Empirical Research Partners

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Portfolio Strategy October 2016

Bond Duration + Loss Aversion, Potent? Wage Growth: A Decider
Model Performance

More Debt at Longer Durations

- As rates have come down during this decade the duration of the U.S. bond market has gone up, from 4.5 years to just over 6 years. At present a +1% rise in rates would produce $(1.6) trillion in losses, up from a trillion in 2010. Around $(450) billion of that amount would be borne by consumers, who on average hold shorter-duration portfolios. That hit is about a tenth the size of the one they suffered during the financial crisis when the equity market swooned. Still, compared to the stable returns bonds have offered in the last ten years a rate increase of that magnitude would constitute a two standard deviation event. Bond mutual funds and ETFs have taken $650 billion in new money when the ten-year Treasury bond yielded 2% or less and the evidence suggests that investors view those funds as safe. Each time rates have shown signs of backing up retail brokers have led an exodus from them.
- The potential for a duration multiplier is also apparent within the equity market. The bond surrogates, the 10% of stocks with relative returns most correlated with moves in the Treasury market, represent 18% of market capitalization, compared to a 1% share at the peak of the last cycle. They're now valued at a 9% P/E premium to the market despite their generally lackluster fundamentals. They began to underperform in late-February as the recession fears faded, with Brexit only temporarily interrupting that correction. Higher rates would have a bigger effect on Wall Street than Main Street because the consumer has borrowed relatively little money in this cycle, making the comparisons easy.

Wage Growth: A Decider

- The trajectory of wage growth is probably more important to the performance of the financial stocks than the trend in their earnings. Wages look to be picking up as the hangover from the financial crisis has gradually faded and as skill shortages have emerged. Hourly earnings are up at a +2.6% annualized rate, median wages by +3.6%, the gains for job changers are averaging +4.2% while those who stayed in their existing position saw a +3.3% increase. Among part-timers, who represent just under a fifth of the labor force, wage growth has been +2.5% this year, up from zero in 2013. Even with the recent rise in the participation rate, the result of fewer people becoming discouraged and exiting the workforce, it looks like the laws of supply and demand are finally producing demonstrable effects on the nominals.

Model Performance: Regime Matters

- Most of our models have generated at least some alpha this year as the shift in our regime indicator to a value-tilt in early-March has worked out. What's not helped is paying attention to trends in stock prices, as investor schizophrenia about macro issues once again created whipsaws. The difference in the performance of our models has mostly to do with the weight they put on diagnoses of investor behavior. Absent a strong economic or thematic tailwind momentum strategies look destined to struggle.
- Our failure models have again performed well this year with the large-cap U.S. variant generating about nine percentage points of alpha. Highly-valued, capital-intensive companies have proven vulnerable, even more so in the small-cap end of the market where the alpha has been around fifteen points.

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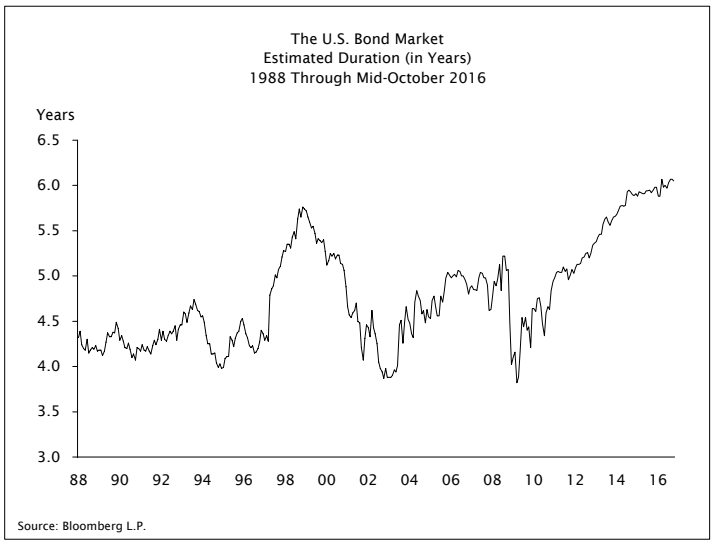
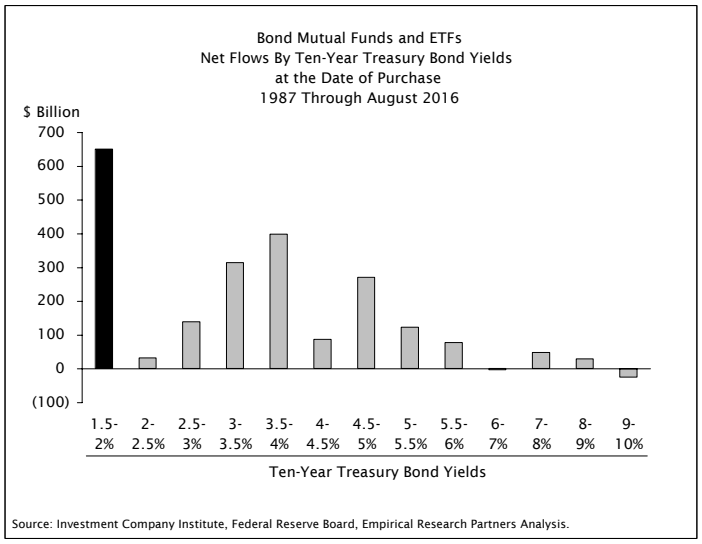
Conclusions in Brief

- The duration of the bond market is up…



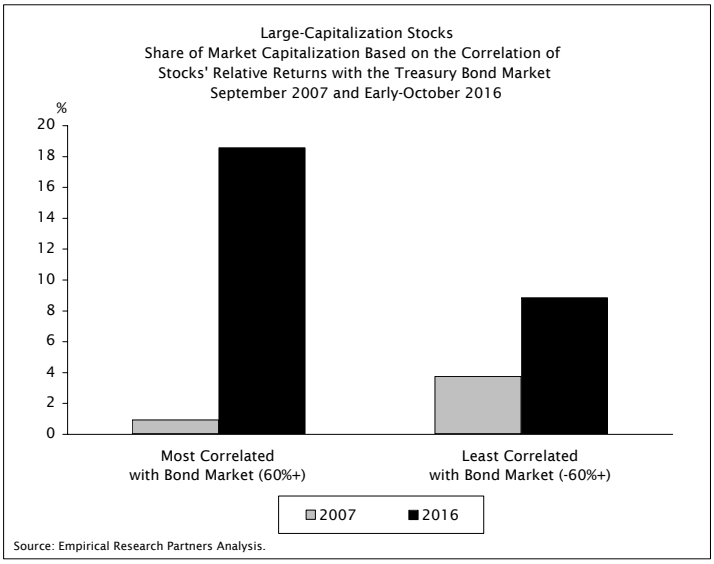
Source: Bloomberg L.P.

- …And many consumers invested in open-ended funds at low rates:



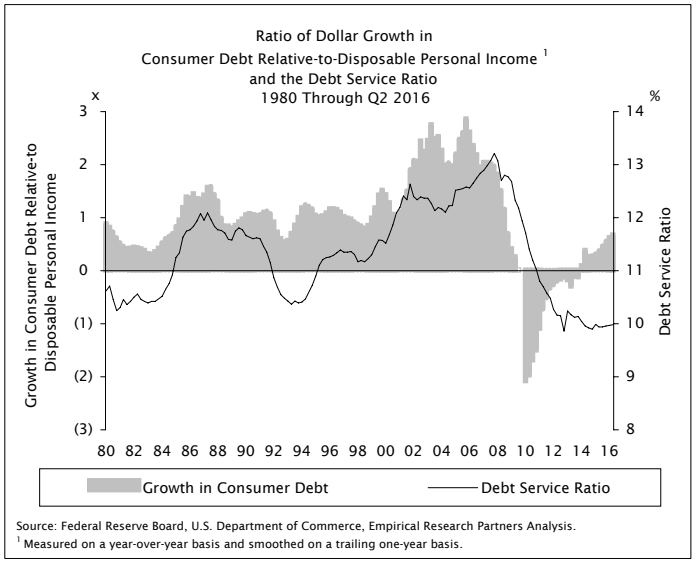
Source: Investment Company Institute, Federal Reserve Board, Empirical Research Partners Analysis.

- There's significant rate sensitivity is in large parts of the equity market…



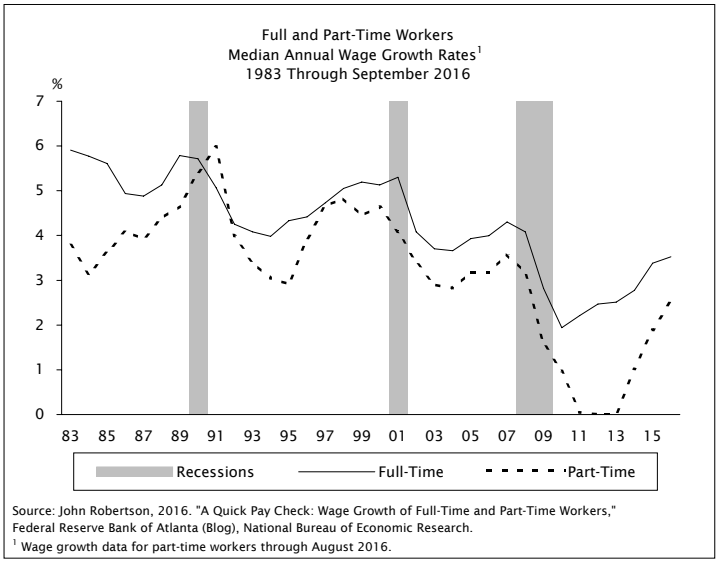
Source: Empirical Research Partners Analysis.

- …Although not in the real economy:



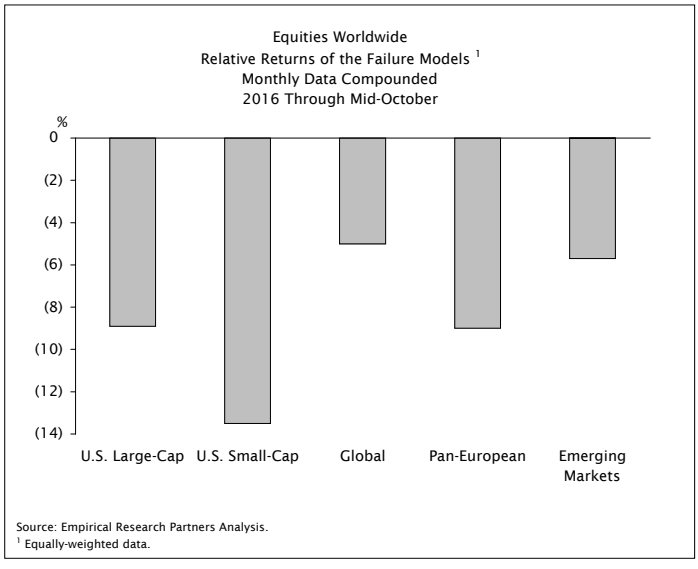
Source: Federal Reserve Board, U.S. Department of Commerce, Empirical Research Partners Analysis.
[1] Measured on a year-over-year basis and smoothed on a trailing one-year basis.

- Wage growth is picking up:



Source: John Robertson, 2016. "A Quick Pay Check: Wage Growth of Full-Time and Part-Time Workers," Federal Reserve Bank of Atlanta (Blog), National Bureau of Economic Research.
[1] Wage growth data for part-time workers through August 2016.

- The failure models have been our best performers:



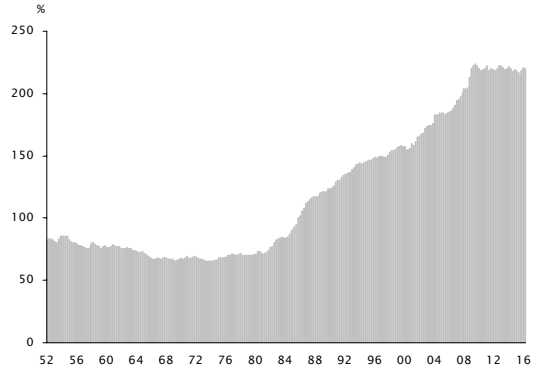
Source: Empirical Research Partners Analysis.
[1] Equally-weighted data.

Bond Duration + Loss Aversion, How Potent a Brew?

More Debt at Longer Durations

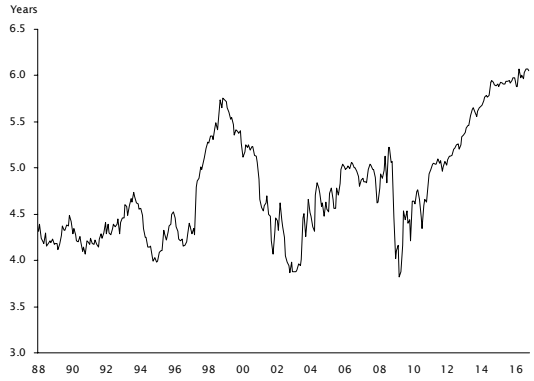
One part of the economy that's prospered in the years since the financial crisis has been the bond business. In 2005 there were $1.85 in bonds outstanding per dollar of U.S. GDP and now that ratio is $2.20-to-one (see Exhibit 1). We see something similar in the household sector where the ratio of bond holdings, held directly and through mutual funds and ETFs, to personal income has gone from 0.48 to 0.56 in just over a decade. While those statistics are notable in and of themselves their importance is magnified by increases in the duration of the bond market that have come with lower rates. Exhibit 2 presents estimates of the duration of the entire bond market: in 2005 it was 4.75 years and is now it's just over six years. By comparison U.S. mutual funds investing in taxable bonds currently have an asset-weighted duration of 4.5 years, and for those focused on munis it's 5.2 years (see Exhibit 3). Consumers have considerably less duration exposure than institutional investors, particularly corporate defined-benefit pension plans, who seek it out in order to immunize their long-dated liabilities.

Exhibit 1: U.S. Bonds Outstanding
As a Share of GDP
1952 Through Q2 2016



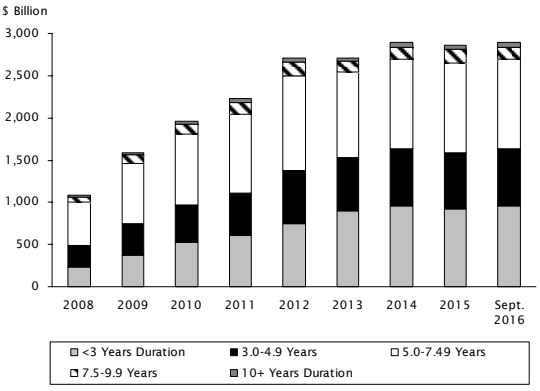
Source: Federal Reserve Board, Empirical Research Partners Analysis.

Exhibit 2: The U.S. Bond Market
Estimated Duration (in Years)
1988 Through Mid-October 2016



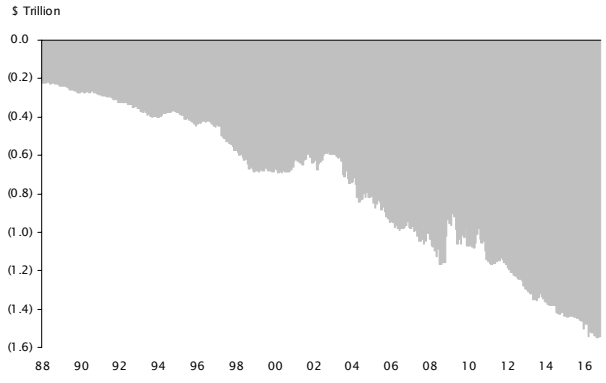
Source: Bloomberg L.P.

Exhibit 3: U.S. Taxable Bond Mutual Funds
Assets By *Current* Duration of the Funds
2008 Through September 2016



Source: Strategic Insight Simfund, Empirical Research Partners Analysis.

Exhibit 4: Domestically-Held Bonds[1]
Estimated System-wide Capital Loss Created by
a +100 Basis Point Rise in Rates[2]
1988 Through Mid-October 2016



Source: Federal Reserve Board, Bloomberg L.P., Empirical Research Partners Analysis.

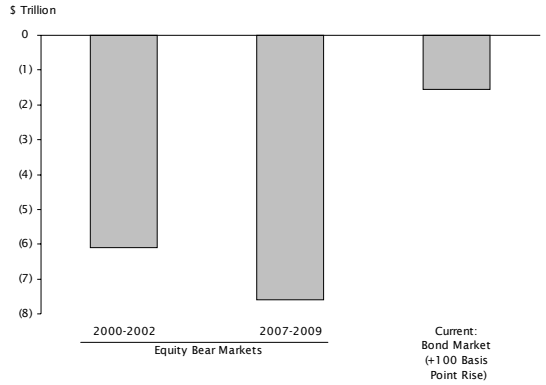
[1]Debt held by the Fed and foreigners is excluded.
[2]Based on duration of the JP Morgan US Aggregate Index.

A +100 basis point rise in long rates, that would put yields back in line with wage growth, would create a $(1.6) trillion unrealized loss for domestic bond holders (see Exhibit 4). In making that calculation we took the Fed's holdings, 14% of the total, out of the equation. Roughly $(450) billion of the losses would accrue to consumers. To put those statistics in context, the peak-to-trough declines in the last two equity bear markets were in the range of $(6.0) to $(7.5) trillion, of which about 70% were sustained by consumers (see Exhibit 5). Of course not all bear markets are created equal and the response to them depends in part on what we've come to expect from the asset class. The

last two equity bear markets were three standard deviation events judged by the prior ten years of equity market volatility, while the losses in bonds that would come from a +100 basis point increase in rates would, after considering the volatility of that asset class, be around a two standard deviation event (see Exhibit 6).

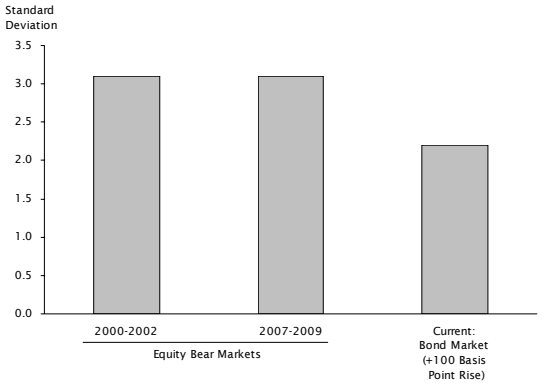
Another way to gauge investors' sensitivity to losses is to examine what they've actually experienced. Exhibit 7 presents the history of experiential returns for Vanguards' Total Bond Market Index Mutual Fund, the industry's largest, with $175 billion in assets. We create the series by weighting past returns in a way that best predicts investor behavior. In only 9 of the last 321 months have the fund's shareholders felt like they were losing money, and only on three occasions did the losses top one percent. Needless to say, it's been a very uneventful and profitable ride.

Exhibit 5: Losses in Equity Bear Markets and That from a +100 Basis Point Rise in Rates 2000 Through Mid-October 2016



Source: Empirical Research Partners Analysis.

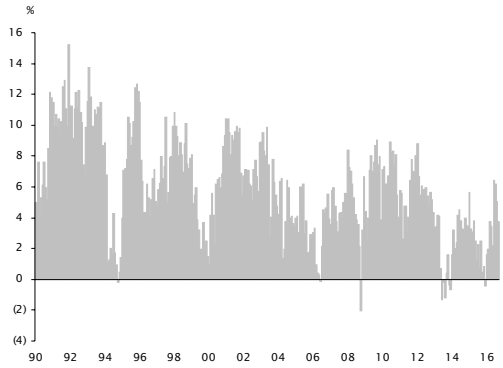
Exhibit 6: Losses in Equity Bear Markets and That from a +100 Basis Point Rise in Rates Expressed in Standard Deviations[1] 2000 Through Mid-October 2016



Source: Empirical Research Partners Analysis.

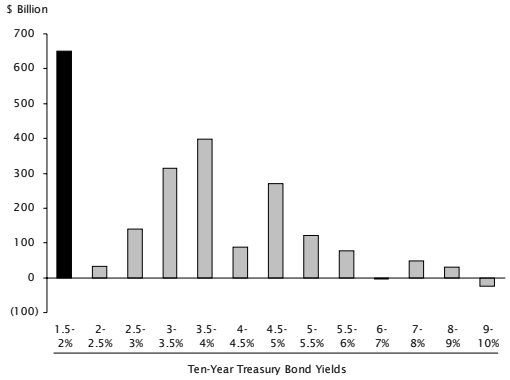
[1]Determined by the prior 10-year volatility of the return series.

Exhibit 7: The Vanguard Total Bond Market Index Fund Experiential Returns 1990 Through September 2016



Source: The Vanguard Group, Empirical Research Partners Analysis.

Exhibit 8: Bond Mutual Funds and ETFs Net Flows By Ten-Year Treasury Bond Yields at the Date of Purchase 1987 Through August 2016



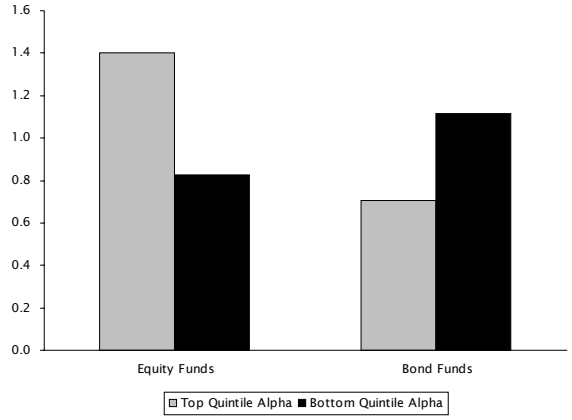
Source: Investment Company Institute, Federal Reserve Board, Empirical Research Partners Analysis.

Many Investors Came Late to the Party

There's also the matter of timing, and **Exhibit 8** presents the net flows into bond funds and ETFs aggregated by the level of ten-year Treasury bond yields at the date of entry. A little more than 30% of all inflows taken in over the past 29 years occurred when government bond yields were below 2%.

Bond funds are qualitatively different from their equity counterparts. In equity products money chases performance while in bond funds it flees when the numbers are bad (see Exhibit 9). That's because they're seen as safe havens. We see that same attitude in the behavior of retail brokers. They've directed money into bond funds when their returns were good and have retreated when they weren't (see Exhibit 10). We also observe that dynamic in the bond funds that are classified as alternatives, that have accumulated around $100 billion in assets. A lot of money was raised in 2013, after they had produced a +10% return, and it's begun to depart after next four years of +2% returns.

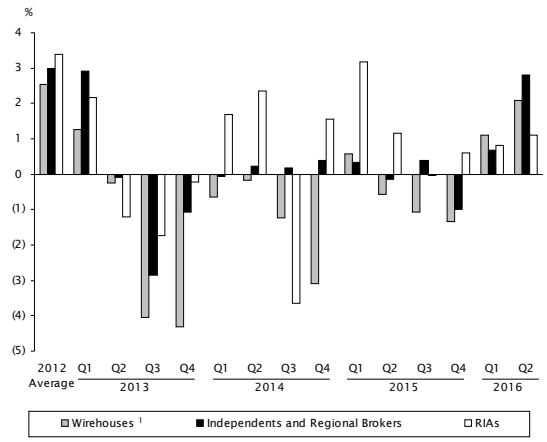
Exhibit 9: Equity and Bond Mutual Funds
Sensitivity of Flows to Trailing One-Year Alpha[1]
Top and Bottom Quintiles
1992 Through 2014



Source: Goldstein, I., Jiang. H. and David T. Ng, 2015. "Investor Flows and Fragility in Corporate Bond Funds," Working Paper.

[1]Slope coefficient of funds flows to alpha.

Exhibit 10: Bond Mutual Funds and ETFs
Quarterly Net Flow Rate By Distribution Channel
2012 Through Q2 2016



Source: Strategic Insight Simfund.

[1]Excluding Bank of America/Merrill Lynch except in Q1 2015.

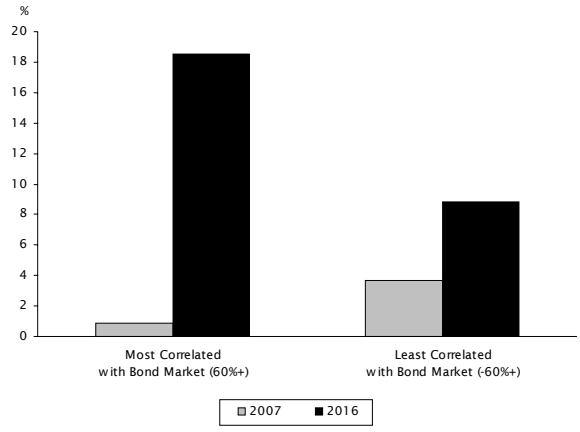
Conclusion: Once Again It's Wall Street, Not Main Street

Interest rate sensitivity is way up in some parts of the equity market as bond surrogates have grown to represent more than 18% of its capitalization (see Exhibit 11). In 2007, at the peak of the last market cycle, their share was just 1%. The stocks situated at the other end of the continuum carry an 8½% weight, more than twice what they did in 2007. An extended period of very low rates has produced duration effects throughout the system, fostering all sorts of anomalies. It won't take much to call the valuation paradigm into question, and it looks like that process began when the recession fears that developed when the Fed started tightening subsided.

On the other hand, the rate sensitivity of the *real* economy looks to be less than usual. Exhibit 12 examines how many dollars of new debt the consumer took out for each dollar of new disposable income. The current level is only about a third of that seen at the peak of the last debt-driven cycle, and is also about a third below the long-term average. Debt service consumes a tenth of the consumer's income, the smallest burden since 1980. The vast bulk of the debt is fixed rate.

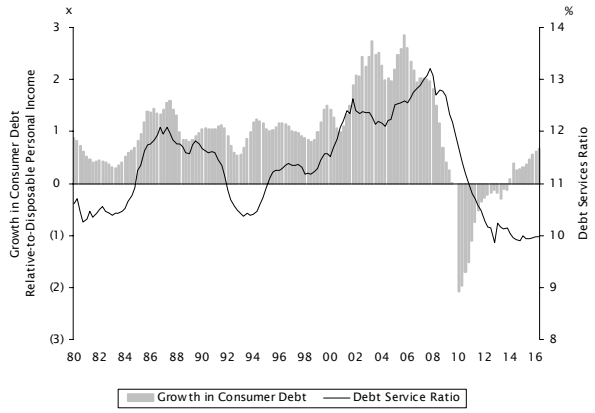
Putting it all together the excitement tied to interest rates is set to be far greater in the capital markets than that in the real economy, where animal spirits have yet to make an appearance.

Exhibit 11: Large-Capitalization Stocks
Share of Market Capitalization Based on the Correlation of Stocks' Relative Returns with the Treasury Bond Market
September 2007 and Early-October 2016



Source: Empirical Research Partners Analysis.

Exhibit 12: Ratio of Dollar Growth in Consumer Debt Relative-to-Disposable Income[1] and the Debt Service Ratio
1980 Through Q2 2016



Source: Federal Reserve Board, U.S. Department of Commerce, Empirical Research Partners Analysis.

[1]Measured on a year-over-year basis and smoothed on a trailing one-year basis.

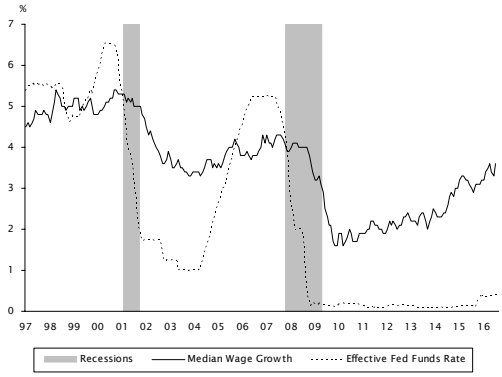
Wage Growth: A Decider

A Weight of Evidence

The most-likely catalyst to change the market's sentiment about the attractiveness of rate-sensitive stocks is the wage growth number. Depending on the measure used it's running somewhere between +2.5% and +4%, with the median reading a full percentage point above the weighted average. In the past when wages were moving up at this pace interest rates were much higher than they are now (see Exhibit 13).

A key argument for stronger wage growth is that there's been a headwind coming from an ongoing shift in the composition of the labor force that's finally diminishing. It's occurred because high-paid baby boomers have been retiring while those joining the work force are entering at the bottom of the wage distribution. That change has impeded the wage growth rate by around (2) percentage points on a +3%'ish number (see Exhibit 14). The mix effect in this cycle is (75) basis points larger than that experienced during the last one.

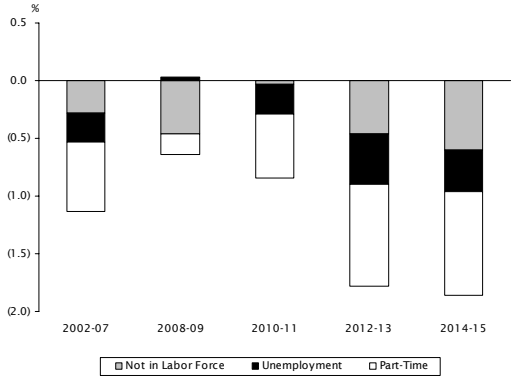
Exhibit 13: *Median* Annualized Wage Growth and the Effective Fed Funds Rate 1997 Through Mid-October 2016[1]



Source: Bloomberg L.P., Federal Reserve Bank of Atlanta (Blog), National Bureau of Economic Research.

[1]Wage growth data through September 2016.

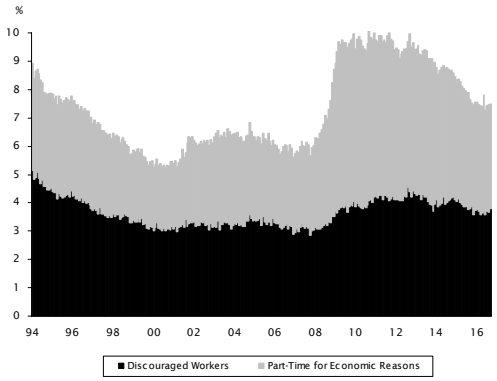
Exhibit 14: Drag on Median Earnings Growth from Mix Effects 2002 Through 2015



Source: Daly, M. C., Hobijn, B. and Benjamin Pyle, 2016. "What's Up with Wage Growth?" FRBSF Economic Bulletin, 2016-07.

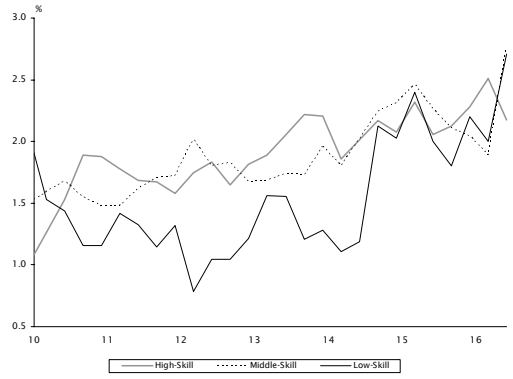
There are signs that the headwind coming from that shift is ebbing as more of the people that were displaced by the financial crisis return to full-time employment (see Exhibit 15). That process appears to be well along and wage gains for lower-end positions are showing signs of life (see Exhibit 16). We see further evidence of that when we disaggregate the data for full- and part-time workers. The glut of people that were forced to settle for part-time employment is being cleared and the two wage growth series are converging (see Exhibit 17). Part-timers comprise just over a fifth of the workforce.

Exhibit 15: The U.S. Discouraged and Working Part-Time for Economic Reasons As a Share of the Labor Force 1994 Through September 2016



Source: Bureau of Labor Statistics, Federal Reserve Bank of San Francisco, Empirical Research Partners Analysis.

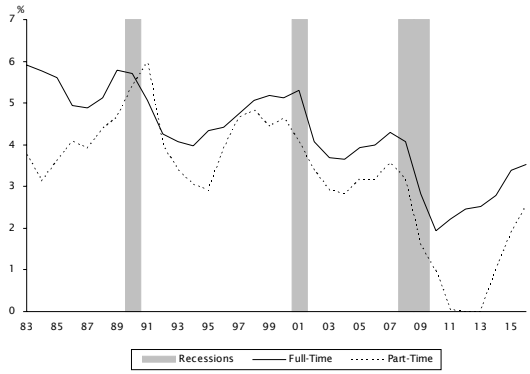
Exhibit 16: Growth in Wages and Salaries by Skill Level[1] 2010 Through Q2 2016



Source: U.S. Bureau of Labor Statistics, Empirical Research Partners Analysis.

[1]High-skill includes management, business, professional and related occupations, middle skill includes sales, administrative, production, construction, extraction, maintenance and transport occupations. Low-skill includes service occupations. Year-over-year changes.

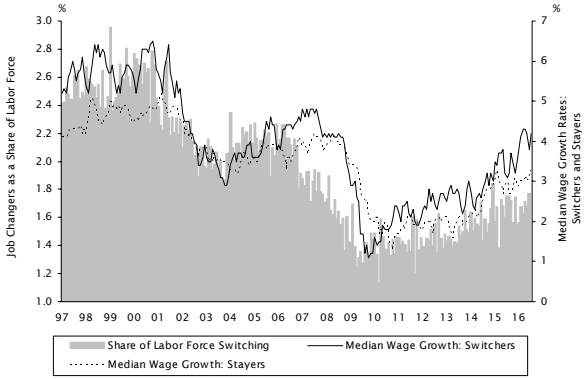
Exhibit 17: Full- and Part-Time Workers
Median Annual Wage Growth Rates[1]
1983 Through September 2016



Source: John Robertson, 2016. "A Quick Pay Check: Wage Growth of Full-Time and Part-Time Workers," Federal Reserve Bank of Atlanta (Blog), National Bureau of Economic Research.

[1]Wage growth data for part-time workers through August 2016.

Exhibit 18: Median Wage Growth for Job Switchers and Stayers and Share of the Workforce Switching Jobs
1997 Through September 2016

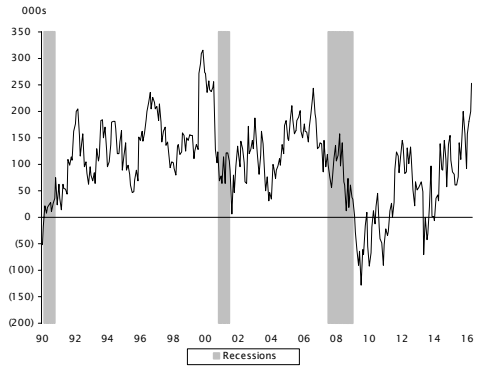


Source: Federal Reserve Board, Empirical Research Partners Analysis.

Demographics Have Played a Role Too

Another dynamic that's influenced the statistics is that between people who've changed jobs versus those that have remained in place. Lately the job switchers have seen their wages go up at a +4.2% annualized rate, almost a point faster than that for those who stayed put (see Exhibit 18). The impact on aggregate wage growth is being muted though by the job switching rate, that's a quarter below where it was decade ago. Demographics explain why more workers haven't traded up as inertia grows stronger with age, and if we adjust for that effect the separation rate looks about normal. The wait-and-see attitude of the central bank implicitly puts considerable weight on the demographically-induced lethargy.

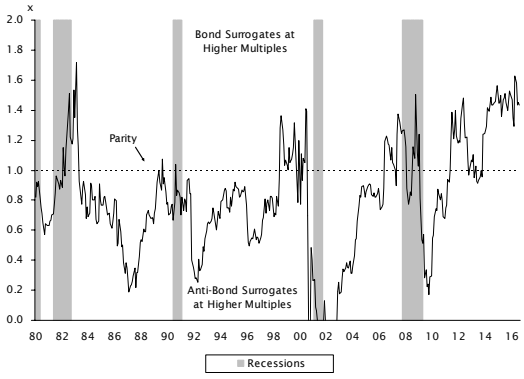
Exhibit 19: Flows Into the Labor Force[1]
1990 Through September 2016



Source: Bureau of Labor Statistics, Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Data smoothed on a trailing one-year basis.

Exhibit 20: Large-Capitalization Stocks
Bond Versus Anti-Bond Surrogates[1]
Ratios of Trailing-P/E Ratios
1980 Through Mid-October 2016



Source: Empirical Research Partners Analysis, National Bureau of Economic Review.

[1]The bond surrogates are the 10% of the market with relative returns that are most correlated with the performance of ten-year Treasury bonds and the anti-bond surrogates are the stocks in the bottom decile of the correlations.

A final issue is the labor force participation rate that's also begun to show signs of life in recent months (see Exhibit 19). Growth has picked up not because of new entrants but rather due to fewer people giving up and leaving the labor market altogether. There's been a supply response to a tighter job market.

Conclusion: Betting on Mean Reversion

We're betting that the nearly ten point differential in P/E ratios that separates the stocks with performance most- and least-correlated to the total return of the Treasury bond market is set to narrow (see Exhibit 20). That differential is impossible to rationalize based on fundamentals. The turning point in sentiment probably occurred last July when the Brexit fears subsided and the U.S. data took center stage.

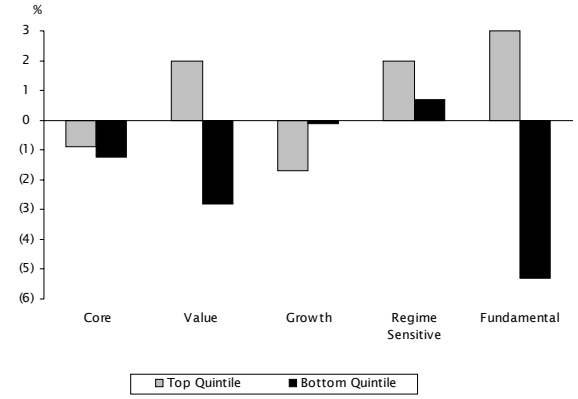
Model Performance: Regime Matters

Sentiment Proves Changeable Once Again

Our stock selection models have mostly held their own in what's proven to be a treacherous year for active managers. Exhibit 21 summarizes the year-to-date relative returns of our U.S. large-cap generalized frameworks. The fundamental one, that takes no account of the behavior of investors and analysts, has been the best performer. Our regime-sensitive model, that changes its decision rules based on the message from our regime-forecasting indicator, has produced meaningful alpha as well, as has our value model.

The composition of factor returns explains the differences in performance among the models (see Exhibit 22). The three fundamental building blocks – valuation, capital deployment and earnings quality – have all added at least some value, while the fourth one, designed to exploit trends in investor behavior, was whipsawed by a sharp reversal in sentiment in the first quarter. The performance differentials among the models relates to the exposure of each to that timing framework.

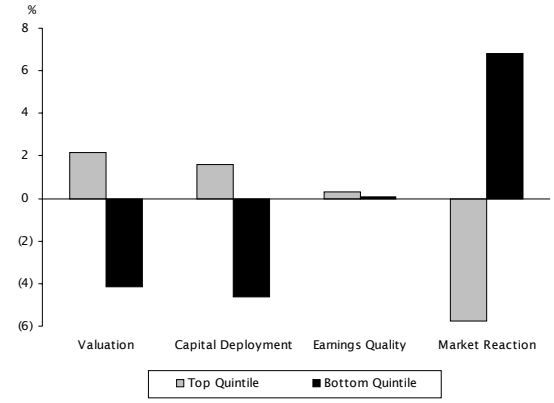
Exhibit 21: U.S. Large-Capitalization Stock Selection Models
Relative Returns of the Top and Bottom Quintiles[1]
Monthly Data Compounded
2016 Through Mid-October



Source: Empirical Research Partners Analysis

[1]Equally-weighted data.

Exhibit 22: U.S. Large-Capitalization Stocks
Relative Returns of the Top and Bottom Quintiles of our Four Super Factors[1]
Monthly Data Compounded
2016 Through Mid-October

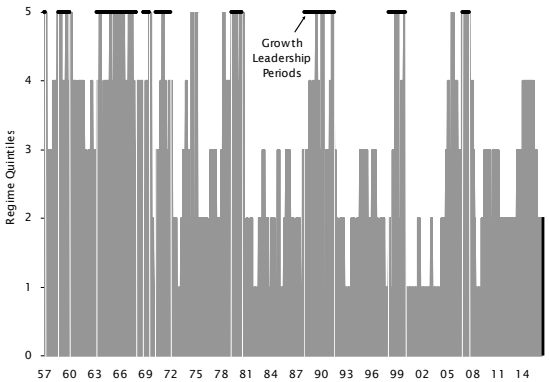


Source: Empirical Research Partners Analysis.

[1]Equally-weighted data.

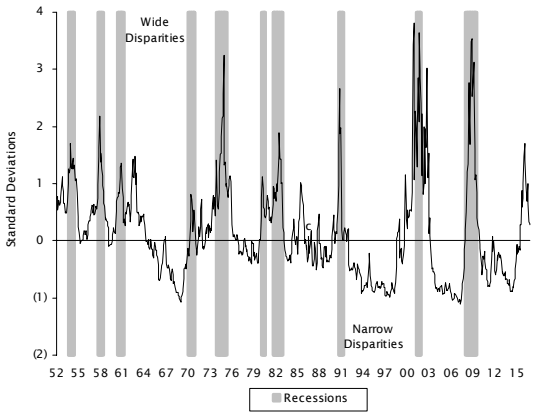
The models' returns were helped by a shift in our regime indicator from neutral to a valuation-tilt in late-February (see Exhibit 23). Valuation spreads reached a provocative level in the early part of the year and shortly thereafter the timing components of the indicator moved to a constructive stance (see Exhibit 24). That read has proven to be right and since then undervalued issues have led the market by about +6 percentage points (see Exhibit 25).

Exhibit 23: U.S. Regime Indicator
(5=Growth-Driven Dynamic;
1=Valuation-Driven Dynamic)
1957 Through September 2016



Source: Empirical Research Partners Analysis

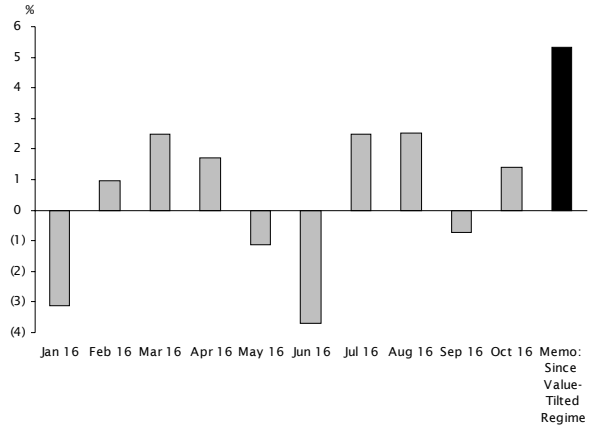
Exhibit 24: U.S. Valuation Spreads
Expected Return of the Top Quintile
Compared to the Average
1952 Through Mid-October 2016



Source: National Bureau of Economic Research, Empirical Research Partners Analysis.

Some of our other frameworks describe the unusual character of this year's returns. Notably, companies with the best growth attributes have lagged, as have those with the most stable fundamentals (see Exhibit 26). Stocks with aggressive owners, including hedge funds and high-turnover long managers, have underperformed, while those targeted by activists have led.

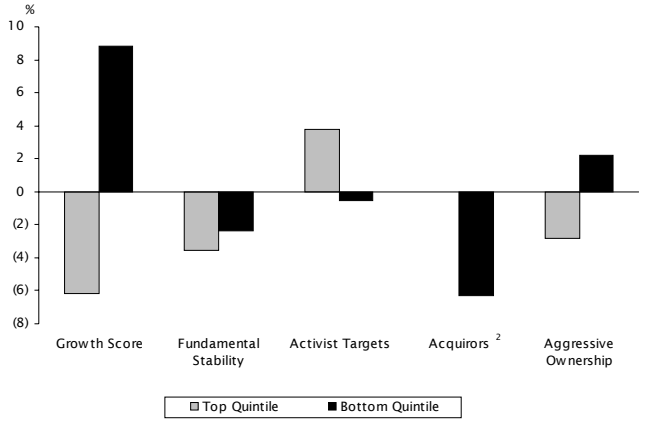
Exhibit 25: U.S. Large-Capitalization Stocks
Relative Returns to the Best Quintile of Valuation[1]
2016 Through Mid-October



Source: Empirical Research Partners Analysis

[1]Equally-weighted data.

Exhibit 26: U.S. Large-Capitalization Stocks
Relative Returns of the Top and Bottom Quintiles of Other Factors[1]
Monthly Data Compounded
2016 Through Mid-October

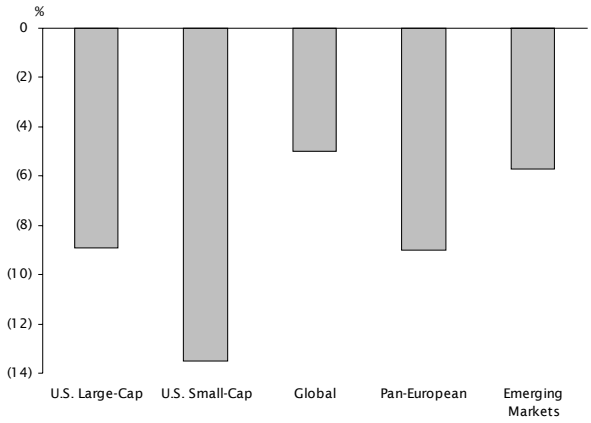


Source: Empirical Research Partners Analysis.

[1]Equally-weighted data.
[2]Acquirors are evaluated based on the terms of the deal (i.e., size, financing).

Our failure models have met expectations this year as most disputes have been resolved in favor of the bears (see Exhibit 27). They now include REITs that at present represent 17% of the large-cap candidates. This year's returns are consistent with the models' longer-term records, both within the U.S. and throughout the world (see Exhibits 28 and 29). The combination of extended valuations, capital intensity and signs of dispute continues to point to trouble ahead.

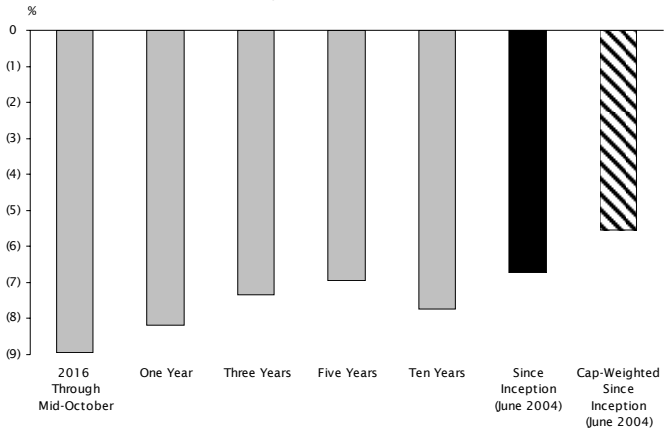
Exhibit 27: Equities Worldwide
Relative Returns of the Failure Models[1]
Monthly Data Compounded
2016 Through Mid-October



Source: Empirical Research Partners Analysis

[1]Equally-weighted data.

Exhibit 28: The Top 1,000 Stocks
***Real-Time* Relative Returns of the 100 Failure Candidates[1]**
Monthly Data Compounded and Annualized
2016 Through Mid-October

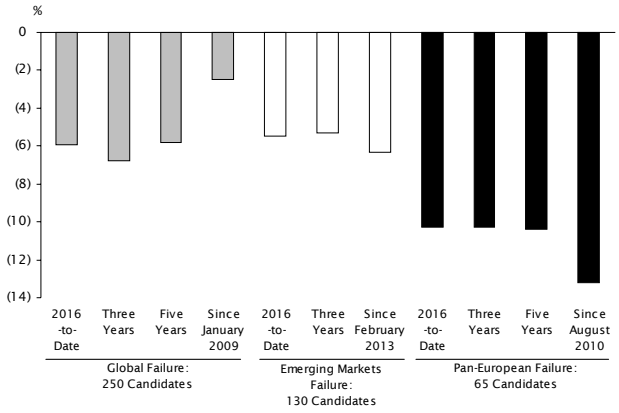


Source: Empirical Research Partners Analysis.

[1]Equally-weighted data.

Our non-U.S. models have added value too, with the recovery in value stocks in the emerging markets producing a big payoff (see Exhibit 30). Our specialized REIT and energy MLP models have done well, and both have good track records (see Exhibit 31).

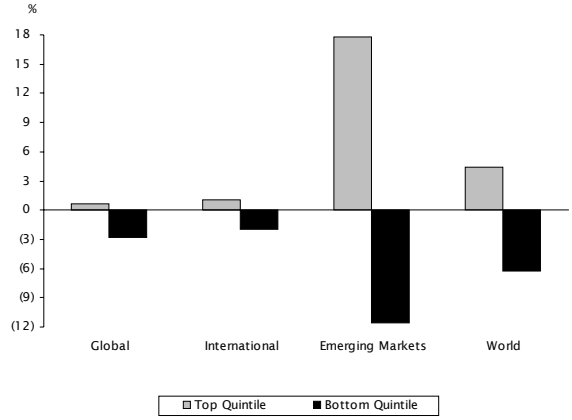
Exhibit 29: Global Equities
***Real-Time* Relative Returns of the Failure Candidates[1]**
Monthly Data Compounded and Annualized
January 2009 Through Mid-October 2016



Source: Empirical Research Partners Analysis

[1]Equally-weighted data.

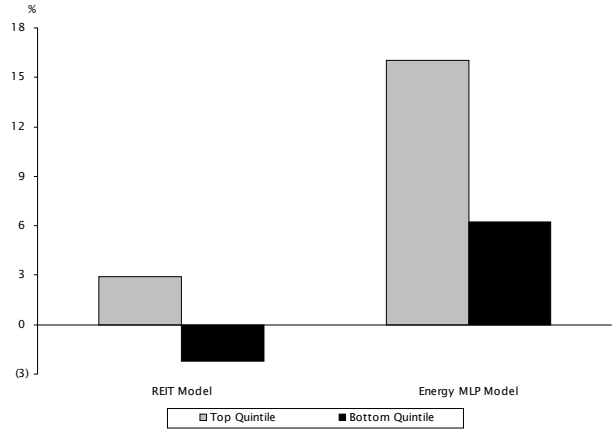
Exhibit 30: Non-U.S. Stock Selection Models
Relative Returns of the Top and Bottom Quintiles[1]
Monthly Data Compounded
2016 Through Mid-October



Source: Empirical Research Partners Analysis.

[1]Equally-weighted data.

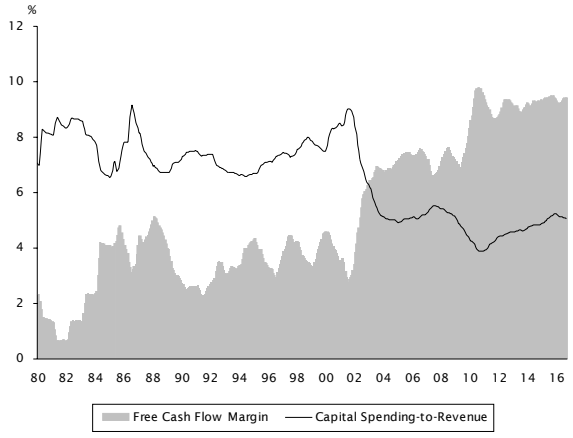
Exhibit 31: The REIT and Energy MLP Models[1]
Relative Returns to the Top and Bottom Quintiles
Monthly Data Compounded
2016 Through Mid-October



Source: Empirical Research Partners Analysis

[1]Equally-weighted returns versus equally-weighted (sector-specific) benchmarks.

Exhibit 32: Large-Cap "Core" Stocks
Free Cash Flow Margins and the Ratio of Capital Spending-to-Revenues[1]
1980 Through September 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

[1]Excluding financials, energy, industrial commodities and utilities; based on trailing four-quarter data smoothed on a trailing three-month basis.

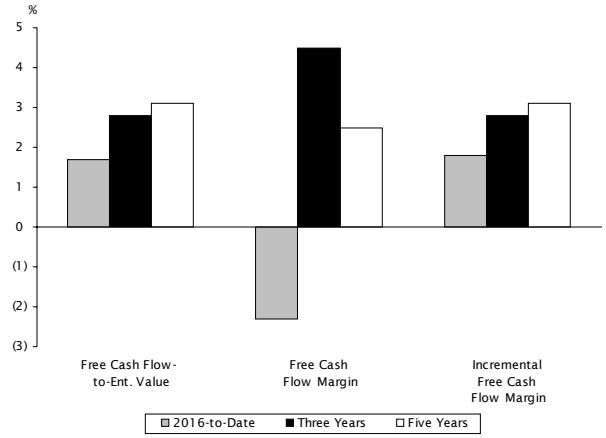
The Free Cash Flow Has Proven Reliable, Other Investors Not So Much

The market's free cash flow margins have trended up throughout this expansion as managements have never had the confidence needed to invest aggressively and haven't undermined the status quo (see Exhibit 32). Capital spending, measured relative to revenues, remains in the same range it's been in since 2001. That stability has meant that we've won by betting on the margins rather than on regression to the mean (see Exhibit 33). With top-line growth in short supply, free cash flow generation and the recycling of it have become key parts of the return formation process. The absence of free cash flow has weighed on returns, except this year when commodity businesses rebounded.

Capital intensity has been seen as a burden throughout this expansion while buybacks of either shares or debt have been rewarded (see Exhibit 34). In addition, tech companies with lowly-valued cash hoards have been revalued this year. We think that the focus on the recycling of capital should lead to a drawn-out market cycle.

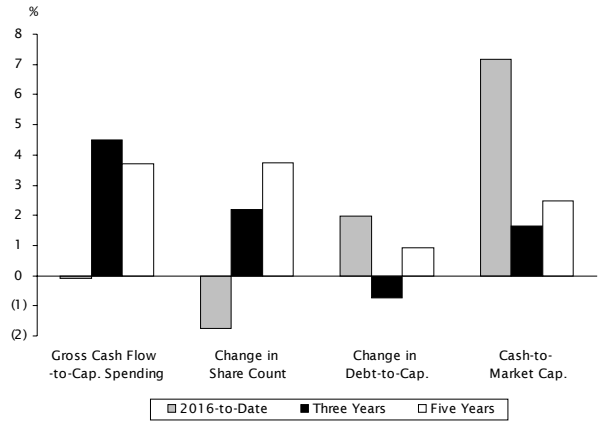
There's been some benefit to keeping an eye on what other investors are doing, but the fundamental trends haven't been persistent enough to make the approach as reliable as it's been in the past (see Exhibit 35). Strong revenue growth hasn't forged a path to outperformance either (see Exhibit 36).

Exhibit 33: Large-Capitalization Stocks
Relative Returns to the Best Quintiles of
Free Cash Flow-Related Variables
Monthly Data Compounded
Five Years Ending Mid-October 2016



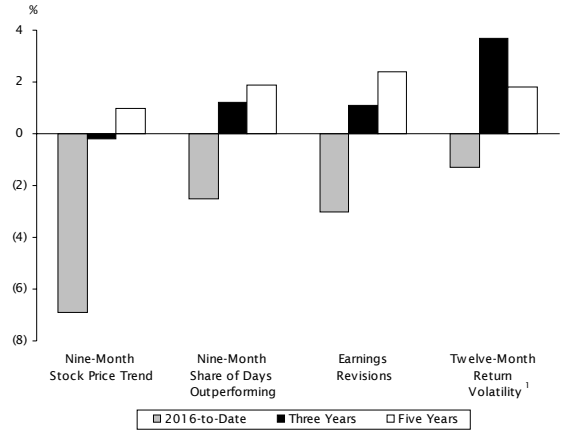
Source: Empirical Research Partners Analysis

Exhibit 34: Large-Capitalization Stocks
Relative Returns to the Best Quintiles of
Select Capital Deployment-Related Variables
Monthly Data Compounded
Five Years Ending Mid-October 2016



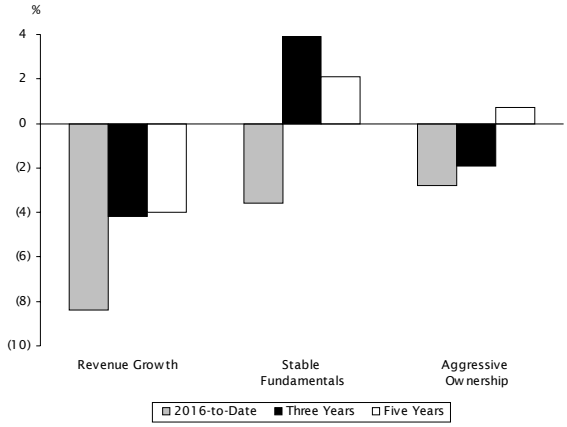
Source: Empirical Research Partners Analysis.

Exhibit 35: Large-Capitalization Stocks
Relative Returns to the Top Quintiles of
Select Price-Related Variables
Monthly Data Compounded
Five Years Ending Mid-October 2016



Source: Empirical Research Partners Analysis

Exhibit 36: Large-Capitalization Stocks
Relative Returns to the Top Quintiles of
Select Non-Model Variables
Monthly Data Compounded
Five Years Ending Mid-October 2016



Source: Empirical Research Partners Analysis.

[1]Lowest volatility.

Conclusion: Still Value Tilted

A significant opportunity developed around the turn of the year as a combination of Fedspeak, negative rates in Europe and concerns about implosions in China and the oil sector pushed valuation spreads up to recessionary levels. That was also the case in the credit markets and for a moment they priced in about a 60% chance of recession. Three of the four concerns have since faded and the spreads have come down but remain at an above-average level. We believe that roughly half the move back to a level consistent with an ongoing expansion has occurred, and to traverse the remaining distance we'll need to see the Fed tighten policy and/or the European Central bank step further back from their stance of all-out monetary stimulus. That's because financials comprise a quarter of the lowest-valued quintile of the market. We think there's a decent chance of that happening and believe that our regime indicator is making the right call.

We're skeptical that momentum strategies that deconstruct stock price trends and the actions of analysts will produce much alpha, except in special circumstances. Those approaches tend to do best when the themes driving the market are powerful and the economy is surprising to the upside. Those conditions haven't been in place in the 2010s. A second problem is that there are fewer under-reacting retail investors in the market and more hedge funds, that are looking for catalysts in the here and now. Good news travels faster than it used to, while there's still a reticence to extrapolate adverse developments. That's why our failure models have continued to perform well.