ALGER

Inspired by Change, Driven by Growth.

Autumn 2018

Capital Markets: Observations and Insights

The Longest Expansion

The Longest Expansion

"I always thought that record would stand until it was broken." – Yogi Berra

Could the current U.S. expansion be record breaking? We think so. The current cycle is over nine years old. If it persists past the second quarter of 2019, it will be the longest on record, surpassing the 1990s period.

While it would undoubtedly make headlines, a record-breaking U.S. expansion would not be surprising to us for several reasons. First, economic cycles are lasting longer as the economy changes structurally to being more service-oriented. Second, technological changes, such as increased automation and price transparency, are mitigating traditional inventory and inflation cycles. Lastly, the depth of the last downturn and the modest rate of subsequent expansion means that the U.S. economy took longer to reach its potential output.

One thing is for sure: if this current U.S. expansion sets a new record, it will last…until it is broken. Given the trends prolonging economic cycles, we may see many more record breakers in our lifetimes.

Daniel C. Chung, CFA
Chief Executive Officer
Chief Investment Officer

Brad Neuman, CFA
Senior Vice President
Director of Market Strategy

Key Observations

- While the U.S. economic expansion is relatively old compared to history, multiple data points suggest that **growth should continue, making the current cycle the longest in U.S. history**
- Monetary conditions are tightening but **stocks and the economy should be able to absorb moderate increases in interest rates**
- **Business spending is accelerating** and driving the broader economy, bolstered by strong earnings growth, tax reform, solid business confidence, and accommodative lending conditions

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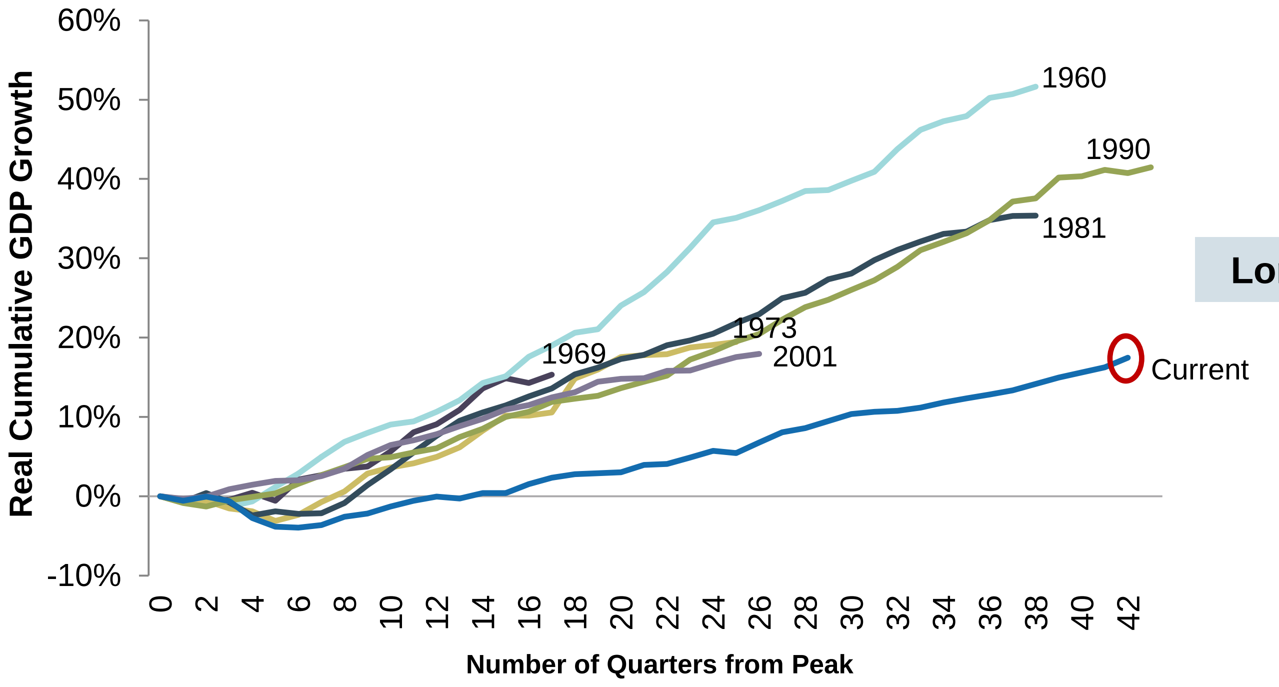
The Upside of Being Slow

- Why has the current economic expansion lasted so long and when will it end?
  – A big part of the answer is the depth of the recession that preceded it and the rate of the recovery thus far
  – Economic recoveries of comparable length have had far more growth than the present one, suggesting a long runway of economic expansion now

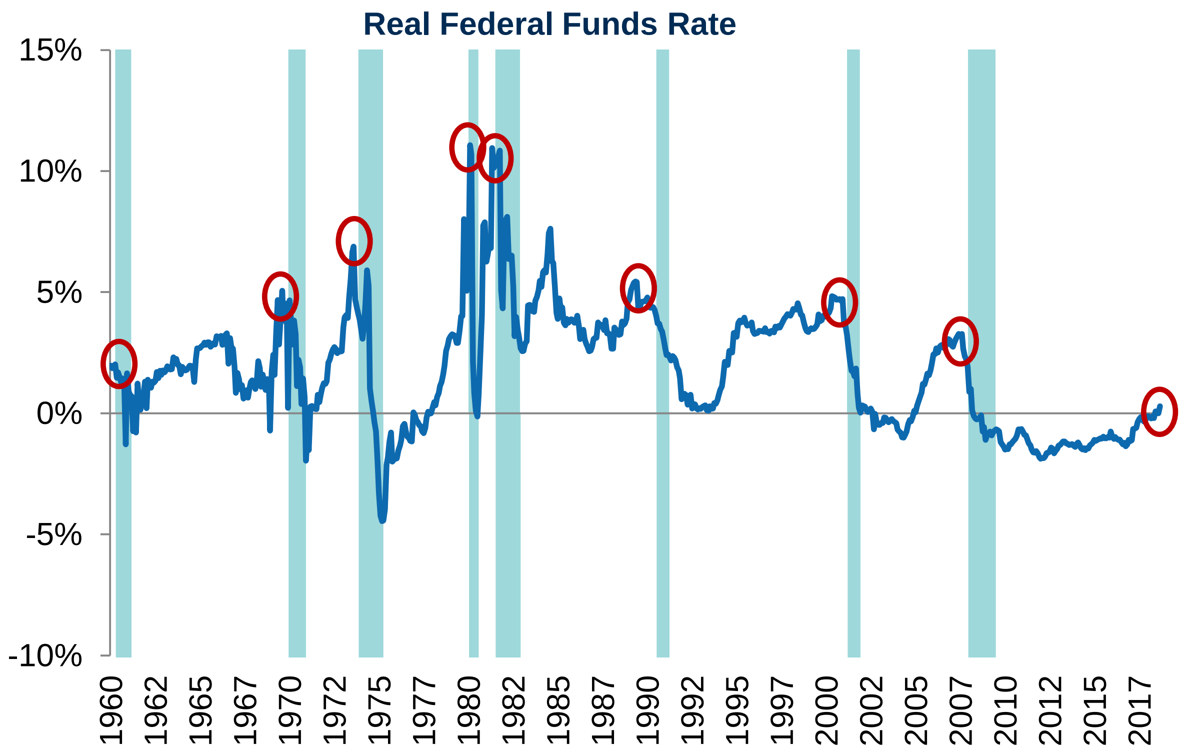


Long runway to catch up?

Source: U.S. Bureau of Economic Analysis and Alger as of September 2018. Dates indicate beginning of measurement periods.

The Longest Expansion
Monetary Policy Is Not Restrictive

- Over the past half century, every U.S. recession has been preceded by a significantly positive real Fed Funds rate of 2% or higher
- In contrast, today we have a real Fed Funds rate of close to 0%



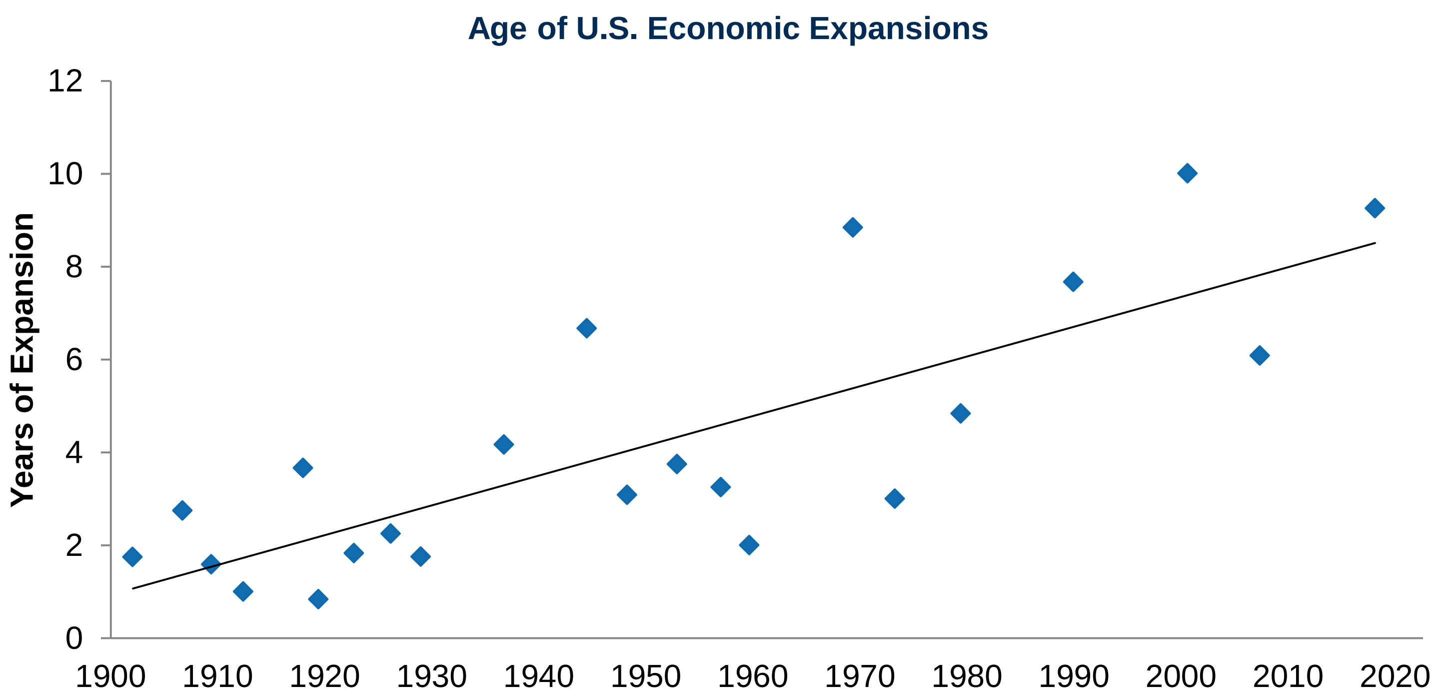
Today real short-term interest rates are far lower than what induced previous recessions

Source: FactSet as of September 2018. Real Federal Funds rate is equal to the Federal Funds rate less the year-over-year change in the PCE Price Index ex-food and energy. Shaded regions denote U.S. recessions.

The Longest Expansion

Cycles Have Been Lasting Longer

- U.S. economic expansions have been increasing in duration. Driving factors include:
  - Increased fiscal and monetary intervention
  - Structural changes in the economy
  - Technological advances such as improved inventory management

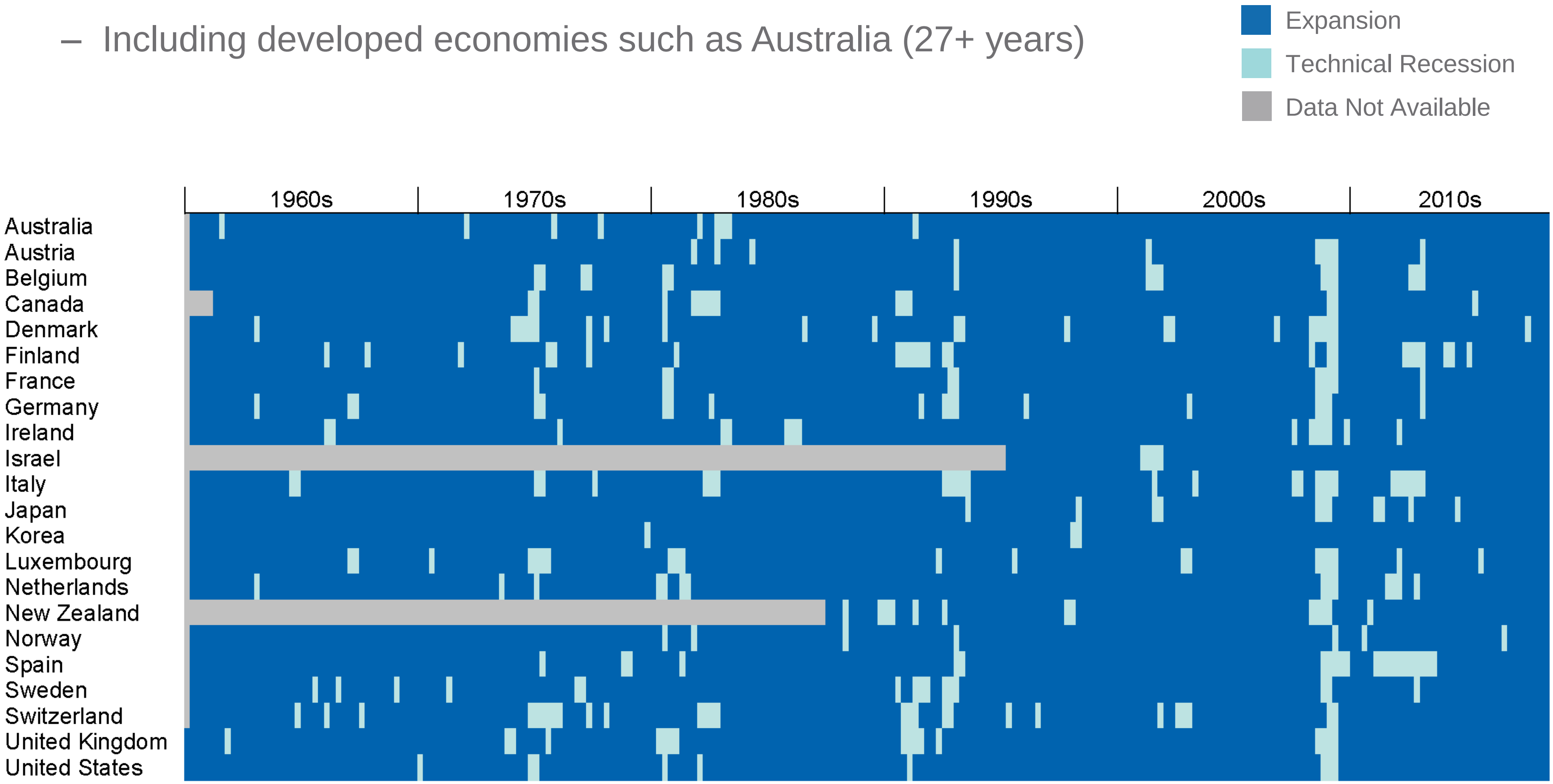


Source: FactSet. Note: double-dip recession in early 1980s accounted for as one long recession.

The Longest Expansion

Take It to the Limit?

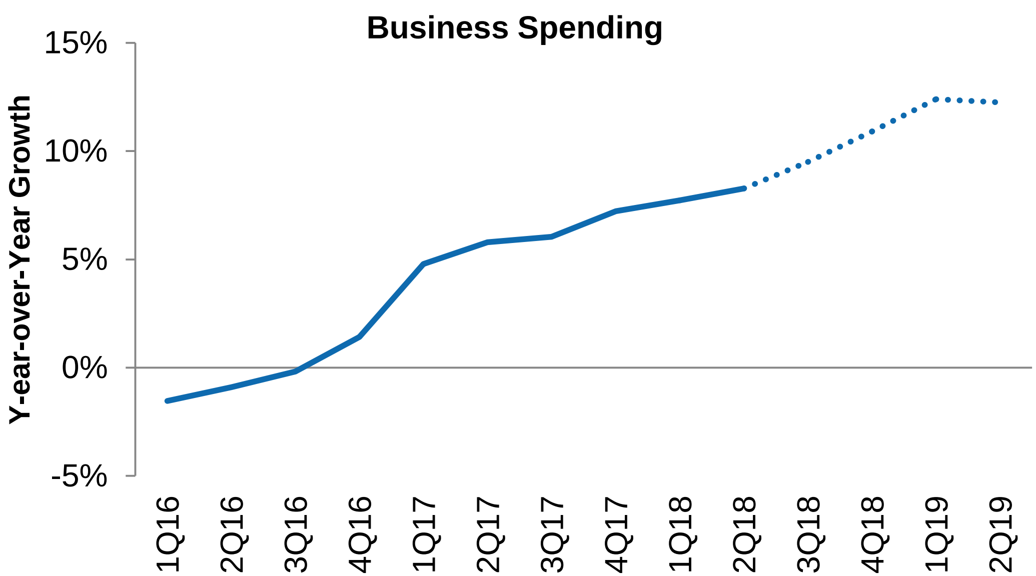
- Other countries have experienced much longer economic expansions
  - Including developed economies such as Australia (27+ years)



Source: OECD. The definition of technical recession is two consecutive quarters of negative real GDP growth – this differs from other sources such as the NBER, which determines when recessions occurred in the U.S. Data through 2Q18.

The Longest Expansion
Business Spending to Accelerate Further

- Drivers of faster growth in corporate expenditures include:
  - Strong profit growth
  - Tax reform—lower statutory rates, foreign profit repatriation, accelerated depreciation
  - Higher business confidence—driven in part by lower regulation and certainty about taxes
  - Accommodative financial conditions—banks' willingness to lend and low credit spreads



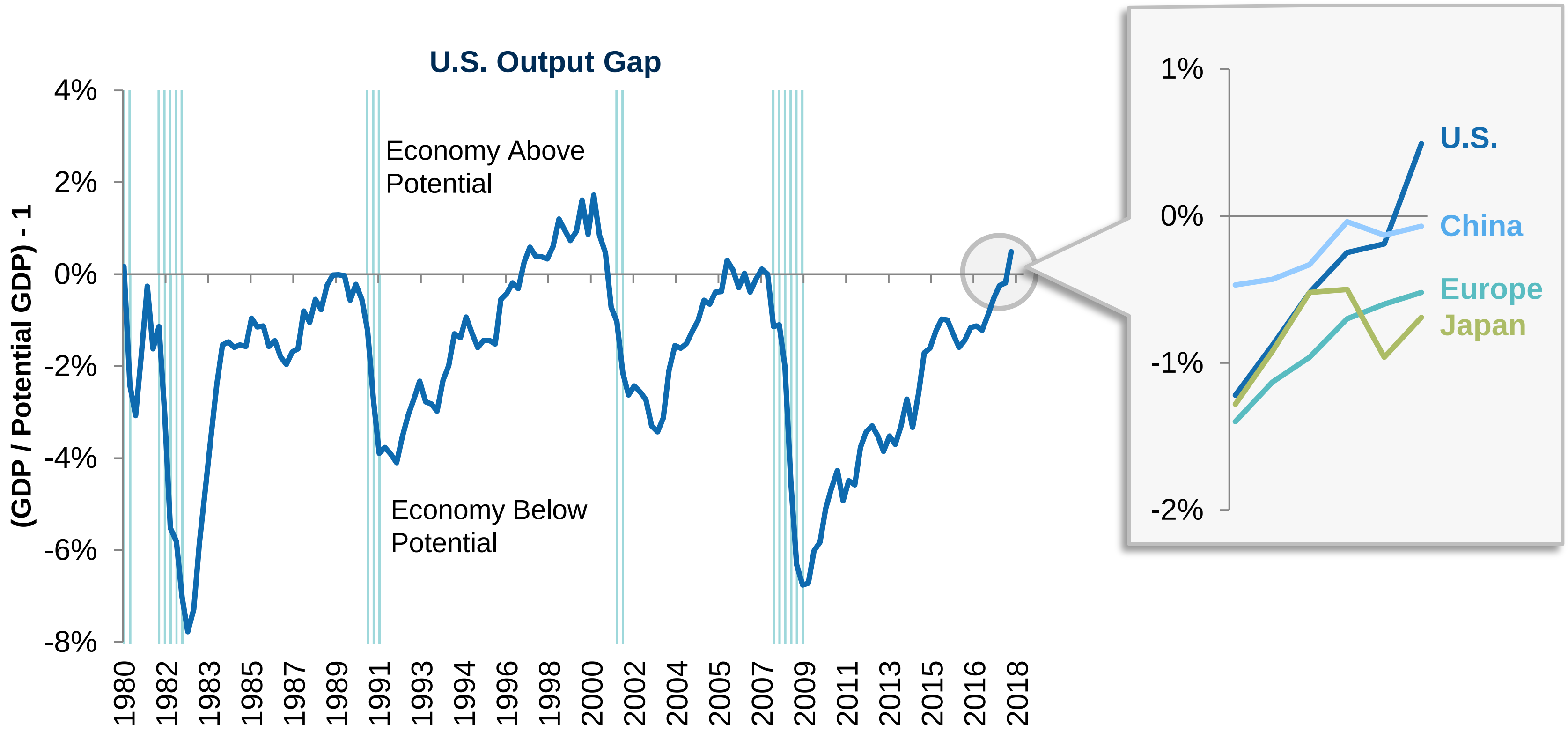
Robust earnings growth should help drive an acceleration in business spending

Source: FactSet. Business spending is U.S. private fixed nonresidential investment with estimates (dotted line) based on a regression with S&P 500 EPS.

The Longest Expansion

Better to Be Behind?

- The output gap measures economic output relative to potential, with a lower output gap indicating more growth left in the cycle
- While most major regions are at or near potential output, some, such as Japan and Europe, are further behind the U.S.



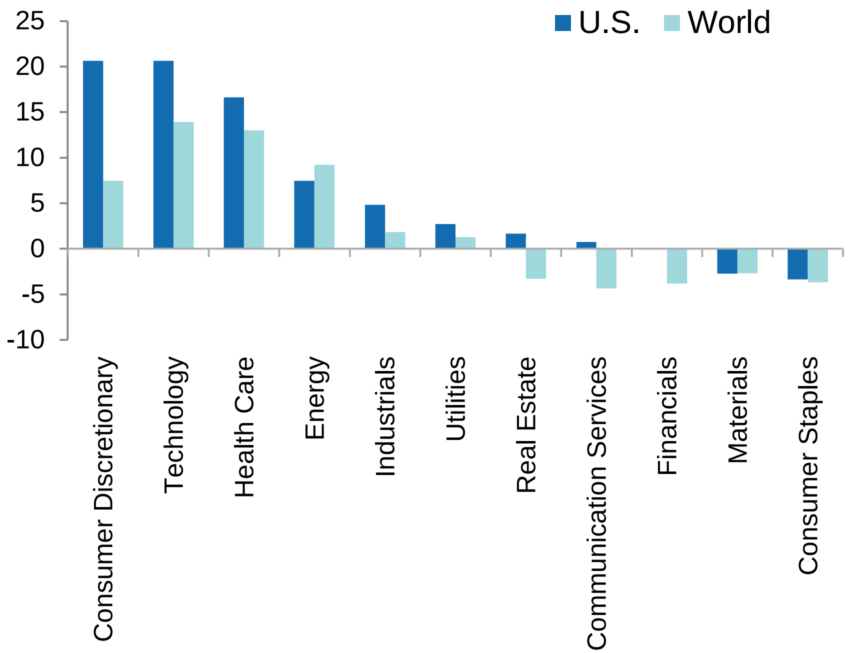
Source: FactSet and Oxford Economics. Shaded regions indicate U.S. recessions.

Performance

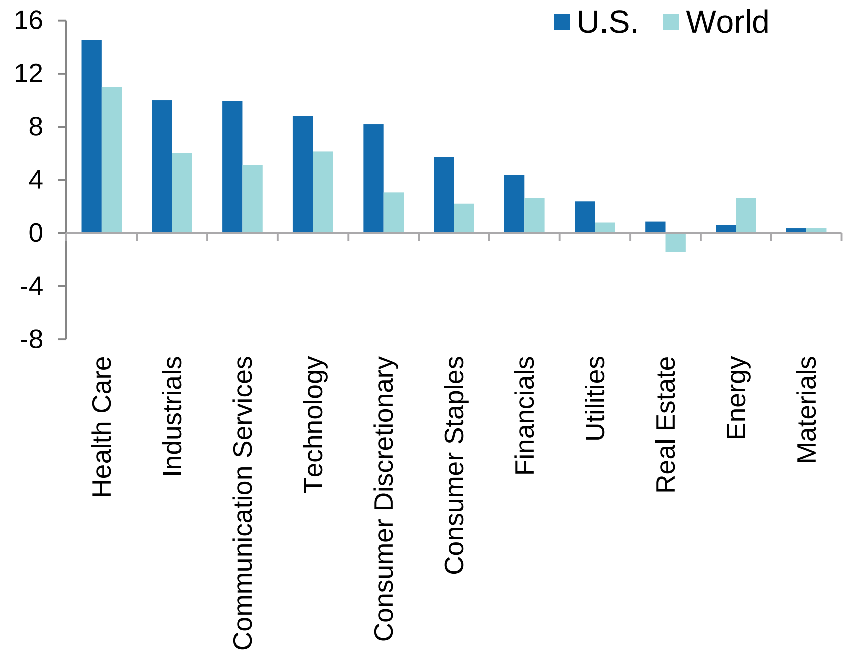
Technology-Related Companies Lead

- Growth-oriented sectors, such as consumer discretionary, technology, and health care, have outperformed this year

YTD
Returns (%)



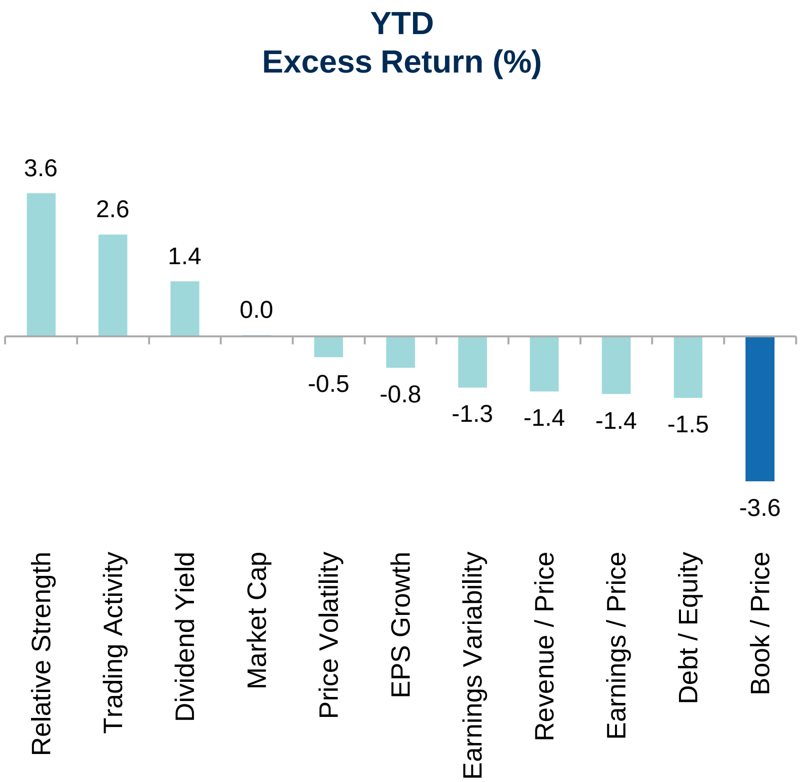
3Q18
Returns (%)

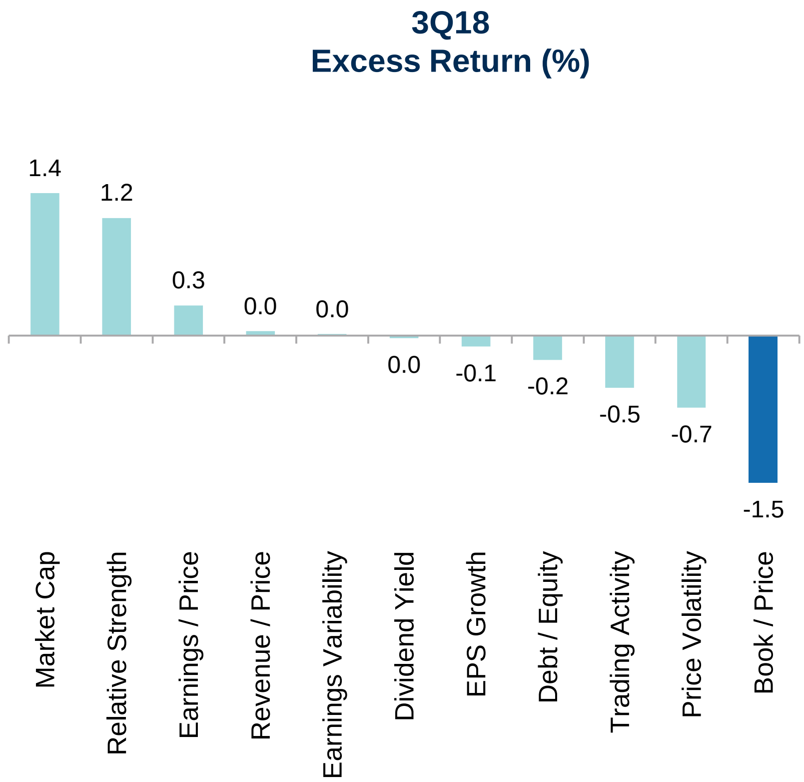


Source: FactSet as of 9/30/18. U.S. represented by S&P 500 and World represented by MSCI AC World Index in USD.

Performance
Value Has Lagged

- Year-to-date, value factors have generally underperformed

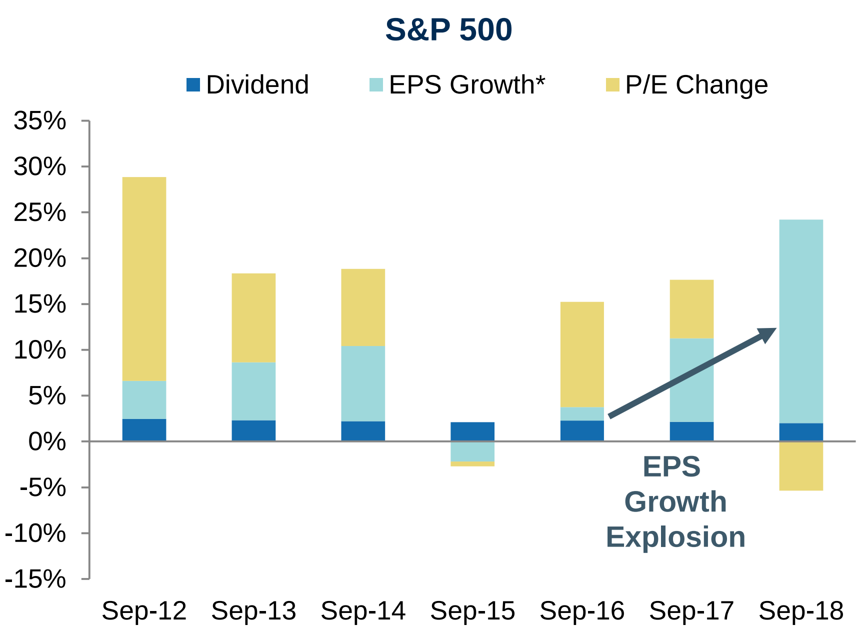




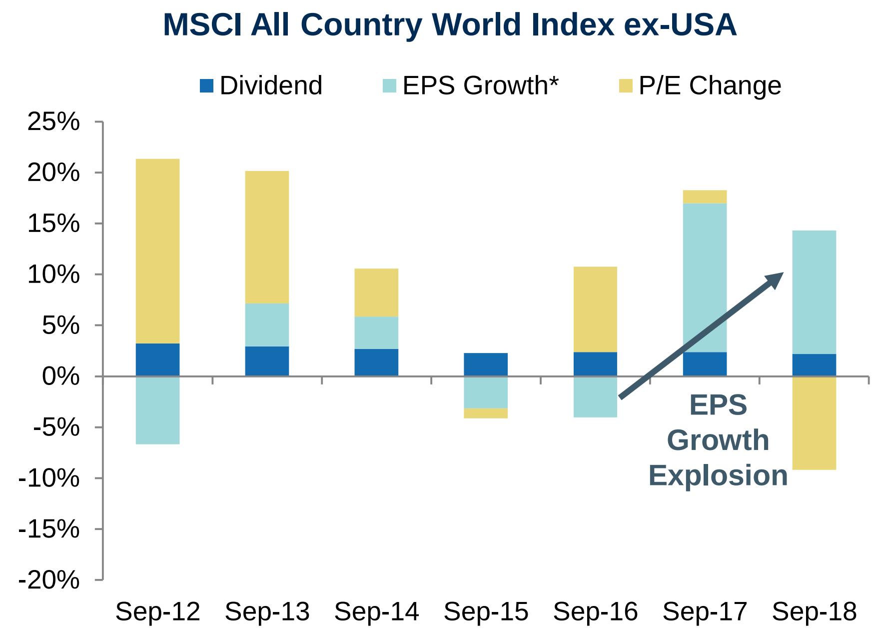
Source: FactSet as of 9/30/18 using Northfield defined quantitative factors for the Northfield broad U.S. market database.

The Earnings Growth Explosion Is Driving Performance

Total Return = Dividend Yield + EPS Growth +/- P/E Change



12-Month Total Return:	30%	19%	20%	-1%	15%	19%	18%



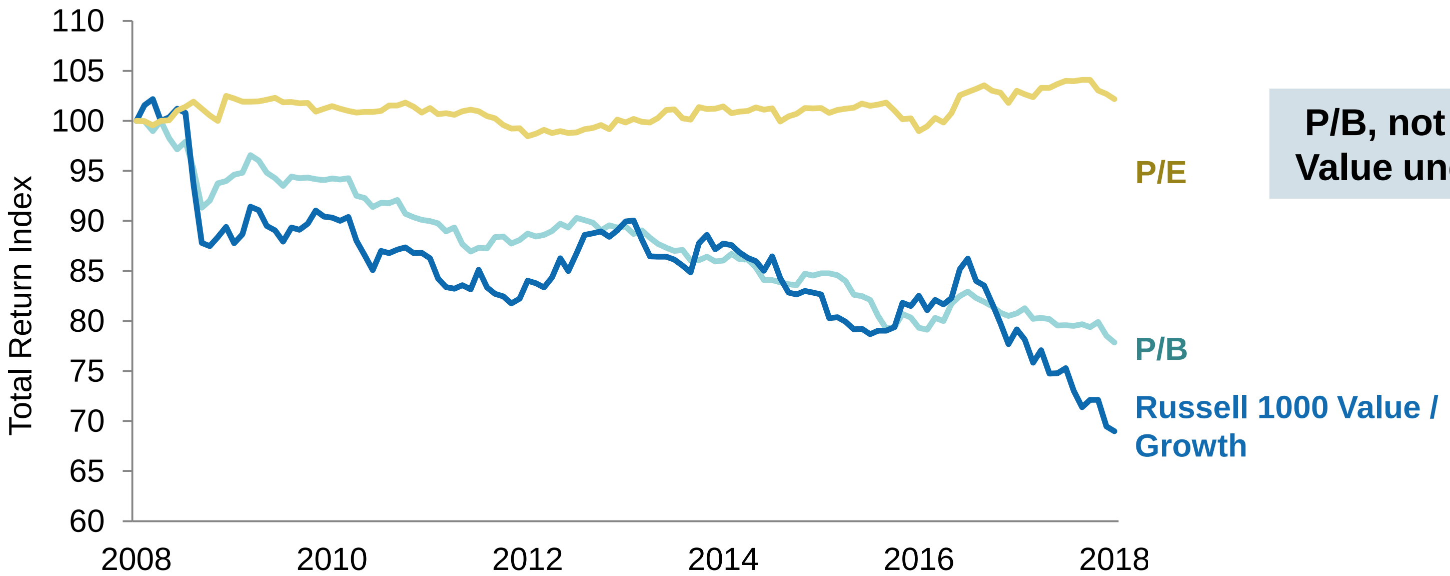
12-Month Total Return:	14%	21%	11%	-1%	7%	20%	5%

Source: FactSet as of 9/30/18. *Based on consensus estimates of next 12-month EPS. Actual earnings per share might be materially different than shown. MSCI ACWI ex-US performance based on local currency.

Performance

Structural Issues Driving Growth vs. Value

- Growth stocks have dramatically outperformed (+50%) Value stocks over the past decade
- The culprit for value investors has been the very weak performance of buying low P/B stocks, while low P/E strategies have fared much better
- Book value, used heavily in index classification of Growth vs. Value, may no longer be as relevant given changing business models, e.g. R&D is not capitalized in book value



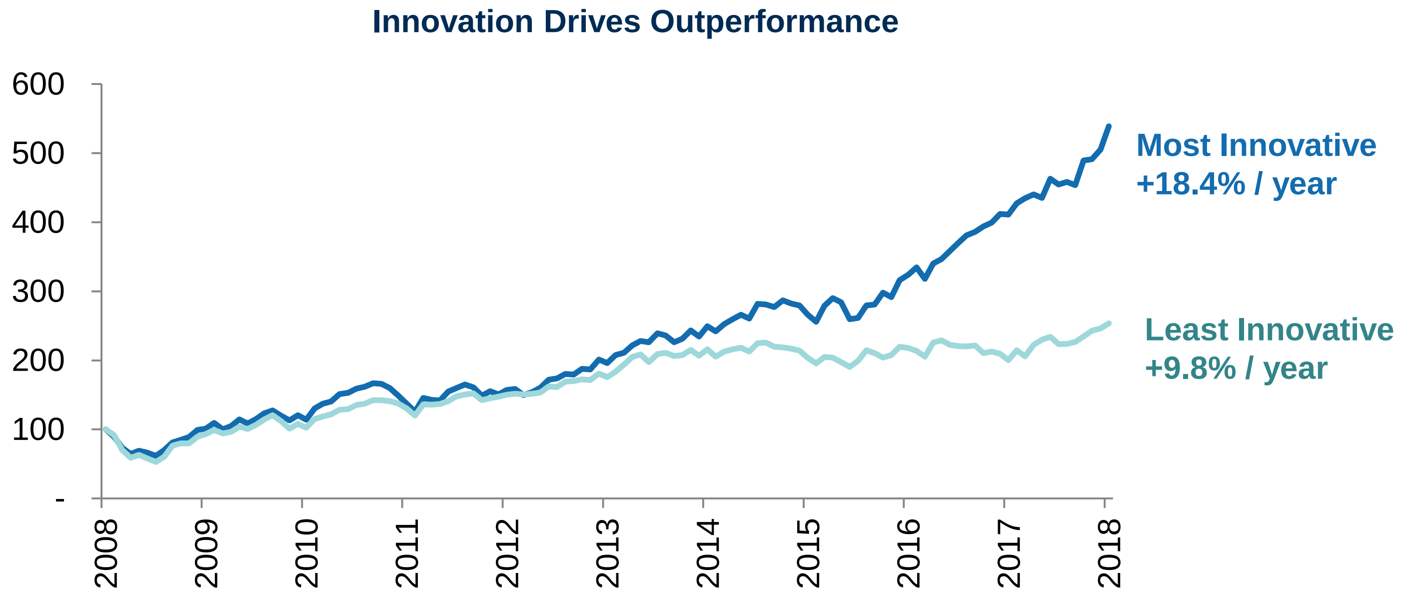
P/B, not P/E, has driven Value underperformance

Source: FactSet as of 9/30/18. Price-to-earnings and price-to-book returns are based on the E/P and B/P Northfield factors for the Northfield broad U.S. market database.

Performance

Innovative Companies Often Outperform

- Studies have shown, and our research demonstrates, that the most innovative companies grow their sales, earnings, and stock prices faster*

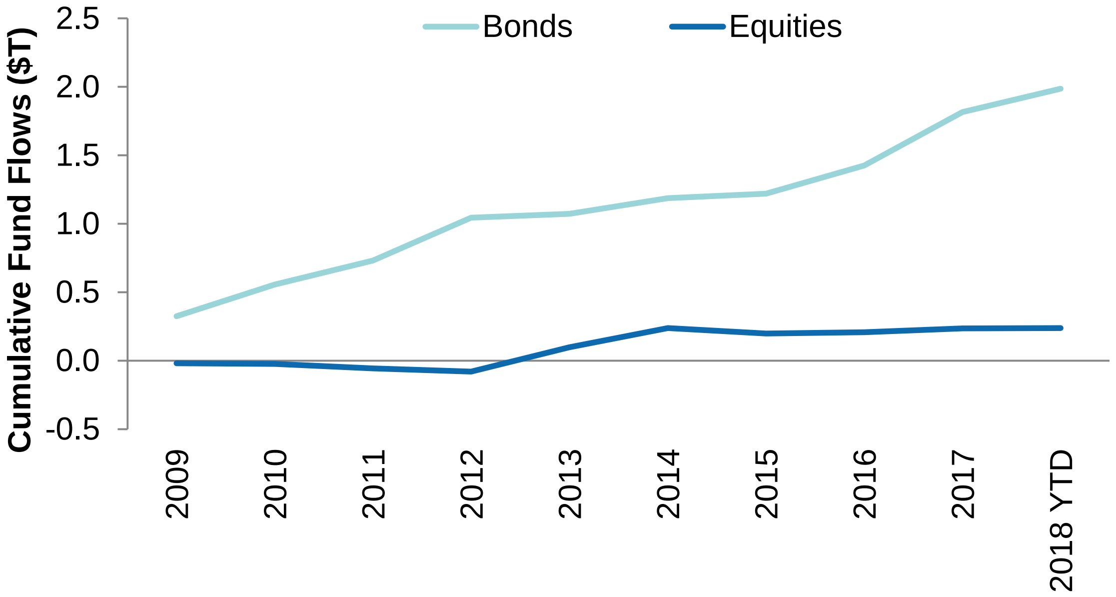


Source: FactSet. Most/least innovative stock performance is derived from highest and lowest S&P 1500 quintiles based on R&D as % of sales, normalized for market value, using one month returns for 10 years ending 7/30/18. *Baruch Lev and Suresh Radhakrishnan, "The Stock Market Valuation of R&D Leaders."

Performance

The Great Fund Flow Rotation?

- Fund flows in bonds have dramatically outperformed those into equities over the past decade—nearly $2 trillion to less than a quarter of a trillion dollars
- If interest rates are rising and bond underperformance continues, equities could be due to benefit from the great fund flow rotation
- Furthermore, it seems unlikely that the bull market would end without first seeing much stronger flows into stocks as has historically been the case



When will investors turn from bonds to stocks?

Source: Morningstar. Equity fund flows represent Morningstar category of U.S. Equity mutual funds and ETFs and bond flows represent Morningstar category of Taxable Bonds mutual funds and ETFs. Data through August 2018.

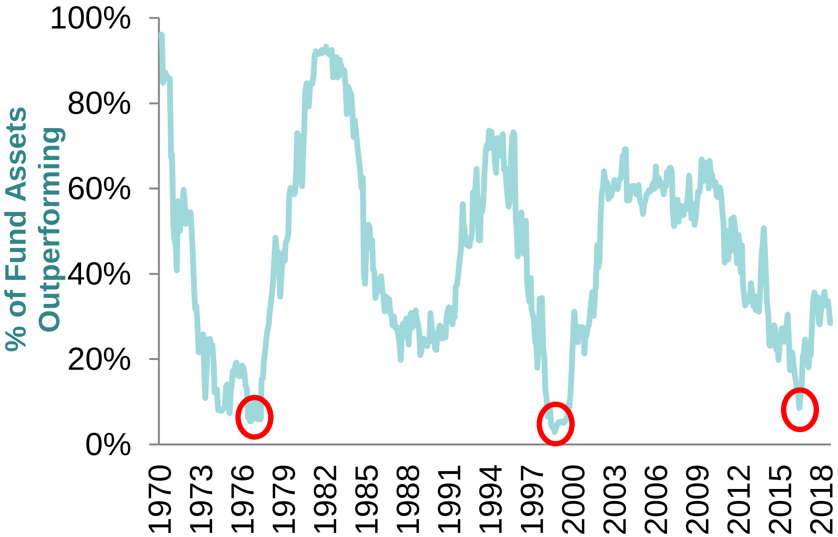
Performance

Has Active Relative Performance Troughed?

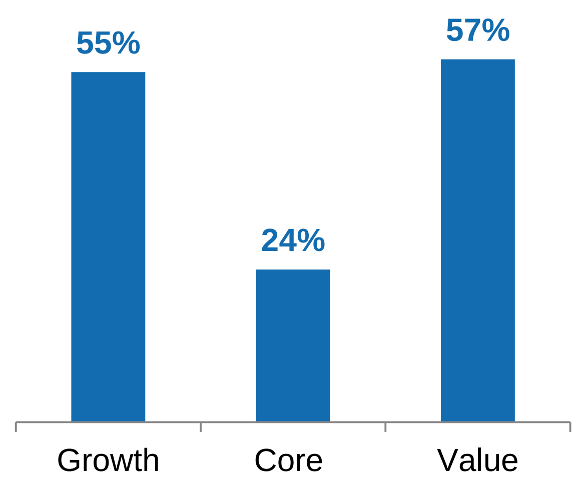
- Powerful cyclical factors impact U.S. active relative performance:
  - Interest rates/bond-like equities
  - Small cap performance
  - Overall market performance
  - Non-U.S. stock performance

- As some of those factors reverse, active management has been doing better
  - Interest rates rising/bond-like equities underperforming
  - Small caps performing better
  - Market performance more subdued

Active Relative Performance Is Cyclical



% of U.S. Large Cap Active Managers Outperforming YTD

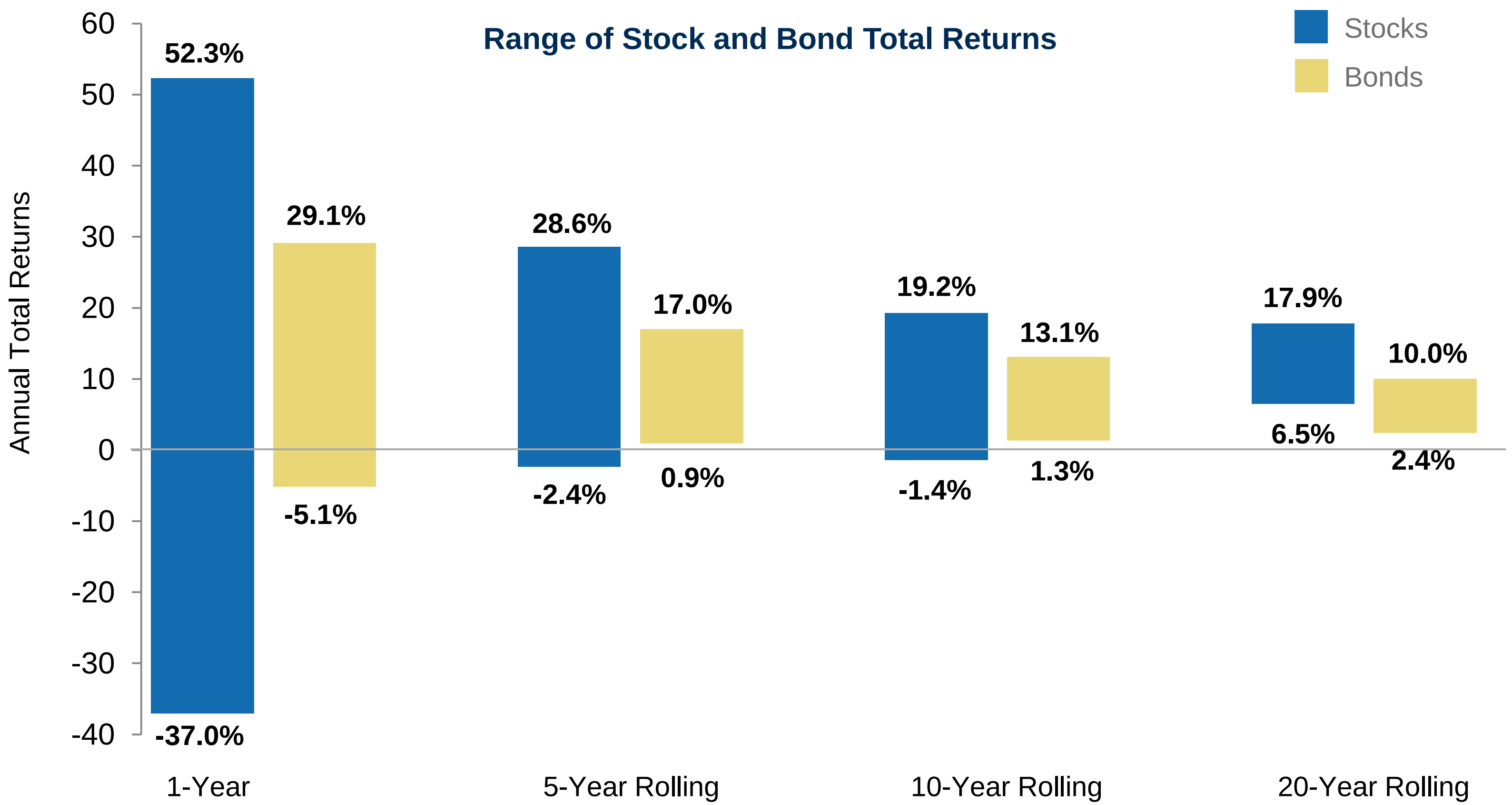


Source: Left chart: Nomura/Instinet, Joseph Mezrich and FactSet through 9/30/18. Fund performance is trailing five-year data of U.S. active equity mutual funds in existence for five years or more and part of the growth, growth & income, and income categories based on CRSP codes. Right chart: Bank of America Merrill Lynch U.S. Equity and U.S. Quant Strategy using Lipper data relative to Russell benchmarks through 9/30/18.

Performance

Risk Relative to Time Horizon

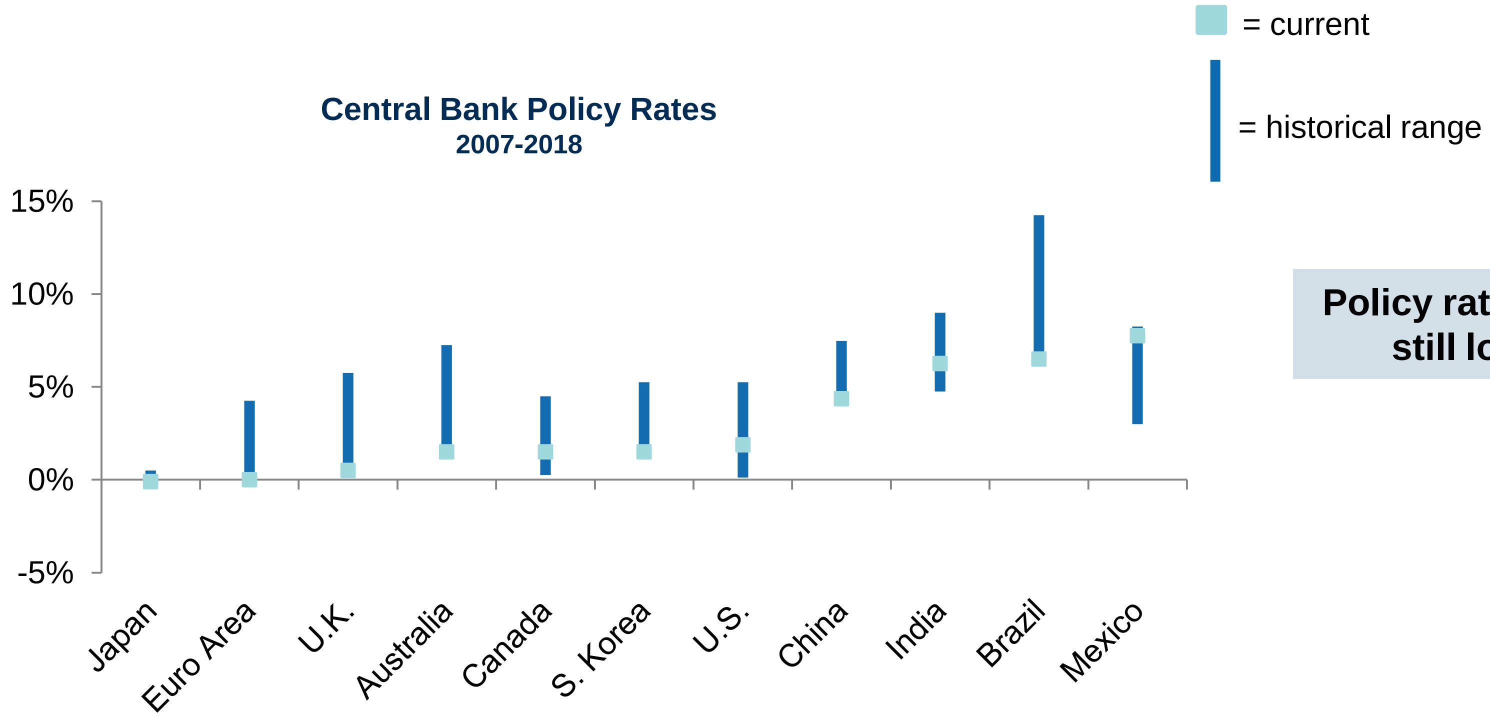
- Equity returns look much less volatile over a longer time period than shorter time periods
  - Using 20-year rolling annualized returns, the minimum equity return has been higher than that of bonds while the standard deviation for equities is less than 1% higher



Source: Morningstar. Stock data is the S&P 500 total return and bond data is the Ibbotson Associates US IT Govt total return. Data spans 1950-2017 on an annual basis.

Global Policy Rates Are Low

- While many central banks such as the U.S., Canada, Mexico, and the U.K. have been raising interest rates…
- Central bank policy rates around the world are still relatively low, even in real terms, where many are at or below zero including the Euro Area and Japan



Policy rates are still low

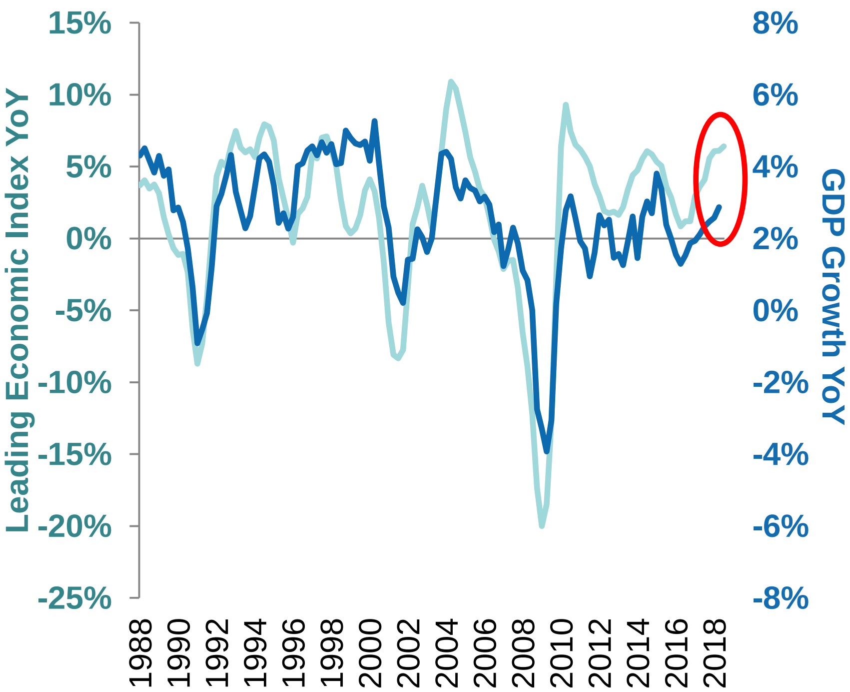
Source: Bank for International Settlements. Data is through July 2018.

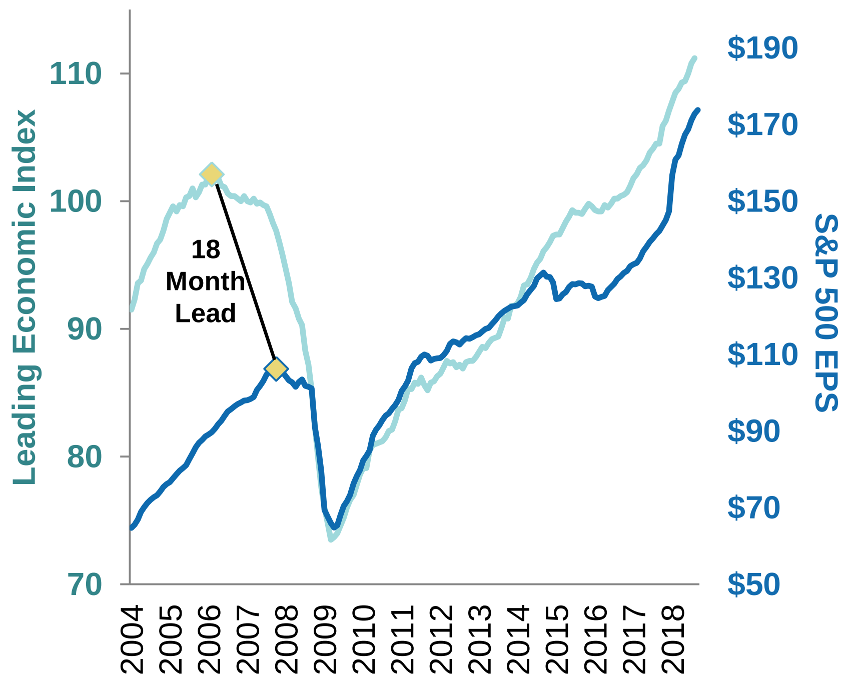
Fundamentals

Leading Indicators Suggest Continued Expansion

- Typically, changes in the Leading Economic Index (LEI) have preceded changes in economic growth
- The rate of change of the LEI implies strong economic growth

- The LEI historically leads S&P 500 EPS by 6-18 months
- The record LEI reading in 3Q18 suggests EPS have room to run



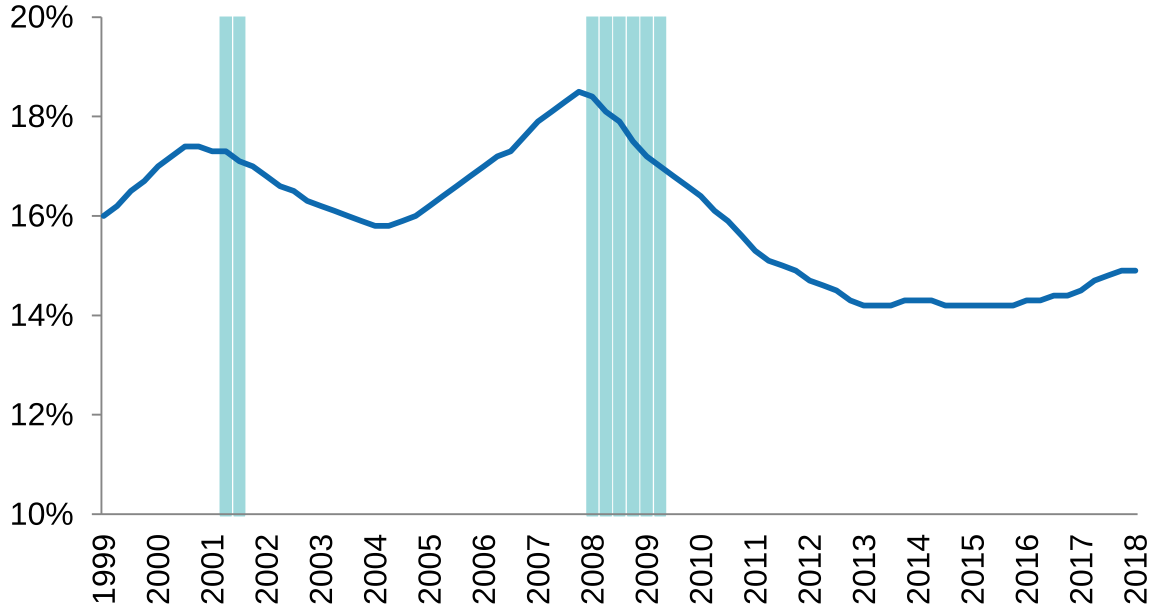


Source: FactSet, Conference Board. EPS estimates based on next 12-months consensus.

U.S. Debt Service Is Historically Low

- Despite higher levels of debt as a % of GDP, the U.S. non-financial private sector debt service ratio is much lower than in the past two recessions
  - Because more than 80% of U.S. consumer and business debt is fixed, higher interest rates should not have a dramatic impact on service costs

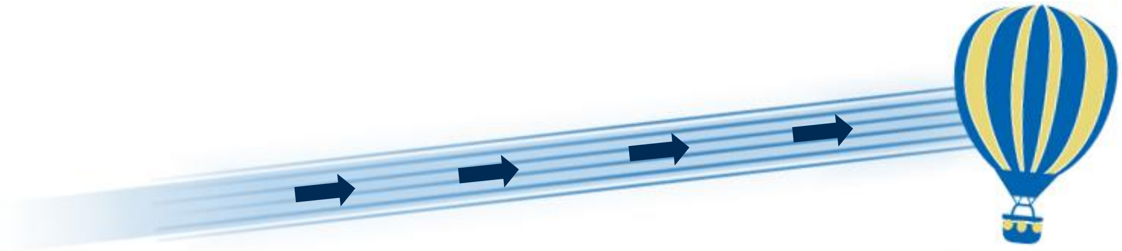
U.S. Debt Service Ratio



Debt service ratio indicates households and corporations are not burdened by debt payments

Source: Bank for International Settlements, September 2018. Debt Service Ratio is the share of income used for interest payments and amortizations in the non-financial private sector. Shaded regions indicate recessions.

Tailwinds

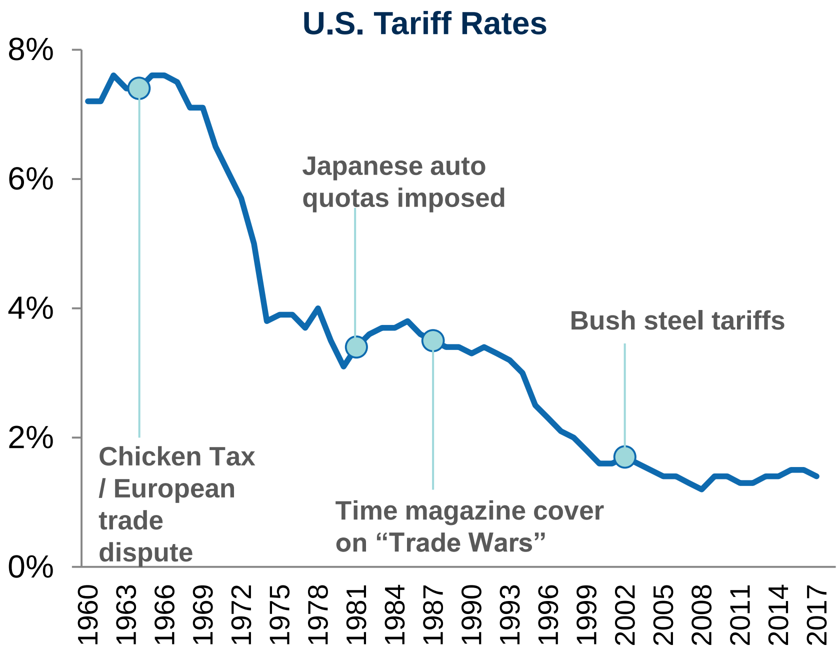


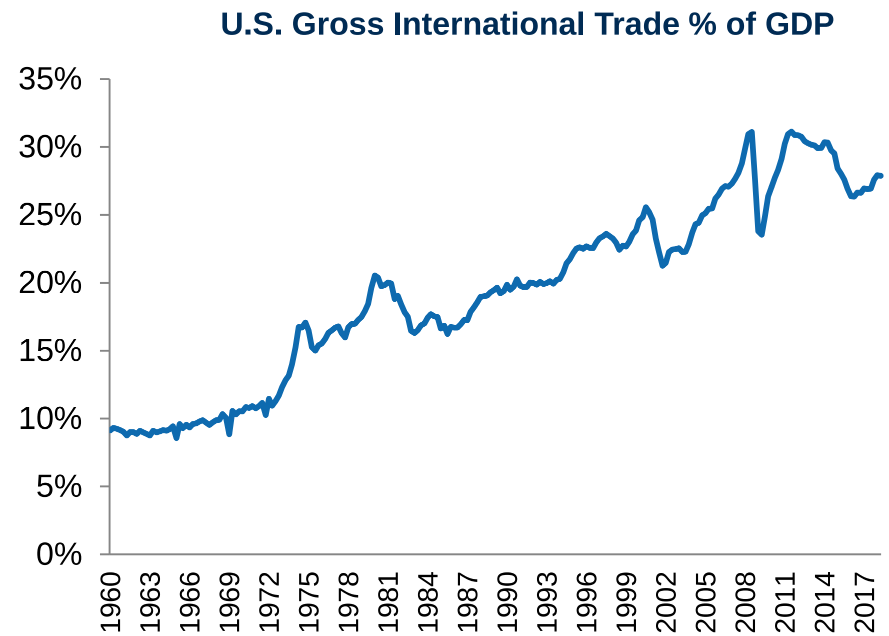
- Robust corporate profits
- Strong business and consumer confidence
- Strengthening corporate spending
- Solid U.S. consumer balance sheet

Headwinds

- Tightening monetary policy
- Trade wars
- Rising U.S. labor costs
- China growth slowdown
- Geopolitical risk

- There have been various periods in history marked by fears of “trade wars” but ultimately countries have acted rationally and reduced trade barriers
- While there may be more pain to come, we believe the powerful trend toward lower tariffs and more trade will prevail
- In the meantime, fiscal stimulus likely exceeds trade headwinds and active management may be able to take advantage of opportunities that arise



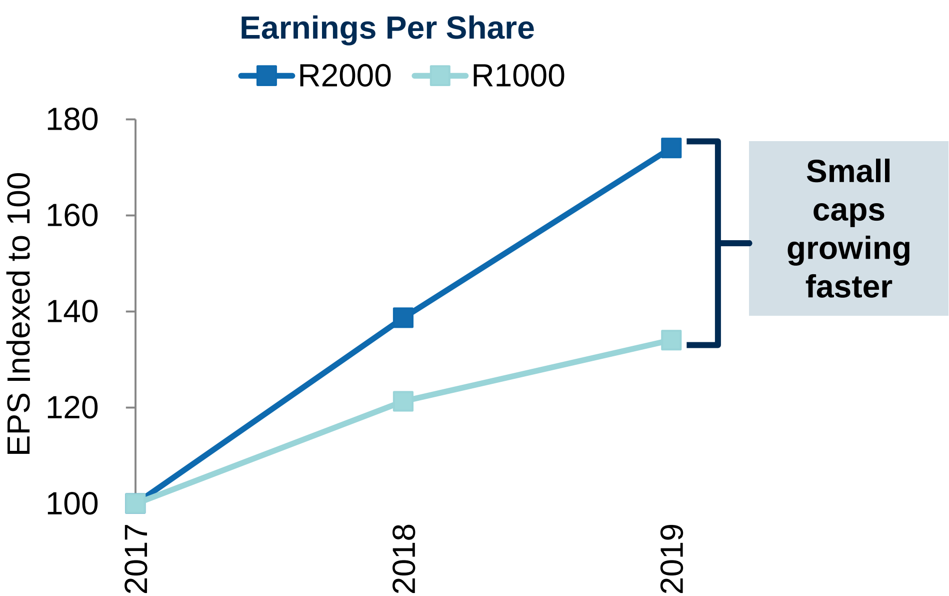


Source: U.S. International Trade Commission, U.S. Bureau of Economic Analysis, and Alger. Tariffs are calculated as duties collected divided by total imports.

Fundamentals

Smaller Capitalization Stocks Poised to Outperform

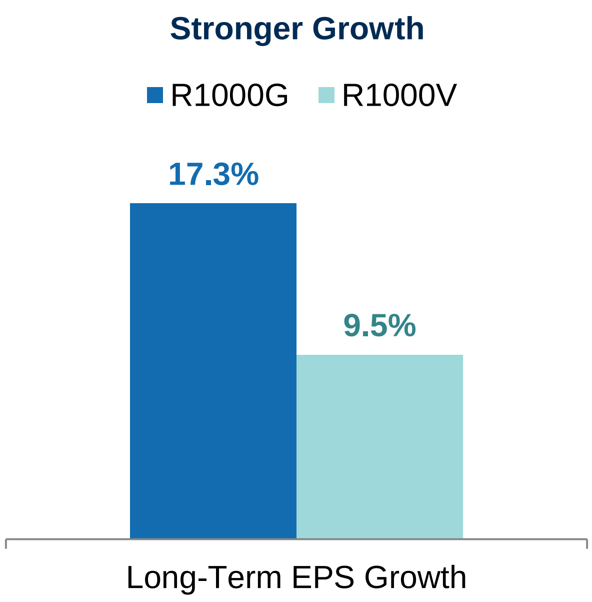
- **Stronger fundamentals**: Estimated small cap EPS growth for '18 & '19 is double that of large cap
- **More levered to domestic economy**: Small caps are more U.S.-oriented and have less exposure to international trade friction
- **Rising interest rates**: Small caps have historically outperformed large caps in rising rate environments
- **Reasonable valuation**: Small cap P/E multiple premium is reasonable relative to history while a large sales multiple discount implies opportunity

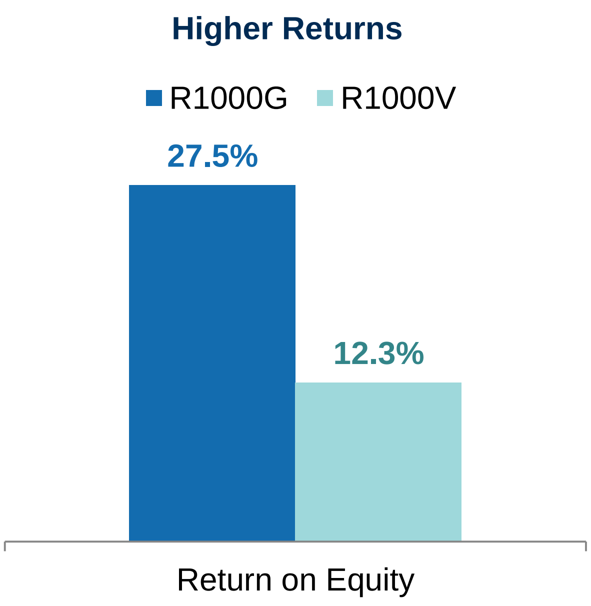


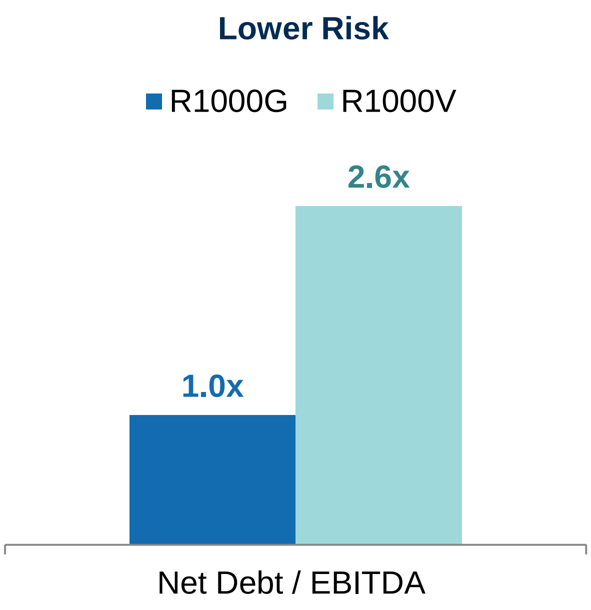
Source: FactSet as of September 2018. EPS for 2018-2019 are consensus estimates and actual earnings per share might be materially different than shown.

The Growth Advantage

- Three variables drive P/E multiples: growth, returns, and risk
- As compared to the Russell 1000 Value Index, the Russell 1000 Growth Index has higher expected EPS growth, higher return on equity, and lower risk in the form of better balance sheets

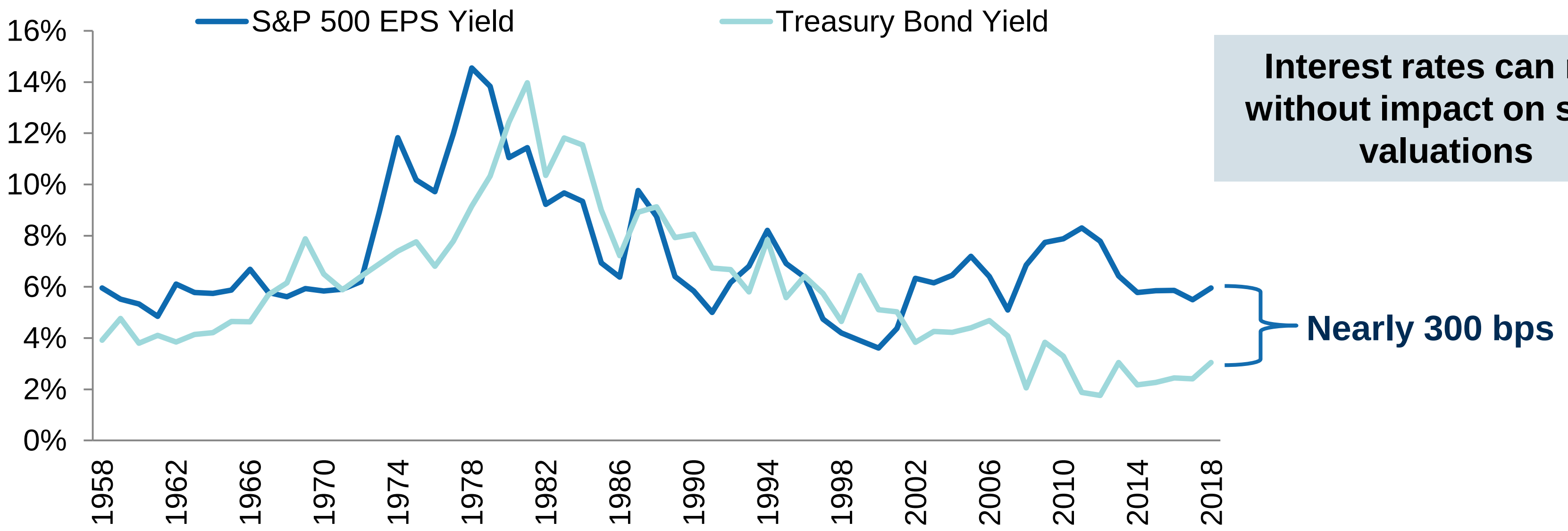






Source: FactSet as of 9/30/18. Growth represents consensus long-term analyst estimates and actual future EPS growth rates might be materially different than the forecasts shown.

- Concern: Will rising interest rates weigh on P/E multiples?
- Our take: P/Es never priced in how low interest rates had become (see gap below) so we believe earnings multiples may not suffer when rates rise



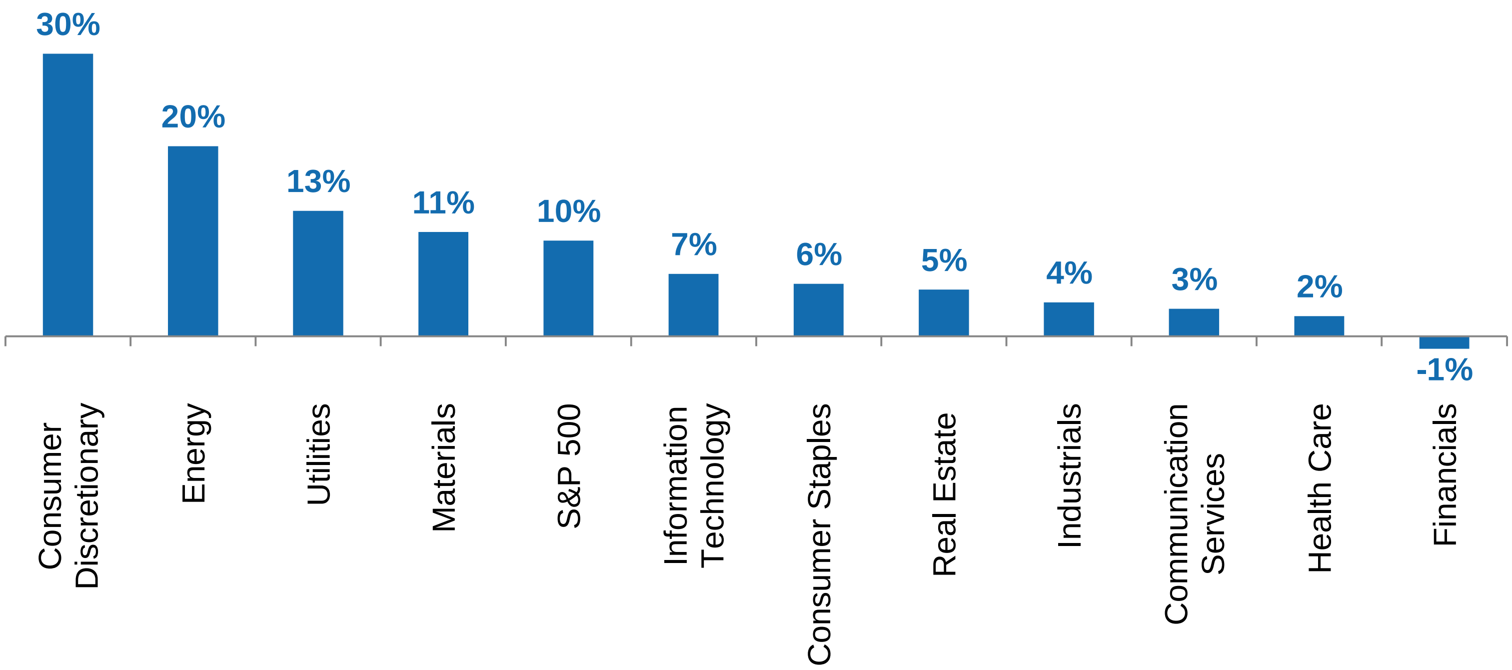
Interest rates can rise without impact on stock valuations

Source: FactSet, Federal Reserve, and S&P, as of 9/30/18.

Valuation
Varying Premiums

- Sector valuation varies with no sector trading at a significant discount to its historical median

P/E Relative to 20-Year Median

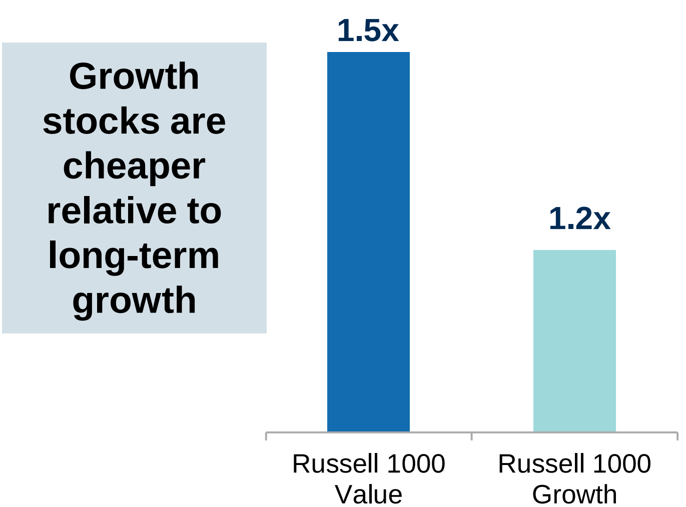


Source: FactSet and UBS, based on S&P 500 Index as of 9/30/18. Note that the Communications Services, Consumer Discretionary, and Technology sectors' historical data have been restated to reflect September 2018 changes to the GICS sector definitions.

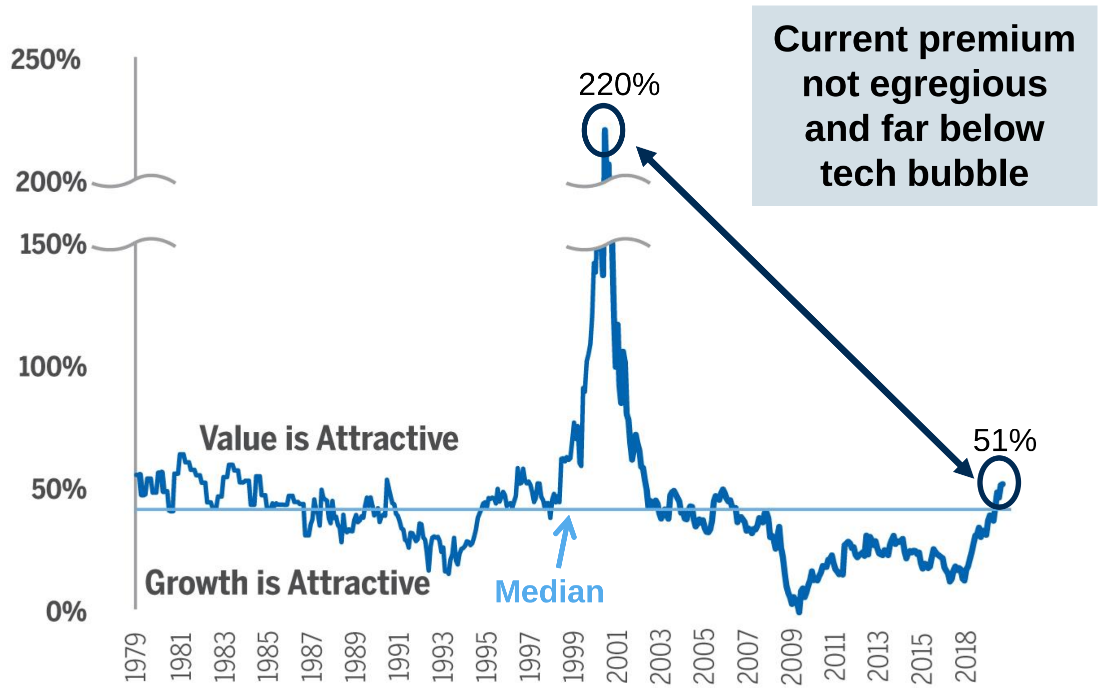
Growth and Value Near Equilibrium

- Despite their recent outperformance, Growth stocks are not very expensive compared to their Value equity counterparts relative to expected growth rates or history

Russell 1000 Growth vs. Russell 1000 Value PEG Ratio
(P/E Divided by Long-Term Growth Rate)



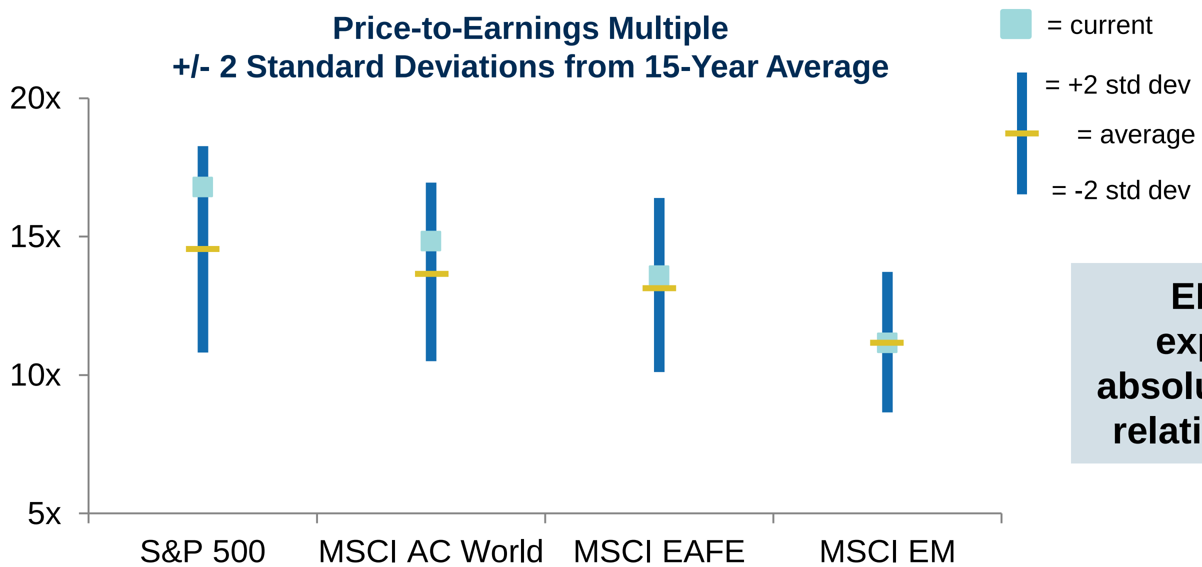
Russell 1000 Growth Relative to Russell 1000 Value P/E



Source: FactSet, Bank of America as of 9/30/18.

Global Equity Multiples Reasonable

- Price-to-earnings multiples around the world are modestly higher than their historical average, which is reasonable relative to very low global interest rates



EM is least expensive in absolute terms and relative to history

Z-Score (Standard Deviations Above/Below Mean)			
1.2	0.7	0.2	0.0

Source: FactSet. Monthly estimates over past 15 years ending 9/30/18. A Z-Score is the number of standard deviations a data point is from the mean. A z-score equal to zero, it is on the mean. If a z-score is equal to +1, it is 1 standard deviation above the mean.Standard deviation measures how much the portfolio's return has deviated from its average historical return. If a portfolio has a high standard deviation, there have been large swings in its returns, and vice versa. Standard deviation is generally used to compare the relative risk of two portfolios or of a portfolio to a benchmark.

Valuation

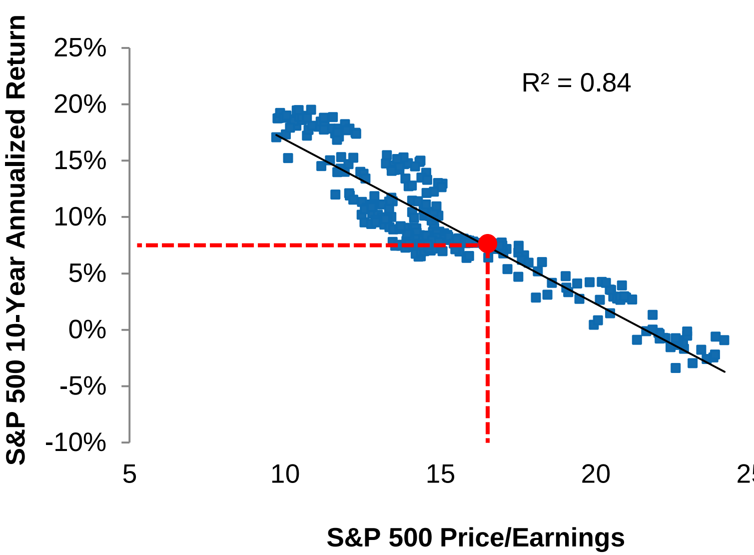
Framework for Forecasting Returns

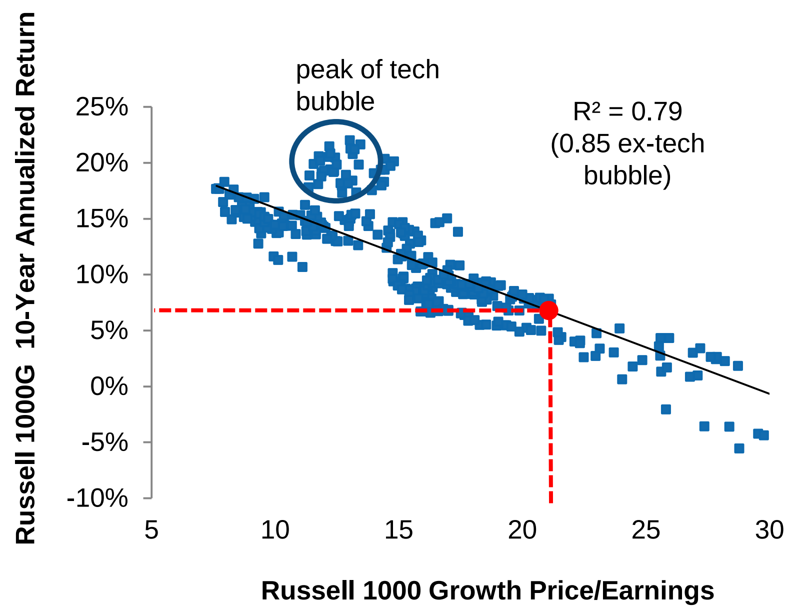
- There is a strong relationship between starting valuations and ensuing 10-year returns
- Current valuations suggest equities should materially outperform bonds over the coming decade

S&P 500 P/E vs. 10-Year Returns

■ = month
● = current

Russell 1000 Growth P/E vs. 10-Year Returns





Source: FactSet. Each dot represents the P/E during that month and the returns generated over the subsequent 10 years. The starting P/E ratio is the price divided by the next 12-month earnings per share estimate at the start of each 10-year period measured. Monthly data through September 2018 and beginning in January 1986 (S&P 500) and December 1978 (Russell 1000 Growth). The tech bubble, represented by the 10-year returns beginning in April 1987-March 1990 and ending in April 1997-March 2000, skewed the regression by resulting in higher returns for given valuations than the historical relationship would imply.

Disclosure

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