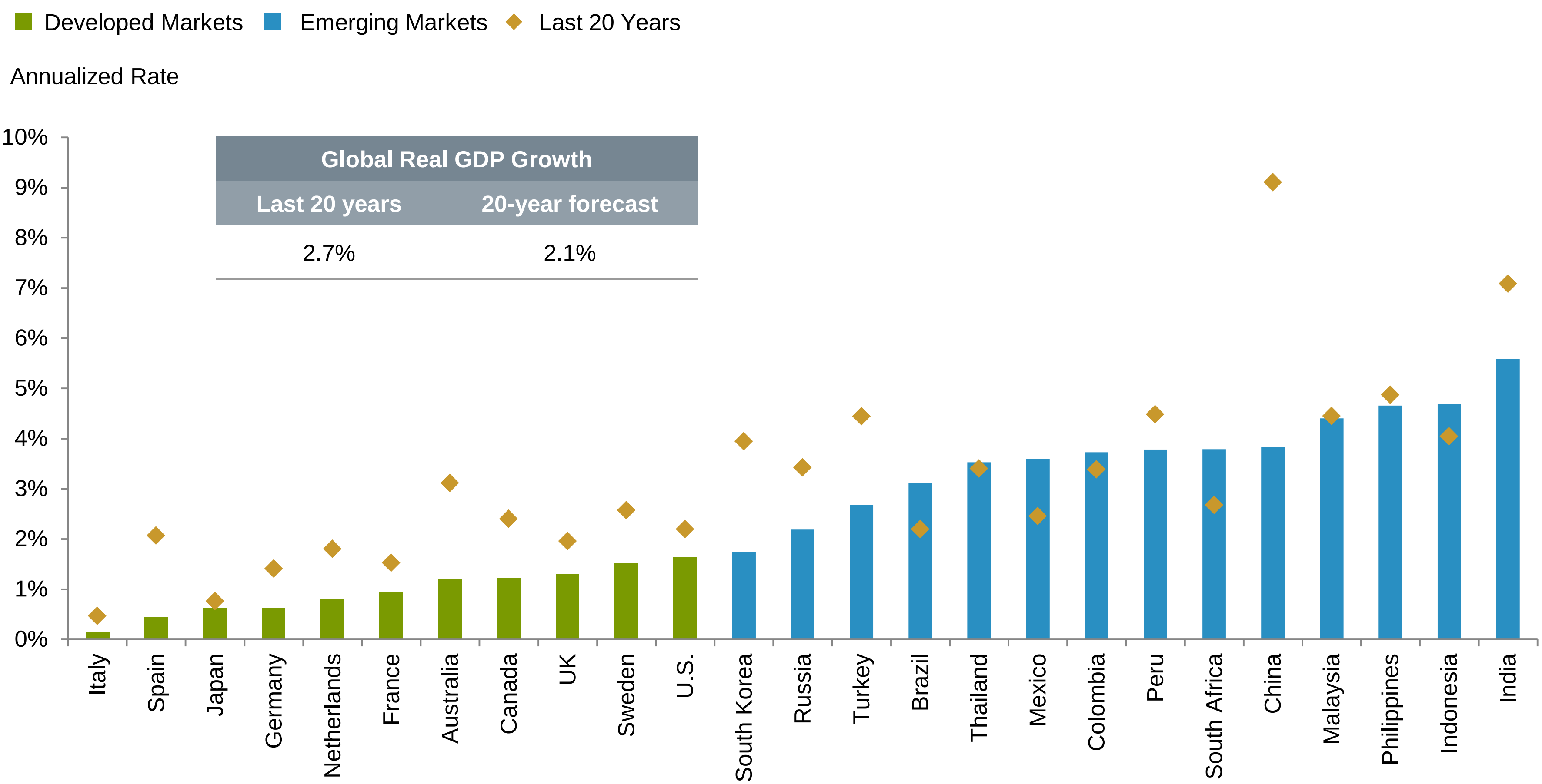
- Less rule-based and less market-oriented global system
- Higher political risk
- Inflationary pressures
- Pressures on productivity growth and corporate profit margins

**LEFT**: Source: International Monetary Fund (IMF), World Bank, Haver Analytics, Fidelity Investments (AART), as of 12/31/17.

# Secular Forecast: Slower Global Growth, EMs to Lead

**Slowing labor force growth and aging demographics are expected to tamp down global growth over the next two decades. We expect GDP growth of emerging countries to outpace that of developed markets over the long term, providing a relatively favorable secular backdrop for emerging-market equity returns.**

## Real GDP 20-Year Growth Forecasts vs. History



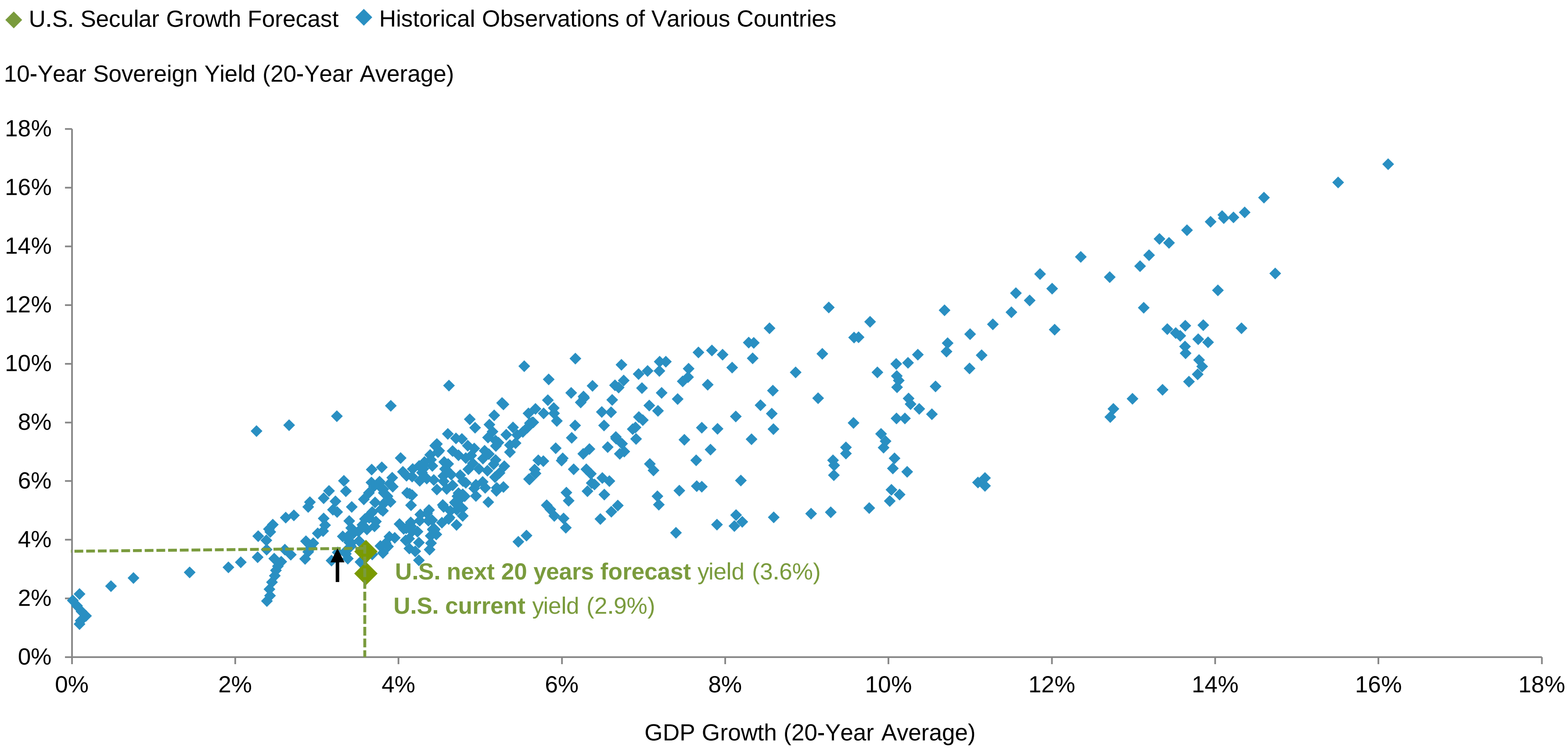

| Global Real GDP Growth | |
|---|---|
| Last 20 years | 20-year forecast |
| 2.7% | 2.1% |

EM: Emerging Markets. GDP: Gross Domestic Product. Source: OECD, Fidelity Investments (AART), as of 5/31/18.

# Secular Rate Outlook: Higher than Now, Lower than History

**Over long periods of time, GDP growth has a tight positive relationship with long-term government bond yields (yields generally have averaged the same rate as nominal growth). We expect interest rates will rise over the long term to an average that is closer to our 3.6% nominal GDP forecast, but this implies they would settle at a significantly lower level than their historical averages.**

## Nominal Government Bond Yields and GDP Growth

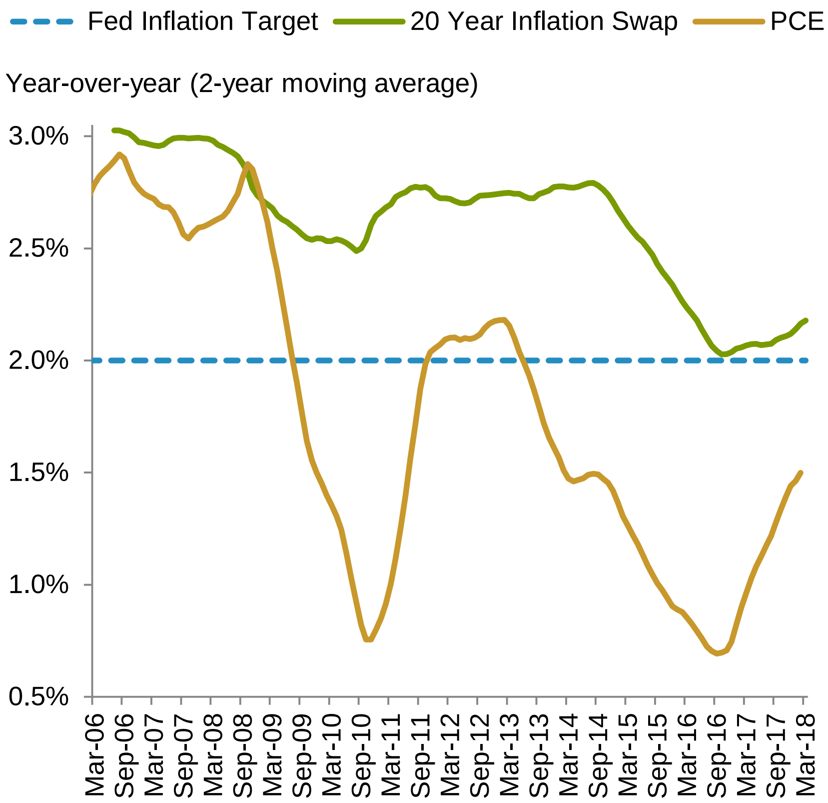



GDP: Gross Domestic Product. Source: Official Country Estimates, Haver Analytics, Fidelity Investments (AART), as of 6/30/18.

# Secular Inflation: Risks on the Upside?

**Recent decades of disinflation have dragged down many investors' long-term inflation expectations. Technological progress and aging demographics might help keep inflation low; however, we believe several factors, including policy changes and "peak globalization" trends, could influence the secular path of inflation, potentially causing inflation to accelerate faster than today's subdued expectations.**

## U.S. Inflation Expectations vs. Fed Target




## Possible Secular Impact on Inflation

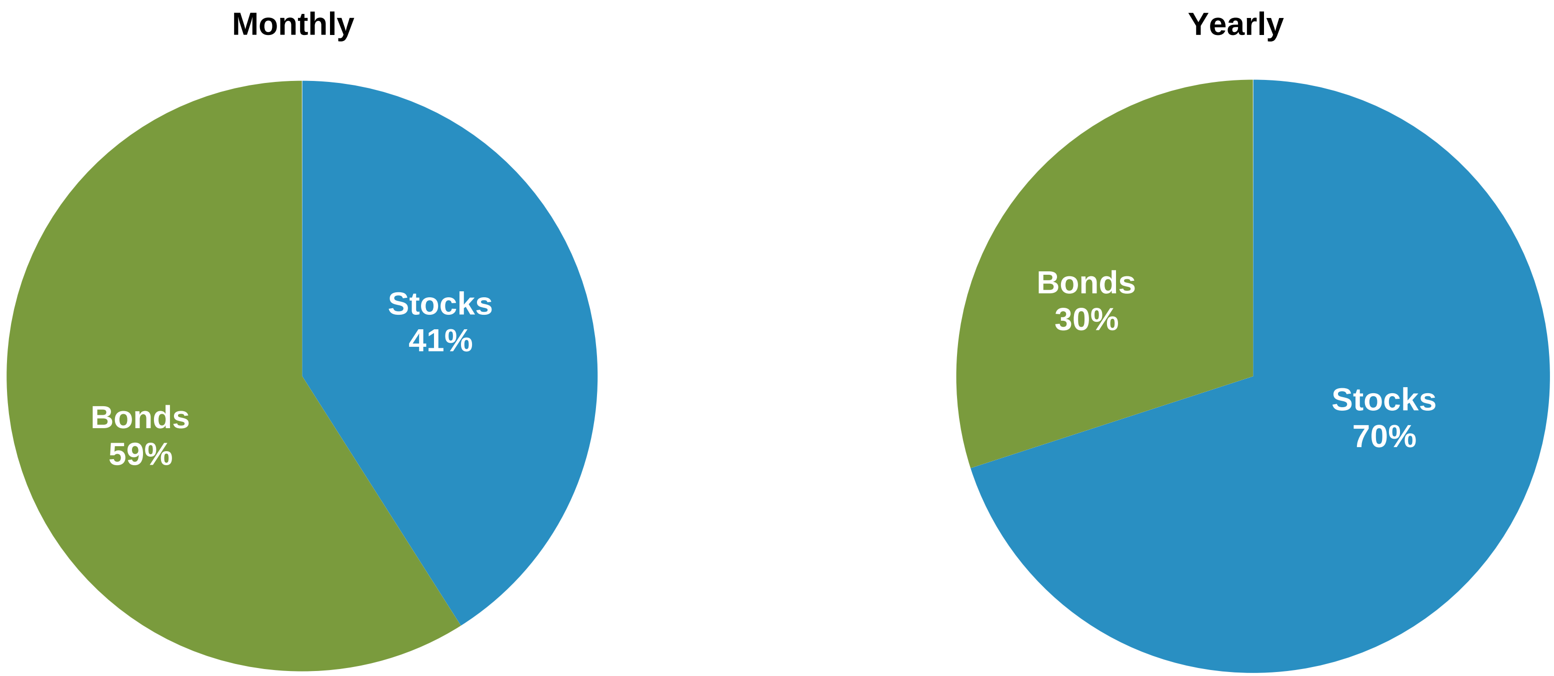
| Secular Factors | Possible Developments | Risks to Inflation |
|---|---|---|
| **Policy** | Fed targets higher inflation | ↑ |
| | Higher deficits/unsustainable debt | ↑ |
| **Aging Demographics** | Elderly people: | |
| | • Spend less (reducing demand) | ↓ |
| | • Work less (reducing supply) | ↑ |
| **Peak Globalization** | More expensive goods/labor | ↑ |
| **Technological Progress** | More robots, Amazon effect | ↓ |

**LEFT:** PCE: Personal Consumption Expenditures. Source: Bureau of Labor Statistics, Bloomberg Finance L.P., Fidelity Investments (AART), as of 2/28/18.
**RIGHT:** Fed: Federal Reserve. Source: Fidelity Investments (AART), as of 6/30/18.

# Myopic Loss Aversion Prompts Risk-Averse Behavior

***Myopic loss aversion*** **describes a common bias in which greater sensitivity to losses than to gains is compounded by the frequent evaluation of outcomes. Investors who review their portfolios more frequently have tended to shift toward more conservative exposures, as increased monitoring raises the likelihood of seeing (and reacting to) a loss.**

## Impact of Feedback Frequency on Investment Decisions




In a study, subjects were assigned simulated conditions that were similar to making portfolio decisions on a monthly or yearly basis. Source: Thaler, R.H., A. Tversky, D. Kahneman, and A. Schwartz. “The Effect of Myopia and Loss Aversion on Risk Taking: An Experimental Test.” *The Quarterly Journal of Economics* 112.2 (1997), used by permission of Oxford University Press; Fidelity Investments (AART), as of 6/30/18.

# Appendix: Important Information

Information presented herein is for discussion and illustrative purposes only and is not a recommendation or an offer or solicitation to buy or sell any securities. Views expressed are as of the date indicated, based on the information available at that time, and may change based on market and other conditions. Unless otherwise noted, the opinions provided are those of the authors and not necessarily those of Fidelity Investments or its affiliates. Fidelity does not assume any duty to update any of the information.

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Fidelity does not provide legal or tax advice and the information provided herein is general in nature and should not be considered legal or tax advice. Consult with an attorney or a tax professional regarding your specific legal or tax situation.

**Past performance and dividend rates are historical and do not guarantee future results.**

Investing involves risk, including risk of loss.

Diversification does not ensure a profit or guarantee against loss.

Index or benchmark performance presented in this document does not reflect the deduction of advisory fees, transaction charges, and other expenses, which would reduce performance.

Indexes are unmanaged. It is not possible to invest directly in an index.

Although bonds generally present less short-term risk and volatility than stocks, bonds do contain interest rate risk (as interest rates rise, bond prices usually fall, and vice versa) and the risk of default, or the risk that an issuer will be unable to make income or principal payments.

Additionally, bonds and short-term investments entail greater inflation risk—or the risk that the return of an investment will not keep up with increases in the prices of goods and services—than stocks. Increases in real interest rates can cause the price of inflation-protected debt securities to decrease.

Stock markets, especially non-U.S. markets, are volatile and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments. Foreign securities are subject to interest rate, currency exchange rate, economic, and political risks, all of which are magnified in emerging markets.

The securities of smaller, less well-known companies can be more volatile than those of larger companies.

Growth stocks can perform differently from the market as a whole and from other types of stocks, and can be more volatile than other types of stocks. Value stocks can perform differently from other types of stocks and can continue to be undervalued by the market for long periods of time.

Lower-quality debt securities generally offer higher yields but also involve greater risk of default or price changes due to potential changes in the credit quality of the issuer. Any fixed income security sold or redeemed prior to maturity may be subject to loss.

Floating rate loans generally are subject to restrictions on resale, and sometimes trade infrequently in the secondary market; as a result, they may be more difficult to value, buy, or sell. A floating-rate loan may not be fully collateralized and therefore may decline significantly in value.

The municipal market can be affected by adverse tax, legislative, or political changes, and by the financial condition of the issuers of municipal securities. Interest income generated by municipal bonds is generally expected to be exempt from federal income taxes and, if the bonds are held by an investor resident in the state of issuance, from state and local income taxes. Such interest income may be subject to federal and/or state alternative minimum taxes. Investing in municipal bonds for the purpose of generating tax-exempt income may not be appropriate for investors in all tax brackets. Generally, tax-exempt municipal securities are not appropriate holdings for tax-advantaged accounts such as IRAs and 401(k)s.

The commodities industry can be significantly affected by commodity prices, world events, import controls, worldwide competition, government regulations, and economic conditions.

The gold industry can be significantly affected by international monetary and political developments, such as currency devaluations or revaluations, central bank movements, economic and social conditions within a country, trade imbalances, or trade or currency restrictions between countries.

Changes in real estate values or economic downturns can have a significant negative effect on issuers in the real estate industry.

Leverage can magnify the impact that adverse issuer, political, regulatory, market, or economic developments have on a company. In the event of bankruptcy, a company's creditors take precedence over the company's stockholders.

# Appendix: Important Information

**Market Indexes**

**Index returns on slide 25 represented by:** Growth - Russell 3000® Growth Index; Large Caps - S&P 500® index; Mid Caps - Russell MidCap® Index; Small Caps - Russell 2000® Index; Value - Russell 3000® Value Index; Canada – MSCI Canada Index; Commodities – Bloomberg Commodity Index; EAFE – MSCI EAFE (Europe, Australasia, Far East) Index; EAFE Small Cap – MSCI EAFE Small Cap Index; EM Asia – MSCI Emerging Markets Asia Index; EMEA (Europe, Middle East, and Africa) – MSCI EM EMEA Index; Emerging Markets (EM) – MSCI EM Index; Europe – MSCI Europe Index; Gold – Gold Bullion Price, LBMA PM Fix; Japan – MSCI Japan Index; Latin America – MSCI EM Latin America Index; ABS (Asset-Backed Securities) – Bloomberg Barclays ABS Index; Agency – Bloomberg Barclays U.S. Agency Index; Aggregate – Bloomberg Barclays U.S. Aggregate Bond Index; CMBS (Commercial Mortgage-Backed Securities) – Bloomberg Barclays Investment-Grade CMBS Index; Credit – Bloomberg Barclays U.S. Credit Bond Index; EM Debt (Emerging-Market Debt) – JP Morgan EMBI Global Index; High Yield – ICE BofAML U.S. High Yield Index; Leveraged Loan – S&P/LSTA Leveraged Loan Index; Long Government & Credit (Investment-Grade) – Bloomberg Barclays Long Government & Credit Index; MBS (Mortgage-Backed Securities) – Bloomberg Barclays MBS Index; Municipal – Bloomberg Barclays Municipal Bond Index; TIPS (Treasury Inflation-Protected Securities) – Bloomberg Barclays U.S. TIPS Index; Treasuries – Bloomberg Barclays U.S. Treasury Index.

**Bloomberg Barclays U.S. 1-3 (1-5) Year Government Credit Index** includes all publicly issued U.S. government and corporate securities that have a remaining maturity between one and three (five) years and are rated investment-grade. **Bloomberg Barclays U.S. 1-5 Year Credit Index** is designed to cover publicly issued U.S. corporate and specified non-U.S. debentures and secured notes with a maturity between one and five years and meet the specified liquidity and quality requirements; bonds must be SEC-registered to qualify. **Bloomberg Barclays U.S. 1-5 Year Municipal Index** covers the one- to five-year maturity, U.S. dollar-denominated, tax-exempt bond market with four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. **Bloomberg Barclays ABS Index** is a market value-weighted index that covers fixed-rate asset-backed securities with average lives greater than or equal to one year and that are part of a public deal; the index covers the following collateral types: credit cards, autos, home equity loans, stranded-cost utility (rate-reduction bonds), and manufactured housing.

**Bloomberg Barclays CMBS Index** is designed to mirror commercial mortgage-backed securities of investment-grade quality (Baa3/BBB-/BBB- or above) using Moody's, S&P, and Fitch, respectively, with maturities of at least one year. **Bloomberg Barclays Emerging Market Bond Index** is an unmanaged index that tracks total returns for external-currency-denominated debt instruments of the emerging markets. **Bloomberg Barclays Euro Aggregate Bond Index** is a broad-based flagship benchmark that measures the investment-grade, euro-denominated, fixed rate bond market, including treasuries, government-related, corporate and securitized issues. **Bloomberg Barclays Long U.S. Government Credit Index** includes all publicly issued U.S. government and corporate securities that have a remaining maturity of 10 or more years, are rated investment-grade, and have $250 million or more of outstanding face value.

**Bloomberg Barclays Municipal Bond Index** is a market value-weighted index of investment-grade municipal bonds with maturities of one year or more. **Bloomberg Barclays U.S. Agency Bond Index** is a market value-weighted index of U.S. Agency government and investment-grade corporate fixed-rate debt issues. **Bloomberg Barclays U.S. Aggregate Bond** is a broad-based, market-value-weighted benchmark that measures the performance of the investment-grade, U.S. dollar-denominated, fixed-rate taxable bond market. **Bloomberg Barclays U.S. Corporate High Yield Bond Index** is a market value-weighted index of dollar-denominated, fixed-rate, non-investment-grade debt. **Bloomberg Barclays U.S. Credit Bond Index** is a market value-weighted index of investment-grade corporate fixed-rate debt issues with maturities of one year or more.

**Bloomberg Barclays U.S. Government Index** is a market value-weighted index of U.S. Government fixed-rate debt issues with maturities of one year or more. **Bloomberg Barclays Global Aggregate ex-USD Index Unhedged** is a measure of global investment-grade debt from 24 local currency markets. This multi-currency benchmark includes treasury, government-related, corporate, and securitized fixed-rate bonds from both developed- and emerging-markets issuers.

**Bloomberg Barclays U.S. MBS Index** is a market value-weighted index of fixed-rate securities that represent interests in pools of mortgage loans, including balloon mortgages, with original terms of 15 and 30 years that are issued by the Government National Mortgage Association (GNMA), the Federal National Mortgage Association (FNMA), and the Federal Home Loan Mortgage Corp. (FHLMC). **Bloomberg Barclays U.S. Treasury Inflation-Protected Securities (TIPS) Index (Series-L)** is a market value-weighted index that measures the performance of inflation-protected securities issued by the U.S. Treasury. **Bloomberg Barclays U.S. Treasury Bond Index** is a market value-weighted index of public obligations of the U.S. Treasury with maturities of one year or more. **Bloomberg Commodity Index** measures the performance of the commodities market. It consists of exchange traded futures contracts on physical commodities that are weighted to account for the economic significance and market liquidity of each commodity.

**Dow Jones U.S. Total Stock Market Index℠** is a full market capitalization-weighted index of all equity securities of U.S.- headquartered companies with readily available price data. **Dow Jones U.S. Select Real Estate Securities Index℠** is a float-adjusted, market capitalization-weighted index of publicly traded real estate securities, such as real estate investment trusts (REITs) and real estate operating companies (REOCs).

**FTSE® 100 Index** is a market capitalization-weighted index of the 100 most highly capitalized blue chip companies listed on the London Stock Exchange. **FTSE® National Association of Real Estate Investment Trusts (NAREIT®) All REITs Index** is a market capitalization-weighted index that is designed to measure the performance of all tax-qualified REITs listed on the NYSE, the American Stock Exchange, or the NASDAQ National Market List. **FTSE® NAREIT® Equity REIT** Index is an unmanaged market value-weighted index based on the last closing price of the month for tax-qualified REITs listed on the New York Stock Exchange (NYSE).

# Appendix: Important Information

**Market Indexes** (continued)

**The IA SBBI U.S. Small Cap Stock Index** is a custom index designed to measure the performance of small capitalization U.S. stocks. **IA SBBI U.S. Intermediate-Term Government Bond Index** is an unweighted index that measures the performance of five-year maturity U.S. Treasury bonds. Each year, a one-bond portfolio containing the shortest non-callable bond having a maturity of not less than five years is constructed. **IA SBBI U.S. Long-Term Corporate Bond Index** is a custom index designed to measure the performance of long-term U.S. corporate bonds**. IA SBBI U.S. 30-Day Treasury Bill Index** is an unweighted index that measures the performance of 30-day-maturity U.S. Treasury bills.

**ICE BofAML U.S. High Yield Index** is a market capitalization-weighted index of U.S. dollar-denominated, below-investment-grade corporate debt publicly issued in the U.S. market.

**JPM® EMBI Global Index**, and its country sub-indexes, tracks total returns for the U.S. dollar-denominated debt instruments issued by emerging-market sovereign and quasi-sovereign entities, such as Brady bonds, loans, and Eurobonds. **JPM® EMBI Global Investment Grade Index**, and its country sub-indices, tracks total returns for traded external debt instruments issued by emerging-market sovereign and quasi-sovereign entities rated investment-grade.

**MSCI All Country World Index (ACWI)** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors of developed and emerging markets. **MSCI ACWI (All Country World Index) ex USA Index** is a market capitalization-weighted index designed to measure the investable equity market performance for global investors of large and mid cap stocks in developed and emerging markets, excluding the United States. **MSCI World Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors of developed markets. **MSCI World ex USA Index** is a market capitalization-weighted index designed to measure the equity market performance of developed markets, excluding the U.S.

**MSCI Emerging Markets (EM) Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in emerging markets. **MSCI EM Asia Index** is a market capitalization-weighted index designed to measure equity market performance in Asia. **MSCI EM Europe, Middle East, and Africa (EMEA) Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in the emerging-market countries of Europe, the Middle East, and Africa. **MSCI EM Latin America Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in the emerging-market countries of Latin America. **MSCI EM Large Cap Index** is composed of those securities in the MSCI EM Index that are defined as large-capitalization stocks.

**MSCI Europe, Australasia, Far East Index (EAFE)** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in developed markets, excluding the U.S. and Canada. **MSCI EAFE Small Cap Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance of small-cap stocks for global investors in developed markets, excluding the U.S. and Canada.

**MSCI Europe Index** is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors of the developed markets in Europe. **MSCI All Country (AC) Europe Index** is a market capitalization-weighted index that is designed to measure the equity market performance of Europe; it consists of the following developed- and emerging-market country indices: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland, Turkey, and United Kingdom. **MSCI North America Index** is a market capitalization-weighted index designed to measure the performance of large and mid cap segments of the U.S. and Canada markets**. MSCI Pacific ex Japan Index** is a market capitalization-weighted index that is designed to measure the equity market performance of four of the five developed market countries in the Pacific region, including Australia, Hong Kong, New Zealand and Singapore. **MSCI Canada Index** is a market capitalization-weighted index designed to measure equity market performance in Canada. **MSCI Japan Index** is a market capitalization-weighted index designed to measure equity market performance in Japan. **MSCI USA Index** is a market capitalization-weighted index designed to measure the equity market performance of the U.S.

**MSCI Europe Financials Index** (Total Return) captures large and mid cap representations of financial securities across 15 developed-market countries in Europe, represented by the MSCI Europe Index, **MSCI Japan Financials Index** (Total Return) captures large- and mid-cap representations of financial securities across Japan, represented by the MSCI Japan Index, an index designed to measure the performance of the large and mid cap segments of the Japanese equity market. With 318 constituents, the index covers approximately 85% of the free-float-adjusted market capitalization in Japan.

**Russell 2000® Index** is a market capitalization-weighted index designed to measure the performance of the small-cap segment of the U.S. equity market. It includes approximately 2,000 of the smallest securities in the Russell 3000 Index. **Russell 3000® Index** is a market capitalization-weighted index designed to measure the performance of the 3,000 largest companies in the U.S. equity market. **Russell 3000 Growth Index** is a market capitalization-weighted index designed to measure the performance of the broad growth segment of the U.S. equity market. It includes those Russell 3000 Index companies with higher price-to-book ratios and higher forecasted growth rates. **Russell 3000 Value Index** is a market capitalization-weighted index designed to measure the performance of the small to mid-cap value segment of the U.S. equity market. It includes those Russell 3000 Index companies with lower price-to-book ratios and lower forecasted growth rates. **Russell MidCap® Index** is a market capitalization-weighted index designed to measure the performance of the mid cap segment of the U.S. equity market. It contains approximately 800 of the smallest securities in the Russell 1000 Index.

The **S&P 500®** is a market capitalization-weighted index of 500 common stocks chosen for market size, liquidity, and industry group representation to represent U.S. equity performance. S&P 500 is a registered service mark of The McGraw-Hill Companies, Inc., and has been licensed for use by Fidelity Distributors Corporation and its affiliates. The **S&P 500 Total Return Index** represents the price changes and reinvested dividends of the S&P 500®. **The S&P SmallCap 600®** is a market capitalization-weighted index of 600 small capitalization stocks. **The S&P GSCI® Commodities Index** provides investors with a reliable and publicly available benchmark for investment performance in the commodity markets.

# Appendix: Important Information

**Market Indexes** (continued)

The **Sectors and Industries** are defined by Global Industry Classification Standards (GICS®), except where noted otherwise. **S&P 500 sectors** are defined as follows: Consumer Discretionary—companies that tend to be the most sensitive to economic cycles. Consumer Staples—companies whose businesses are less sensitive to economic cycles. Energy—companies whose businesses are dominated by either of the following activities: the construction or provision of oil rigs, drilling equipment, and other energy-related services and equipment, including seismic data collection; or the exploration, production, marketing, refining, and/or transportation of oil and gas products, coal, and consumable fuels. Financials—companies involved in activities such as banking, consumer finance, investment banking and brokerage, asset management, insurance and investments, and mortgage real estate investment trusts (REITs). Health Care—companies in two main industry groups: health care equipment suppliers, manufacturers, and providers of health care services; and companies involved in research, development, production, and marketing of pharmaceuticals and biotechnology products. Industrials—companies that manufacture and distribute capital goods, provide commercial services and supplies, or provide transportation services. Information Technology—companies in technology software and services and technology hardware and equipment. Materials—companies that engage in a wide range of commodity-related manufacturing. Real Estate—companies in real estate development, operations, and related services, as well as equity REITs. Telecommunication Services—companies that provide communications services primarily through fixed-line, cellular, wireless, high bandwidth, and/or fiber-optic cable networks. Utilities—companies considered electric, gas, or water utilities, or that operate as independent producers and/or distributors of power.

**Standard & Poor's/Loan Syndications and Trading Association (S&P/LSTA) Leveraged Performing Loan Index** is a market value-weighted index designed to represent the performance of U.S. dollar-denominated institutional leveraged performing loan portfolios (excluding loans in payment default) using current market weightings, spreads, and interest payments.

**Other Indexes**

**The Consumer Price Index (CPI)** is a monthly inflation indicator that measures the change in the cost of a fixed basket of products and services, including housing, electricity, food, and transportation.

**The London Bullion Market Association (LBMA)** publishes the international benchmark price of gold in USD, twice daily. The **LBMA Gold price** auction takes place by ICE Benchmark Administration (IBA) at 10:30 and 15:00 with the price set in U.S. dollars per fine troy ounce.

**A Purchasing Managers' Index (PMI**) is a survey of purchasing managers in a certain economic sector. A PMI over 50 represents expansion of the sector compared to the previous month, while a reading under 50 represents a contraction, and a reading of 50 indicates no change. The Institute for Supply Management ® reports the U.S. manufacturing PMI®. Markit compiles non-U.S. PMIs.

**Definitions**

**Correlation coefficient** measures the interdependencies of two random variables that range in value from −1 to +1, indicating perfect negative correlation at −1, absence of correlation at 0, and perfect positive correlation at +1.

**The Price-to-Earnings (P/E) ratio** is the ratio of a company's current share price to its current earnings, typically trailing 12-months earnings per share. A Forward P/E calculation will typically use an average of analysts' published estimates of earnings for the next 12 months in the denominator.

**Excess return:** the amount by which a portfolio's performance exceeds its benchmark, net (in the case of the analysis in this article) or gross of operating expenses, in percentage points.

# Appendix: Important Information

The Chartered Financial Analyst (CFA) designation is offered by the CFA Institute. To obtain the CFA charter, candidates must pass three exams demonstrating their competence, integrity, and extensive knowledge in accounting, ethical and professional standards, economics, portfolio management, and security analysis, and must also have at least four years of qualifying work experience, among other requirements.

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