

RETURN OF THE BUSINESS CYCLE

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INTRODUCTION

Over the past eight years, extraordinarily accommodative monetary policy has served as the primary catalyst for spurring continued economic growth in the U.S. and around the globe. Although the economic expansion has delivered steady gross domestic product (GDP) growth, consistent returns for the broad stock market, and an improving job market, the expansion itself has been lackluster. While we're still set in a familiar scene, solidly in this economic expansion, we need some new characters to take charge—to bring the market back to its traditional roots and raise the bar on what we expect from global growth, a continued expansion, and one of the longest and largest bull markets in history.*

At LPL Research, we're looking ahead to a "return of the business cycle." Instead of relying on intervention by the Federal Reserve (Fed) to propel employment and personal consumption, we will turn to fiscal policy and improving business fundamentals to spur further growth in the economy and stock market. Regarding fiscal policy, we'll look for increased government spending and tax cuts, which could provide added support for businesses in terms of revenue, earnings, and future growth prospects.

We often talk about cycles in terms of the economic periods of recession and expansion. And while we're not returning to the beginning of that economic cycle, what we're referring to here is a return to the traditional drivers that propel the cycle. We are looking to the forces that have historically supported economic and market growth, before we entered this recent period of accommodative monetary policy. The economic cycle still matters and we put ourselves solidly in the second half, although with a potentially low likelihood of a recession starting in 2018. But what may be more important in the next year is the fundamental shift we've experienced in what's driving the cycle and what it means for businesses and investment returns.

In short, we expect to return to an environment in which investors may be rewarded for their ability to focus on business fundamentals, as markets respond to the shift from monetary to fiscal support and greater incentives for entrepreneurial risk-taking. The LPL Research Outlook 2018: Return of the Business Cycle reminds investors of where we have been, what we have accomplished, and why the return of these market forces may bring new opportunities for market participants. With this guidance and investment insight, investors will be ready to embrace this market environment in their search for long-term success.

*Since its start on March 10, 2009, through October 31, 2017, the current bull market has lasted over 8.5 years and delivered a cumulative S&P 500 Index return of 357%.

LEAD ROLES

The return of the business cycle will be characterized by:

Fiscal coordination. The next step for the U.S. economy will involve some combination of infrastructure spending, tax reform, and regulatory relief. The political environment remains challenging, but the economy has exhibited impressive momentum after a slow start to 2017. There has also been progress on the policy front, and we expect corporate tax cuts to be a primary contributor to economic activity in 2018.

Business investment. Early in the expansion, business investment slowed, and productivity suffered. Now, companies are using cash differently, focusing on increasing productivity and attaining greater market share. To remain successful, businesses will need to invest in property, plants, and equipment.

Earnings growth. For stocks to produce attractive returns, earnings growth will be a key factor in 2018. Better global growth, a pickup in business spending, and lower corporate taxes should all support better earnings.

Active management. The dynamics that have supported passive strategies in recent years have begun to fade. A return to fundamental investing—where investors can determine winners and losers based on earnings, sales, cash flow, etc.—should lead to continued momentum for active management in 2018.

Bonds as risk diversifiers. Although the fixed income market will be under pressure due to higher interest rates, bonds—especially high-quality—will remain an important part of well-balanced, diversified portfolios. Bonds can help mitigate portfolio risk should we experience any equity market pullbacks.

OUTLOOK 2018 AT A GLANCE

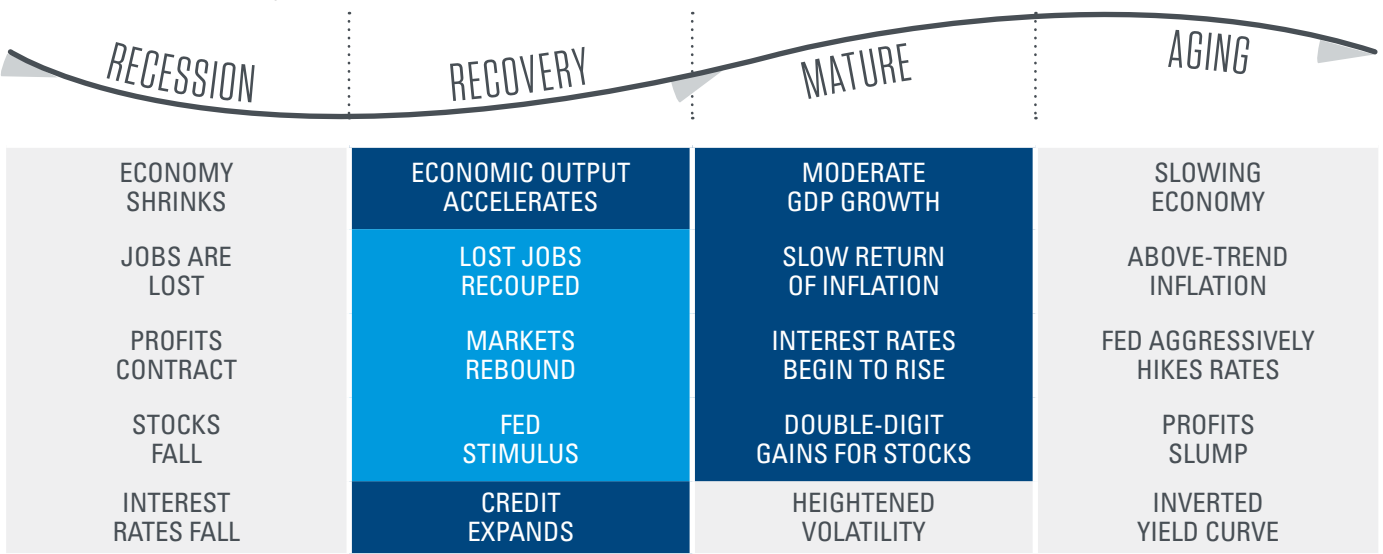
Business Cycle Drivers: The Original vs. The Sequel

We are looking to the forces that have historically supported economic and market growth, before we entered this recent period of accommodative monetary policy. This fundamental shift will have an impact on businesses and investment returns.

Unusual Cycle Drivers	Back to Business
Monetary: Low or near zero interest rates	Fiscal: Structural reforms, deregulation
Monetary: Quantitative easing	Fiscal: Infrastructure investment
Use debt for buybacks and dividends	Use debt for capital spending
Muddling through	Confidence in economy and markets
Take on financial market risk	Take on entrepreneurial risk
Stocks highly correlated	Stock behavior differentiated

Economic Cycle: Parts I, II, III & IV

The stories of economic cycles are told in four distinct stages. Our current cycle has been unusual, often displaying elements of multiple stages at the same time. Right now, we're solidly in the mature phase but still experiencing some areas of recovery.



■ Lingering Aspects of Recovery ■ Current State

OUTLOOK 2018 AT A GLANCE

Forecasts

ECONOMY 2.5%+ GDP GROWTH

GDP growth should pick up momentum thanks to fiscal support, with additional help from a pickup in business spending, while a strong labor market should continue to support consumer spending.

STOCKS 8–10% S&P 500 RETURNS

Earnings growth is key to our double-digit stock forecast. The S&P 500 Index may be well positioned to generate strong earnings, thanks to better global growth and potentially lower corporate tax rates.

BONDS FLAT TO LOW-SINGLE-DIGIT RETURNS

Given our expectations for a gradual pickup in interest rates across the yield curve, we expect flat to low-single-digit returns for the Bloomberg Barclays U.S. Aggregate Bond Index.

Recommendations

✓ THE HEROES

Investment ideas we think may carry portfolios in 2018

SMALL CAPS:

Strong beneficiaries of lower corporate tax rate.

VALUE:

Rising rates support financials; relative valuations becoming attractive.

CYCLICAL STOCKS:

Accelerating growth may support economically sensitive sectors.

EMERGING MARKETS:

Strong growth, attractive valuations offset tighter global monetary policy.

INVESTMENT-GRADE CORPORATES:

Added yield versus Treasuries is attractive.

— THE SIDEKICKS

They may not get the glory, but you don't want to be without them

U.S. STOCKS:

Accelerating growth, fiscal stimulus provide an edge.

GROWTH:

We favor value, but business spending may support tech sector.

MORTGAGE-BACKED SECURITIES:

Yield relative to rate sensitivity attractive, but slowing Fed purchases limit upside.

HIGH-YIELD CORPORATES AND BANK LOANS:

Yields attractive despite full valuations.

✗ THE EXPENDABLES

These investments may offer limited assistance in 2018

DEVELOPED FOREIGN BONDS:

Accelerating growth and very low yields create little margin of error.

DEVELOPED INTERNATIONAL STOCKS:

European growth may have peaked while structural concerns remain.

LONG-TERM HIGH-QUALITY BONDS:

Inadequate compensation for added rate sensitivity.

U.S. DEFENSIVE STOCKS:

Economic growth, rising rates decrease attractiveness.

BUSINESS CYCLE

MISSION POSSIBLE: Back to Business

The return of the business cycle is not about where we are in the cycle, but about what's driving the cycle and what it might mean for investors. The story of the current cycle is a familiar one, beginning with the global economy facing the worst financial crisis since the Great Depression. It's been characterized by extraordinary levels of central bank intervention, including an extended period of near zero policy rates and asset purchase programs, known as quantitative easing (QE). This intervention has come with both intended and unintended consequences, many of the latter because of the lack of a complementary fiscal and legislative response.

The central banks' response to the global financial crisis of 2008–2009 was both necessary and swift, and did see complementary fiscal action early in the cycle. But following the initial post-crisis response, the extension of monetary policy was coupled with delayed fiscal legislation. With monetary policy doing the heavy lifting, almost single-handedly trying to save the global economy, it was easy to let the fiscal response coast.

Low Drama and Minimal Action

Low interest rates and the absence of a parallel global fiscal response created an environment that encouraged mediocrity among some public businesses. Instead of investing in growth, these companies were satisfied by simply maintaining market share. They used debt to pay dividends to shareholders and purchased their own shares (known as stock buybacks) in order to raise the relative value of investors' shares.

Low rates also compressed the range of rates at which businesses could borrow. Low-quality companies were still able to borrow at relatively low rates, providing less of an advantage for high-quality companies, and thus limiting differentiation. At the same time, in many cases it became more difficult to obtain the loans that were supposed to encourage investment, both due to tighter lending standards and the expense of increased regulatory requirements. As a result, the low rates that were supposed to encourage entrepreneurial risk-taking

in many cases disincentivized it, which suppressed traditional business drivers, such as innovation, capital investment, and competing for market share.

There was also an impact on investor behavior. As periods of economic weakness and persistently low inflation prolonged central bank intervention, a pattern emerged where markets appeared to prefer the prospect of continued central bank support to growth. Economic "bad news," such as slow GDP growth, low inflation, and weak job growth, became financial market "good news," often pushing interest rates lower and risk assets higher. Central banks were working on preventing economic failure, so investors continued buying stocks.

Populist Sentiment: The Critics Have Spoken

There were also political consequences to depending on monetary policy without a complementary fiscal response. The lack of fiscal coordination was one factor contributing to a surge in populist sentiment throughout the developed world, including the Scottish independence referendum, Brexit, volatile approval ratings for political leadership in Japan, and the increased popularity of anti-establishment candidates and political parties. Moreover, while those global investors with access to financial assets benefited from loose monetary policy, the overwhelming majority of people around the world had no access, and therefore, were subject to more limited prospects of prosperity.

STATUS CHECK: A GAUGE OF KEY ITEMS IN THIS BUSINESS CYCLE TRANSITION

Getting back to traditional business cycle drivers depends on a positive feedback loop between the macroeconomic backdrop, policymakers, and businesses. Improving global growth and the slow normalization of Fed policy have created an opportunity and we have seen some follow-through on fiscal policy, both in the U.S. and internationally.

Here are several action items for getting back to business, and a status report on some key metrics signaling how the market and business environment have changed.

Agenda Items

- Increase scope for market forces as Fed policy normalizes
- Provide some fiscal stimulus and increase investment through tax reform—but watch the deficit
- Find better regulatory balance between risk mitigation and cost of compliance
- Encourage free but fair trade
- Invest in workforce productivity—better tools, more knowledge, best management practices
- Use investment and innovation to fight for market share
- Manage later cycle headwinds—rising rates, valuations, margin pressure

A) Monetary: While monetary policy played an important role in the recovery from the Great Recession, its extension deep into the expansion has come with unintended consequences. The Fed is now slowly raising rates and normalizing its balance sheet, with 2017 the first year since 2006 it has raised rates more than once.

B) Fiscal: Fiscal policy includes the full range of policies that can impact the business environment, including government spending and investment, tax policy, and regulation. In the wake of the financial crisis, regulation increased to control systematic economic risk, but it is difficult to balance the burden of regulation against the benefit of risk mitigation and the pendulum might have swung too far.

C) Investment: Low rates were supposed to encourage investment, but ended up also making other uses of borrowed funds more attractive. As the environment changes, businesses have started to increase investment again.

D) Buybacks: One use of low rates was borrowing cheaply to buy back shares, pushing up the buyback yield or implied cash return to investors via share buybacks. Use of cash has shifted.

E) Stock correlations: When central banks are the key forces pushing markets ahead, businesses have fewer opportunities to differentiate themselves, keeping stock correlations high. As traditional business cycle drivers have become more prominent, correlations have fallen.

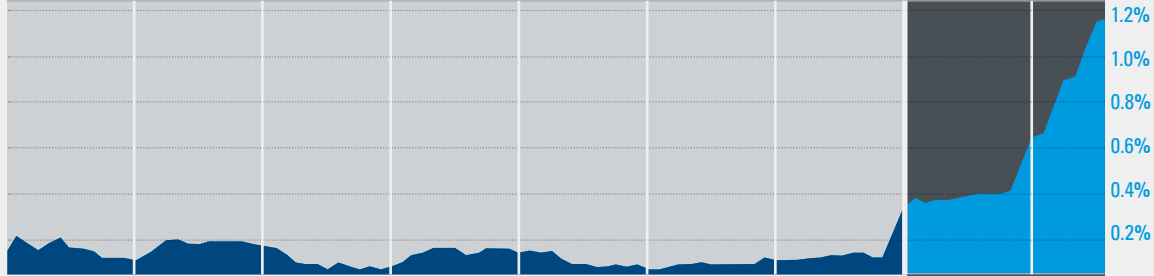
See Infographic: Figure 1 on page 7

A) Source: LPL Research, Federal Reserve; B) Source: LPL Research, The George Washington University Regulatory Studies Center. Years are average of spring and fall data when available. Only spring data available for 2017; C) Source: LPL Research, U.S. Bureau of the Census; D) Source: LPL Research, Bloomberg; E) Source: LPL Research, Ned Davis Research

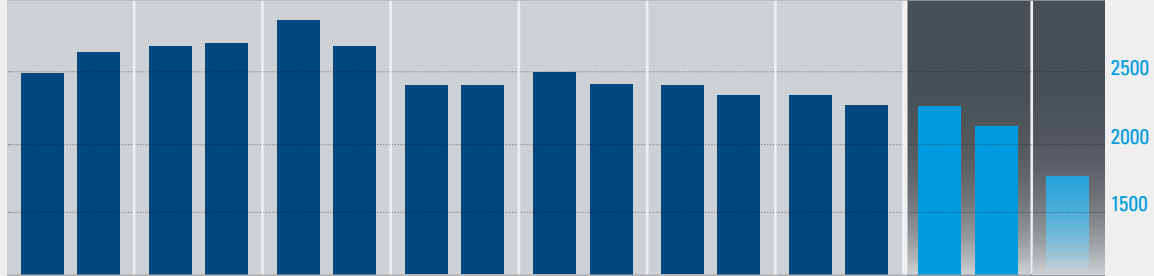
Correlation ranges between -1 and +1. Perfect positive correlation (a correlation coefficient of +1) implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation means that if one security moves in either direction the security that is perfectly negatively correlated will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; they are completely random.

1 NOTABLE MARKET CHANGES

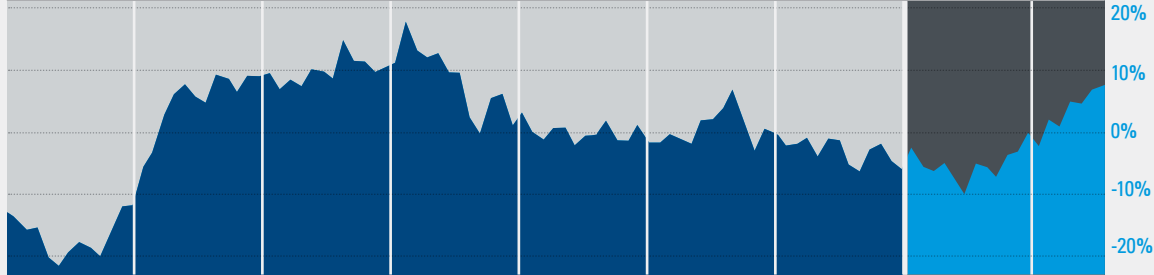
A | MONETARY: EFFECTIVE FED FUNDS RATE



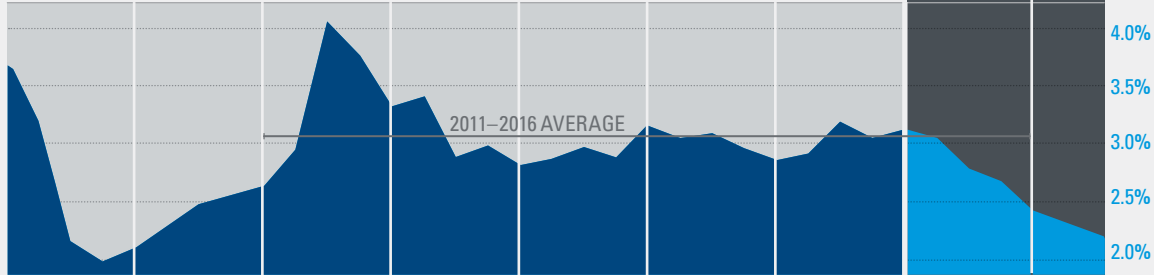
B | FISCAL: REGULATORY RULE MAKING ACTIVITY



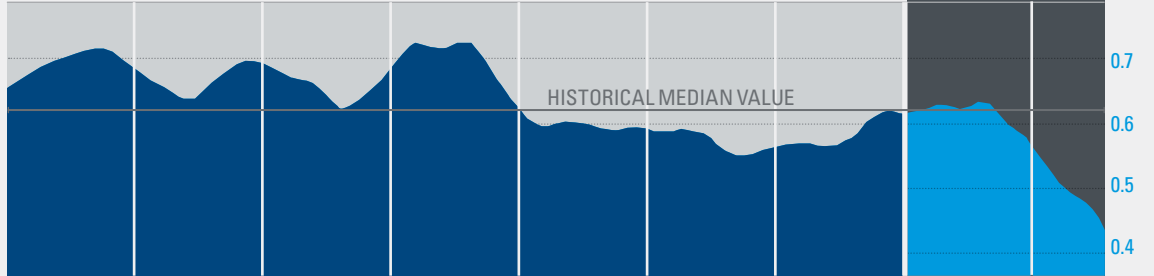
C | INVESTMENT: NON-DEFENSE CAPITAL GOOD SHIPMENTS EX-AIRCRAFT (YEAR OVER YEAR)



D | BUYBACKS: S&P 500 ESTIMATED BUYBACK YIELD



E | CORRELATIONS: MEDIAN 3-MONTH CORRELATION OF S&P 500 STOCKS TO THE S&P 500 INDEX



RETURN OF THE BUSINESS CYCLE

DRIVERS
FISCAL AND MONETARY POLICY FINDING A BETTER BALANCE

OUTCOMES
WE'VE SEEN IMPORTANT SHIFTS IN BUSINESS AND INVESTOR BEHAVIOR

2009 2010 2011 2012 2013 2014 2015 2016 '17

What's in Store for Part 2?

The sequel is underway, and it's time to turn up the action. Given steady economic growth in the U.S. and very early signs of price pressures, the Fed has already embarked on a gradual path of policy normalization. Since December 2015, the Fed has raised the fed funds rate four times and also commenced balance sheet reduction in the fourth quarter of 2017.

The Fed's directional shift away from accommodative global central bank policy, together with companies' increased need to focus on growth, has resulted in a new dynamic for business leaders and investors. Artificially supported interest rates are giving way to market-driven forces. A greater focus on growth is encouraging entrepreneurial risk-taking. All companies no longer have access to a low and invariable cost of capital, so businesses and

industries are becoming more differentiated. Markets are responding—rewarding good businesses and 'punishing' others—and stocks are no longer all moving up (or down) together.

Locating where we are in the economic cycle, we are likely solidly in the latter half, based on signals like rising interest rates, a relatively low unemployment rate, some modest wage pressure, the start of margin compression, above historical equity valuations, and tight credit spreads. And we see few signs of increased risk of recession within the next year. But the key elements pushing consumer behavior, business success, and investment performance forward have been unusual thus far this cycle. The return to more traditional forces may bring new opportunities, but we should also expect some challenges along the way. The question is: Will the global economy and markets prevail?

HOW TO INVEST	Under these new business cycle drivers, we see several potential implications for the markets.
LOWER STOCK CORRELATIONS	Better opportunities for active management.
BUSINESS INVESTMENT	May support technology and industrials.
FISCAL POLICY I : TAX REFORM	Earnings boost would support bull market; help small caps that have historically paid higher tax rates.
FISCAL POLICY II: DEREGULATION	Financial sector may benefit.
RISING RATE ENVIRONMENT	Seek above-benchmark credit risk; below-benchmark rate risk.

COMMODITIES MAY ESCAPE WITH GAINS

With oil's steep decline from mid-2014 to early 2016, commodities were sending a negative signal for the economy, but that has since turned around. We expect most commodities to see modest price gains in 2018, as the impact of stronger global growth and supply constraints offset a potentially stronger U.S. dollar. A stronger dollar makes global commodities priced in dollars more expensive for international buyers.

Oil faces both headwinds and tailwinds and may end up range bound in 2018. Steady global demand, especially from China, and the OPEC agreement with Russia to cap production (which is likely to be extended past March 2018) should help keep prices from falling further. However, increased U.S. production at higher prices may

limit oil's ability to sustain prices above the mid-\$50s through 2018.

The technical strength of industrial metals (like copper) relative to their precious metal counterparts (like gold), along with our preference for economically sensitive investments and constrained supplies, support our preference for industrial metals over precious. A potentially stronger U.S. dollar and rising interest rates are likely to hurt precious metals, and the gold commodity in particular, more than their industrial counterparts. Metals can also tell us something about the state of the economy, and we would view the strength of the copper/gold ratio as a signal of continued economic expansion.

2 COPPER/GOLD RATIO SENDING A POSITIVE ECONOMIC GROWTH SIGNAL



Source: LPL Research, Bureau of Labor Statistics 11/13/17

Performance illustrated is historical and no guarantee of future results.

Commodity-linked investments may be more volatile and less liquid than the underlying instruments or measures, and their value may be affected by the performance of the overall commodities baskets as well as weather, geopolitical events, and regulatory developments. The copper/gold ratio is the relative price of the copper commodity versus the gold commodity, and a common indicator of demand for industrial metals over precious.

GLOBAL ECONOMY

THE COMEBACK: Expect Better Economic Growth Worldwide

We look for the global economy to expand at a healthy rate of about 3.7% in 2018 thanks to a reboot in the policy, economic, and investment decisions across developed and emerging markets [Figure 3]. While accommodative monetary policies have been attributed to propelling both employment and consumption in developed markets, business investment lagged behind. But the length of the expansion should have forced many businesses to increase investment or risk losing market share. In developed markets, where monetary policy has a global impact, fiscal steps can now be taken to spur growth and extend the duration of the expansion. Meanwhile, most emerging economies continue to draw investors in, as others come out of recession.

U.S. Economy Plays a Lead Role

In the U.S., we project real GDP growth of around 2.5% as monetary tailwinds give way to fiscal support, whether in the form of government spending, tax cuts, or deregulation.

While the Fed is still supportive, we have seen steady progress in normalizing policy with minimal negative consequences for markets or the economy thus far. After four increases since December 2015,

the fed funds rate is between 1.0% and 1.25%.

In addition, despite inflation readings that remain below forecast, it appears policymakers are poised to increase their target for the benchmark overnight lending rate by another quarter-point in December 2017. Moreover, the central bank has already initiated the process of gradually unwinding its \$4.5 trillion balance sheet by ceasing to reinvest the proceeds of maturing securities, resulting in an expected runoff of approximately \$300 billion in 2018. This is a powerful symbolic move, as it formally begins to unwind the QE program that was such an important part of the Fed’s response to the financial crisis.

The economy has exhibited impressive momentum after a disappointing start to 2017, despite the destructive regional impact of three hurricanes in the Gulf Coast and Caribbean and devastating wildfires in California. These extreme events have taken a large personal toll while also weighing on growth, but we expect some relief as the impacted areas recover and rebuild, providing a small tailwind in 2018. On the industrial side, solid gains in manufacturing and services have been accompanied by mild inflation. Full employment and gradually higher wage increases should also continue to boost consumption, while a weaker U.S. dollar has provided additional benefits for exports and the profits of multinational corporations. To the degree that corporate earnings help drive future economic growth, we believe this will prove to be an important development.

3 GLOBAL GROWTH EXPECTED TO ACCELERATE IN 2018

	2016	2017 (Est.)	2018 (LPL Est.)
REAL GDP (YEAR OVER YEAR, %)			
U.S.	1.5%	2.2%	2.5%
Developed ex-U.S.	1.1%	1.6%	1.8%
Emerging Markets	4.4%	4.5%	4.8%
Global	3.2%	3.5%	3.7%
U.S. ECONOMIC DATA			
Real GDP (YoY%)	1.5%	2.2%	2.5%
Consumer Price Index (YoY%)	1.3%	2.1%	2.0%
Unemployment	4.9%	4.4%	4.2%

Source: LPL Research, Bloomberg 10/31/17

2017 estimates are based on Bloomberg-surveyed economist consensus given year-to-date data. 2018 estimates are LPL Research projections.

Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country’s borders in a specific time period, though GDP is usually calculated on an annual basis. It includes all of private and public consumption, government outlays, investments, and exports less imports that occur within a defined territory.

The next step for the U.S. economy involves fiscal coordination. While President Trump ran on a platform including infrastructure spending, tax reform, and regulatory relief, few concrete plans have emerged and political discontent has escalated. Nevertheless, there has been policy follow-through on several fronts. Executive orders have put energy infrastructure programs in place and new supervisory leadership at the Fed supports reduced regulatory burdens for the financial sector, likely freeing up lending opportunities in the coming year.

Though odds may not favor true comprehensive tax reform, tax cuts are still very much in play. Whether or not the proposed individual tax cuts are enacted, a likely key contributor to economic activity in 2018 will come from changes in corporate taxes. Based on historical data, we expect that for every single percentage point reduction in the corporate tax rate, we'll see a similar percentage point increase in corporate profitability. Considering that profits help drive growth in employment, wages, consumption, and investment, it is essential for legislators to act in order to help sustain the economic expansion.

When considering the contributions to economic growth, our focus is on business spending. As the

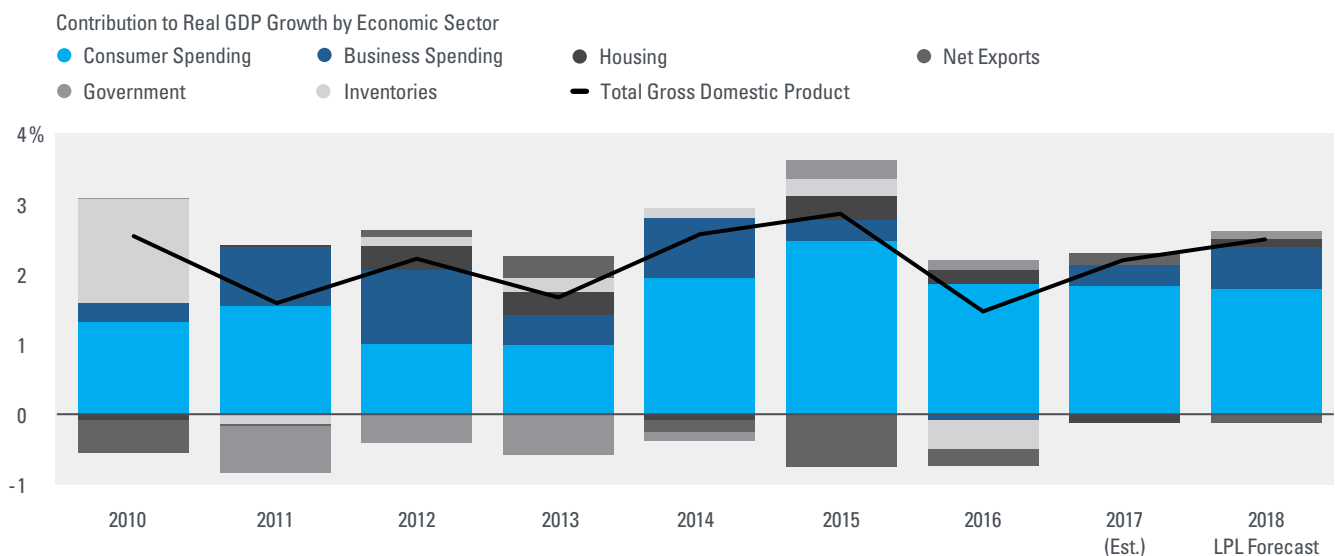
Fed pulls back and fiscal policy steps in, businesses that want to succeed will be forced to increase market share and secure their future success by increasing capital expenditures and investing in property, plants, and equipment. Though consumer spending will remain the largest component of GDP, we look for business spending to have the fastest growth trajectory in 2018 [Figure 4].

International Economies Continue to Show Resilience

Economic activity in international developed economies has also been powered by accommodative monetary policy during the last few years. Looking ahead, we forecast GDP growth of approximately 1.8%, supported by rising global demand and further potential business-friendly reforms, as elected officials and monetary policymakers look for a set of policies that may also turn international developed economies to more traditional business cycle drivers.

While earlier in the economic cycle than the U.S., recent improvements in economic growth in the Eurozone have escalated calls to begin removing monetary accommodation. This shift makes it more pressing to implement fiscal and structural measures that can take advantage of the cyclical upswing that monetary

4 BETTER GROWTH, IMPROVED BUSINESS SPENDING EXPECTED IN 2018



Source: LPL Research, U.S. Bureau of Economic Analysis, Bloomberg 10/31/17

For GDP growth, 2017 estimate based on year-to-date data through the third quarter, Bloomberg-surveyed economist consensus for the fourth quarter. For sector contributions, 2017 estimates based on year-to-date data through third quarter and LPL estimates for fourth quarter. Estimates may not develop as predicted.

policy has provided thus far. Growth in the Eurozone gained traction over the past year, with improving business confidence leading to higher investment as the worst of the political fears failed to materialize. However, given the uncertainties associated with the surge in nationalism, Brexit negotiations, and the upcoming elections in Italy, European Central Bank (ECB) President Mario Draghi announced plans to only modestly reduce stimulus by purchasing fewer bonds over a longer period in the coming year, leaving changes to policy rates on hold until 2019.

Prospects in Japan have also brightened, as the combination of government spending and monetary accommodation finally pulled GDP higher for five consecutive quarters, the best performance in a decade. Though GDP growth is expected to hover around 1.0%, inflation is projected to remain well below the Bank of Japan’s 2.0% target, likely keeping the zero percent target for the 10-year Japanese government bond in place for the next year or two. The Japanese yen should therefore remain within a range supportive for export growth. Considering the snap election and the current environment, we look for Prime Minister Shinzo Abe’s ruling Liberal Democratic Party to delay the sales tax hike planned for October 2019, which should further boost consumer and business confidence in the year ahead.

Looking at emerging economies, we expect growth near 4.8%, as advantageous demographics, stable commodity prices, and early cycle acceleration help offset slowing but stable growth in China. India’s role as “the new China,” given its size and growth potential, and possible rebounds in Latin American economies will be among the stories to watch, but the return of the business cycle will be most evident from the lenses of China and the U.S. dollar. Despite the slowdown in the pace of output growth in China, emerging economies have held up well, showing resilience and flexibility in economic performance. The challenge now for elected officials and monetary policymakers is to ensure sufficient currency strength to prevent inflation and sustain interest payments on ~\$3.5 trillion in dollar-denominated debt.

At the conclusion of the Chinese Communist Party Congress in the fall of 2017, President Xi consolidated power and has since emphasized finding a balance between market-driven forces and state-owned enterprises. Nonetheless, demand from China remains strong for commodities and inputs from emerging nations, many of which remain export driven. As its economy continues to transition, we expect China’s GDP to expand near 6.5% in 2018 (down slightly from 2017 estimates of 6.8%), supported by the powerful combination of gains in retail sales and industrial production.

HOW TO INVEST		Economies around the globe are at different stages of the economic cycle, with varying investment implications.	
	STAGE OF ECONOMIC CYCLE	BUSINESS CYCLE DRIVERS	POTENTIAL INVESTMENT IMPLICATION
U.S.	Mature	Return of business fundamentals and fiscal stimulus may create opportunities.	One- to two-year boost from return of business cycle, but watch rising volatility.
INTERNATIONAL DEVELOPED	Early mature	Structural problems persist but there is slow improvement.	Accelerating growth, but business environment may not match 2017.
EMERGING MARKETS	Recovery (especially commodity producers)	Disruptions of recent years have helped set stage for reform.	More volatile, but may reward patient investors.

TAKE 2: AI STRATEGIES MAY SEE ANOTHER GOOD YEAR

Following disappointing performance across the alternative investment (AI) landscape over the past few years, 2017 has provided a promising reminder of the benefits alternative strategies may provide. We continue to believe AI implementation is best assessed within the context of a specific portfolio. But as we head into 2018, we broadly believe long/short equity and event-driven investing may be well positioned to continue providing attractive risk-adjusted returns and downside protection compared with traditional long-only portfolios.

Long/short equity strategies have recently benefited from low levels of correlation between individual stocks, providing a tailwind for fundamental stock selection on both the long and short side of their portfolios. If greater return differentiation among individual stocks and sectors continues, the opportunities available for long/short managers may remain robust.

Within the category, we favor strategies employing a global mandate and variable net market exposure—two characteristics that we believe allow managers a degree of flexibility in evolving market conditions.

Legislative progress on tax reform and greater clarity on what to expect may provide opportunities within the event-driven space. Lower corporate tax rates may stimulate additional merger volume as firms seek inorganic growth with the extra cash flow. There are also potential divergences in equity valuations, as investors re-evaluate how lower corporate tax rates, interest deductibility, or revisions to how capital expenditures are expensed impact profits, growth, and overall firm capital structures. Additionally, while merger volume remains healthy, a more accommodative regulatory review process may provide additional support to merger arbitrage strategies.

Alternative strategies may not be suitable for all investors and should be considered as an investment for the risk capital portion of the investor's portfolio. The strategies employed in the management of alternative investments may accelerate the velocity of potential losses.

BONDS

I'M NO HERO: Expect Flat to Low Returns in Bonds

Given our outlook for the economy, Fed policy, and the potential for fiscal stimulus, we expect the fixed income market to be under pressure in the coming year. Moderate GDP growth and rising inflation may lead to gradually higher interest rates, limiting bond returns. Investors in global fixed income markets can no longer count on central banks to support the asset class. That said, bonds remain an important element of a well-balanced portfolio, serving to provide protection should we experience equity market pullbacks.

Rising Interest Rates, a Familiar Foe

We expect high-quality fixed income to remain under moderate pressure in 2018, amid gradually increasing interest rates across the yield curve. Two to three additional Fed rate hikes will likely pressure short-term interest rates higher, while increasing levels of growth and inflation push long-term interest rates higher. Given the continued, albeit modest, pickup in growth and inflation, we would expect the 10-year Treasury yield to end 2018 in the 2.75–3.25% range.

The Fed's efforts to reduce its balance sheet will add to this dynamic during the coming year, but it may become a more important factor later in 2018, depending on whether other global central banks become more aggressive. U.S. Treasury yields are still

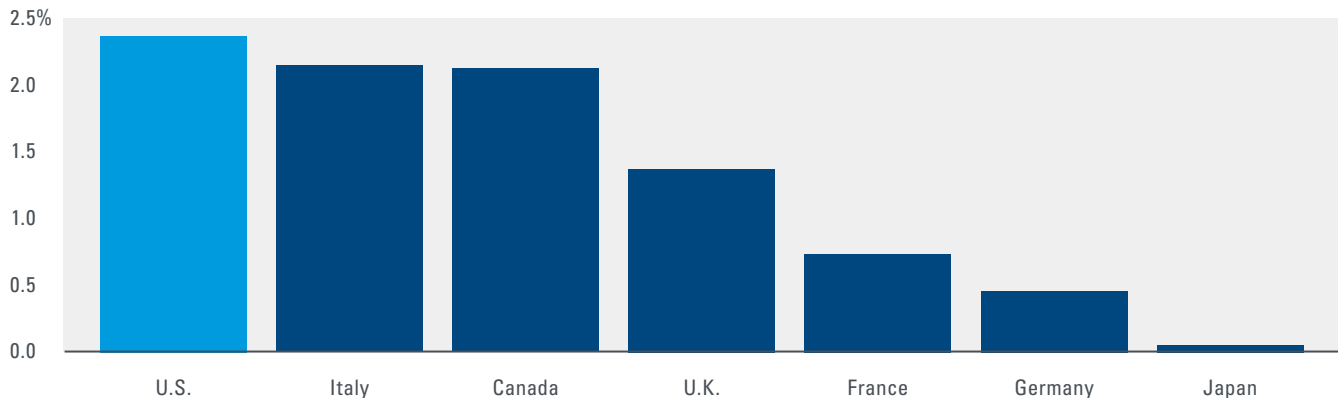
higher than those in other developed nations, however, and any jump up in domestic interest rates may be met by increased demand from foreign investors, potentially limiting upward moves in Treasury yields [Figure 5].

Using scenario analysis and our expectations for a gradual pickup in interest rates across the yield curve, we expect the total return for the Bloomberg Barclays U.S. Aggregate Bond Index to be within the range of flat to low-single-digits during 2018, slightly lower than our 2017 forecast of low- to mid-single-digits.

Within high-quality fixed income, we prefer an overweight to investment-grade corporate bonds, approximately benchmark weight to mortgage-backed securities (MBS), and an underweight to Treasuries.

5 TREASURY YIELDS STILL HIGH FROM A GLOBAL PERSPECTIVE

● 10-Year Government Bond Yields for G7 Nations



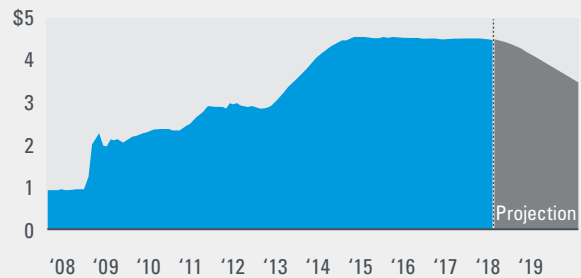
Source: LPL Research, Bloomberg 10/31/17

Investing in foreign and emerging markets debt securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical and regulatory risk, and risk associated with varying settlement standards.

**LATEST MOVE BY THE FED:
Reduce the Balance Sheet**

In October 2017 the Fed began the process of gradually reducing its balance sheet by decreasing reinvestment of principal payments from maturing bonds. The Fed will allow \$10 billion of maturing MBS and Treasuries to roll off its balance sheet each month, which will increase by \$10 billion every three months until reaching a maximum of \$50 billion per month. The next scheduled increase will take place in January 2018.

6 FED BALANCE SHEET (\$ TRILLIONS)



Source: LPL Research, Bloomberg 10/31/17

We continue to believe investment-grade corporate bonds can offer incremental value over Treasuries due to their yield premium over Treasuries and the positive backdrop for corporate America. While MBS offer above-Treasury yields and an attractive tradeoff between yield and interest rate sensitivity, the pace of the Fed’s balance sheet reduction could put moderate pressure on MBS as the year progresses.

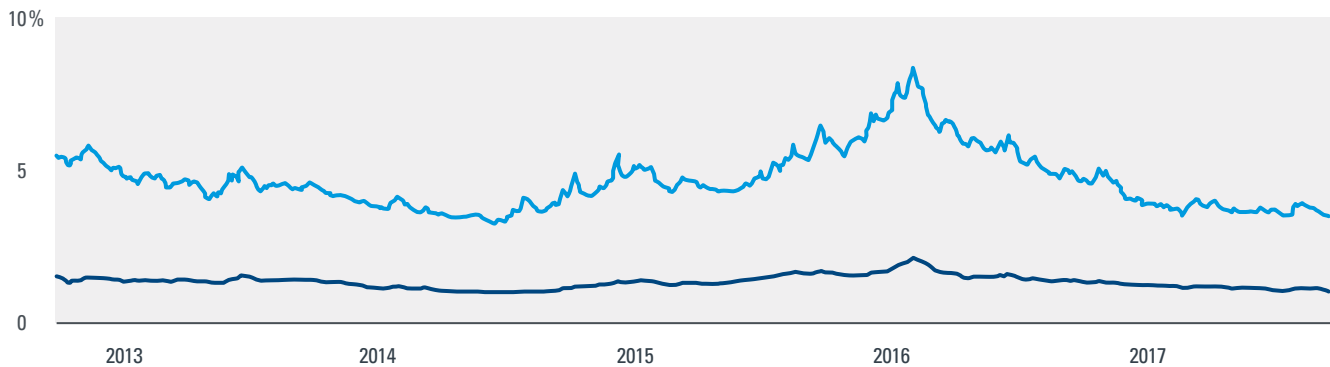
We maintain a preference for the intermediate portion of the yield curve, as we don’t believe investors are

adequately compensated for the additional interest rate risk of long-term bonds at current yield levels.

Lower-quality, more economically sensitive areas of fixed income may be poised for another decent year of returns as well. Amid continued equity market strength, our expectation for high yield is mid-single-digit returns. Though high-yield valuations are expensive relative to historical metrics, the combination of default levels, default forecasts, and loosening bank lending standards all support

7 CREDIT MARKETS STILL SHOWING CONFIDENCE, LITTLE STRESS

● High-Yield Spread ● Investment-Grade Spread



Source: LPL Research, Bloomberg 10/31/17

Investment-grade spread: option-adjusted spread for Bloomberg Barclays U.S. Corporate Bond Index. High-yield spread: option-adjusted spread for Bloomberg Barclays U.S. Corporate High Yield Bond Index. Yield of each index over comparable maturity Treasuries.

Mortgage-backed securities are subject to credit, default, prepayment risk that acts much like call risk when you get your principal back sooner than the stated maturity, extension risk, the opposite of prepayment risk, market and interest rate risk.

High-yield/junk bonds are not investment-grade securities, involve substantial risks, and generally should be part of the diversified portfolio of sophisticated investors.

Bank loans are loans issued by below investment-grade companies for short-term funding purposes with higher yield than short-term debt and involve risk.

fundamentals and, we believe, justify current valuations. Because valuations are expensive, 2018 could potentially be a year in which yield drives the majority of return. Expensive valuations represent a two-sided coin: They do limit return potential, but they also indicate the high degree of confidence investors have in the ability of corporations to repay their debt obligations [Figure 7].

We remain constructive on bank loans, for their attractive yields, an elevated position in the corporate capital structure, and less interest rate sensitivity relative to high yield.

The Value of a Good Sidekick

Although high-quality fixed income may be under pressure next year, it remains a vital part of well-balanced, diversified portfolios. Investors should resist the temptation to move down the quality spectrum amid full valuations in asset classes like high yield.

Despite low-quality fixed income's outperformance over the last year*, pullbacks in equity markets in recent years solidify our belief that high-quality fixed income is a valuable risk mitigation tool in balanced portfolios. Although lower-quality fixed income choices like high yield and bank loans may add yield and upside potential to fixed income allocations during times of economic and equity market strength, they do not provide the same protection as high-quality fixed income in down markets.

International Bonds Will Try to Remain Cool Under Pressure

Foreign developed bonds could find themselves under pressure, like domestic high-quality fixed income. Relative to Treasuries, valuations are even more expensive in foreign government bonds, such as Germany and Japan. The ECB has announced plans to begin tapering bond purchases from a rate of 60 billion euros per month to 30 billion euros per month

in January 2018, due to a desire to normalize monetary policy. Tapering purchases may put upward pressure on foreign interest rates, which, combined with rising levels of growth and inflation, may make for a tough road ahead for developed foreign bonds.

Emerging market debt (EMD) is also expensive on a valuation basis, with spreads over comparable Treasury bonds at multi-year lows. The continued global expansion should provide support for EMD, along with still accommodative global monetary policy. However, ECB tapering could create a headwind here as well. Historically, less accommodative policy has coincided with slowdowns in emerging market growth rates due to higher borrowing costs. In general, we prefer dollar-denominated EMD, as local currency EMD is more volatile due to the currency fluctuation for U.S.-based investors.

Muni Bonds Could Be a Double Agent

For investors looking for tax-advantaged fixed income allocations, municipal bonds are still an important fixed income sector. The potential for tax cuts later this year or in 2018 remains a slight negative, as a decline in tax rates makes the tax advantage of municipal bonds slightly less valuable, all else being equal. However, if tax reform limits certain types of issuance, it could be a tailwind for the municipal market.

The overhang of underfunded pension liabilities may drive credit risk up in certain states until they shore up their fiscal positions. The potential of an infrastructure plan, should it necessitate borrowing by states and municipalities, could also pressure the municipal market with excess supply in 2018. Puerto Rico remains a headline risk within the municipal space, but its challenges have been contained so far with limited spillover to the broader municipal market.

*The lower-quality Barclays U.S. High Yield Index has returned 8.9% over the one-year period ending 10/31/17, while the high-quality Bloomberg Barclays U.S. Aggregate Index has returned 0.9% over the same time frame.

Municipal bonds are subject to availability, price, and to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise. Interest income may be subject to the alternative minimum tax. Federally tax-free but other state and local taxes may apply.

HOW TO INVEST		We expect interest rates to continue to rise at a moderate pace in 2018, pressuring high-quality fixed income. Credit spreads are tight, limiting upside for economically sensitive bonds, but a positive economic outlook points to reasonable reward for the added risk.
INTERMEDIATE-TERM HIGH-QUALITY BONDS	✓	We maintain a preference for the intermediate portion of the yield curve, for the diversification benefits and reduced interest rate risk relative to long-term bonds.
INVESTMENT-GRADE CORPORATE BONDS	✓	The incremental yield within investment-grade corporates could potentially add value relative to Treasuries as the business cycle extends.
MORTGAGE-BACKED SECURITIES (MBS)	✓	The risk-reward tradeoff within MBS (yield benefit relative to interest rate risk) remains favorable relative to other high-quality options, though accelerating Fed balance sheet normalization could become a headwind.
BANK LOANS	✓	Bank loans boast low interest rate sensitivity and attractive yields. Despite our preference for higher-quality fixed income, bank loans can still be used at the margins for appropriate investors.
HIGH-YIELD BONDS	✓	High-yield bonds still display solid fundamentals, though valuations remain expensive; another option to be used at the margins for appropriate investors.
DEVELOPED FOREIGN BONDS	✗	Rising levels of growth and inflation and declining central bank accommodation may make for a tough road ahead for developed foreign bonds.
LONG-TERM HIGH-QUALITY BONDS	✗	We don't believe investors are adequately compensated for the additional interest rate risk of long-term bonds at current yield levels.

A CLOSE-UP ON THE U.S. DOLLAR

We expect modest upward pressure on the U.S. dollar in 2018 as the Fed hikes interest rates and continues to taper bond purchases, pushing market interest rates higher, against the backdrop of gradual and delayed tapering by the ECB and continued aggressive monetary policy stimulus from the Bank of Japan.

From a technical perspective, the U.S. dollar has shown signs of reversing a cyclical downtrend in place since the beginning of 2017, which could potentially signal more gains into the first half of 2018. Other potential catalysts for a higher dollar include pro-growth fiscal policies in the U.S., structural challenges in Europe, and Prime Minister Shinzo Abe's recently strengthened mandate for monetary stimulus. A key risk to the dollar, beyond the Fed reversing course due to unexpected weakness, would be a failure in Congress to achieve tax reform.

Currency risk is a form of risk that arises from the change in price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face currency risk if their positions are not hedged.

STOCKS

SAVING THE DAY: Is it a Bird? Is it a Plane? Is it Double-Digit Stock Returns?

With a focus on business fundamentals and the impact of fiscal policy, the return of the business cycle means that earnings growth may have to shoulder most, if not all, of the load if stocks are going to produce attractive returns in 2018.

The good news is the S&P 500 may be well positioned to generate earnings growth at or near double-digits in 2018 thanks to a combination of better economic growth and potentially lower corporate tax rates, despite some possible downward pressure on profit margins from higher wages.

We also expect the stock market's price-to-earnings multiple (PE), at 19.5 times trailing earnings, to hold steady (or drop slightly) in 2018, as the economic cycle ages, inflation picks up modestly, and central bank policy tightens further. Our 8–10% S&P 500 earnings growth forecast for 2018 and a target PE of 19 drive our 2018 year-end target of 2725–2750 for the S&P 500 and total return forecast of 8–10% (including dividends).

Risks to our stock market forecast include Congress failing to pass a tax agreement, a potential policy mistake by a central bank, and political uncertainty around the midterm elections.

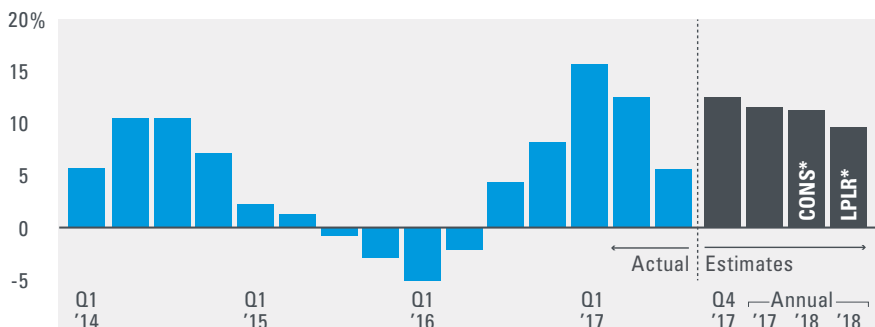
Earnings Could Be Stronger Than Ever

After three straight years (2014–2016) of basically flat S&P 500 operating earnings, at around \$118 per share, consensus estimates project \$131 earnings per share (EPS) for 2017 and \$146 per share for 2018. Earnings are supported by better global economic growth, including a pickup in business spending and robust manufacturing activity, normalized inflation (near 2%), and stable operating margins, even with some modest wage and other input cost pressures.

Should tax reform, or even just a lowered corporate tax rate, be achieved, earnings may get another 5–6% boost on top of that, putting numbers above the consensus \$146 per share potentially in play. To break that down, a favorable macroeconomic backdrop

8 STRONG EARNINGS GROWTH EXPECTED TO CONTINUE

● S&P 500 Year-over-Year EPS Growth



<p>\$148–151 +13–16% 2018 Tax Reform/Tax Cuts</p>
<p>\$142–143 +8–10% 2018 Macro Environment</p>
<p>\$131 2017 S&P 500 Consensus EPS</p>

Double-digit earnings growth realistic if tax policy changes are achieved

Source: LPL Research, Thomson Reuters 10/31/17

*CONS = Consensus estimate; LPLR = LPL Research forecast. Estimates may not develop as predicted.

Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. EPS serves as an indicator of a company's profitability. EPS is generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the PE valuation ratio.

The PE ratio (price-to-earnings ratio) is a measure of the price paid for a share relative to the annual net income or profit earned by the firm per share. It is a financial ratio used for valuation: a higher PE ratio means that investors are paying more for each unit of net income, so the stock is more expensive compared to one with a lower PE ratio.

supports mid- to high-single-digit earnings gains in the next year, consistent with long-term trends, resulting in our forecast of 8–10% growth, or roughly \$142–143 for S&P 500 EPS for 2018 [Figure 8]. Our forecast does not include any direct impact from the tax bill because passage is not assured at this time and final details remain unclear. As noted on Figure 5, we would identify earnings growth in the 13–16% range as the upside potential we may see from tax reform.

Some Other New Leaders We'll Turn To

A focus on business fundamentals and the impact of fiscal policy will have implications for equity leadership across size, style, sectors, and geography.

9 MORE FAVORABLE FACTORS FOR SMALL CAPS THAN LARGE

	Small Cap	Large Cap
Tax Policy	✓	
Lower Corporate Tax Rate	✓	
Repatriation		✓
Stock Market Sensitivity	✓	
Cyclical Sector Leadership	✓	
Rising Interest Rates		✓
U.S. Dollar	✓	
Valuations		✓

Source: LPL Research 10/31/17

SMALL CAP OPPORTUNITY

Since the initial post-election rally late in 2016, small caps have had a difficult time keeping up with the strong performance of large caps, at least until September 2017 when prospects for tax reform began to improve. Small caps generally pay higher tax rates than large caps—we estimate 5% higher on average—so any potential tax reform would benefit this group significantly [Figure 9].

As the monetary policy ball is handed off to fiscal policy and a more typical business cycle emerges, small cap performance may improve. That hinges on the White House and Republicans reaching a tax deal that can get passed through Congress. Small cap, which are more domestically oriented companies, are also in a better position to weather a potentially stronger dollar due to their higher proportion of domestic revenue.

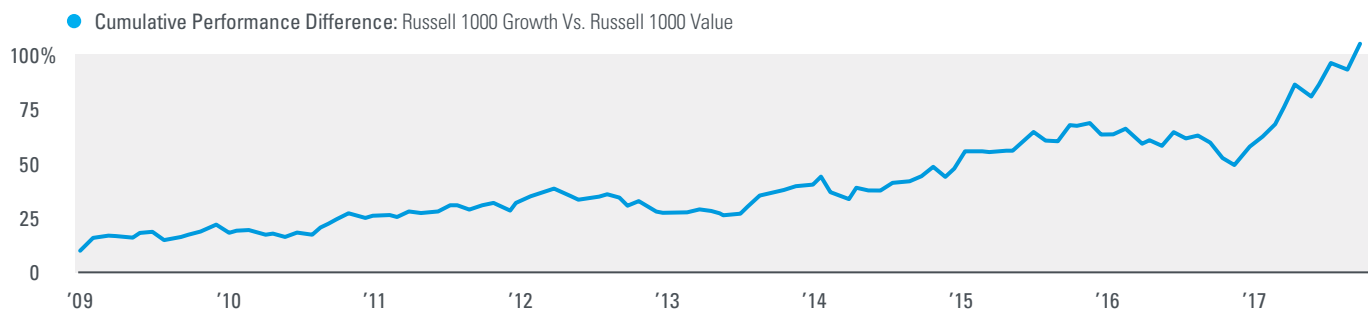
Technicals are also supportive of small cap. The trend for small cap performance relative to large caps is favorable, suggesting small caps may be poised to outperform large caps in 2018.

We see the risk to small caps related to the age of the business cycle as manageable at this stage, but small caps may underperform should a potential stock market correction materialize.

STYLE

Growth has been on a roll, outperforming value significantly so far in 2017. That leadership is nothing new, as growth has outpaced value consistently for a

10 HAS THE GROWTH RUN BECOME OVEREXTENDED?



Source: LPL Research, Bloomberg 10/31/17

Investing in foreign and emerging markets securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Because of its narrow focus, sector investing will be subject to greater volatility than investing more broadly across many sectors and companies.

decade in what has been one of the longest periods of growth outperformance in history [Figure 10].

As markets return more traditional business cycle drivers, several dynamics may contribute to a better environment for value stocks. The value style tends to perform better when economic growth accelerates, which we expect to see in 2018, especially if fiscal stimulus is put in place and corporate tax rates are lowered. The gradual acceleration since the first quarter of 2017 has not benefited value, suggesting that benefit could still be forthcoming. Higher interest rates as growth and inflation pick up, and a potentially steeper yield curve, may also support better value performance in traditional value plays such as financials; while strength in technology, the biggest growth sector, may be moderate even if the sector outperforms as we expect.

SECTORS

We expect cyclical sectors to outperform their defensive counterparts as the economic expansion continues. Our favored sectors include:

- **Financials.** May benefit from an acceleration in loan growth, deregulation, and a steeper yield curve as monetary policy stimulus is removed.

- **Industrials.** May benefit from stronger global economic growth, a pickup in business spending, and increasing government defense budgets.
- **Technology.** May benefit from a pickup in business spending, product innovation, and the sector’s role as a productivity enabler.

REGIONS

From a regional perspective, we favor the U.S. and emerging markets (EM) over developed foreign markets broadly, although the improving outlook in Japan is noteworthy. When looking at a combination of economic growth (favors U.S. and EM), earnings growth (favors U.S. and EM), relative political stability (favors U.S., Japan, and China over Europe), and valuations (favors EM), we see the U.S. and EM having the most favorable risk-reward profiles.

When possible, we suggest hedging currency exposure in developed markets, which would make these markets more attractive to us given our expectation that the U.S. dollar will rise.

HOW TO INVEST		Our expectations for equity market leadership in 2018 are based on our forecast for stronger global economic growth, continued strong earnings gains, tighter monetary policy, and a gradual rise in interest rates.
U.S. STOCKS	✓	A slight pickup in economic growth and fiscal stimulus are supportive of a continuation of the bull market.
CYCLICAL STOCKS	✓	Improving economic environment is supportive of more economically sensitive investments.
SMALL CAPS	✓	A reduction in the corporate tax rate and potential gains in the U.S. dollar favor small caps.
VALUE	✓	Rising interest rates to help biggest value sector (financials); relative valuations increasingly attractive.
EMERGING MARKETS (EM)	✓	Strong economic growth and attractive valuations help EM offset tighter global monetary policy.
U.S. DEFENSIVE STOCKS	✗	Improving economic environment favors more economically sensitive investments.
GROWTH	✗	Better overall economic and profit growth may cause growth to lag value in 2018, while outsized gains for technology, the biggest growth sector, are unlikely to be repeated.
DEVELOPED INTERNATIONAL	✗	European growth may have peaked while structural concerns remain, although outlook in Japan is positive.

Because of its narrow focus, sector investing will be subject to greater volatility than investing more broadly across many sectors and companies.

Investing in foreign and emerging markets securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

ACTIVE MANAGEMENT'S RECURRING ROLE

The dynamics that benefited passive strategies in recent years have started to fade and the environment for active strategies is improving. With divergences in monetary and fiscal policies emerging, interest rate differentials around the world create potential tailwinds for fundamental investing.

- **Correlations and dispersion.** We have seen lower correlations and greater dispersion across individual securities, sectors, and asset classes, creating more investment opportunities for active managers.
- **Interest rates and inflation.** Rising interest rates and inflation lead to variability in costs of capital and profit margins across companies and industries, which should lead to better capital investment decisions.
- **Volatility.** Although volatility has remained low, it is expected to increase in 2018 and should help active strategies by creating more opportunities.
- **Market breadth.** A broader range of investments do well with stronger market breadth; thus, the odds of active manager success increase as long as correlations remain low.
- **Fundamental and value factors.** As the market likely becomes more discerning about company fundamentals and valuations, factors favored by most active managers, active strategies should benefit.

The bottom line is that the re-emergence of a more “classic” business cycle, where investors can determine winners and losers based on fundamentals, should support active management’s recent positive momentum in 2018.

Active management involves risk as it attempts to outperform a benchmark index by predicting market activity, and assumes considerable risk should managers incorrectly anticipate changing conditions.

IN CLOSING

Credits Are Rolling, But This Story Isn't Over

The idea of returning back to something can conjure several emotions and questions. Is it a reluctant return, begrudgingly accepting things are back to the way they were? Or is it triumphant, where we come back better than ever, armed with lessons learned and motivated for the future? We believe this return to the business cycle has the potential to be the latter, and that investors should not only accept this new environment, but embrace it.

As we talk about returning to traditional business cycle drivers, it's also important to note that a shift in market control has already occurred. During the last couple of years, we've experienced change that's been so gradual, that we may not be feeling its impact yet. But that doesn't diminish its significance. We've already moved away from extremely accommodative monetary policy, starting with the Fed's first interest rate hike of this expansion in 2015, another in 2016, and now two in 2017 (with the potential for a third in December). Even with the additional rate increases and the start of balance sheet normalization by the Fed, 2017 was one of the least volatile years in stock market history. As we look to 2018, however, an aging expansion and a leadership transition at the Fed do increase the likelihood that stock market volatility picks up.

In 2017, the stock market experienced a boost from expanding valuations as policy dynamics shifted. Now the bar is higher for 2018, as policy actions rather than hopes will likely be required to keep this bull market moving forward. We need Congress to enact policies that will help drive employment growth, consumer spending, business investment, and corporate profits. Given this backdrop of

potentially higher volatility, but also expectations for steady GDP growth, positive earnings, and fiscal support, we believe investors can view the return of the business cycle as an opportunity—a chance to make the most of the economic expansion and bull market that began back in 2009.

We often refer to the strength and longevity of the economic expansion and bull market since the Great Recession. More than eight years have passed, they're the second and third longest bull markets and expansions in history (respectively), stock markets continue to hit new all-time highs, and there's potential for this to continue. While each year (or new market high), marks an important milestone, it's important to also think beyond the statistics and take a moment to absorb their significance. The U.S. and global economies suffered one of the worst recessions in history, and they've come back with strength, resilience, and hopefully, lessons learned. The expansion and bull market have done more than survive these last eight years; slowly but surely, they've successfully pulled us further away from the repercussions of 2008–2009. The recovery in certain areas may still be ongoing, but the next phase of this cycle may have the makings of a solid return.

We never know when the next surprise or twist may occur, however, which is why we always emphasize the tried-and-true methods of maintaining a long-term perspective, building a well-balanced portfolio, and working alongside your trusted financial advisor. And the *LPL Research Outlook 2018: Return of the Business Cycle* is here to arm you with the investment guidance and insights to support you in the year ahead. ■

IMPORTANT DISCLOSURES

The opinions voiced in this material are for general information only and are not intended to provide or be construed as providing specific investment advice or recommendations for any individual security. To determine which investments may be appropriate for you, consult your financial advisor prior to investing. All indexes are unmanaged and cannot be invested into directly. Unmanaged index returns do not reflect fees, expenses, or sales charges. Index performance is not indicative of the performance of any investment. All performance referenced is historical and is no guarantee of future results. Estimates may not develop as predicted.

All information is believed to be from reliable sources; however we make no representation as to its completeness or accuracy.

Economic forecasts set forth may not develop as predicted, and there can be no guarantee that strategies promoted will be successful.

Investing in stock includes numerous specific risks including: the fluctuation of dividend, loss of principal, and potential illiquidity of the investment in a falling market.

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond and bond mutual fund values and yields will decline as interest rates rise and bonds are subject to availability and change in price.

Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. However, the value of fund shares is not guaranteed and will fluctuate.

There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not ensure against market risk.

Long/short equity funds are subject to normal alternative investment risks, including potentially higher fees; while there is additional management risk, as the manager is attempting to accurately anticipate the likely movement of both their long and short holdings. There is also the risk of "beta-mismatch," in which long positions could lose more than short positions during falling markets.

Event driven strategies, such as merger arbitrage, consist of buying shares of the target company in a proposed merger and fully or partially hedging the exposure to the acquirer by shorting the stock of the acquiring company or other means. This strategy involves significant risk as events may not occur as planned and disruptions to a planned merger may result in significant loss to a hedged position.

DEFINITIONS

Quantitative easing (QE) is a government monetary policy occasionally used to increase the money supply by buying government securities or other securities from the market. Quantitative easing increases the money supply by flooding financial institutions with capital in an effort to promote increased lending and liquidity.

Credit ratings are published rankings based on detailed financial analyses by a credit bureau specifically as it relates the bond issuer's ability to meet debt obligations. The highest rating is AAA, and the lowest is D. Securities with credit ratings of BBB and above are considered investment grade.

Small cap is a term used to classify companies with a relatively small market capitalization. The definition of small cap can vary, but it is generally a company with a market capitalization of between \$300 million and \$2 billion. The prices of small cap stocks are generally more volatile than large cap stocks.

A mid cap company is a company with a market capitalization between \$2 billion and \$10 billion. The prices of mid cap stocks are generally more volatile than large cap stocks.

Large cap refers to a company with a market capitalization value of more than \$10 billion.

Yield curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality, but differing maturity dates. The most frequently reported yield curve compares the 3-month, 2-year, 5-year, and 30-year U.S. Treasury debt. This yield curve is used as a benchmark for other debt in the market, such as mortgage rates or bank lending rates. The curve is also used to predict changes in economic output and growth.

Option-adjusted spreads (OAS) represent the difference between the index yield and the yield of a comparable maturity Treasury. The OAS can be used to measure the risk levels markets are placing on high-yield bonds. As spreads widen, investors demand a higher yield relative to lower-risk Treasuries, meaning risk levels have increased.

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

INDEX DEFINITIONS

The S&P 500 Index is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

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

Russell 1000® ValueIndex measures the performance of those Russell 1000 companies considered undervalued relative to comparable companies.

The Bloomberg Barclays U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment-grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS, and CMBS (agency and non-agency).

The Bloomberg Barclays U.S. Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

The Bloomberg Barclays U.S. Corporate High Yield Bond Index measures the U.S. dollar-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays EM country definition, are excluded.

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