

Quarterly Market Update

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Market Summary

Overview: Improved Global Economy Sets Tone for 2017

The recovery from a global industrial recession during 2016 set the stage for rising bond yields and inflation expectations in the second half of the year, which accelerated after the U.S. election results boosted hopes for a pro-growth change in U.S. economic policy. There remain a wide distribution of potential policy outcomes in 2017 that may inject volatility, but the solid U.S. and global expansions provide a positive context to start the year.

Q4 2016 TRENDS

MACRO

- **Acceleration in global economic activity**
 - China exited growth recession
 - Global industrial activity improved, deflationary pressures abated
 - U.S. expansion a mix of mid and late cycle
- **U.S. elections sparked abrupt change in economic policy expectations**
 - Hopes for business-friendly, pro-growth tilt
 - Inflation expectations also rose
- **Global monetary policy still accommodative but incrementally less easing**
 - Fed hiked for second time; ECB tapered but extended

MARKETS

- Bond yields rose sharply; dollar strengthened
- Performance shift to U.S. domestic-oriented cyclicals, away from bond proxies

OUTLOOK 2017

- **Global expansion to persist**
 - Advanced economies in maturing cycle phases
 - China's outlook uncertain, but EM economies generally OK amid rising commodity prices
- **Wide distribution of policy outcomes**
 - Potential policy changes make higher U.S. growth possible, inflation upside probable
 - Uncertainty: European elections risk, anti-globalization pressures, monetary responses
- **U.S. in solid expansion, likely will move toward late cycle as year progresses**
 - Tighter labor markets raise inflation pressures
 - Overheating boom a possible scenario

- Policy uncertainty likely to boost market volatility
- Favor global equities but smaller allocation tilts
- Inflation-resistant assets may offer protection against an upside surprise

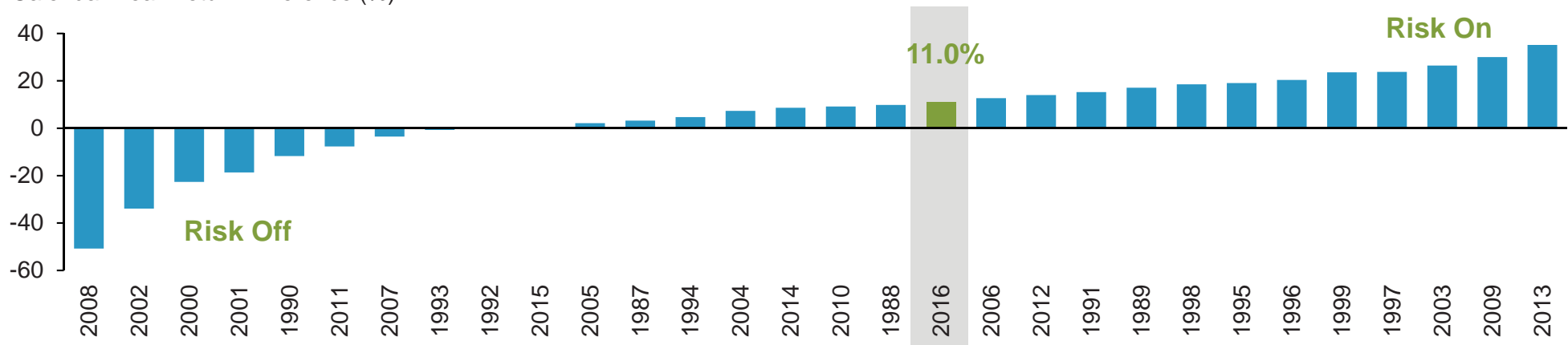
Q4 Rally Pushed U.S. Stocks to Top of 2016 Leader Board

Sharp post-election market moves scrambled the 2016 asset results, with U.S. stocks—especially small-caps—surging while a strengthening dollar pushed non-U.S. stocks down. An upward move in bond yields weighed on investment-grade bond returns in Q4, though they remained positive for the year. Overall, 2016 performance was solid across most asset categories and finished the year in “risk-on” territory.

	2016 (%)	Q4 2016 (%)		2016 (%)	Q4 2016 (%)
U.S. Small-Cap Stocks	21.3	8.8	Real Estate Stocks	8.6	-3.3
High Yield Bonds	17.5	1.9	Gold	8.1	-13.4
U.S. Mid-Cap Stocks	13.8	3.2	Long Government & Credit Bonds	6.7	-7.8
U.S. Large-Cap Stocks	12.0	3.8	U.S. Corporate Bonds	5.6	-3.0
Emerging-Market Stocks	11.6	-4.1	Non-U.S. Small-Cap Stocks	2.6	-2.8
Commodities	11.4	2.5	Investment-Grade Bonds	2.6	-3.0
Emerging-Market Bonds	10.2	-4.2	Non-U.S. Developed-Country Stocks	1.5	-0.7

Risk Meter: U.S. Large-Cap Stock minus Intermediate Treasury Bond Returns, 1987–2016

Calendar Year Return Difference (%)

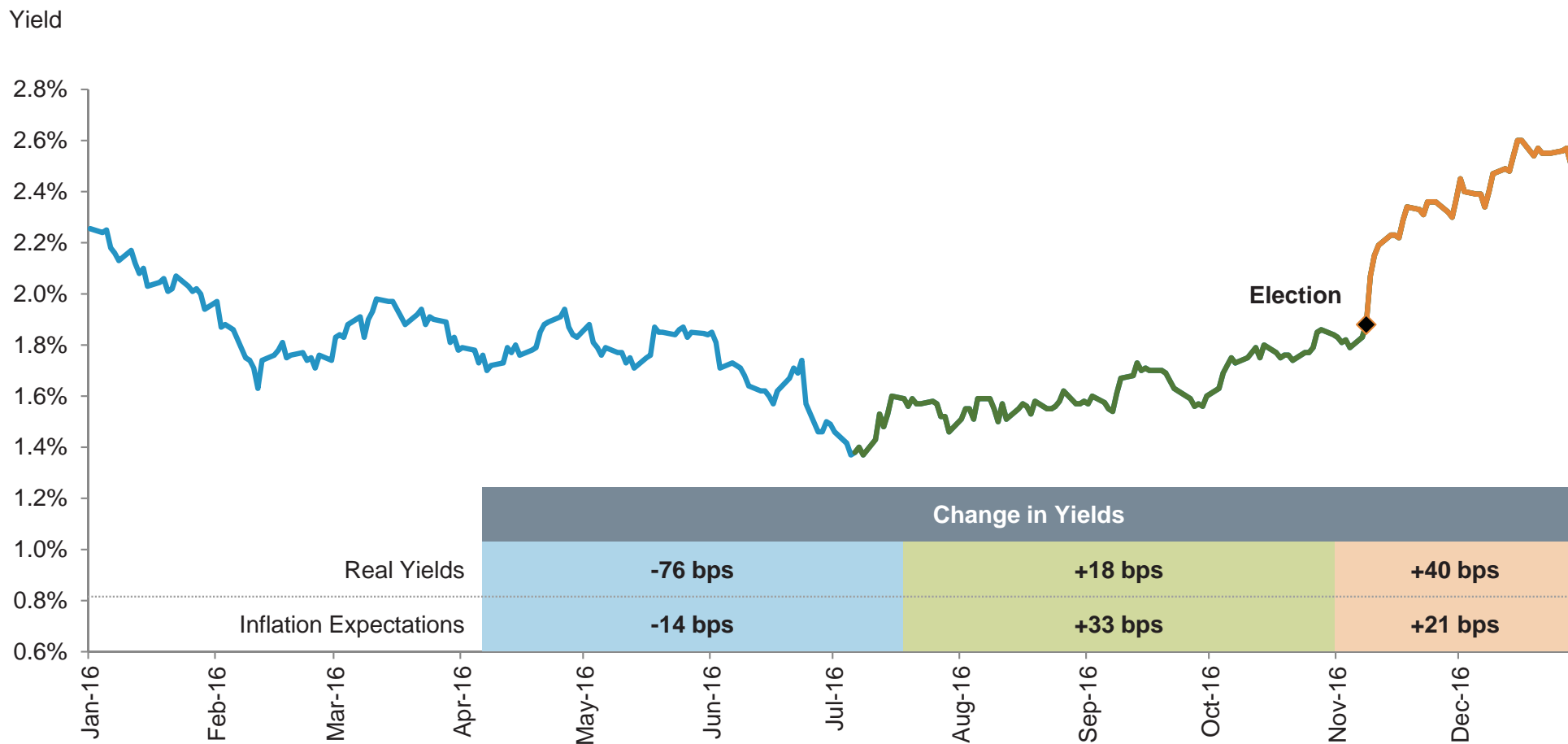


Past performance is no guarantee of future results. It is not possible to invest directly in an index. See appendix for important index information. Assets represented by: Commodities – Bloomberg Commodity Index; Emerging-Market Bonds – JP Morgan EMBI Global Index; Emerging-Market Stocks – MSCI EM Index; Gold – Gold Bullion, LBMA PM Fix; High Yield Bonds – Bank of America Merrill Lynch (BofA ML) 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 – 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. Sources: Bloomberg Finance L.P., Haver Analytics, Fidelity Investments (AART), as of 12/31/16.

After Falling to Record Lows, Bond Yields Reverse Course

In the mid-year aftermath of Brexit, bond yields dropped to all-time lows. From July through early November, investor recognition of the improving global cyclical outlook pushed up bond yields as both economic and inflation expectations improved. After the U.S. elections, bond yields rose further, with hopes for pro-growth economic policies helping to push up real yields even faster than inflation expectations.

U.S. 10-Year Treasury Bond Yield



Source: Federal Reserve, Haver Analytics, Fidelity Investments (AART), as of 12/29/16.

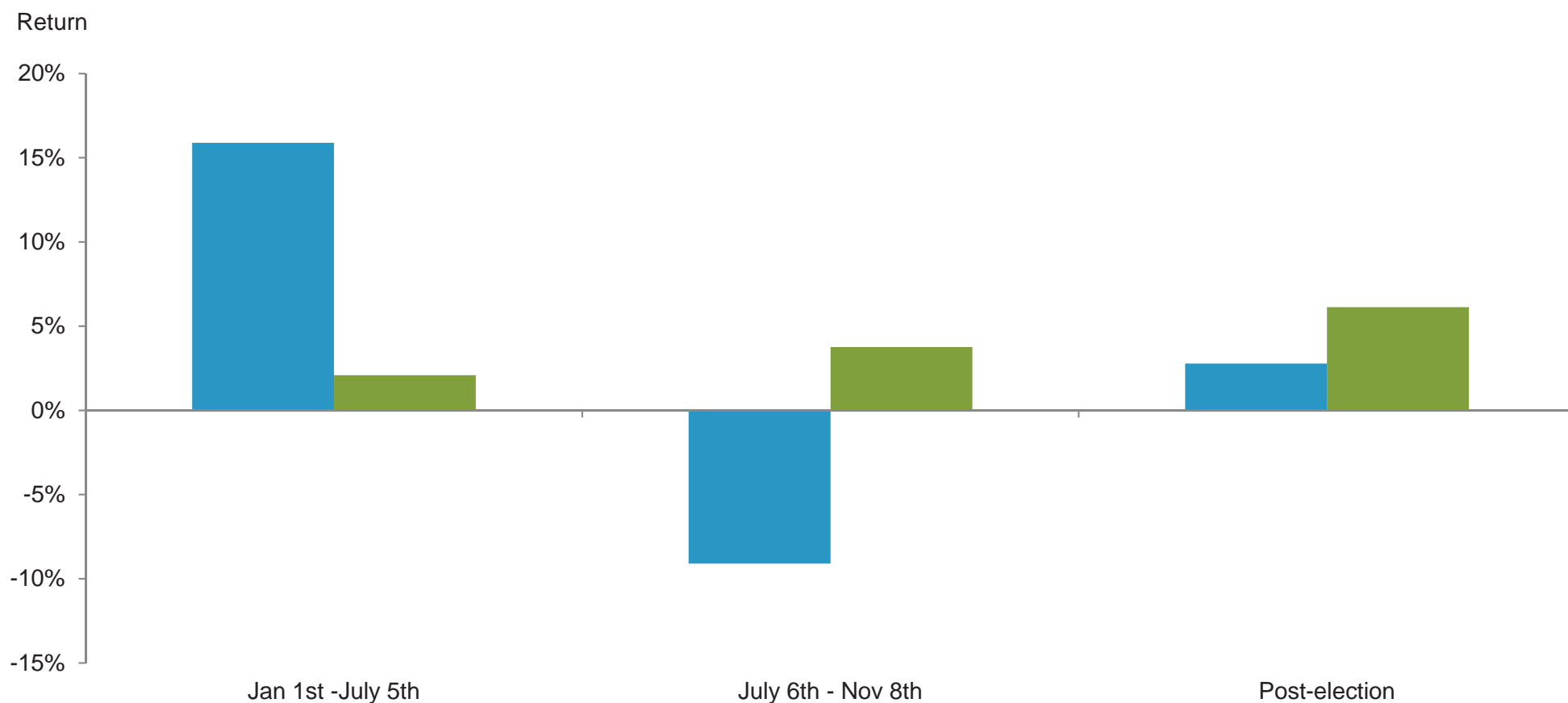


Turnabout for Bond-Proxy Sectors

The performance of bond-proxy equities, such as utilities, consumer staples, REITs and telecommunication services, surged during the first half of 2016 as investors sought higher-yielding assets. As bond yields reversed course and headed upward during the second half of the year, bond-proxy sectors experienced negative performance and trailed the broader U.S. equity market.

U.S. Equity Sectors 2016 Performance

■ Bond Proxies ■ All Other Sectors



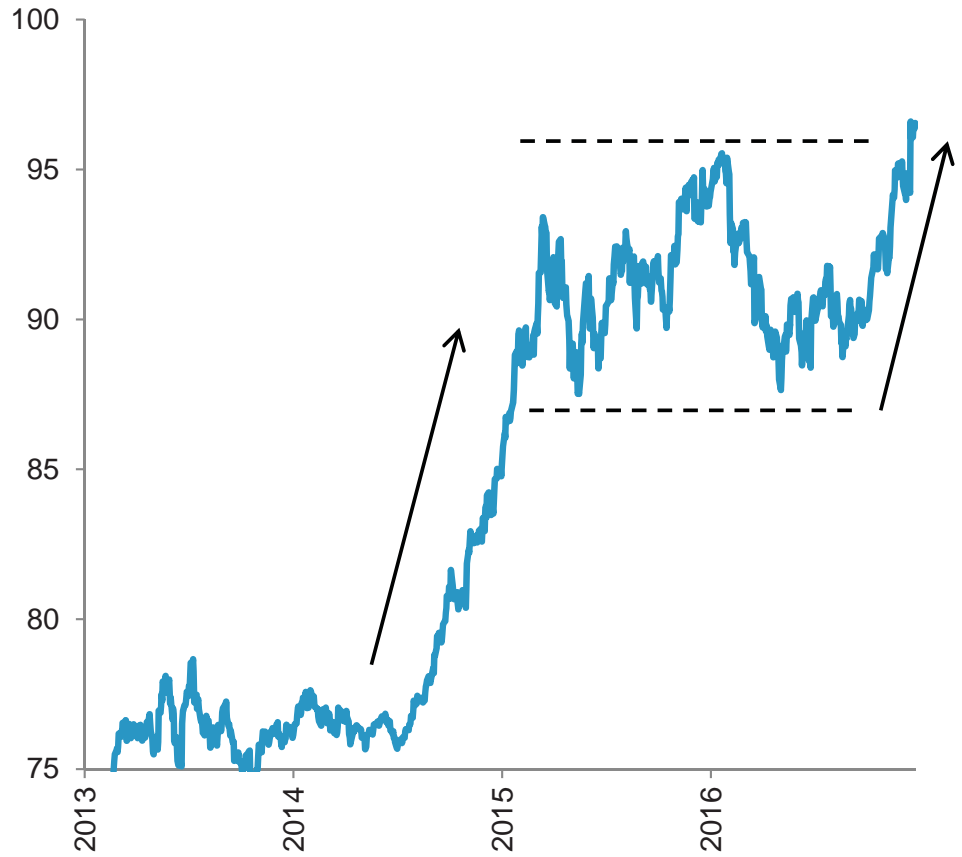
Bond Proxies: S&P 500 Consumer Staples, REITs, Telecom, Utilities. Other sectors: S&P 500 Consumer Discretionary, Energy, Financials, Health Care, Industrials, Technology, and Materials. Source: Standard and Poor's, Bloomberg Finance L.P., Fidelity Investments (AART), as of 12/31/16. Past performance is no guarantee of future results.

Dollar Hit Multi-Year High amid Policy Change Prospects

The U.S. dollar surged to a 15-year high in the aftermath of the elections and is at the upper end of historical ranges versus many currencies. Expectations for higher U.S. growth boosted bond yields and estimates for the Fed's tightening cycle, which made the yield differential versus non-U.S. bonds more attractive. Concerns about protectionist policies may also have played a role, as the Mexican peso (MXN) sank to an all-time low.

U.S. Trade-Weighted Dollar

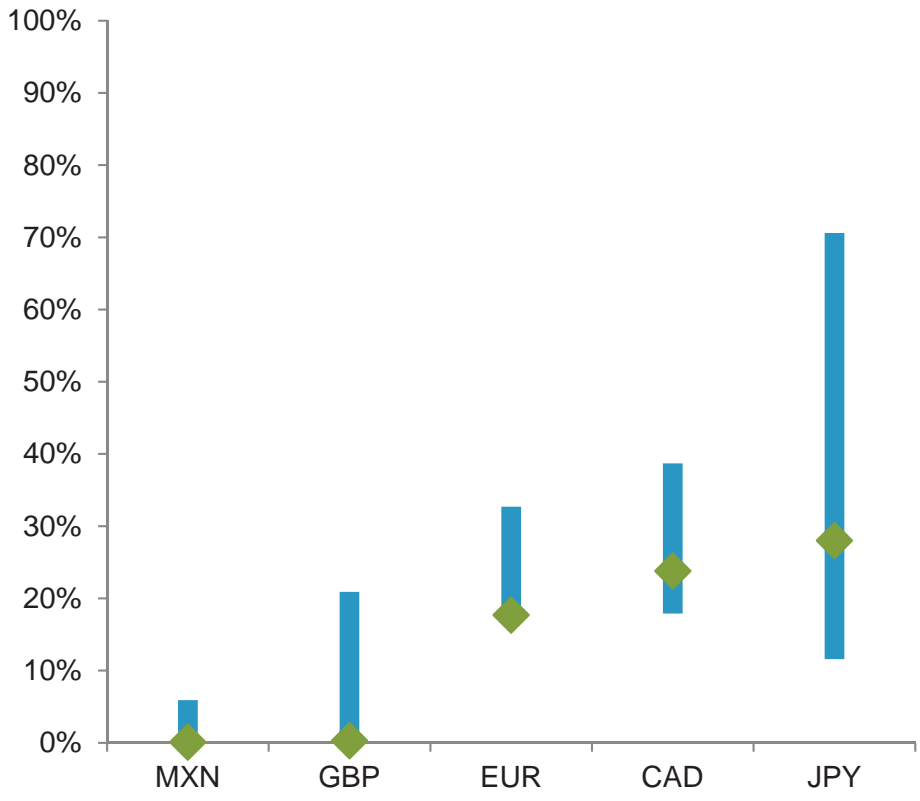
Index Level



Valuation of Major Currencies vs. USD

— Last 12-Month Range ◆ Year-End 2016

Percentile vs. History



LEFT: Trade-weighted U.S. dollar against major currencies. Source: Federal Reserve Board, Haver Analytics, Fidelity Investments (AART), as of 12/23/16. **RIGHT:** Percentiles include period 2000-2016. Source: Federal Reserve Board, Haver Analytics, Fidelity Investments (AART), as of 12/23/16.



Theme: Rates and Inflation—A Secular Shift?

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).

DYNAMIC ASSET ALLOCATION TIMELINE

HORIZONS

Secular

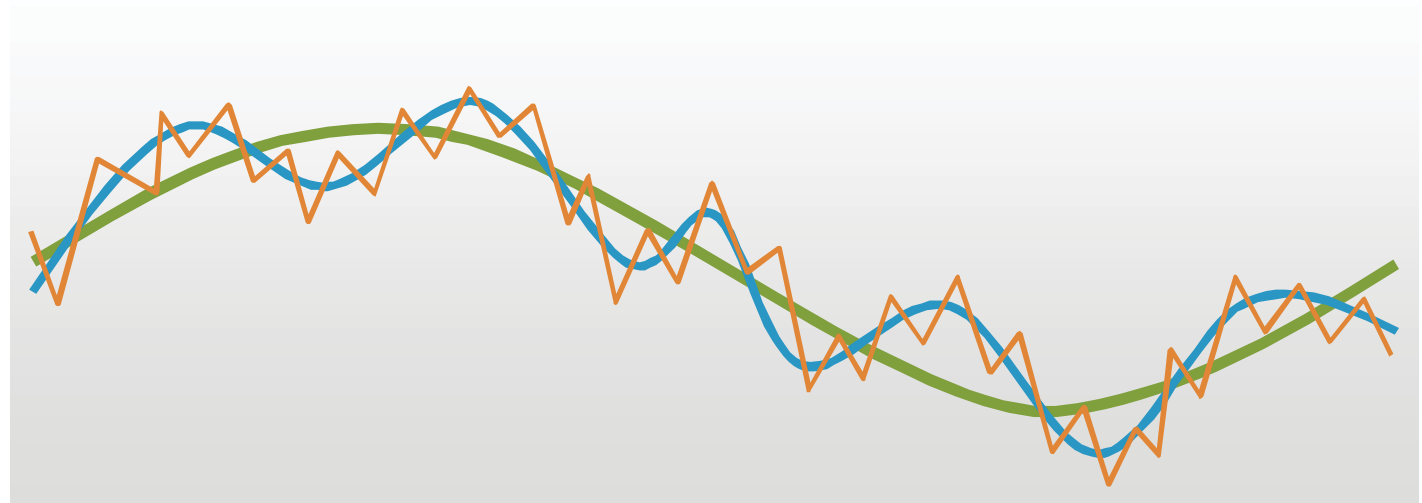
(10–30 years)

Business Cycle

(1–10 years)

Tactical

(1–12 months)



Portfolio Construction

Asset Class | Country/Region | Sectors | Correlations

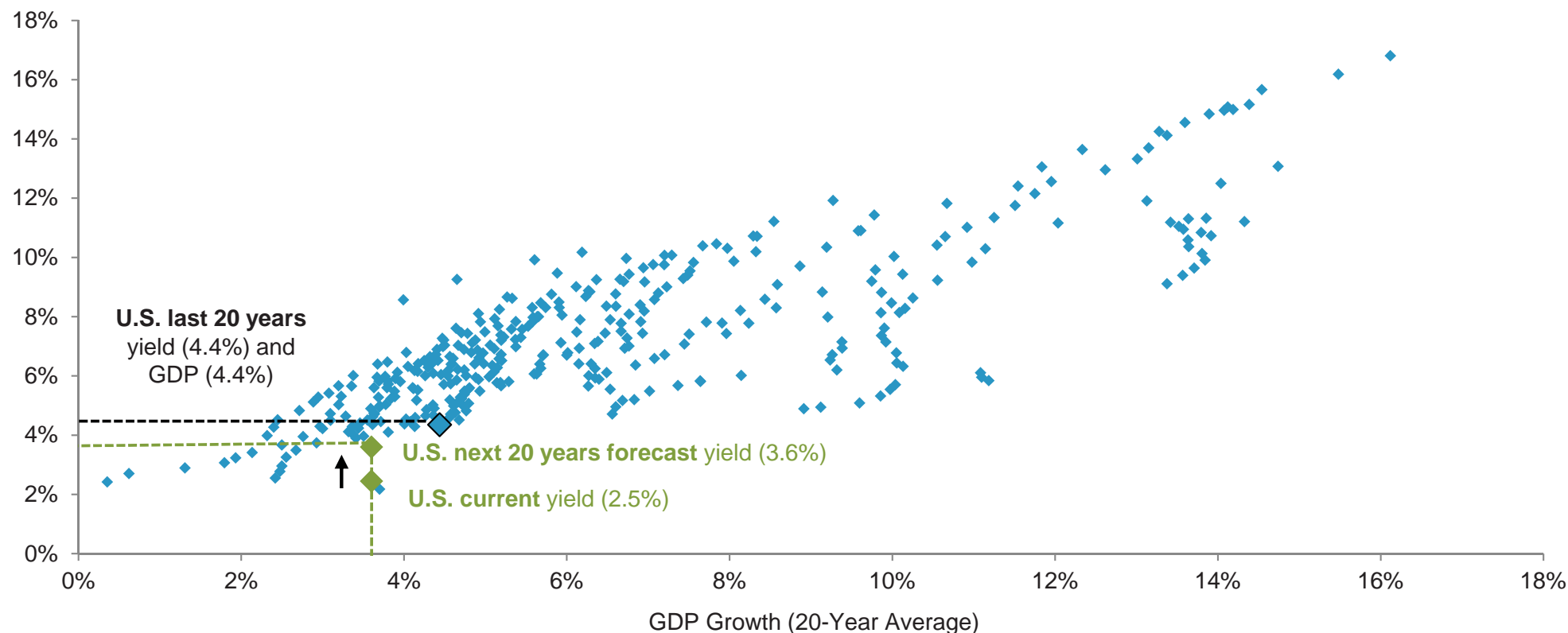
Secular Rate Outlook: Higher than Now, Lower than History

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 closer to our 3.6% nominal GDP forecast, but this implies they would settle at a significantly lower level than their historical average.

Nominal Government Bond Yields and GDP Growth

◆ U.S. Secular Growth Forecast ◆ Historical Observations of Various Countries

10-Year Sovereign Yield (20-Year Average)



Source: Official Country Estimates, Haver Analytics, Fidelity Investments (AART), as of 12/31/16.

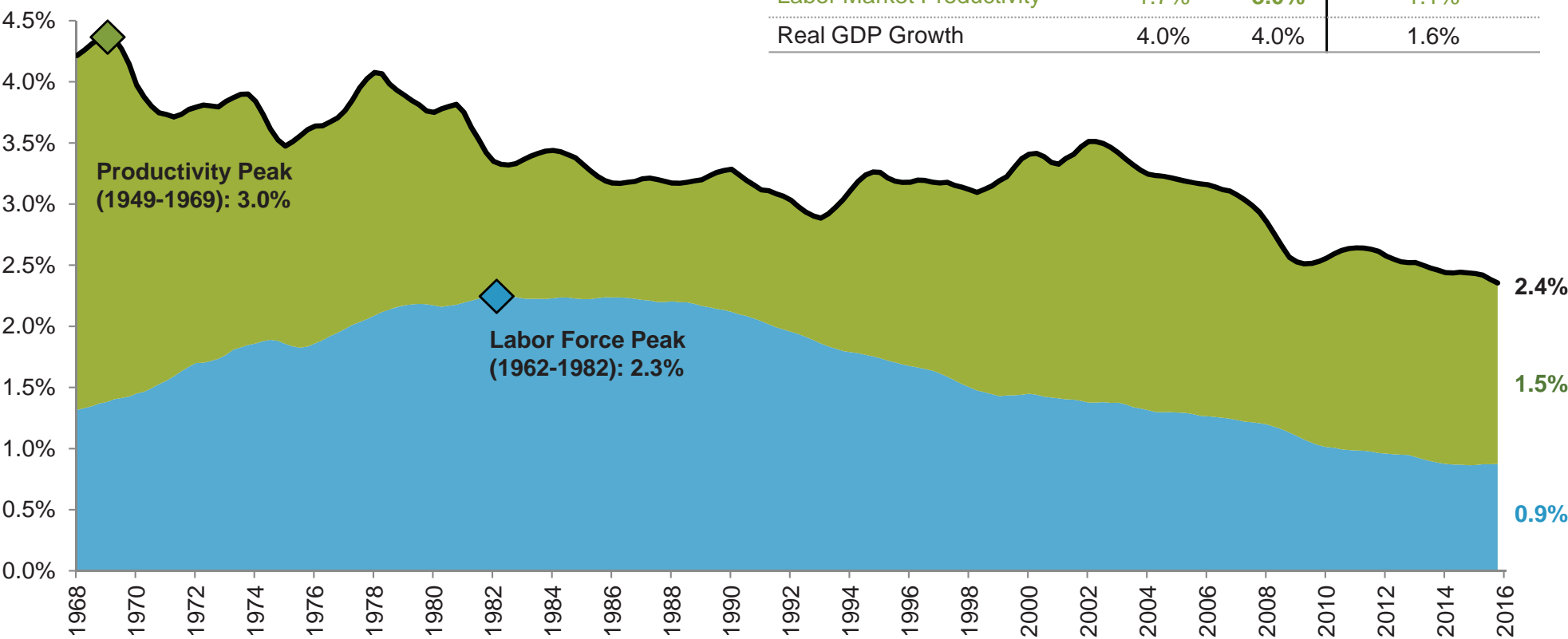
Four Percent GDP Growth Not Likely Over the Long Run

Government policies can induce a cyclical boost to higher economic growth rates, but a jump to 4% GDP growth on a secular basis would require some unlikely developments. Labor force growth would need to accelerate back to peak levels seen in the 1960-'70s or productivity would need to rise to the pace of the post-war 1950-'60s boom. With slower population growth and aging demographics, a sustained growth surprise is a tough proposition.

Real GDP Components

■ Labor Force ■ Productivity — Real GDP

Year-over-Year Growth (20-Year Average)



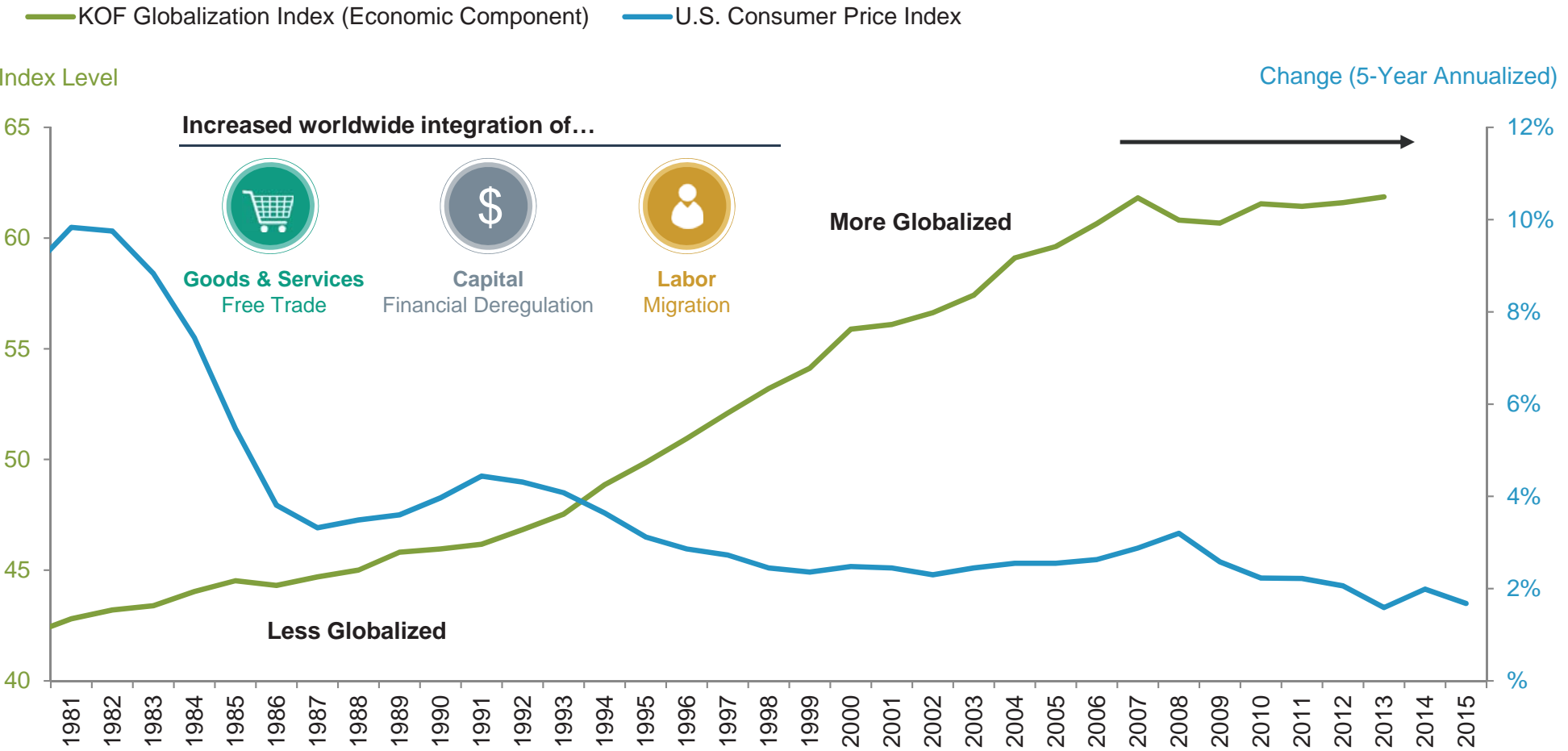
Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Haver Analytics, Fidelity Investments (AART), as of 9/30/16.



Peak Globalization Removes Disinflationary Factor

During the past few decades, the increase in trade and commercial integration allowed multinational companies to build global supply chains and access cheaper labor around the world. This rapid increase in globalization provided a secular disinflationary trend to U.S. prices. The secular rise in globalization may have hit a peak amid political pressures against integration, which would provide an incremental source of inflation.

Globalization and Inflation



KOF = KOF Swiss Economic Institute. Source: KOF, International Monetary Fund (IMF), World Bank, Haver Analytics, Fidelity Investments (AART), as of 12/31/15. For Educational Purposes Only.



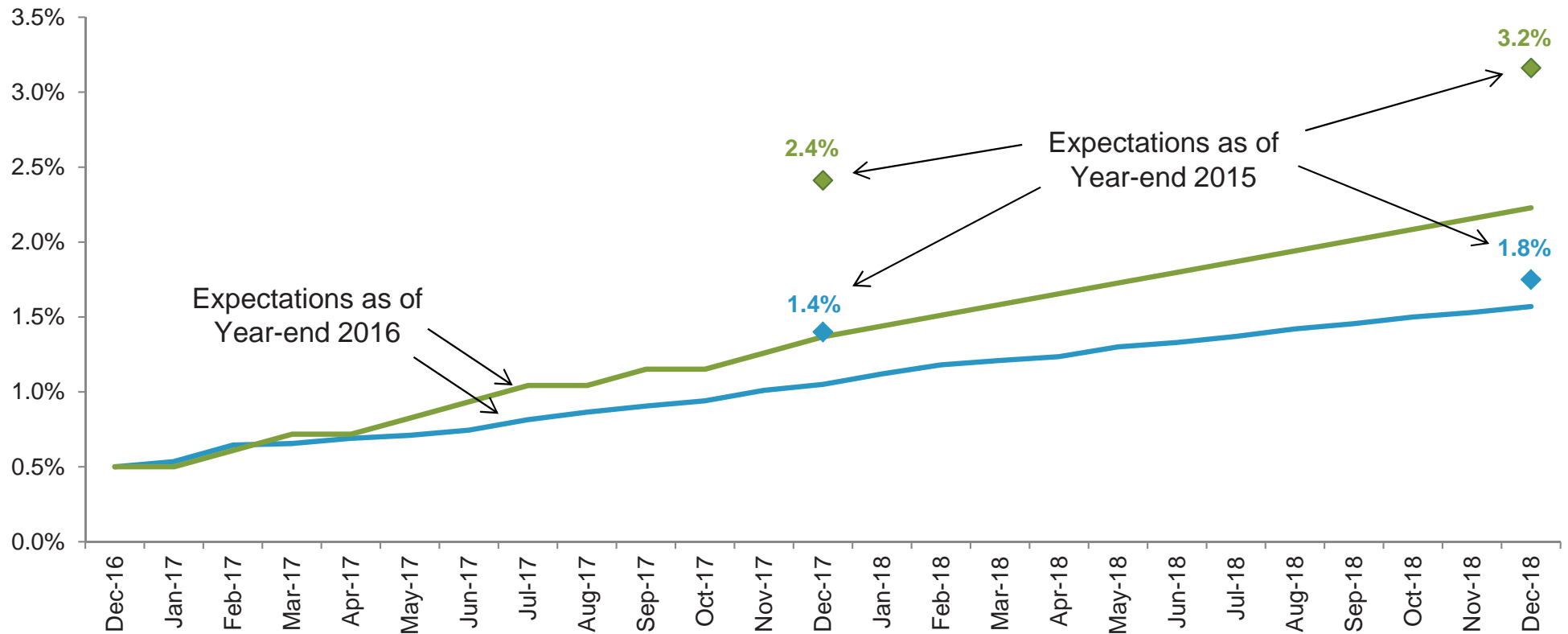
Fed Hiked Rates; Tightening Outlook Now Close to Market's

The Federal Reserve continued its tightening cycle by hiking policy rates for the second time in December, marking progress toward greater monetary normalization. As of the end of 2016, the Fed and investor outlooks converged on expectations for at least two more hikes in 2017, closing much of a large expectations gap in the future interest-rate path from one year ago.

Implied FOMC and Market Expectations of Fed Funds Tightening Cycle

— Fed Funds Futures Market as of Year-end 2016 — FOMC as of Year-end 2016

Expected Fed Funds Rate



Fed: Federal Reserve. FOMC: Federal Open Market Committee. Bps: basis points. Market Fed Funds rate hike expectations calculated using daily generic Fed Funds futures contracts out 36 months. FOMC rate hike expectations calculated using the weighted average of the participants of the Federal Reserve System's appropriate pace of policy firming survey results. Source: Federal Reserve, Bloomberg Finance L.P., Fidelity Investments (AART), as of 12/31/16.



Central Banks May Be Seeing Limits of Monetary Policy

Major central banks in Japan and Europe have enacted negative policy rates, but the real-world impact of these rates provoked declines in bank share prices and may run counter to several of their intended goals. During 2H 2016, the BOJ and ECB did not lower policy rates further into negative territory. The steepening in yield curves that followed may obviate the need for additional extraordinary monetary easing.

Negative Policy Rate Considerations

Intended Central Bank Goals

- Stimulates consumption
- Incentivizes bank lending
- Reduces debt service burden
- Weakens currency

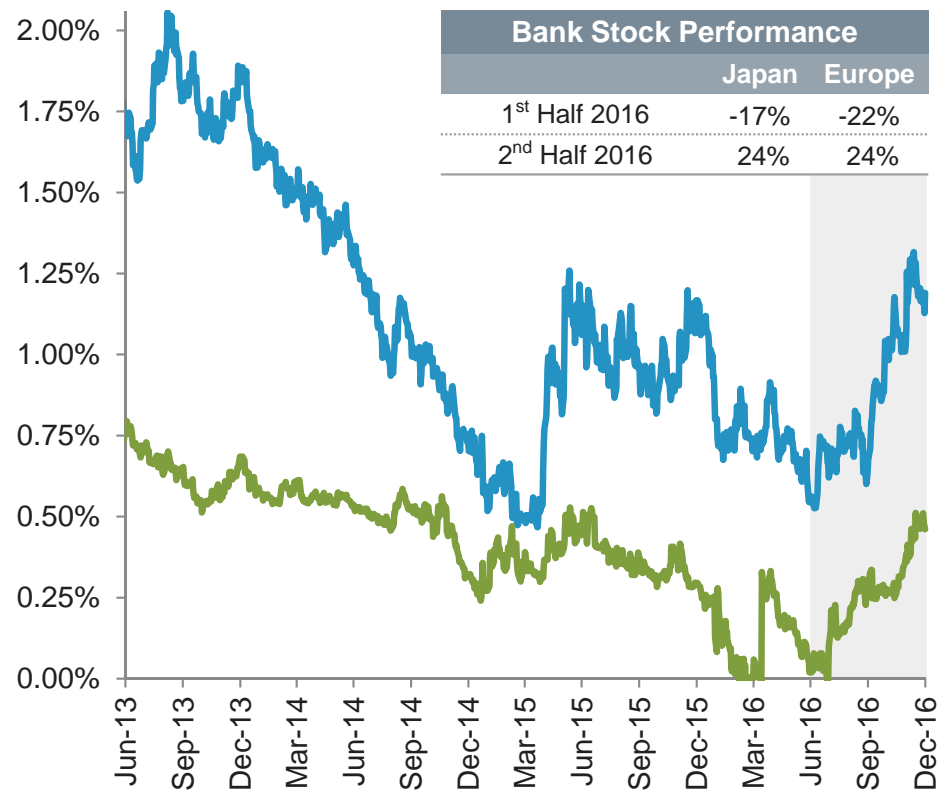
Unintended Consequences

- Reduces return potential: households, pensions, insurers save
- Hurts bank margins, reduces loan supply
- Keeps weak firms alive, lowers productivity
- Currencies have strengthened

Sovereign Bond Yield Curve Spreads

Germany Japan

Yield Curve (10-Year minus 3-Month)



Source: Bloomberg Finance L.P., Fidelity Investments (AART), as of 12/31/16.



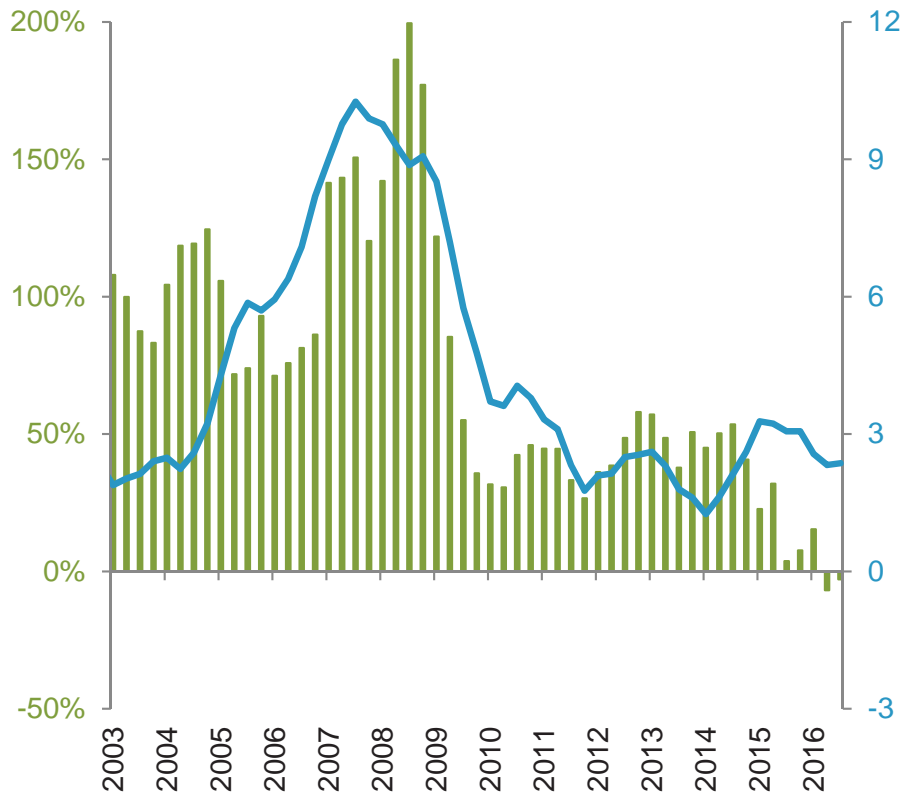
Shift Away from China Savings and toward Fiscal Policy

Unlike a decade ago when record Chinese current-account surpluses were circulated back into massive buying of U.S. Treasury bonds, China's move to a large fiscal expansion during the past year has resulted in a downshift in global savings. With most major industrialized countries poised to end multi-year austerity and shift to easier fiscal stances, these developments could continue to put upward pressure on interest rates.

China Savings vs. Foreign Treasury Purchases

■ Foreign Purchases of U.S. Treasuries — China Current Account

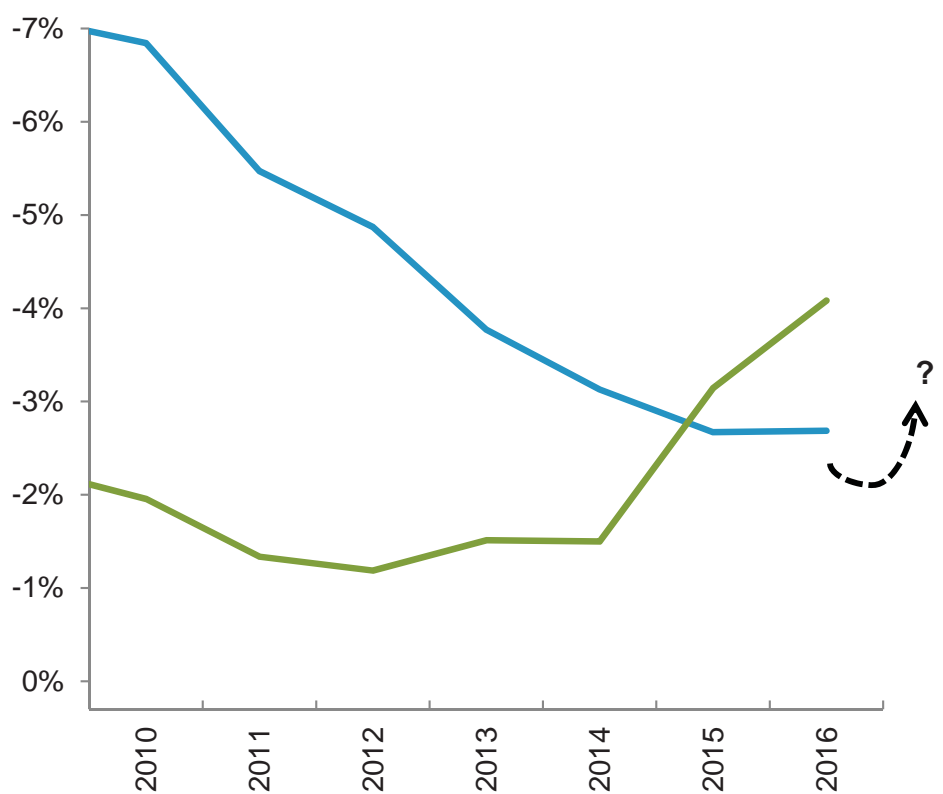
Share of Net Issuance (green) Share of GDP (%) (blue)



Fiscal Deficits

— G-7 — China

Share of GDP

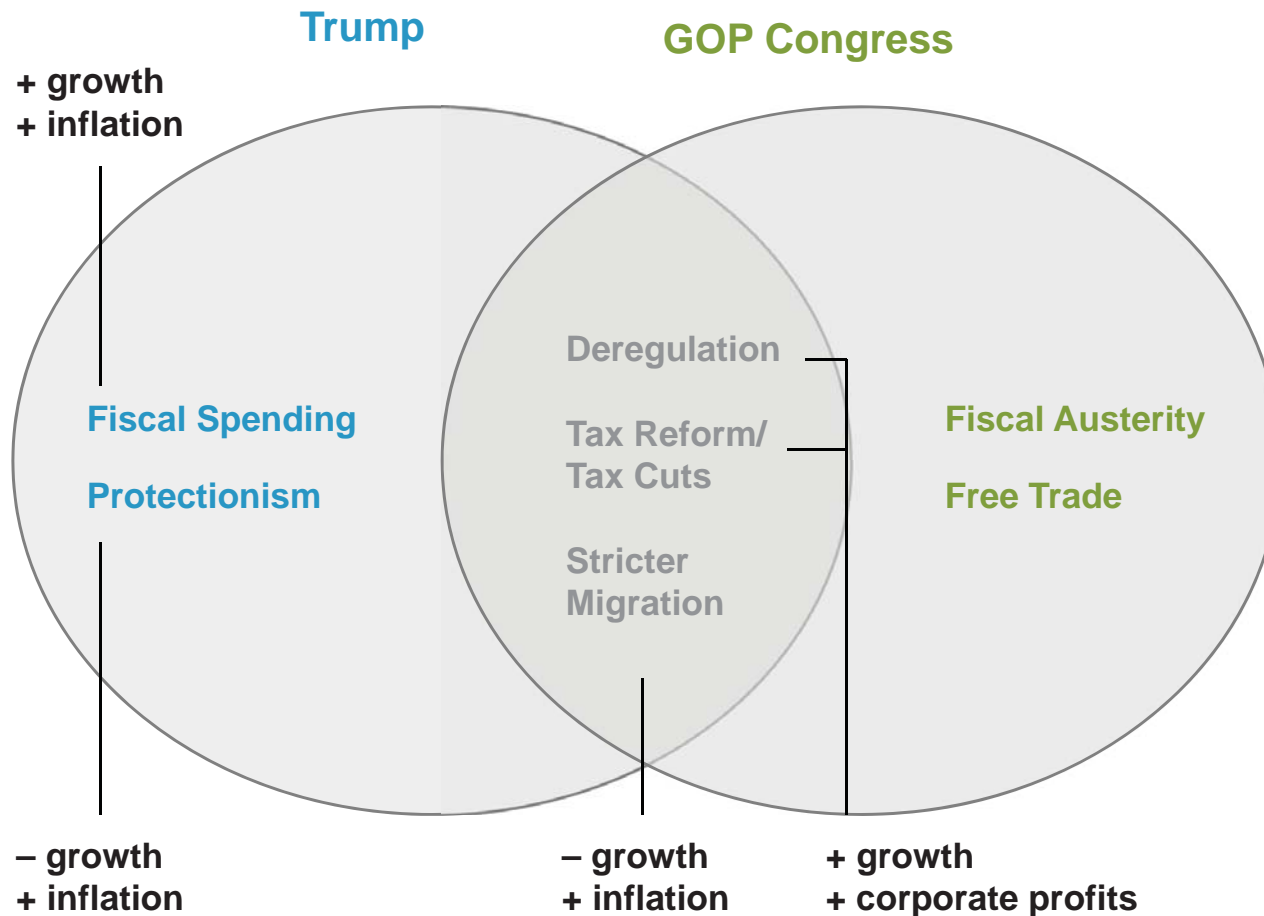


LEFT: Source: Federal Reserve Board, State Administration of Foreign Exchange, Haver Analytics, Fidelity Investments (AART), as of 9/30/16.

RIGHT: Source: China National Bureau of Statistics, OECD. 2016 data for OECD are estimates. Haver Analytics, Fidelity Investments (AART), as of 12/31/16.

Outlook Reflects a Wide Distribution of U.S. Policy Outcomes

The cyclical outlook for interest rates and inflation will be influenced by potential changes in U.S. economic policy. Trump and the GOP Congress intersect on pro-growth policies, including deregulation and corporate tax cuts. However, the two sides have different views of fiscal and trade policy. Many of these policies tend to boost inflation, making an upside risk to prices the most likely outcome regardless of the policy mix.

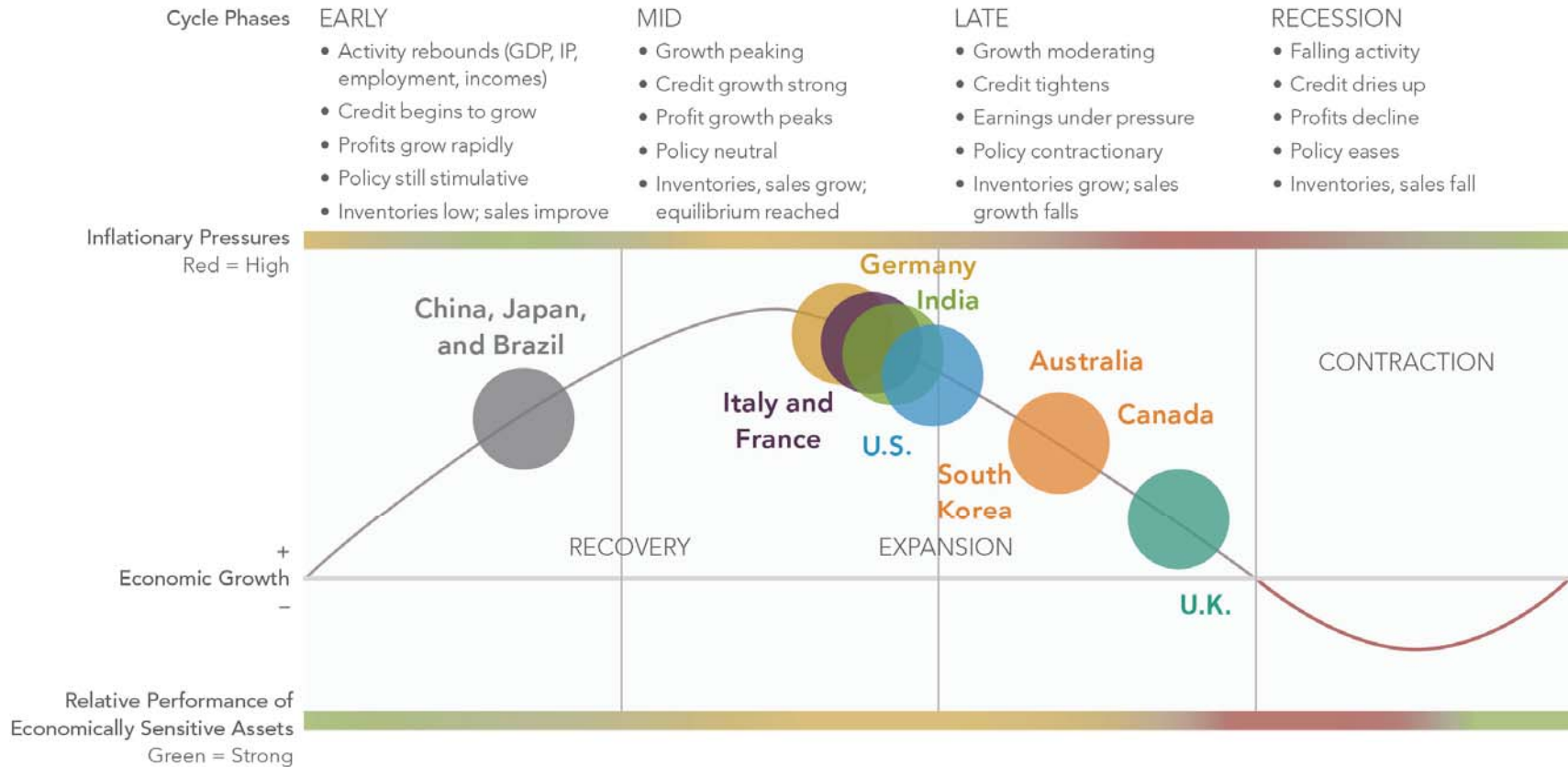


Economy/Macro Backdrop

Global Expansion Persists; Policy Outcomes Key

The global business cycle is in decent shape entering 2017, although it faces both a maturing profile and a staggering range of potential policy outcomes. The general shape of the outlook is highly dependent on the direction of the U.S., but broadly speaking most of the developed world is in the mid to late stages of economic expansion, and China’s improved cyclical trajectory has helped boost many emerging market economies.

Business Cycle Framework



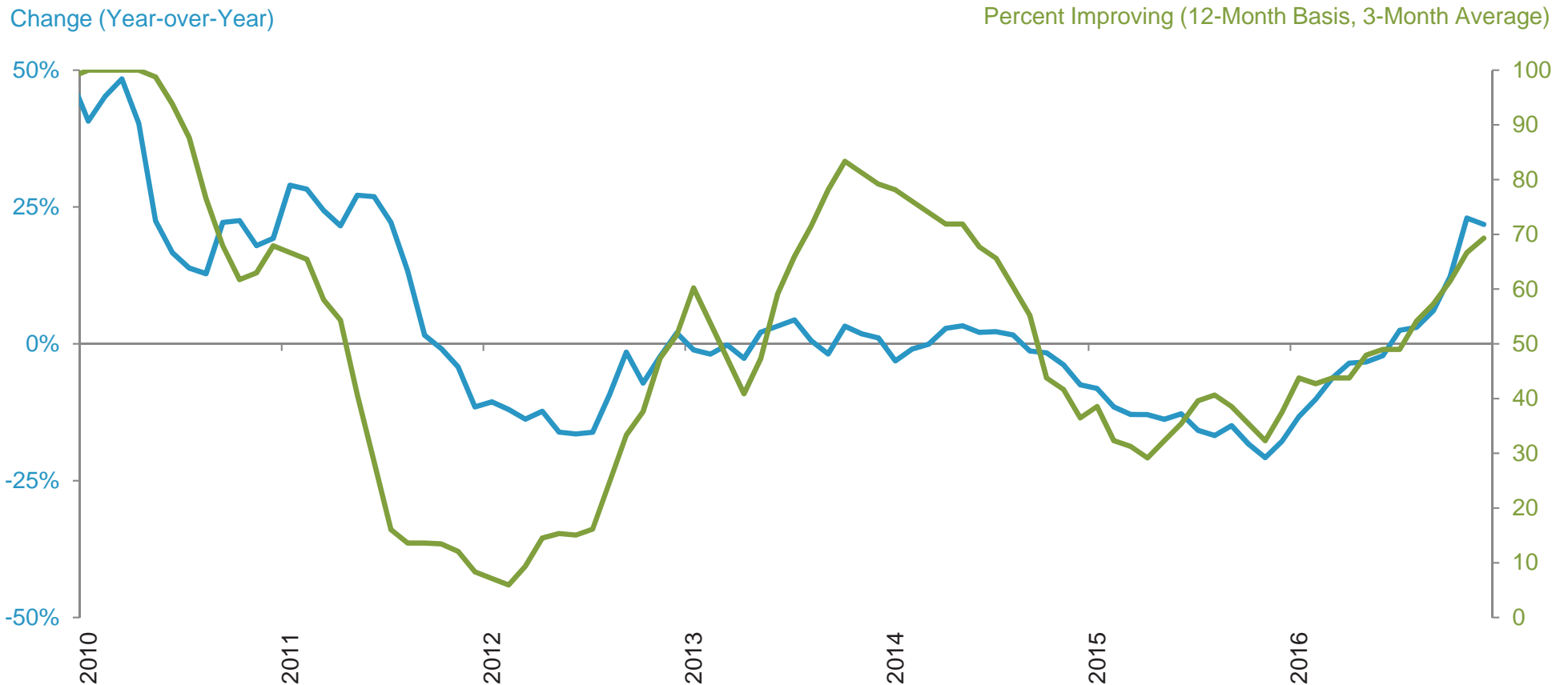
Note: The diagram above is a hypothetical illustration of the business cycle. There is not always a chronological, linear progression among the phases of the business cycle, and there have been cycles when the economy has skipped a phase or retraced an earlier one. *A growth recession is a significant decline in activity relative to a country’s long-term economic potential. We have adopted the “growth cycle” definition for most developing economies, such as China, because they tend to exhibit strong trend performance driven by rapid factor accumulation and increases in productivity, and the deviation from the trend tends to matter the most for asset returns. We use the classic definition of recession, involving an outright contraction in economic activity, for developed economies. Source: Fidelity Investments (AART), as of 12/31/16.

Global Activity Reaccelerating, Deflationary Pressures Ebbing

In 2016, China's stabilization was a key factor in ending the steep global trade recession, which led to a reacceleration in global growth. Global manufacturing activity recovered, and raw industrials prices experienced their first sustained increase since 2011. The outlook for 2017 is for modest cyclical traction, abating global deflationary pressures, and a low probability of global recession.

Global Commodity Prices and Manufacturing Activity

— Raw Industrials Prices — Manufacturing PMIs

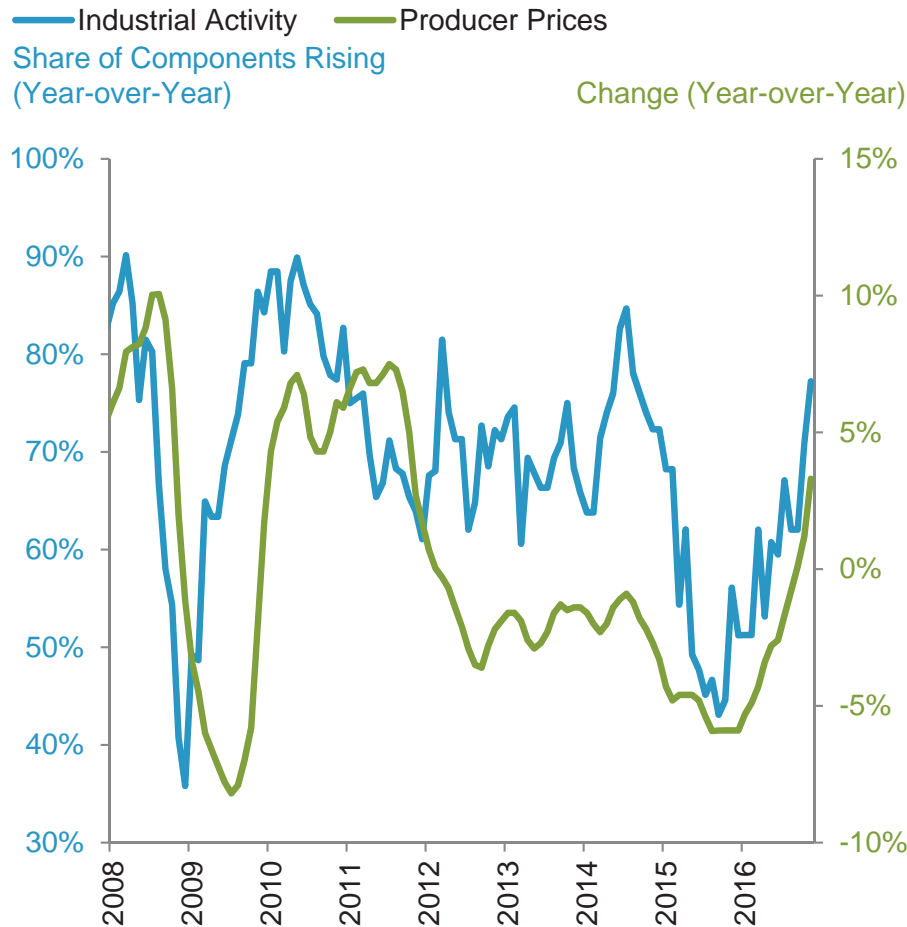


PMI = Purchasing Managers' Index. Series includes PMIs for 32 countries and reflects share of countries with PMIs higher on a year-over-year basis. Source: Commodity Research Bureau, Markit, Haver Analytics, Fidelity Investments (AART), as of 12/31/16.

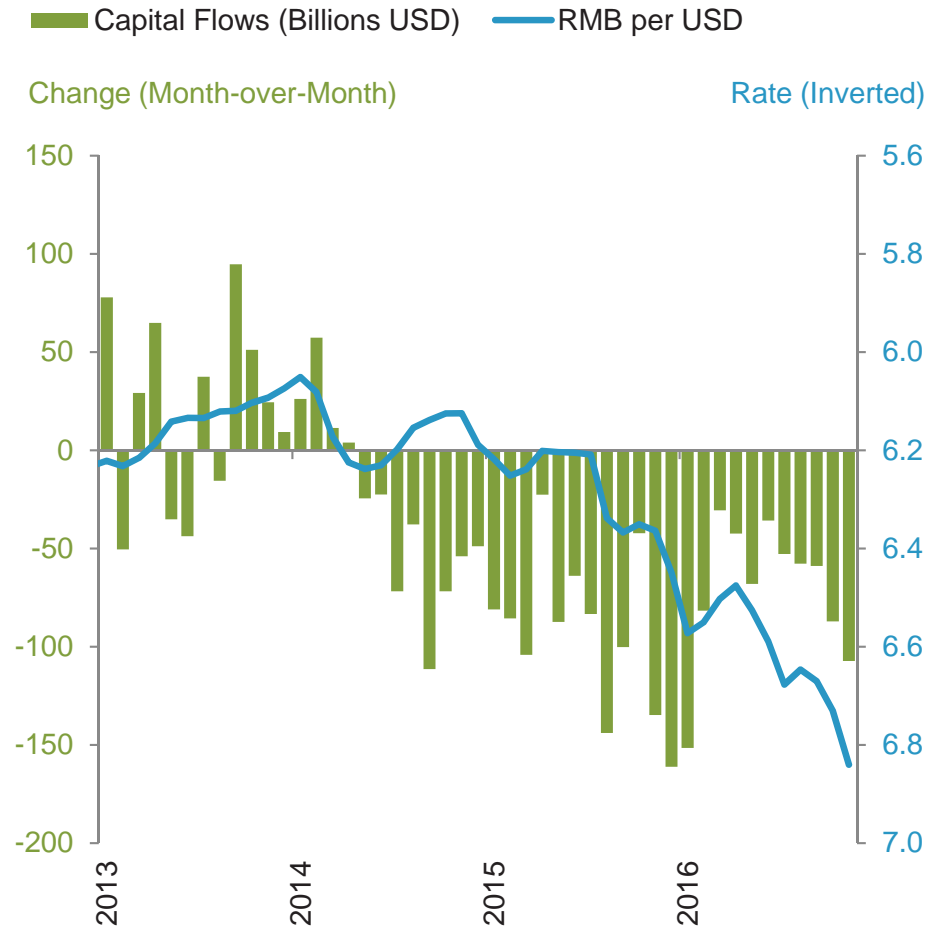
China's Economy Strengthened Cyclically, but Risks Remain

Driven by accommodative fiscal and monetary policy, China's economy rebounded from its 2015 growth recession during 2016. Industrial activity reached multiyear highs, and producer prices rose into positive year-over-year territory for the first time since 2012. However, given the massive build-up of corporate leverage in recent years, the pace of capital outflows remain a risk to the renminbi and China's financial stability.

China Industrial Activity and Prices



China Foreign Reserves and FX



BOTH: Source: China National Bureau of Statistics, Haver Analytics, Fidelity Investments (AART), as of 11/30/16.

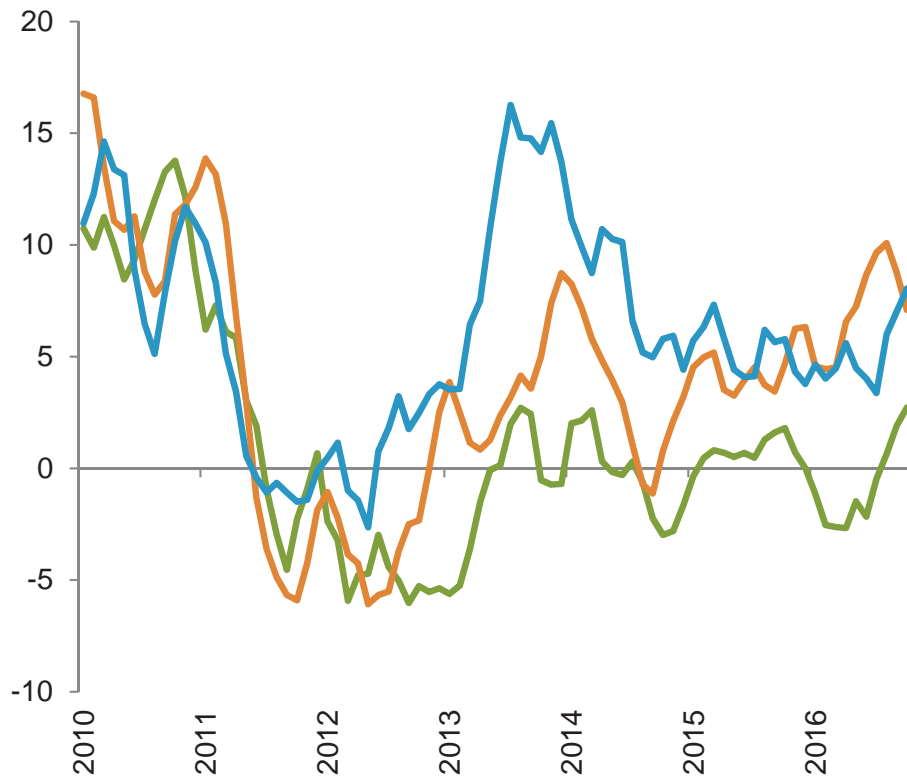
Europe Expansion Intact, though Political Risks Abound

Europe continues to experience a sluggish expansion. The U.K. and the European Union have been able to shrug off post-Brexit headwinds, as industrial activity has recovered and economic expectations have risen across several large developed economies. The political environment poses risks in 2017, as investors will be concerned about the potential for populist parties to gain power in several core-country elections.

Manufacturing Bullwhip

— France — Germany — U.K.

New orders PMI less inventories PMI (3-Month Average)



2017 European Political Events

Event	Date
Netherlands National Elections	March
Brexit Notification	March
France Presidential Election	April/May
Germany National Elections	October
Possible Italian Parliamentary Elections	?

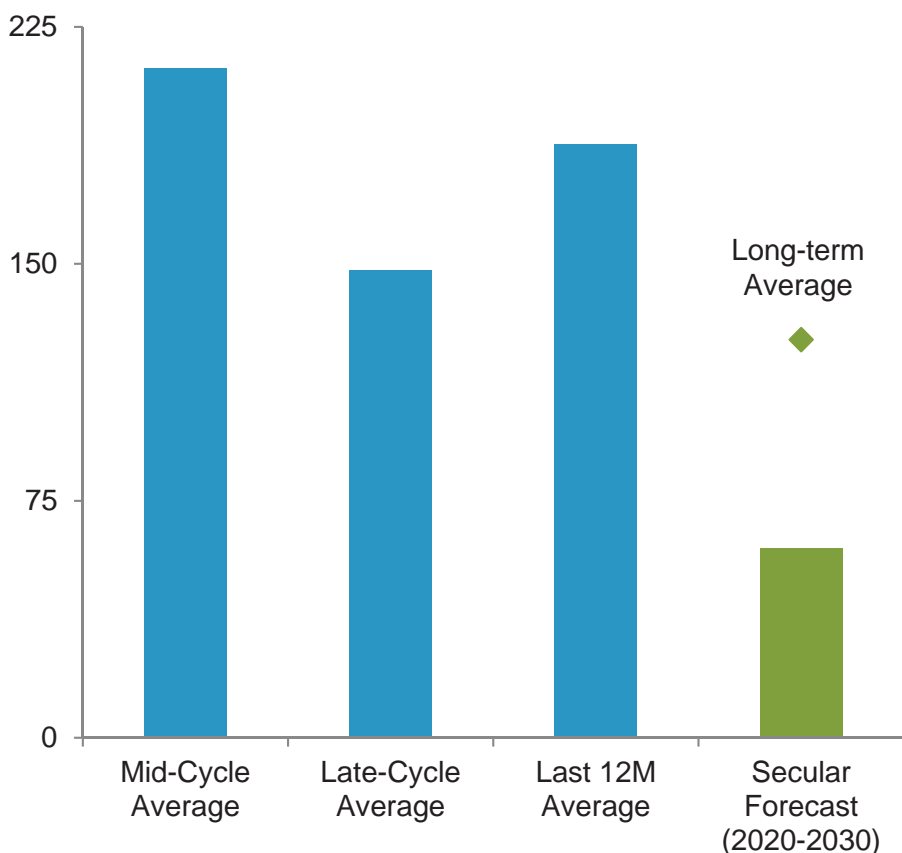
LEFT: Source: Markit, Haver Analytics, Fidelity Investments (AART), as of 11/30/16. RIGHT: Fidelity Investments (AART), as of 12/31/16.

Tight U.S. Labor Markets Are Generating Wage Inflation

In 2016, the pace of hiring in the U.S. slowed but remained solid, labor market slack continued to fade, and wage inflation accelerated meaningfully. These trends are consistent with historical later-cycle dynamics and a positive outlook for consumer spending. Aging demographics suggest the U.S. will need to add just 60,000 jobs per month by 2020, implying that labor markets can keep tightening even amid slower job growth.

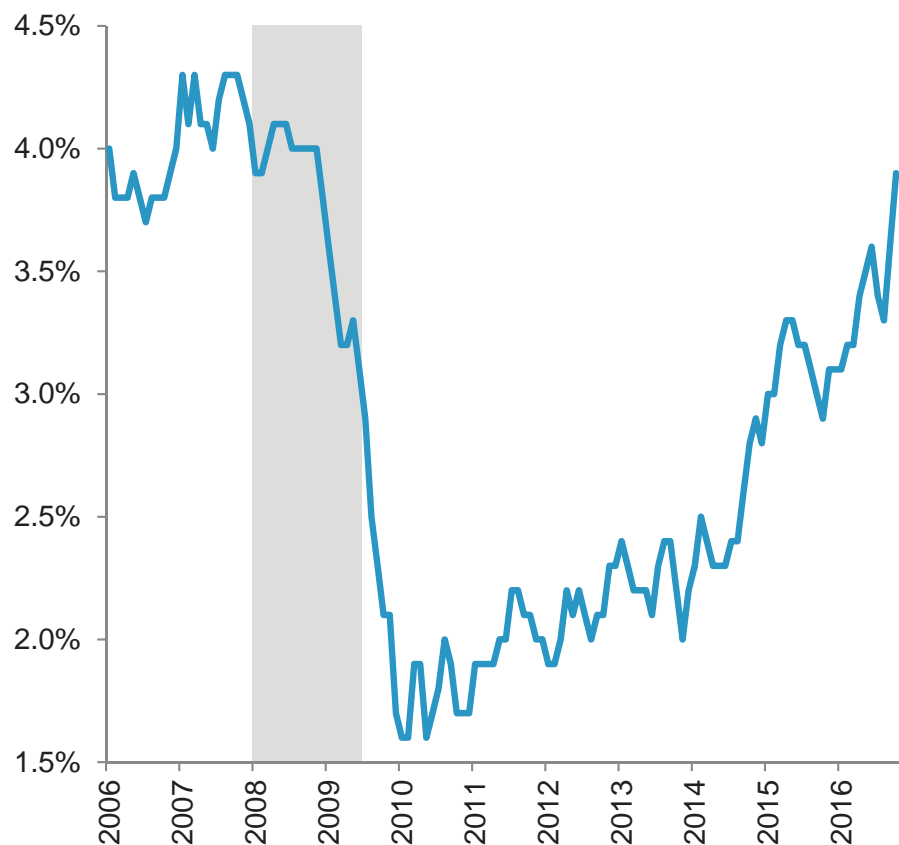
Monthly Payroll Gains, 1950–2016

Thousands



Atlanta Fed Wage Growth Tracker

Rate



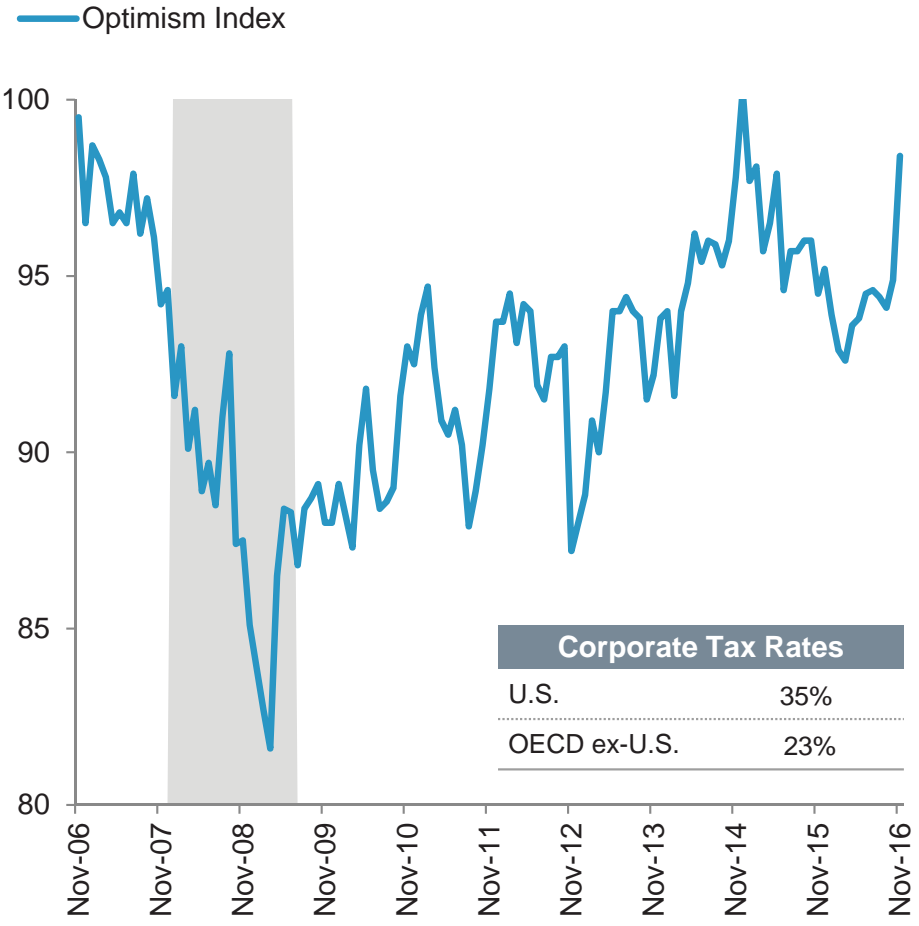
LEFT: Source: Bureau of Labor Statistics, Haver Analytics, Fidelity Investments (AART), as of 11/30/16. **RIGHT:** Shading represents U.S. economic recession as defined by the National Bureau of Economic Research (NBER). Source: Federal Reserve, NBER, Haver Analytics, Fidelity Investments (AART), as of 11/30/16.



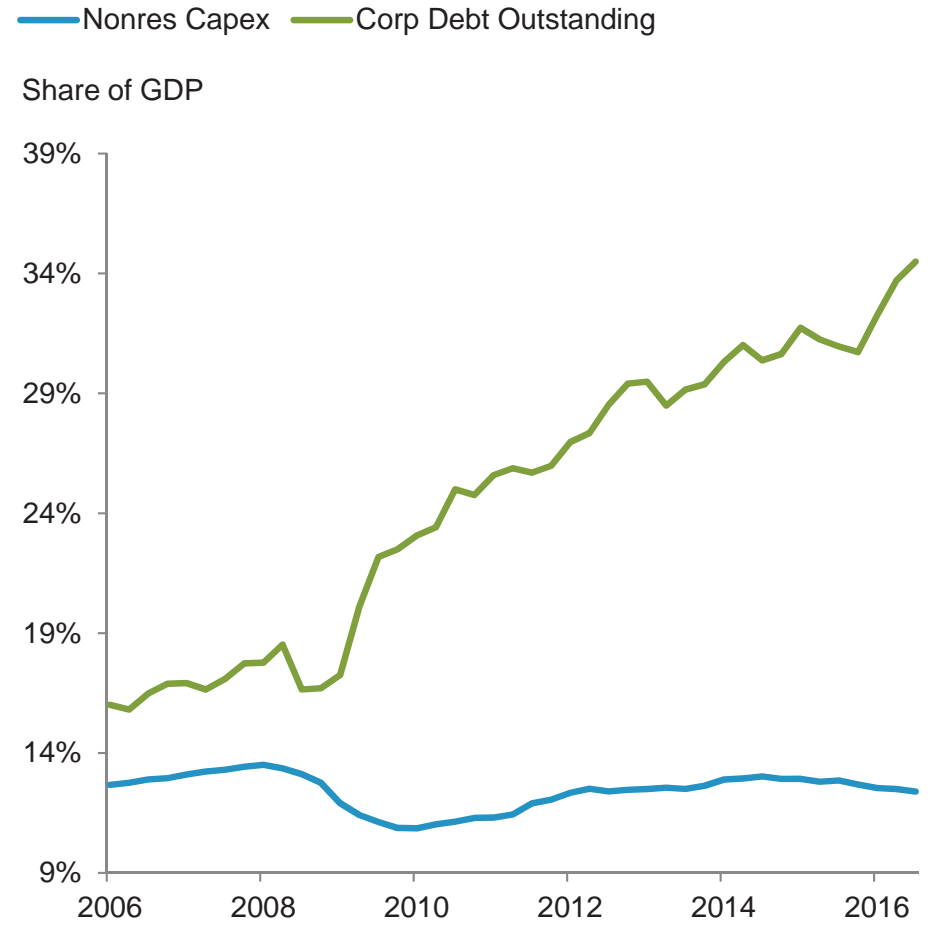
Animal Spirits for the Business Sector in 2017?

Small business owner optimism rose meaningfully following the U.S. election, on hopes that the new administration will enact business-friendly changes, including corporate tax cuts and deregulation. Corporate fundamentals remained solid in 2016, but businesses have continued to add debt without increasing the pace of investment, a trend some policy proposals may be aimed at changing.

NFIB Small Business Sentiment



U.S. Nonresidential Capex vs. Corporate Debt

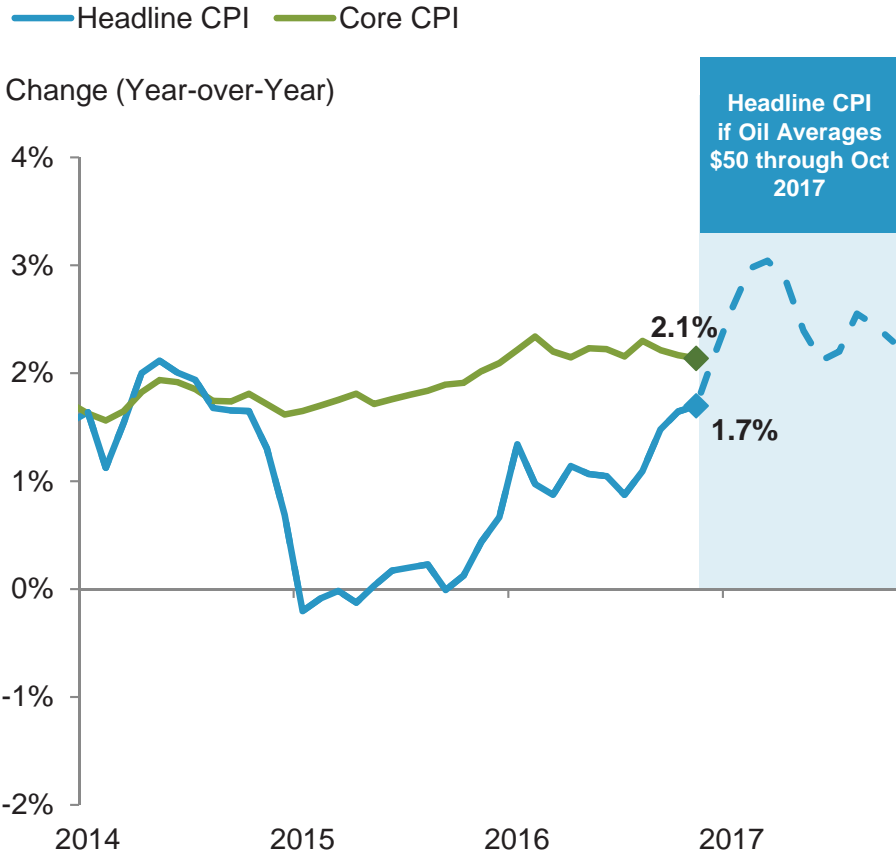


LEFT: Source: National Federation of Independent Business, NBER, Haver Analytics, Fidelity Investments (AART), as of 11/30/16. **RIGHT:** Total amount of bonds in the Bloomberg Barclays U.S. Corporate IG and HY Bond Indices. High yield bonds have ratings of BB or lower as determined by Bloomberg Barclays with S&P/Moody's and Fitch credit ratings. Sources: Barclays, Bureau of Economic Analysis, Haver Analytics, Fidelity Investments (AART), as of 9/30/16.

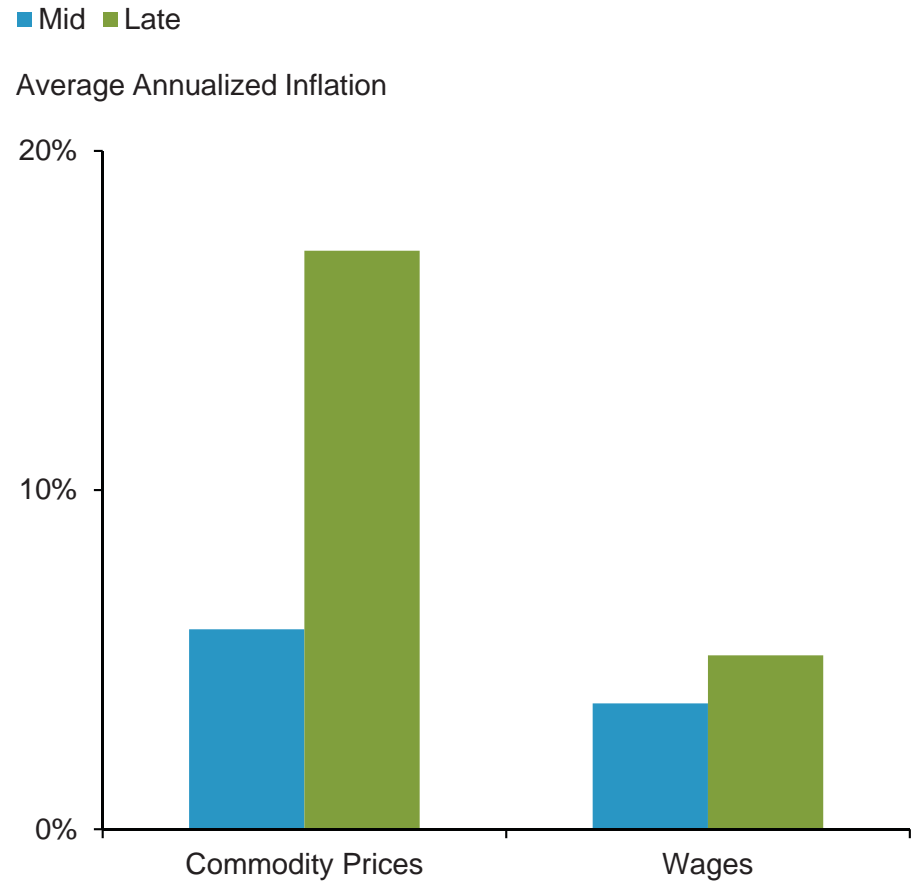
Inflation Impulse Is Typically a Key to Late-Cycle Transition

With core inflation in the U.S. already firm, a continued stabilization in energy prices will begin to push headline inflation higher on a year-over-year basis during Q1. The transition from a mid-cycle to a late-cycle phase typically involves a pickup in commodity prices and wages. These rising input-cost pressures adversely affect profit margins and credit conditions and induce monetary tightening.

U.S. Inflation: The Base Effect



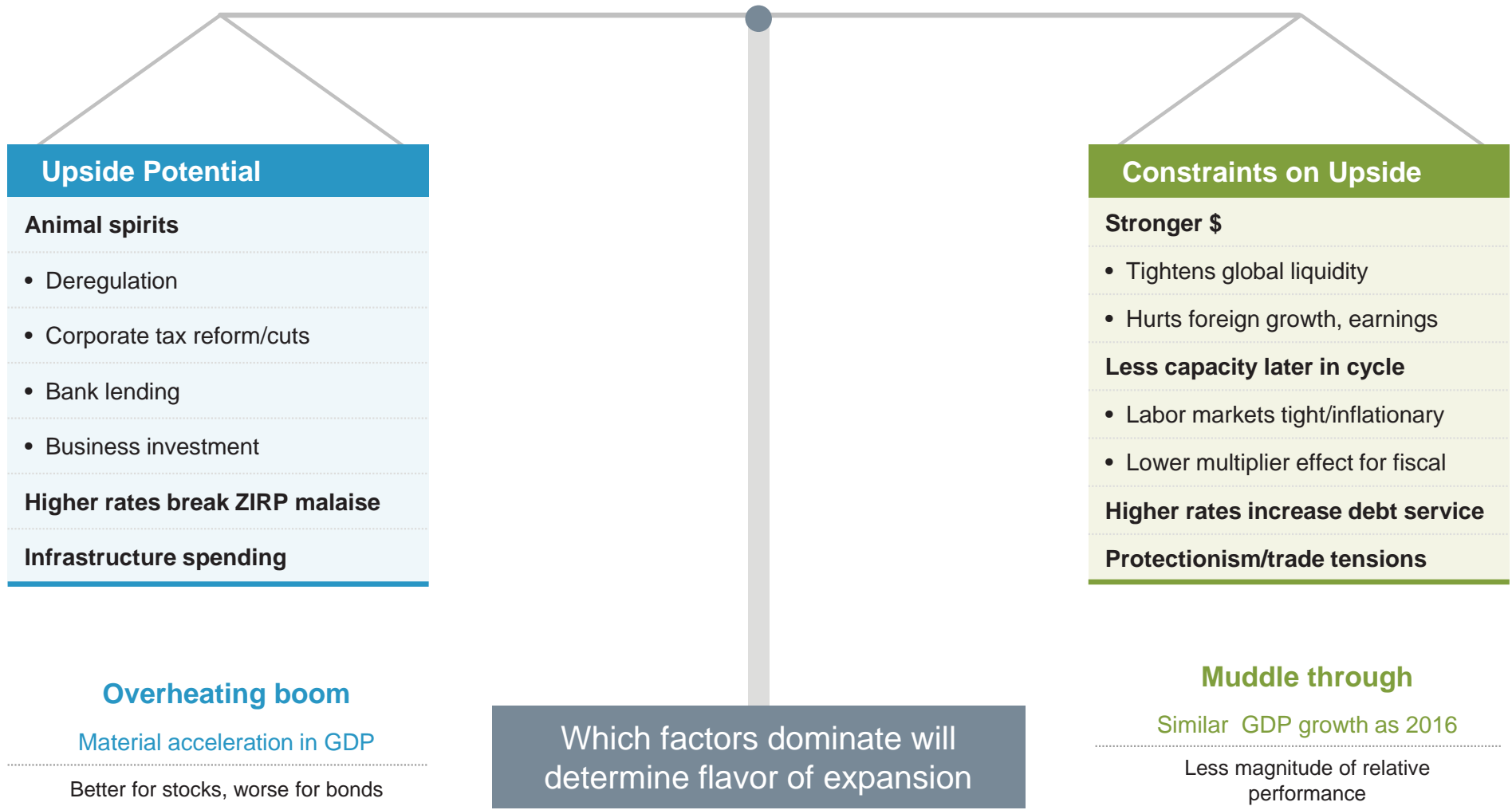
Mid- vs. Late-Cycle Inflation, 1966–2010



LEFT: Scenario assumes core CPI and food cost growth rates remain constant and vary only by the cost of oil each month. Sources: Bureau of Labor Statistics, Haver Analytics, Fidelity Investments (AART), as of 11/30/16. **RIGHT:** Fidelity Investments proprietary analysis of historical commodity performance, using data from BP Statistical Review of World Energy, U.S. Department of Agriculture, U.S. Geological Survey, and U.S. Foreign Agricultural Service. Wages = average hourly earnings. Sources: Bureau of Labor Statistics, Haver Analytics, Fidelity Investments (AART), as of 12/31/16.

Two Broad Scenarios for Growth, Both toward Late Cycle

With the details and timing of any U.S. policy changes uncertain, two general flavors of the expansion appear likely. The first would be a material acceleration in growth spearheaded by renewed business confidence, while the second may be a continued expansion at the 2016 pace. The most probable is a mix of these factors, with most combinations likely to create inflationary pressures and move the economy closer to the late cycle.



Source: Fidelity Investments (AART).

Outlook: Market Assessment

Fidelity's Business Cycle Board, composed of portfolio managers responsible for a variety of asset allocation strategies across Fidelity's asset management unit, believes that policy uncertainty may be a source of volatility in the coming months, but global recession risks remain low. At this point in the cycle, smaller cyclical allocation tilts may be warranted.

U.S. economy is between mid and late cycle, and recession risks remain low.

Political uncertainty in the global environment may incite volatility.

Pace of Fed tightening will likely be gradual.

Asset Allocation Considerations

- Less reliable relative asset performance patterns generally merit smaller cyclical tilts
- Since the U.S. election, inflation and growth have begun to be priced into the markets, but uncertainty may incite volatility in the near-term

Potential Risks

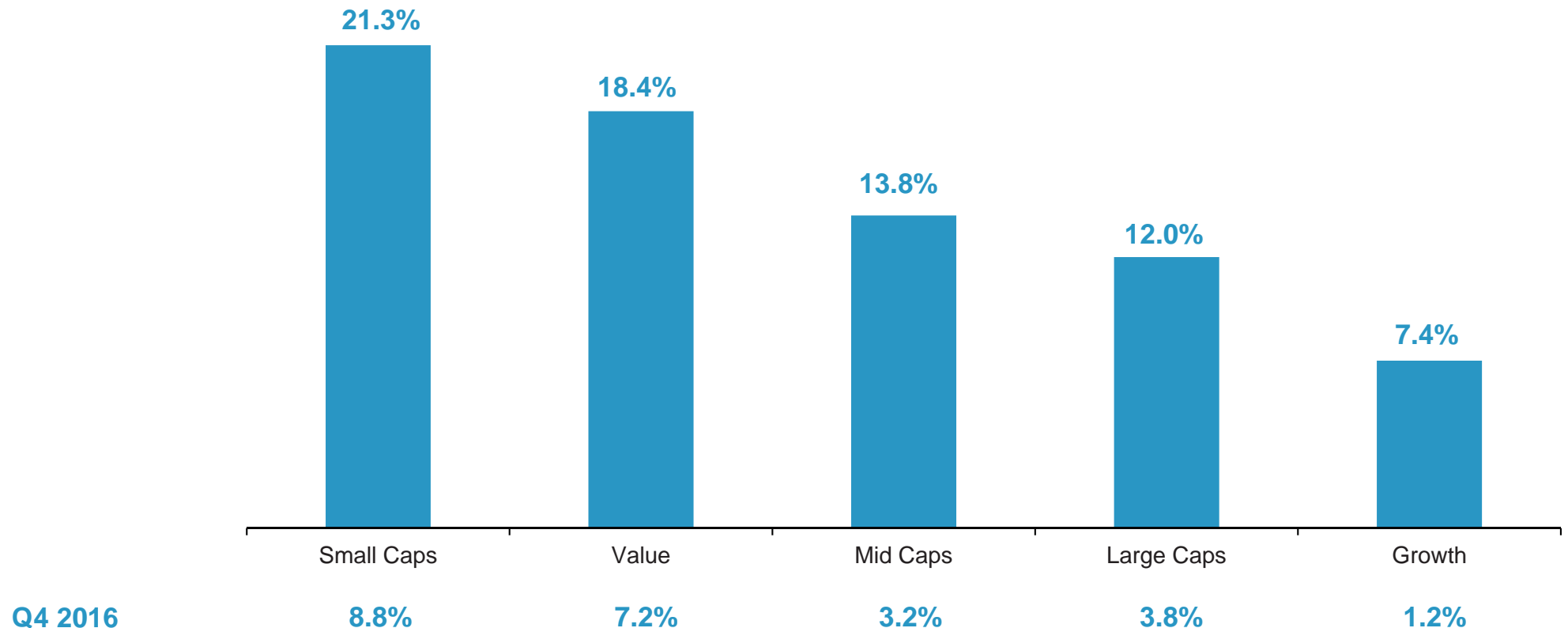
- Political environment has created a wider distribution of potential economic outcomes
- China's economy continues to face large cyclical headwinds and is one of the largest risks to the global environment

U.S. Equity Markets

Small-Cap and Value Led Widespread Gains

All major equity categories posted positive gains in the fourth quarter and throughout 2016. Small-cap and value stocks significantly outperformed their large-cap and growth counterparts, with a significant percentage of these relative gains realized in the weeks following the U.S. presidential election.

2016 Total Return

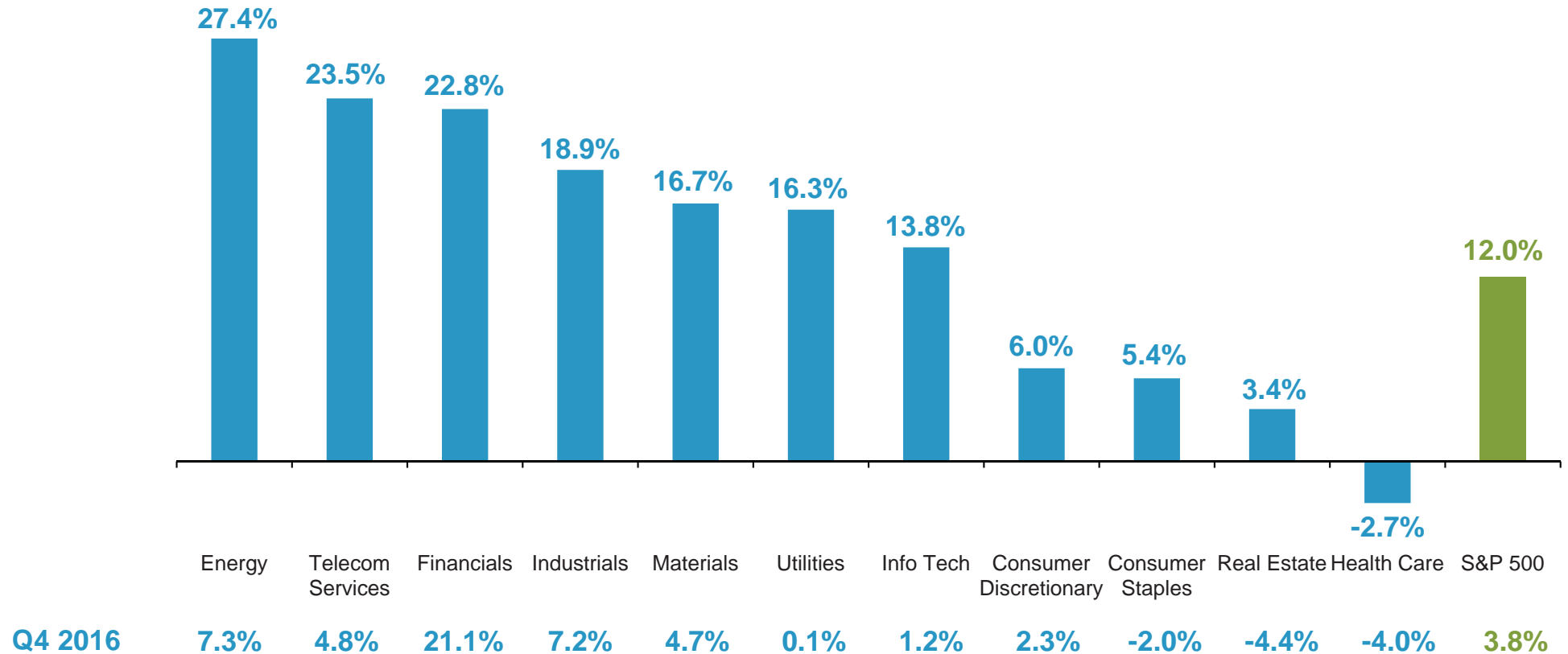


Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Equity market returns represented by: Growth – Russell 3000 Growth Index; Large Caps – S&P 500 Index; Mid Caps – Russell Midcap Index; Small Caps – Russell 2000 Index; Value – Russell 3000 Value Index. Sources: FactSet, Fidelity Investments (AART), as of 12/31/16.

Elections Boosted Cyclical, Bond Proxies Lagged in Q4

During Q4, financials climbed sharply after the election thanks to a steeper yield curve and greater prospects for deregulation, industrials rose on hopes for fiscal stimulus, and health care lagged due to a more uncertain policy environment. Bond proxies, such as real estate and consumer staples, reversed from leaders to laggards during the year's second-half rise in interest rates. Energy stocks led the way in 2016 as oil prices recovered.

2016 Total Return

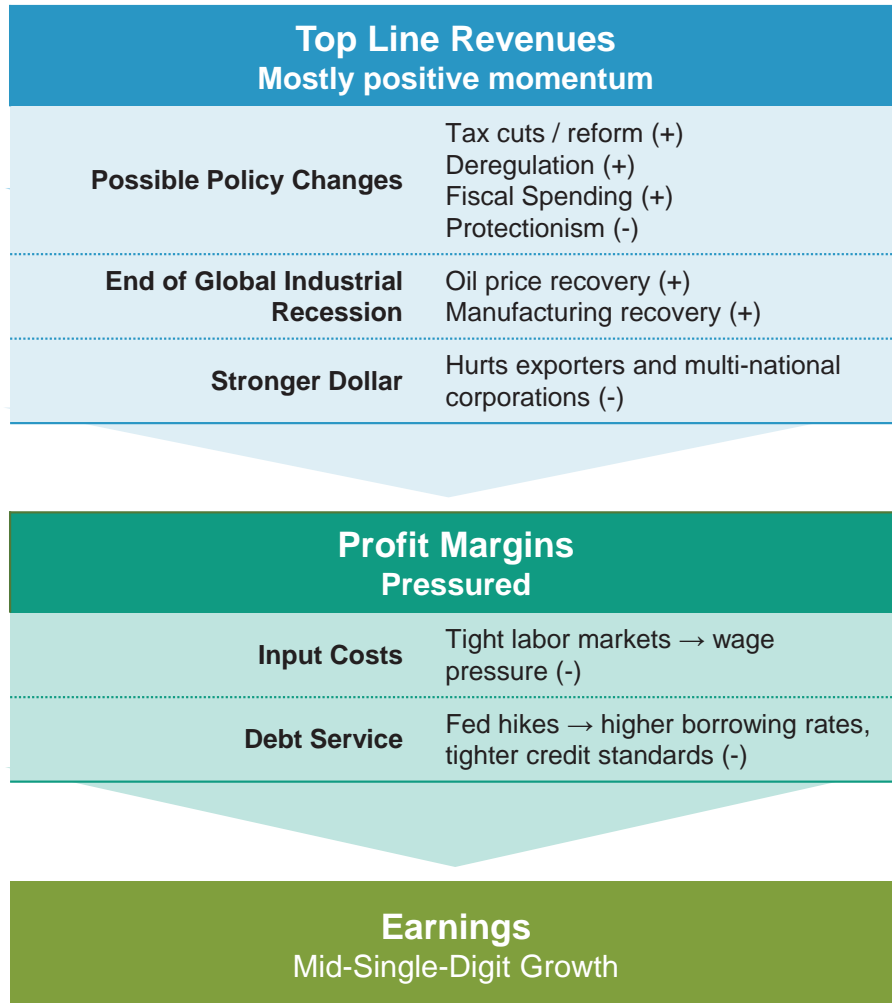


Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Sector investing involves risk. Because of its narrow focus, sector investing may be more volatile than investing in more diversified baskets of securities. Sector returns represented by S&P 500 sectors. Sources: FactSet, Fidelity Investments (AART), as of 12/31/16.

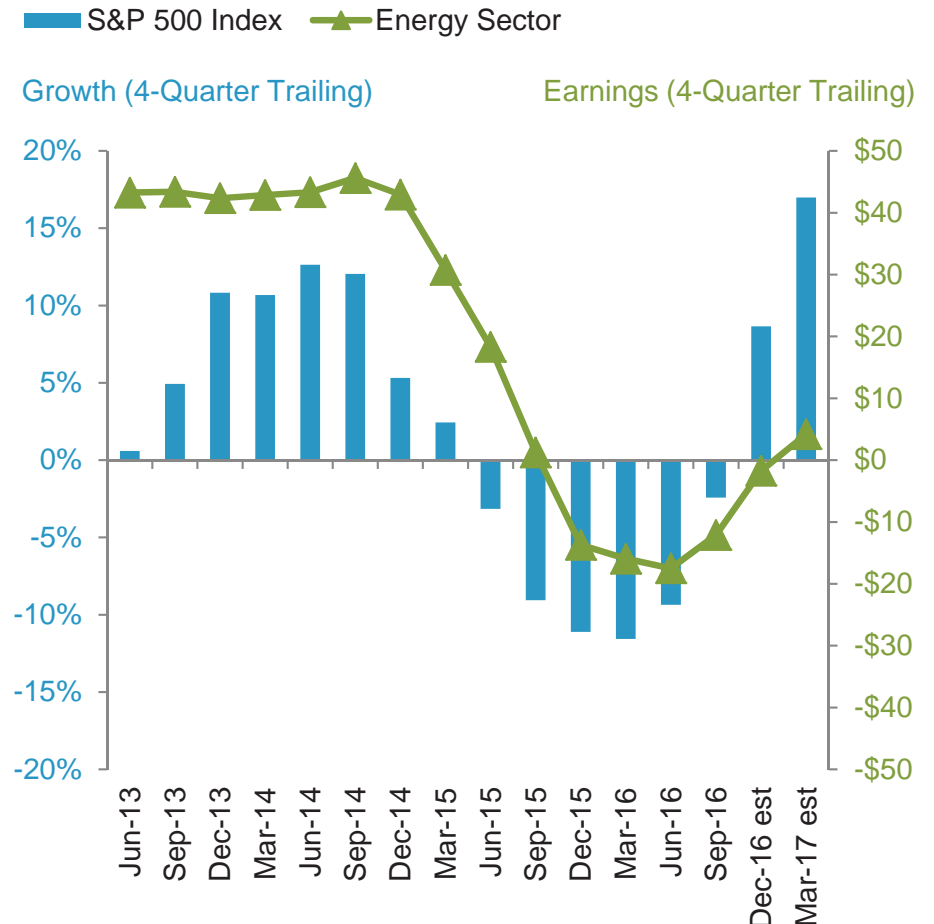


Earnings Growth Recovers, but Margin Pressures Rise

The decline in corporate earnings since mid-2015 appears to be inflecting positively as the energy and manufacturing sectors recover from the steep drop in oil prices and the end of the global industrial recession. Pro-growth policies could benefit top-line growth, but profit margins will likely remain pressured from rising employment costs and higher interest rates. Mid-single-digit earnings growth appears achievable for 2017.



Large-Cap Earnings per Share



LEFT: Source: Fidelity Investments (AART), as of 12/31/16. RIGHT: Past performance is no guarantee of future results. Source: Standard & Poor's, FactSet, Fidelity Investments (AART), as of 12/31/16.

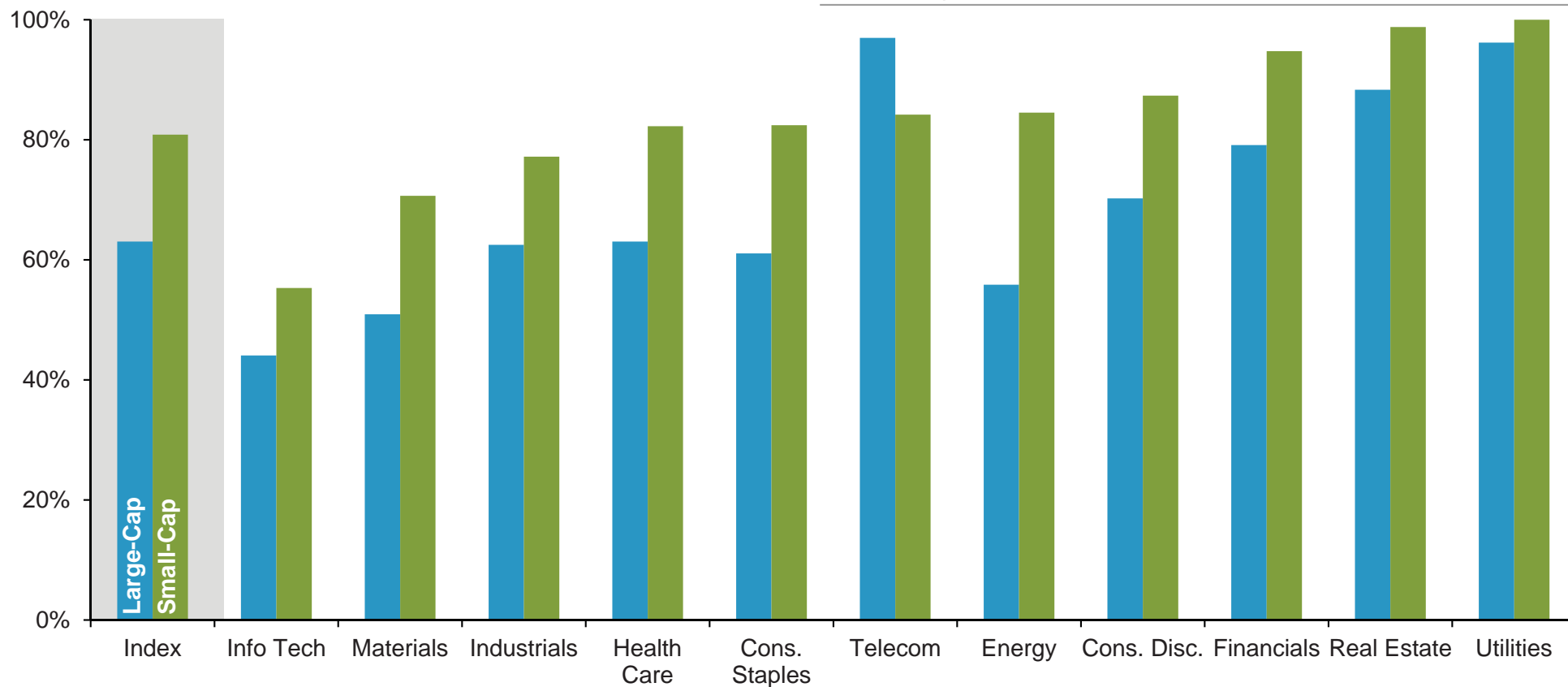


Small-Caps Benefit from Greater Domestic Exposure

The Q4 outperformance of small-cap stocks relative to large-caps may in part be attributed to lower exposure to the international economy. The post-election rise in the dollar and concerns about protectionism have provided headwinds for companies more exposed to the global economy. Small-cap valuations rose to rough parity with large-caps after the Q4 rally, somewhat above their historical relative valuation.

U.S. Sales as a % of Total Sales (2015)

■ Large-Cap ■ Small-Cap



Large-Cap & Small-Cap Valuations			
	Current P/E	Pre-election	Average since 1979
Large-Caps	20.6x	19.5x	16.8x
Small-Caps	20.7x	18.2x	15.5x

Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Large-cap stocks represented by the S&P 500 Index; small-cap stocks represented by the S&P Small-Cap 600 Index; sectors as defined by GICS. P/E: Price / 12-month trailing earnings. Source: FactSet, Haver Analytics, Fidelity Investments (AART) as of 12/31/16.



Higher Inflation a Threat to Valuations?

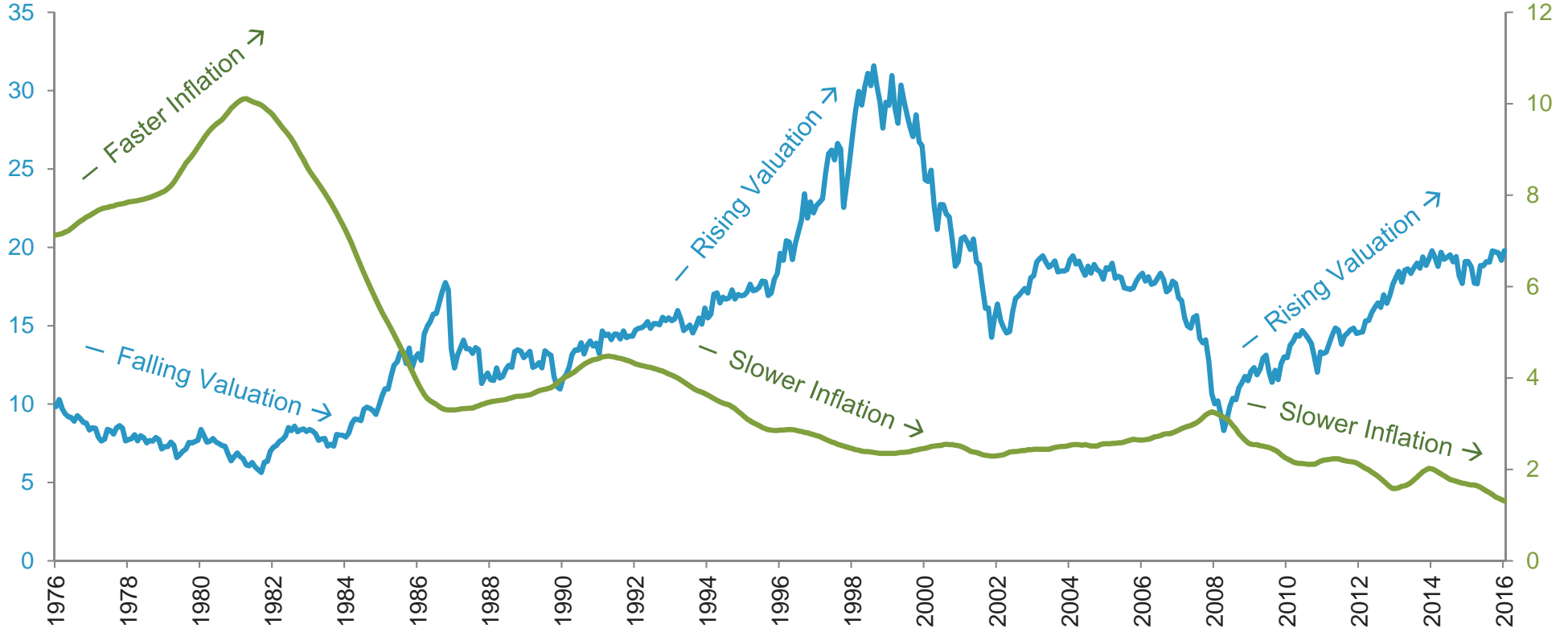
Equity valuations have historically had a negative relationship with inflation. The secular downtrend in inflation during the past three decades has helped U.S. P/E ratios to rise above their long-term historical averages. Although the pace of inflation may rise it remains relatively low on a historical basis, indicating there may still be room for inflation to increase without causing significant damage to valuation multiples.

S&P 500 Valuations vs. Inflation

— Price-to-Earnings Ratio — CPI

Price/5-Year Peak Real Earnings

5-Year Average, Year-over-Year (%)



Past performance is no guarantee of future results. Real: Inflation adjusted. CPI: Consumer Price Index. Source: Standard & Poor's, Bureau of Labor Statistics, Haver Analytics, Fidelity Investments (AART), as of 11/30/16.

Sector Considerations: Financials

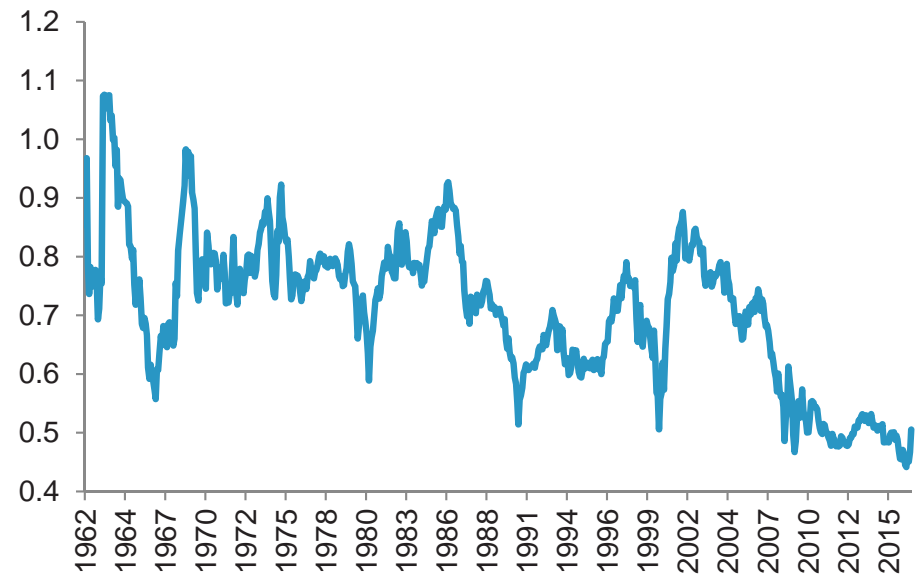
Historically, financials have not exhibited a consistent pattern of out- or underperformance vs. the overall market at this point in a business cycle. However, the potential for regulatory relief following the U.S. election, coupled with the recent increase in interest rates and steepening of the yield curve, may provide a fundamental earnings boost. On a price-to-book basis, financials are roughly as cheap as they've ever been vs. the overall market.

Business Cycle Approach to Sectors

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

Relative Price-to-Book of Financials

Ratio vs. Overall Market



Earnings Drivers for Financials:

- Regulatory relief
- Rising rates boost lending profitability
- Corporate tax reform

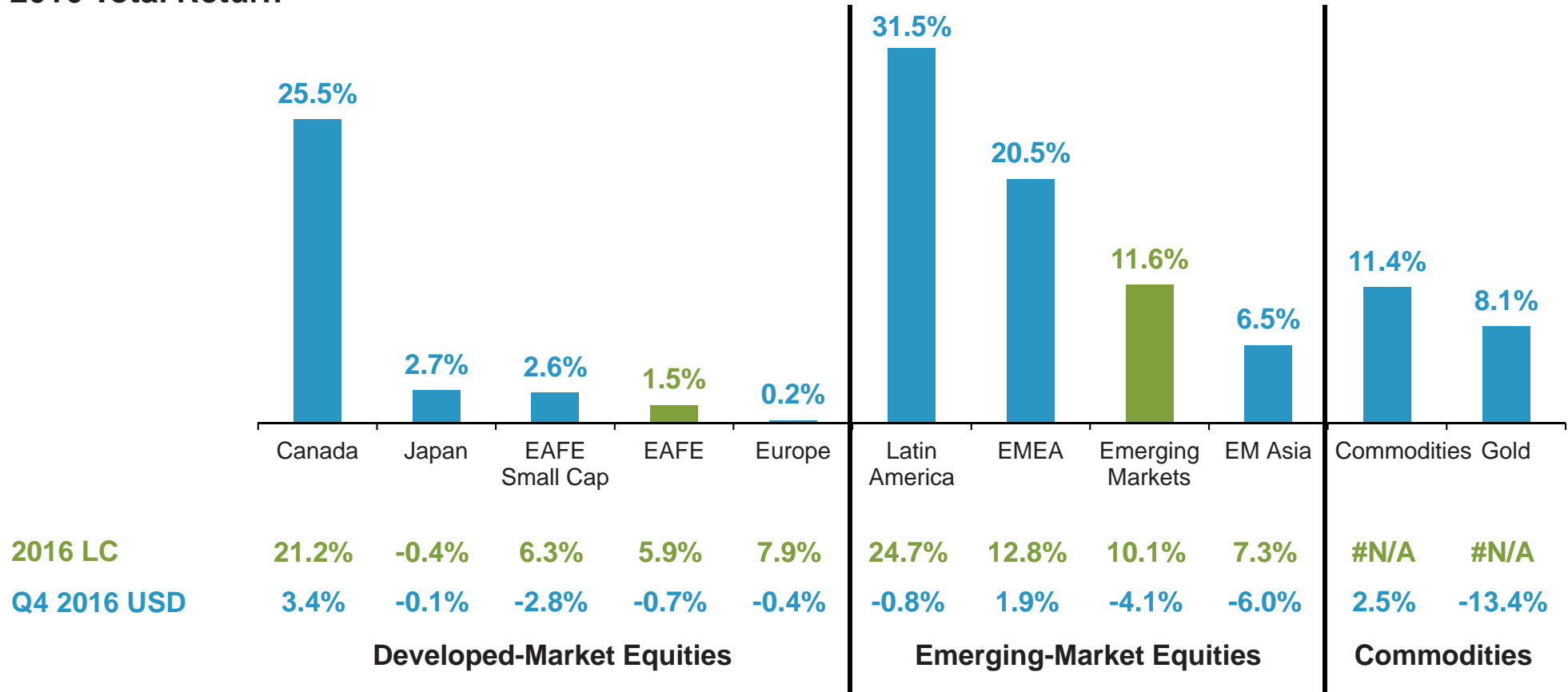
Past performance is no guarantee of future results. Sectors as defined by GICS. LEFT: Unshaded (white) portions above suggest no clear pattern of over- or underperformance vs. broader market. Double +/- signs indicate that the sector is showing a consistent signal across all three metrics: full-phase 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: Sources: Haver Analytics, Fidelity Investments, as of 11/30/16.

International Equity Markets & Global Assets

Despite Weak Q4, Emerging Markets Led 2016 Gains

Emerging-market equities rallied until the U.S. elections, then retraced some of their gains but still ended the year in double-digit positive territory. Commodity prices recovered during the year, which benefited commodity-exporters, including those in Canada and Latin America. The rising U.S. dollar detracted from returns, particularly in developed markets and during the post-election period.

2016 Total Return



EM: emerging markets. LC: local currency. All returns are gross in U.S. dollars unless otherwise noted. Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Index returns represented by: Canada – MSCI Canada Index; Commodities – S&P GSCI Commodities Index; EAFE – MSCI 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. Sources: FactSet, Fidelity Investments (AART), as of 12/31/16.

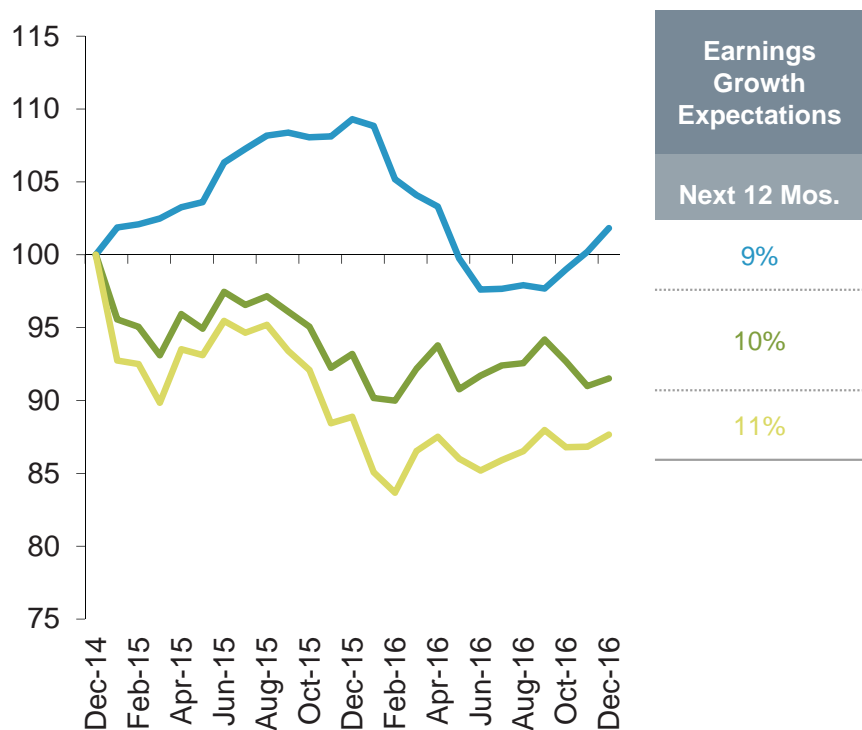
Earnings Backdrop Still Weak but Worst May Be Over

After a bout of negative earnings growth, earnings expectations have begun to stabilize from low levels in recent quarters. Trailing earnings growth remains negative in both DM and EM on a year-over-year basis. However, the pace of decline has slowed during the past several quarters, and the profit outlook—particularly for EMs—has improved, with growth now positive in some countries.

DM Earnings Expectations

— Japan — EAFE — Europe

Earnings Expectations (Next 12 Months, 12/31/14 = 100)



Emerging Market Earnings Growth

— Emerging Markets — Brazil — India — Mexico

Growth (12-Month Trailing)



LEFT: DM: developed market. EM: emerging market. Past performance is no guarantee of future results. You cannot invest directly in an index. Please see appendix for important index information. Index returns represented by: Emerging Markets – MSCI Emerging Markets Index; EM Asia – MSCI Emerging Market Asia Index; Latin America – MSCI Latin America Index; EMEA – MSCI Emerging Markets Europe, Middle East, and Africa Index; Europe – MSCI Europe Index; Japan – MSCI Japan Index; U.K. – MSCI U.K. Index; EAFE – MSCI EAFE Index. Sources: FactSet, Fidelity Investments (AART), as of 12/31/16. **RIGHT:** Sources: MSCI, FactSet, Fidelity Investments (AART), as of 11/30/16.

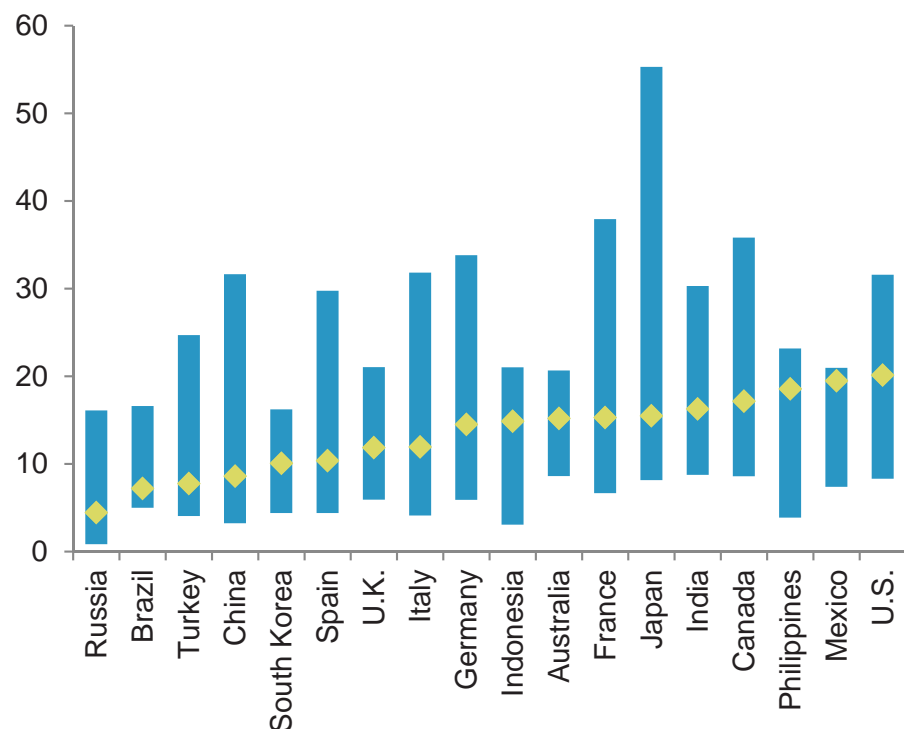
Secular Positives for EMs: Valuations and Growth Outlook

Price-to-earnings multiples in most EM countries' equity markets remain at the lower end of their 20-year averages, making them relatively attractive from a valuation perspective. Moreover, we expect growth of emerging countries to outpace that of developed markets over the long term. Both factors should provide a favorable long-term backdrop for EM equity returns.

Cyclical P/Es

◆ Year-End 2016 ■ 20-Year Range

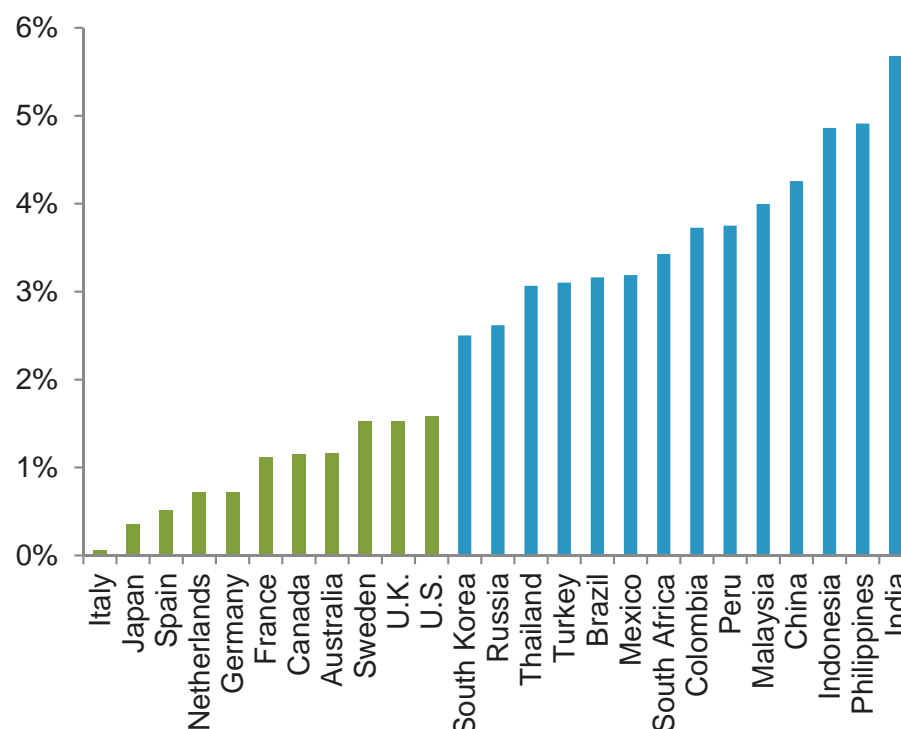
Price/5-Year Peak Real Earnings



Real GDP Growth Forecasts, 2016–2035

■ Developed Markets ■ Emerging Markets

Annualized Rate

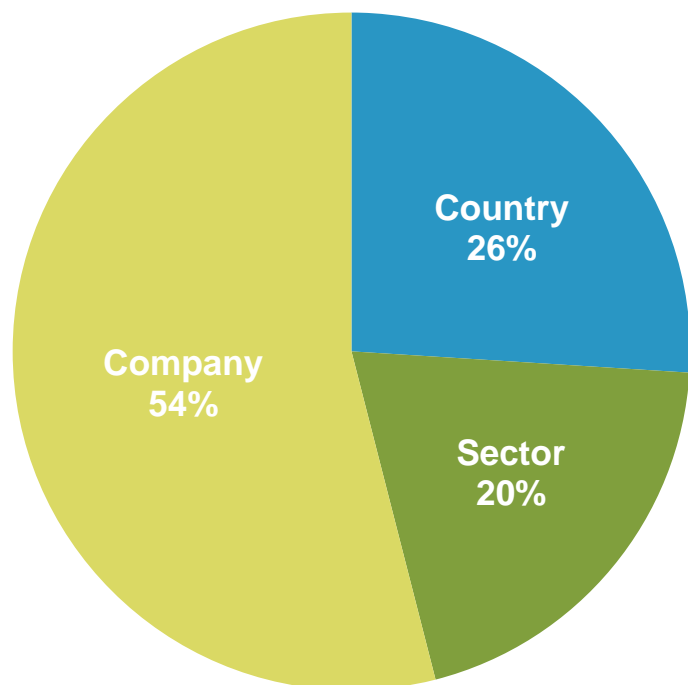


EM: emerging market. **LEFT:** Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Price-to-earnings (P/E) ratio (or multiple): stock price divided by earnings per share, which indicates how much investors are paying for a company's earnings power. Five-year peak earnings are adjusted for inflation. Sources: FactSet, countries' statistical organizations, Haver Analytics, Fidelity Investments (AART), as of 12/31/16. **RIGHT:** Average forecasts are GDP weighted. Sources: Fidelity Investments (AART), as of 12/31/15.

Security Selection Is Key for International Performance

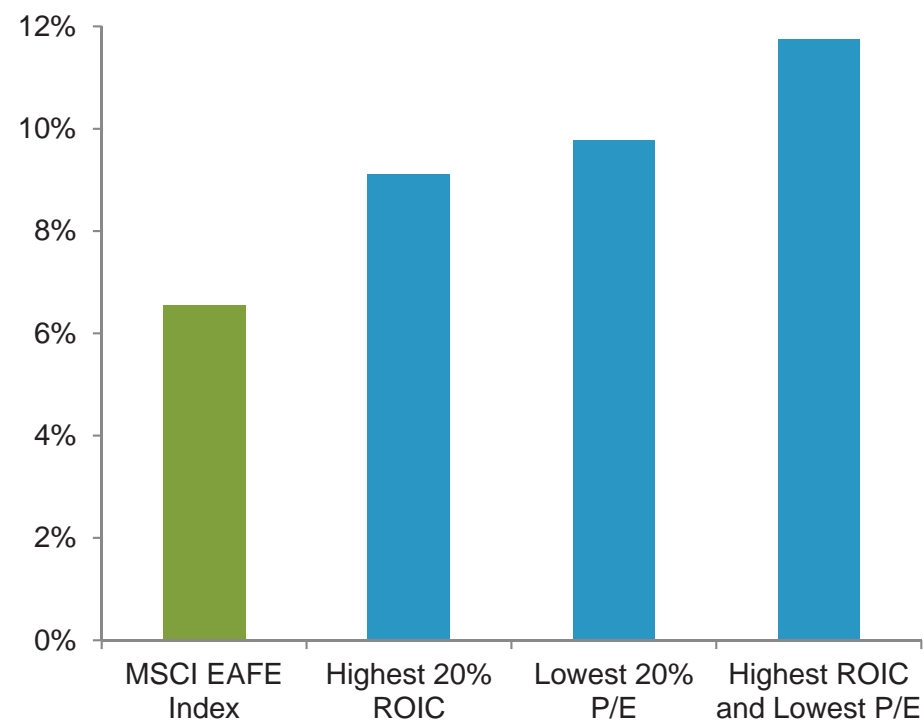
Quantitative analysis of past equity returns shows that company exposure (security selection) is the most significant factor for explaining differences in performance among stocks. An active management strategy can potentially produce higher returns than the benchmark. For example, identifying the highest-quality earnings growers (return on invested capital) at reasonable valuations has been an effective strategy.

Average Source of Return for Global Stocks Since 1990



International Equity Returns by Quality and Valuation Since 1995

Average Annualized Return



Past performance is no guarantee of future results. It is not possible to invest directly in an index. ROIC: return on invested capital. P/E: price to earnings ratio. **LEFT:** Based on Anova: analysis of variation. Sources: MSCI All Country World Index, Fidelity Investments, as of 8/31/15.

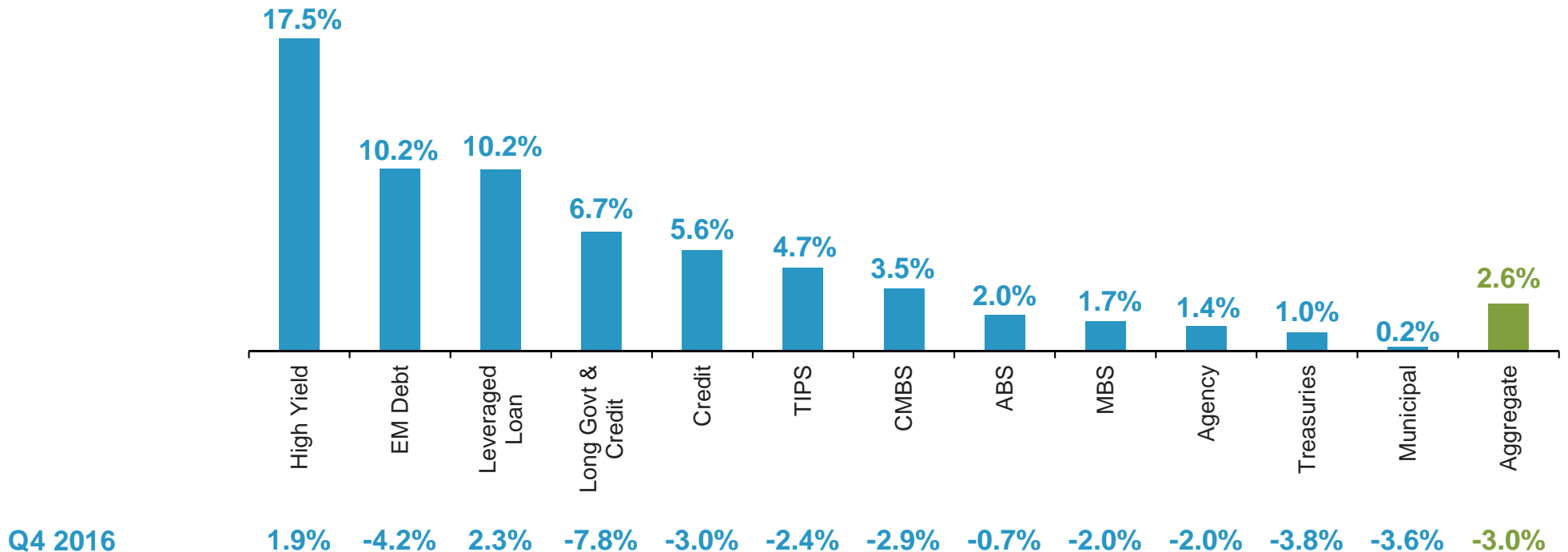
RIGHT: Average annualized returns of stocks of companies with highest 20% and lowest 20% ROIC and P/E ratio. Sources: MSCI, FactSet, Fidelity Investments, as of 9/30/16.

Fixed-Income Markets

Big Outperformance of Credit-Sensitive Assets in 2016

The rapid narrowing of credit spreads during 2016 resulted in the significant outperformance of lower-credit-quality categories, such as high yield, emerging-market debt and leveraged loans. Interest-rate-sensitive categories suffered losses in Q4 alongside rising bond yields, but they still experienced modest positive returns for the full year.

2016 Total Return



Past performance is no guarantee of future results. You cannot invest directly in an index. Please see appendix for important index information. All indices are unmanaged. Index returns represented by: ABS (Asset-Backed Securities) – Barclays ABS Index; Agency – Barclays U.S. Agency Index; Aggregate – Barclays U.S. Aggregate Bond Index; CMBS (Commercial Mortgage-Backed Securities) – Barclays Investment-Grade CMBS Index; Credit – Barclays U.S. Credit Bond Index; EM Debt (Emerging-Market Debt) – JP Morgan EMBI Global Index; High Yield – BofA ML U.S. High Yield Index; Leveraged Loan – S&P/LSTA Leveraged Loan Index; Long Government & Credit (Investment-Grade) – Barclays Long Government & Credit Index; MBS (Mortgage-Backed Securities) – Barclays MBS Index; Municipal – Barclays Municipal Bond Index; TIPS (Treasury Inflation-Protected Securities) – Barclays U.S. TIPS Index; Treasuries – Barclays U.S. Treasury Index. Source: FactSet, Fidelity Investments (AART), as of 12/31/16.

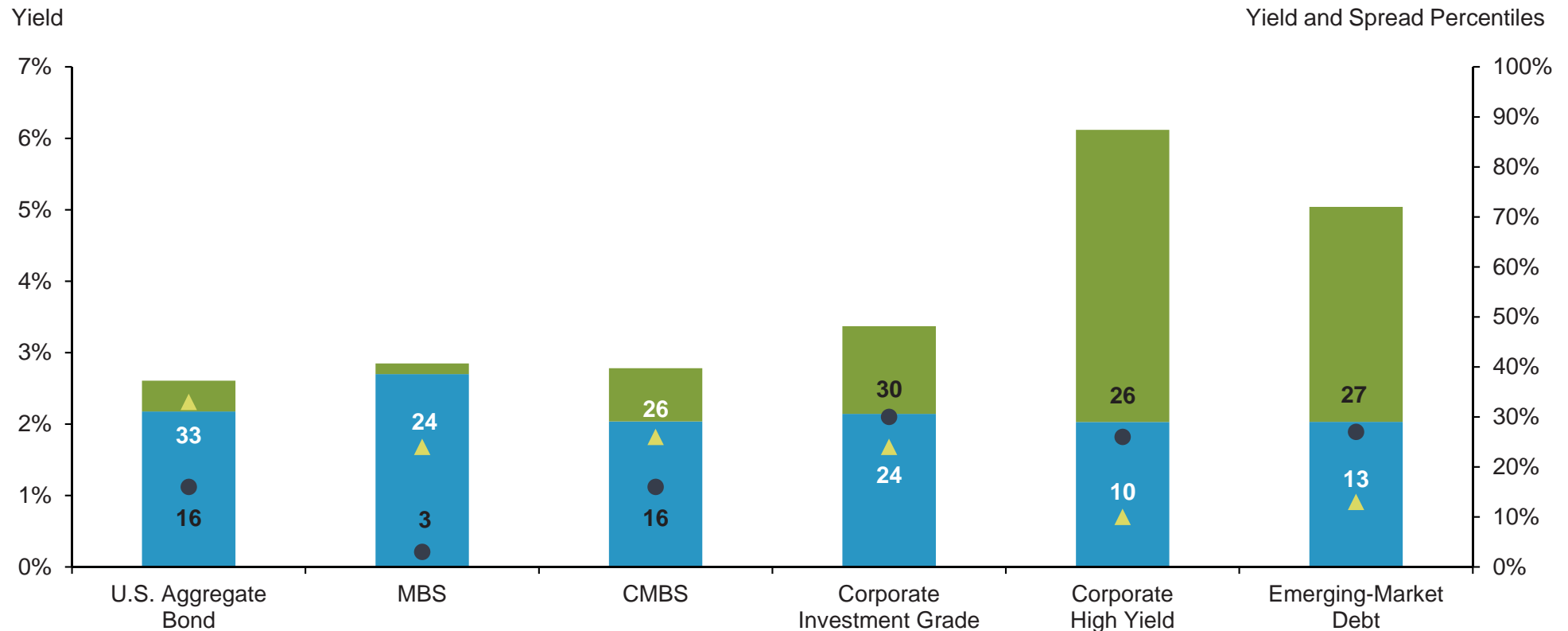
Spreads Back to Tight Levels in Credit Sectors

After the tumultuous start to the year, credit spreads narrowed sharply and ended 2016 well below their historical averages across all categories. The Q4 rise in bond yields pushed all bond sectors into higher yield percentiles relative to history, although the percentiles are below where they started the year and yields remain low compared to historical norms.

Fixed-Income Yields and Spreads

Treasury Rates Credit Spread

Yield Percentile Spread Percentile



Past performance is no guarantee of future results. It is not possible to invest directly in an index. All indices are unmanaged. Please see appendix for important index information. Percentile ranks of yields and spreads based on historical period from 2000 to 2016. MBS: mortgage-backed security; CMBS: commercial mortgage-backed security. All categories represented by respective Bloomberg Barclays bond indices. Sources: Bloomberg Barclays, Fidelity Investments (AART), as of 12/31/16.



TIPS 101: How to Think about the Return Potential of TIPS

On an absolute basis, the price return of TIPS gets a boost when real (inflation-adjusted) yields fall, as they did during Q1 2016. On a relative basis, TIPS tend to experience a better price return than nominal Treasuries when inflation expectations rise, as they did in the third and fourth quarters of 2016. With inflation expectations at around 2% and inflationary pressures rising, TIPS may prove useful as an inflation hedge.

How to Think about the Return Potential of TIPS

On an absolute basis:

TIPS Return ~ Level of real yield – (Change in real yield x Duration) + Actual inflation rate

	Change in Real Rates	Change in Inflation Expectations	Total Return of:		
			TIPS	Treasuries	Aggregate
Q1	-57 bps	+8 bps	4.5%	3.2%	3.0%
Q2	-7 bps	-22 bps	1.7%	2.1%	2.2%
Q3	-9 bps	+20 bps	1.0%	-0.3%	0.5%
Q4	+55 bps	+34 bps	-2.4%	-3.8%	-3.0%
2016	-18 bps	+40 bps	4.7%	1.0%	2.6%

The 10-Year TIPS breakeven inflation rate at the end of 2016 was 1.94%.

On a relative basis:

- If Inflation Expectations rise, then TIPS return > Nominal Treasury return
- If Inflation Expectations fall, then TIPS return < Nominal Treasury return

Inflation expectations as measured by the breakeven inflation rate. TIPS: Treasury Inflation-Protected Securities. TIPS breakeven inflation rate calculated as difference between real and nominal 10-year Treasury yields. **LEFT:** Sources: Federal Reserve, Haver Analytics, Fidelity Investments (AART), as of 12/31/16.

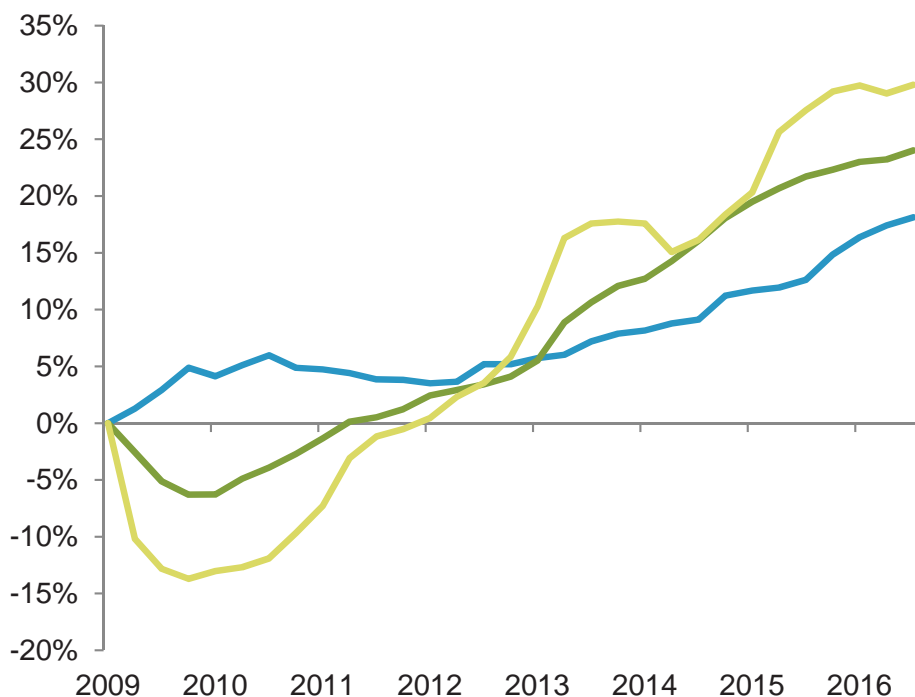
Muni Tax Benefit Still Significant under Proposed Tax Cuts

Underlying fundamentals remain solid for municipal bonds, as state and local revenues continue to rise. Even if personal income taxes for the top bracket are reduced to the 33% level suggested in the Trump and GOP plans, munis would retain a significant tax-equivalent advantage over comparable Treasuries.

State & Local Government Revenues

— Property Tax — Sales Tax — Personal Income Tax

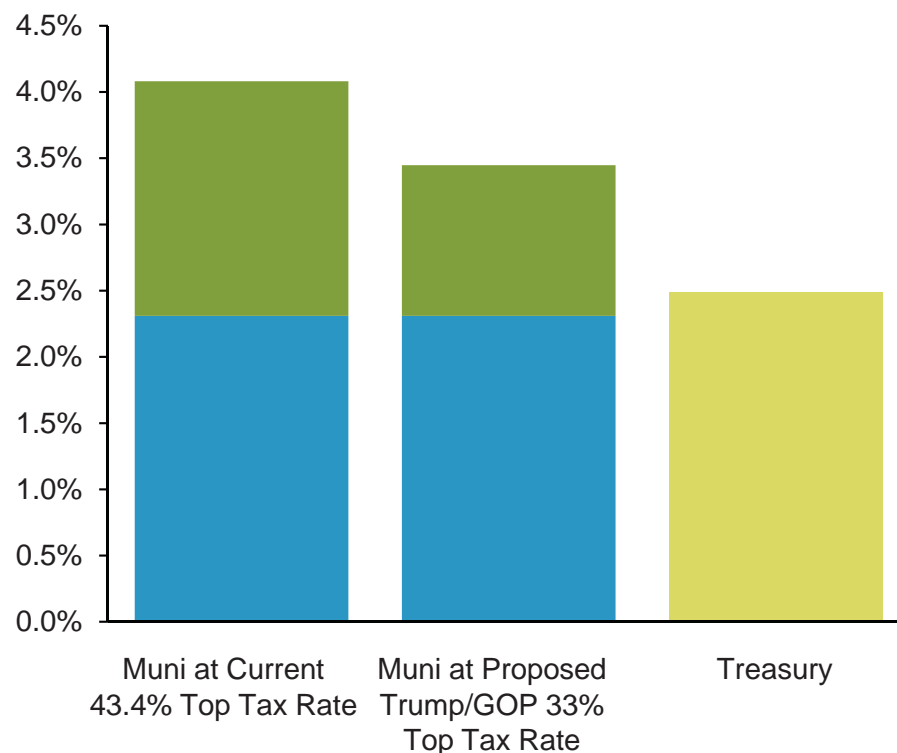
Growth since 2009



10-Year Municipal Bonds vs. Treasuries

■ Tax-Exempt Yield ■ Tax-Equivalent Yield ■ Treasury Yield

Yield



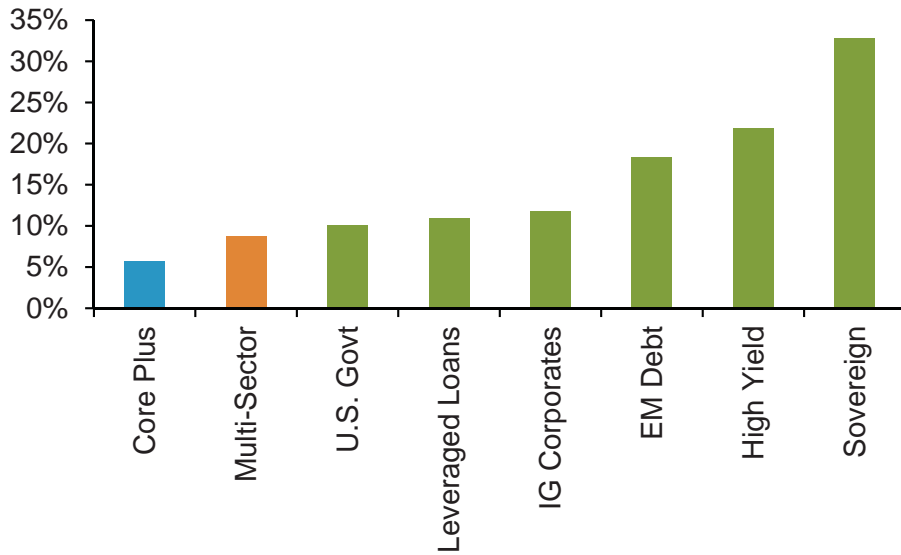
Past performance is no guarantee of future results. **LEFT:** Data shown as four-quarter average. Data not adjusted for legislative changes. Personal income tax and sales tax represent state portion only, while property tax reflects state and local components. Source: U.S. Census Bureau Quarterly Summary of State and Local Tax Revenue, Fidelity Investments (AART), as of 9/30/16. **RIGHT:** After-tax yields assume the highest tax bracket calculated using top federal income tax rate for 2015 (39.6%) and Medicare contribution tax (3.8%). Muni pre-tax yield data uses the Thompson Municipal Market Data (MMD) AAA Curve. Source: Bloomberg Finance L.P., Thomson Reuters, Fidelity Investments (AART), as of 12/30/16.

The Benefits of Diversification in a Bond Portfolio

Fixed-income strategies with designated allocations in both high-quality bonds and higher-yielding sectors have exhibited consistent downside protection. Both a “core-plus” and a “multi-sector” portfolio have generated fewer periods of negative returns than any individual bond sector, while providing a lower magnitude of losses than lower-quality sectors.

1-Year Negative Return Periods, 1998–2016

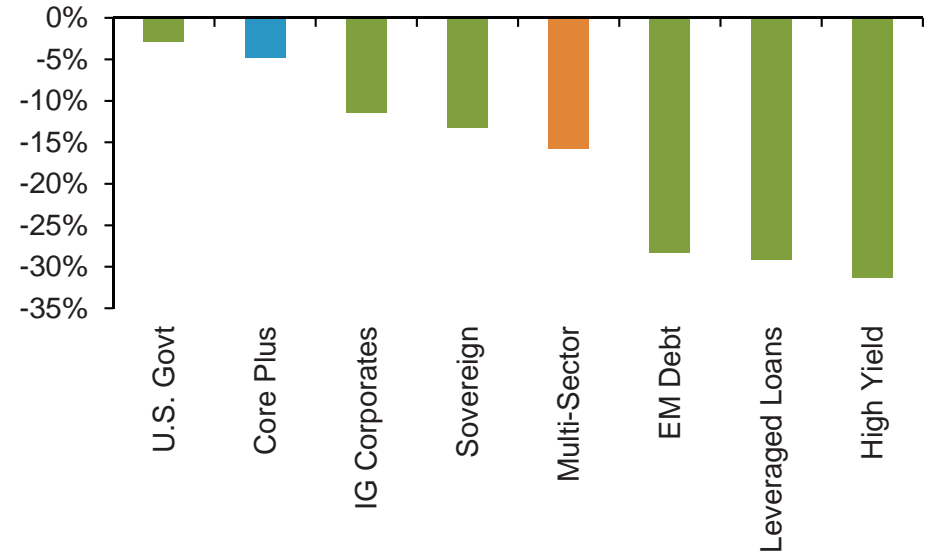
% of Rolling Periods



Portfolio	Description
Core Plus	80% U.S. Investment Grade 10% U.S. High Yield 5% Leveraged Loans 5% Emerging Market

Worst 1-Year Returns, 1998–2016

Total Return



Portfolio	Description
Multi-Sector	40% High Yield 25% U.S. Government 15% Emerging Market 15% Foreign IG Bonds 5% Leveraged Loans

The Bloomberg Barclays Global Aggregate Index 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. Past performance is no guarantee of future results. It is not possible to invest directly in an index. IG: investment grade. Index returns represented by: Emerging Market Debt – JPM EMBI Global Index; Foreign IG Bonds – Barclays Global Aggregate ex-USD Index Unhedged; Non-USD Bond Index; Leveraged Loans – S&P/LSTA Performing Loan Index; U.S. Government – Bloomberg Barclays U.S. Government Index; U.S. High Yield – BofA ML High Yield Index; U.S. Investment Grade – Bloomberg Barclays U.S. Aggregate Bond Index. Sources: Morningstar, Fidelity Investments (AART), as of 12/31/16.



Asset Allocation Themes

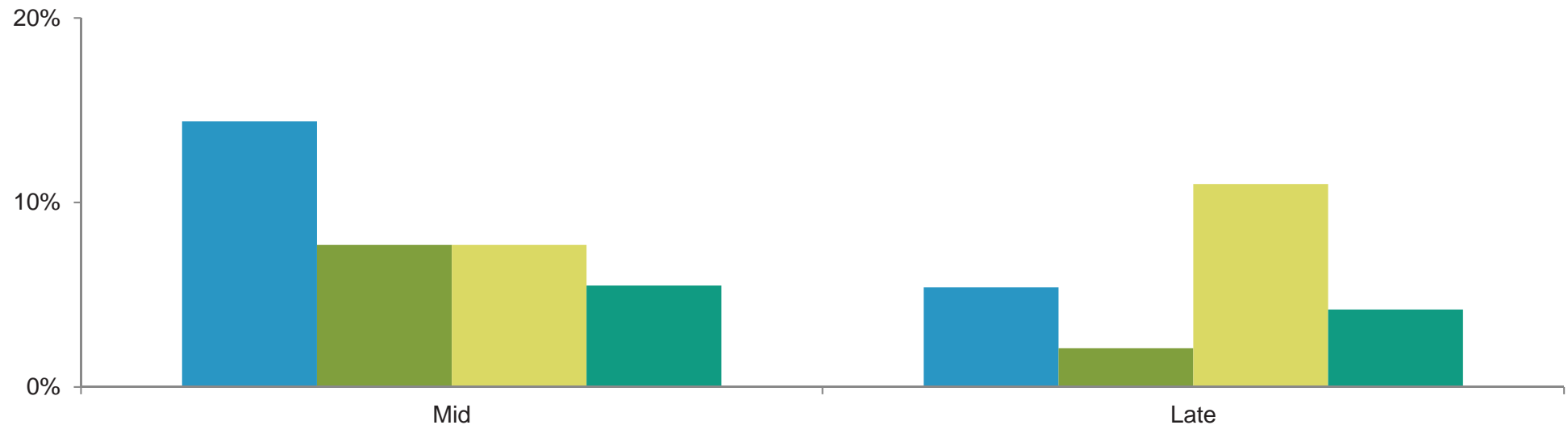
Performance of Inflation Assets Improves in Late Cycles

Late cycles have the most mixed performance of any business cycle phase, with more limited overall upside than mid-cycle phases. There is less confidence in equity performance, though stocks have typically outperformed bonds. Inflation-resistant assets, such as commodities, energy stocks, short-duration bonds, and TIPS, have typically performed relatively well.

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

■ Stocks ■ High Yield ■ Commodities ■ Investment-Grade Bonds

Annual Absolute Return (Average)



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

Past performance is no guarantee of future results. Asset class total returns are represented by indexes from the following sources: Fidelity Investments, Morningstar, and Barclays. Source: Fidelity Investments proprietary analysis of historical asset class performance, which is not indicative of future performance.

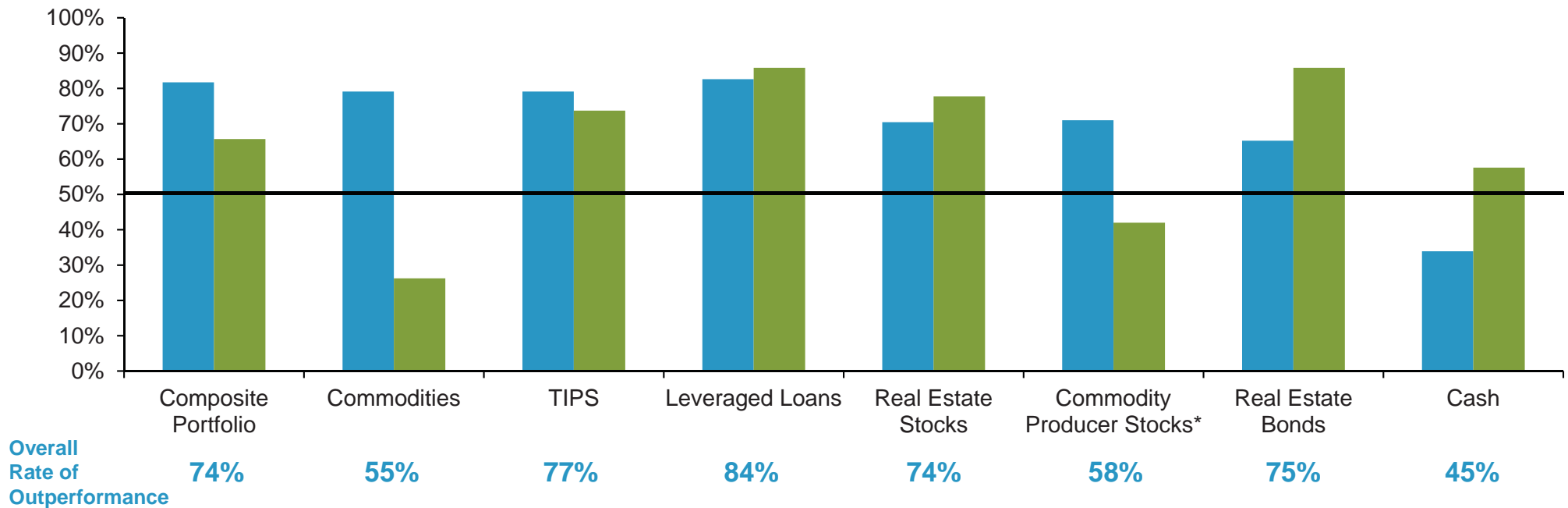
Real Return: Managing Inflation Risk Still Matters

Investments with hard-asset or income-adjusting characteristics have historically offered inflation resistance, particularly when investors needed it most—as inflation increased. Combining assets into a diversified real-return composite has increased the frequency of outpacing inflation as it rises—a difficult task for cash in today’s low-rate environment.

Frequency of Outperforming Inflation, 1998–2015

■ Outperformed during Rising Inflation ■ Outperformed during Falling Inflation

% of Periods Outperforming Inflation Rate



*Commodity producer stocks not part of composite portfolio. Past performance is no guarantee of future results. Diversification does not ensure a profit or guarantee against loss. It is not possible to invest directly in an index. Please see appendix for important index information. Inflation rate: year-over-year change in the consumer price index. Asset classes represented by: Cash – IA SBBI U.S. 30 Day Treasury Bill Index; Commodities – Bloomberg Commodity Index; Composite portfolio – 30% TIPS, 25% leveraged loans, 25% commodities, 10% real estate equity, 10% real estate income; Leveraged Loans – S&P/LSTA Leveraged Performing Loan Index; Real Estate Bonds – BofA ML U.S. Corporate Real Estate Index; Real Estate Stocks – Dow Jones U.S. Select Real Estate Securities Index; TIPS (Treasury Inflation Protected Securities) – Bloomberg Barclays U.S. TIPS Index, Commodity Producer Stocks – MSCI ACWI Commodity Producers (1999-2015), Fidelity proprietary calculation (1998). Sources: Morningstar, Fidelity Investments (AART), as of 12/31/15.

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 the study, subjects were assigned simulated conditions that were similar to making portfolio decisions on a monthly or yearly basis. Sources: 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 9/30/16.

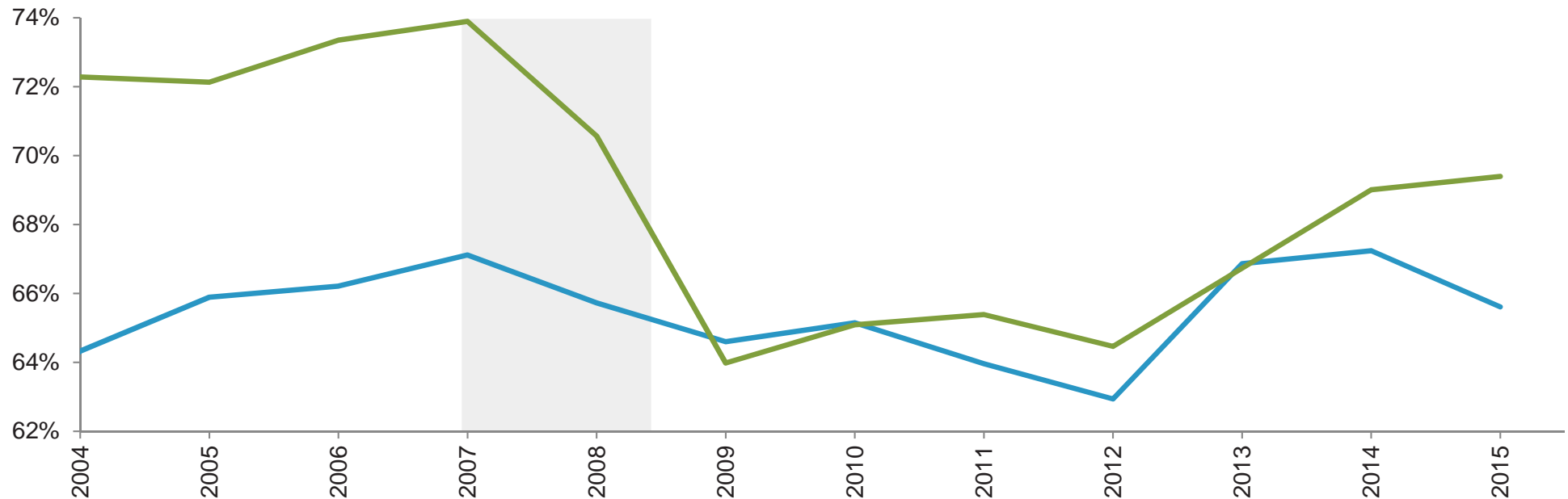
Identifying the Appropriate Capacity for Portfolio Risk

Loss aversion and excessive emphasis on short-term market volatility may cause investors to make asset allocation changes that deviate from their long-term plans. Outsourcing asset allocation to a professional investment manager may help investors identify an appropriate amount of portfolio risk and stay on course to reach their long-term goals.

Baby Boomer Equity Contributions to Fidelity Retirement Plans, 2004–2015

— Do-it-for-me investors — Do-it-yourself investors

New Stock Contributions



Shaded area represents a bear market, when the stock market (S&P 500 Index) fell by more than 20% peak to trough. Stock contributions: the percentage of new directed deferrals (contributions) into stocks by Fidelity Personal & Workplace defined contribution active participants on an annual basis via the available investment options in plans administered by Fidelity Investments. Baby Boomers: participants born between 1946 and 1964.

Stocks: includes investments in stock mutual fund strategies in addition to the equity portion of blended funds and strategies including balanced, target date, funds of funds, and managed accounts. Do-it-for-me (DIFM) investors: Plan participants who have 100% of assets in target date funds or are in a Workplace Managed Account. DIFM investors may be active or terminated in their DC plan. Do-it-yourself (DIY) investors: Plan participants who have <100% of assets in target date funds and are not in a Workplace Managed Account. DIY investors may be active or terminated in their DC plan.

Sources: Standard & Poor's, Fidelity Investments, as of 12/31/15.



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 simple portfolio allocation with 60% in U.S. equities and 40% in U.S. bonds 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	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%	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%	Value 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%	High-Yield Bonds
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%	Large Cap Stocks
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%	Emerging-Market Stocks
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%	Commodities
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%	REITs
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%	60% Large Cap 40% IG Bonds
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%	Growth Stocks
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%	Investment-Grade Bonds
-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%	Foreign-Developed Country Stocks

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 indices are unmanaged. Please see appendix for important index information. Asset classes represented by: Commodities – Bloomberg Commodity Index; Emerging-Market – MSCI Emerging Markets Index; Foreign-Developed Country – MSCI EAFE Index; Growth – Russell 3000 Growth Index; High Yield – Bank of America Merrill Lynch U.S. High Yield Index; Investment-Grade – Bloomberg Barclays U.S. Aggregate Bond Index; Large Cap – S&P 500 Index; Real Estate – FTSE NAREIT Equity Index; Small Cap – Russell 2000 Index; Value – Russell 3000 Value Index. Sources: Morningstar, Standard & Poor's, Haver Analytics, Fidelity Investments (AART), as of 12/31/16.

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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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.

Market Indices

BofA ML Corporate Real Estate Index, a subset of BofA ML U.S. Corporate Index, is a market capitalization-weighted index of U.S. dollar-denominated investment-grade corporate debt publicly issued in the U.S. domestic market by real estate issuers. Qualifying securities must have an investment-grade rating (based on an average of Moody's, S&P, and Fitch). In addition, qualifying securities must have at least one year remaining to final maturity, a fixed coupon schedule, and a minimum amount outstanding of \$250 million. **BofA ML U.S. Real Estate Index** is a subset of the BofA ML Real Estate Corporate Index; qualifying securities must have an investment grade rating and an investment grade-rated country of risk. **BofA ML U.S. High Yield Bond Index** is a market capitalization-weighted index of U.S. dollar denominated below investment grade corporate debt publicly issued in the U.S. domestic market.



Appendix: Important Information

Market Indices (continued)

The BofA/Merrill Lynch High-Yield Bond Master II Index is an unmanaged index that tracks the performance of below-investment-grade, U.S.-dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

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 that covers the universe 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. 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).

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. **JPM® EMBI Global Index**, and its country sub-indices, 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.

Appendix: Important Information

Market Indices (continued)

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 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 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 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. **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 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 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 REIT Preferred Index is a preferred stock market capitalization-weighted total return index of certain exchange-traded perpetual preferred securities issued by U.S. Equity and U.S. Hybrid REITs.

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® Index** 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® Index. 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 Indices (continued)

The **Sectors and Industries** 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 real estate, including 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 whose businesses 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 are engaged in a wide range of commodity-related manufacturing. 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 companies 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 Indices

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.

KOF Index of Globalization measures the economic, social, and political dimensions of globalization and is calculated referring to actual economic flows, economic restrictions, data on information flows, data on personal contact, and data on cultural proximity.

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

The Philadelphia Gold and Silver Index is a market-capitalization index of precious metal mining company stocks.

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.

S&P Global BMI Gold Capped Index is a modified market capitalization-weighted index of stocks designed to measure the performance of companies that produce gold and related products, including companies that mine or process gold and the South African finance houses that primarily invest in, but do not operate, gold mines.

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

Definitions (continued)

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