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January 16, 2018

Portfolio Strategy January 2018

The Bond Surrogates: Fissure

Stress Cracks Deepen

- The Bond Surrogates are the 10% of the equity market with relative returns most tied to the performance of Treasury bonds. More than 80% of them are drawn from the utility, REIT, consumer staples and health care sectors. We've thought that most were overvalued, having been priced off their dividend yields rather than their fundamentals. They've sold at multiples like those of growth stocks despite the fact that they grow their dividends about half as fast.
- The Surrogates peaked concurrent with the all-time low in long rates 18 months ago and on a cap-weighted basis have since surrendered almost two-thirds of their post-Crisis outperformance. Their return deficit of (5.75) percentage points in the first two weeks of 2018 already ranks as the 13th worst monthly result in the last 65 years. The correlation in returns among the yield elite has broken down too as the macro and micro concerns came together to undermine the "stocks-as-bonds" concept. Even after lagging the surrogates' valuations aren't yet interesting and the price of hedging the economic cycle remains high.
- A second business cycle started in Spring of 2016 when the wage growth for those in the bottom 80% of the income distribution turned up, putting the recovery on firmer footing and spurring consumer spending. The tax cuts will add some fuel to that fire. The expansion doesn't show signs of age as investment spending has yet to eat away the system's enormous free cash flow. In addition, the growth rates of the components of GDP (i.e., consumption, exports, imports, government and investment spending) have been similar, making it less likely that a structural excess has developed.
- The inflation statistics have firmed a bit as the data coming out of the sectors that had acted as drags earlier in the year (i.e., cell phones, pharmaceuticals and used cars) has reversed course. The effects of a weak Dollar have begun to show up in import prices. We think the weight of evidence supports the idea that the central tendency of inflation is around 2% and the Fed's worldview is credible. The end of QE in Europe could add to the risk premium in the bond market as demand from that region has matched that from domestic retail investors. The equity market has a less benign view of rates than the bond market and dividend growth strategies have outperformed those based on yield.

Equity Investors Still Have Some Runway

- Equities have been priced at unusual premia to Treasury bonds, irrespective of whether the yields were computed using earnings, free cash flow or dividends. We believe we would need ten-year Treasuries to offer 3.25% or more to undermine the market's multiple. The financials generate more than twice the earnings of the bond surrogates and as long as the expansion is intact the market's dividends should compound at roughly twice the nominal growth of the economy.
- We don't believe the time is right to reverse our longstanding pro-cyclical, financials-heavy stance. The operating leverage story is still working to our benefit and the economic hedges remain expensive. Autos, auto parts, aerospace, chemicals, metals, technology, hotels, casinos, banks, biotech and HMOs form the heart of our core portfolio, that's presented in Exhibit 37 on page 11.

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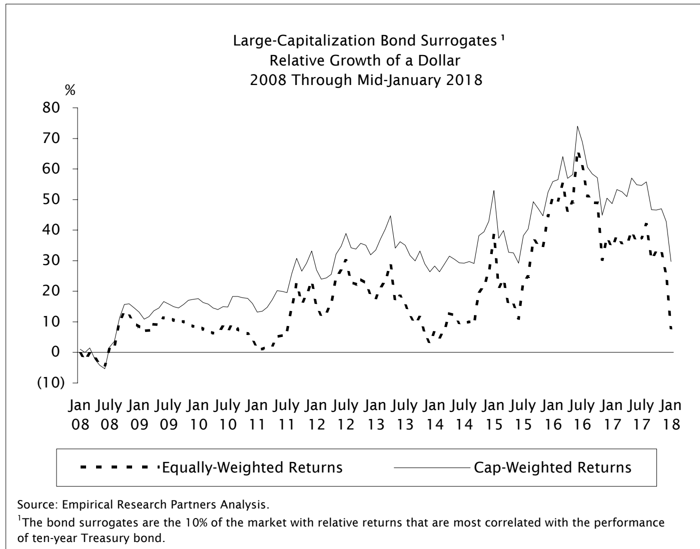
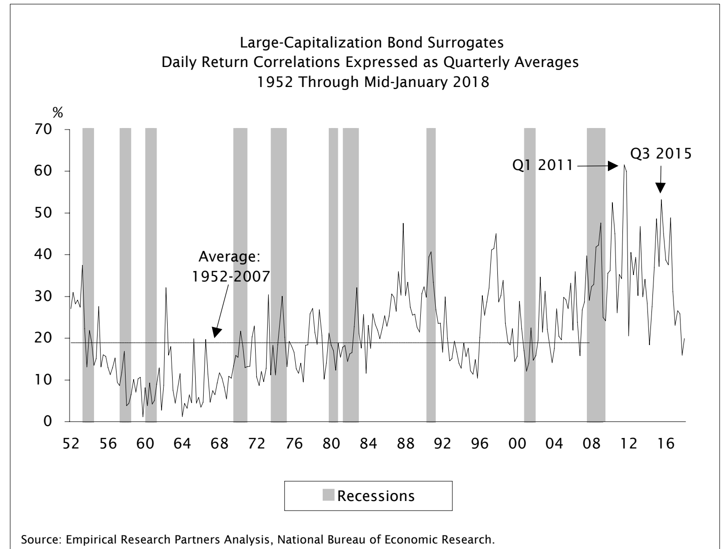
Conclusions in Brief

- The bond surrogates have surrendered most of their post-Crisis excess returns…



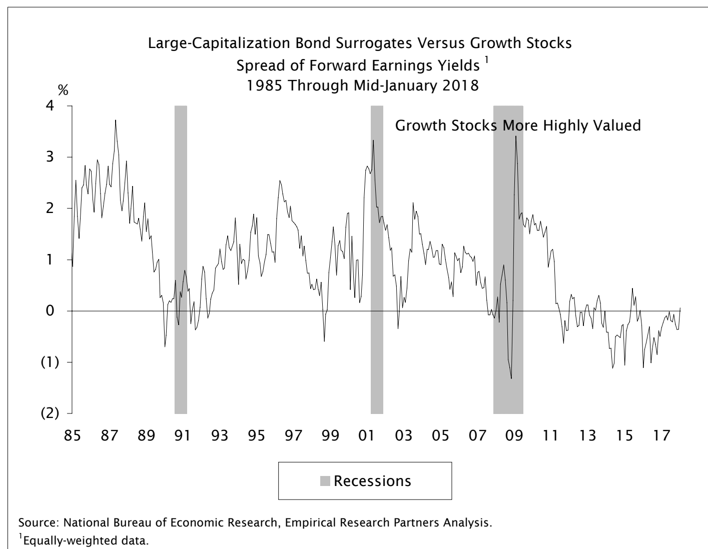
Source: Empirical Research Partners Analysis.
[1]The bond surrogates are the 10% of the market with relative returns that are most correlated with the performance of ten-year Treasury bond.

- …And the coherence of the group has broken down:



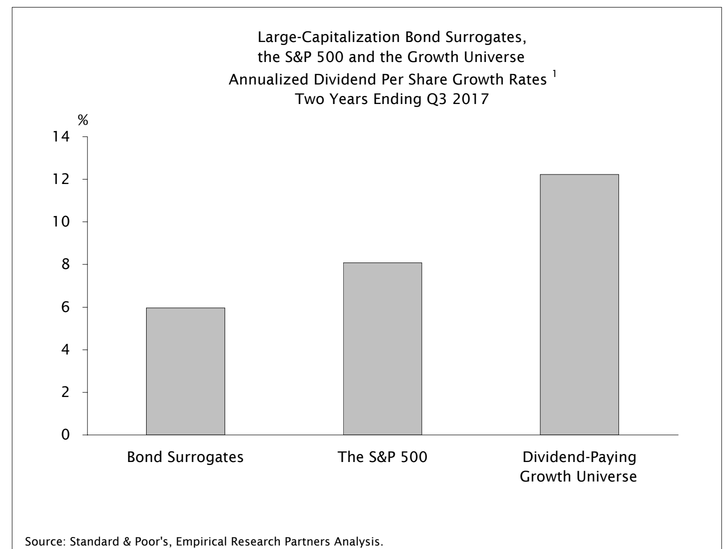
Source: Empirical Research Partners Analysis, National Bureau of Economic Research.

- The surrogates are still not close to being cheap…



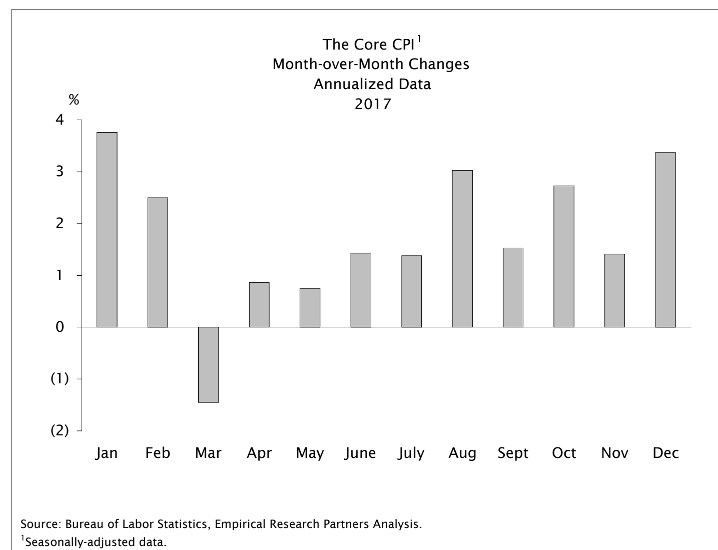
Source: National Bureau of Economic Research, Empirical Research Partners Analysis.
[1]Equally-weighted data.

- ….Particularly when we take into account their inferior growth rates:



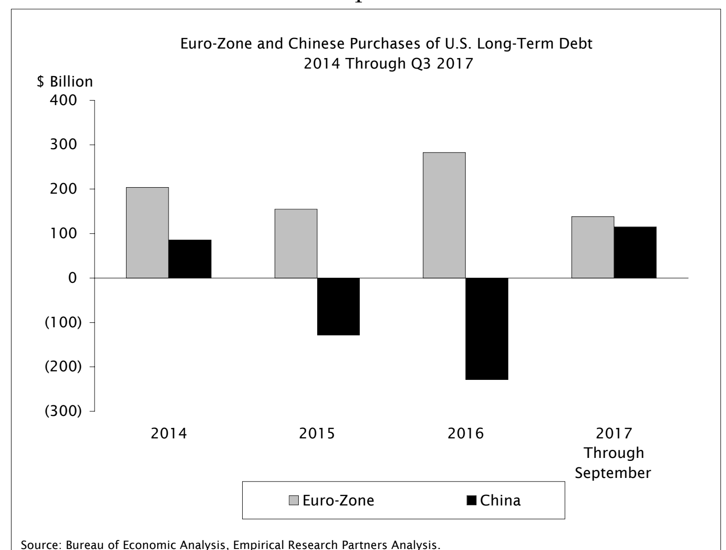
Source: Standard & Poor's, Empirical Research Partners Analysis.

- Inflation has firmed since last Spring…



Source: Bureau of Labor Statistics, Empirical Research Partners Analysis.
[1]Seasonally-adjusted data.

- …And the actions of the European Central Bank will help dictate the bond market's term premium:



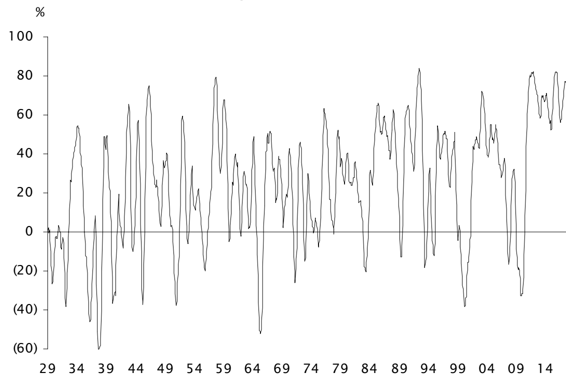
Source: Bureau of Economic Analysis, Empirical Research Partners Analysis.

The Bond Surrogates: Fissure

The Stress Cracks Deepen

We haven't been fans of the bond surrogates, that we define to be the 10% of the equity market with relative returns most tied to the performance of Treasury bonds. The categorization has proven apt and in the post-Crisis years the linkage between the two was tighter than that seen throughout the prior eight decades (see Exhibit 1). Utilities, REITs and consumer staples make up three-quarters of the surrogates, with health care sourcing another tenth of them (see Exhibit 2). We think it's a fundamental error to mistake stocks for bonds because although they both offer yields they're not the same thing. Growth is a big part of the equity equation. It's not surprising though that in the final 5 years of a 35-year bond bull market the two asset classes became conflated as the search for yield became frenzied.

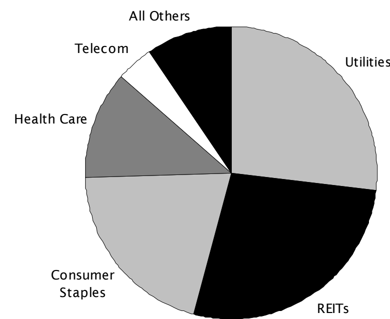
Exhibit 1: Large-Capitalization Bond Surrogates[1] Correlation of Relative Returns with the Performance of Ten-Year Treasury Bonds[2] 1929 Through Mid-January 2018



Source: Ibbotson Associates, Bloomberg LP, Empirical Research Partners Analysis.

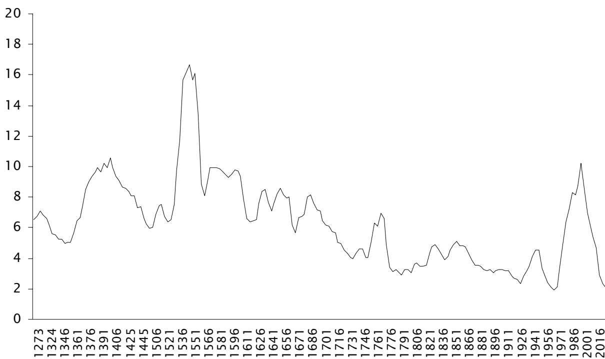
[1]The bond surrogates are the 10% of the market with relative returns that are most correlated with the performance of ten-year Treasury bonds. Performance of longer bonds used prior to 1977.
[2]Constructed using trailing one-year data; returns are equally-weighted and smoothed on a trailing six-month basis.

Exhibit 2: Large-Capitalization Bond Surrogates Mix of Stocks By Sector As of Mid-January 2018



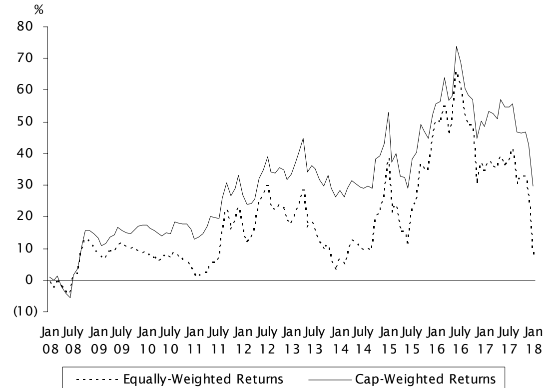
Source: Empirical Research Partners Analysis.

Exhibit 3: Nominal Government Bond Rates 8-Year Moving Averages 1273 Through 2016



Source: Paul Schmelzing, 2017. "Eight Centuries of the Risk-Free Rate: Bond Market Reversals from the Venetians to the 'VaR Shock'," Bank of England, Staff Working Paper No. 686.

Exhibit 4: Large-Capitalization Bond Surrogates Relative Growth of a Dollar 2008 Through Mid-January 2018

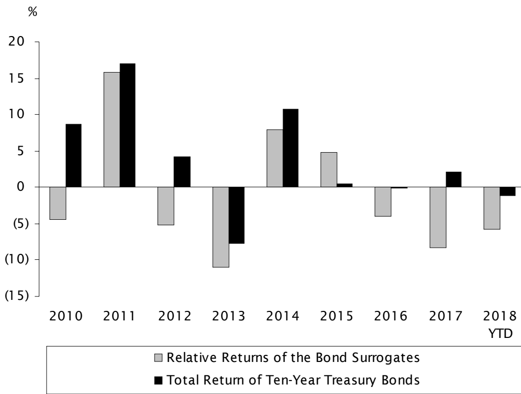


Source: Empirical Research Partners Analysis.

The bond surrogate anomaly has begun to seriously break down. That process began after ten-year Treasury yields bottomed at 1.37%, a record low, about 18 months ago. To put that yield in context, the previous low of 1.40% was established 70 years earlier in the immediate aftermath of World War II. The 2016 bottom was momentous as it represents a *740-year* extreme in government bond yields, when they're cast as an 8-year moving average (see Exhibit 3). The trough in rates marked the peak in relative returns of the bond-surrogate stocks that had outperformed

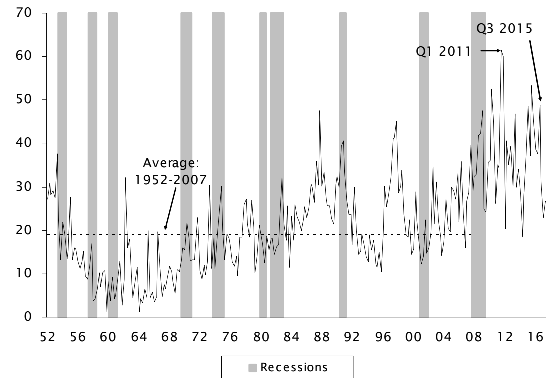
the market by a remarkable +66 percentage points in the post-Crisis period (see Exhibit 4 overleaf). Now almost two-thirds of that premium has since been surrendered on a capitalization-weighted basis, with almost (6) percentage points given back in just the first two weeks of 2018 (see Exhibit 5). On an equally-weighted basis almost 90% of the move has been retraced. We became really worried about the surrogates in the final quarter of last year as the unity of that coalition broke down (see Exhibit 6).[1] What spurred that change was the firmer tone of the economic and inflation data, the improved prospects for the tax stimulus, and renewed vigor in the earnings growth of the other 90% of the equity market.

Exhibit 5: Large-Capitalization Bond Surrogates Capitalization-Weighted Relative Returns and Total Returns of Ten-Year Treasury Bonds Monthly Data Compounded to Annual Periods 2010 Through Mid-January 2018



Source: Bloomberg L.P., Empirical Research Partners Analysis.

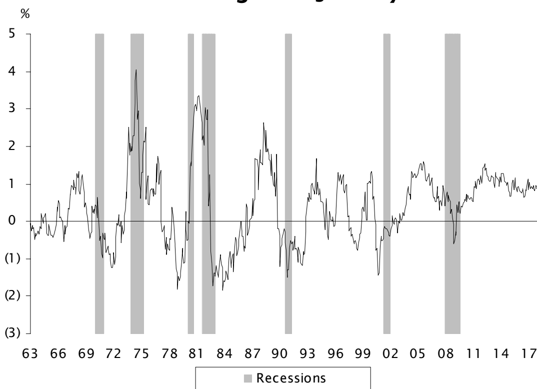
Exhibit 6: Large-Capitalization Bond Surrogates Daily Return Correlations Expressed as Quarterly Averages 1952 Through Mid-January 2018



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

The bond surrogates offer dividend yields that top those of the large-cap market by around a percentage point (see Exhibit 7). That differential is what drove the retail demand for them. The fly in the ointment is growth, and their dividends are compounding at a rate (2.5) percentage points less than that of the S&P 500 and at half the pace produced by the dividend-paying constituents of our large-cap growth universe (see Exhibit 8). Adding insult to injury we're being asked to give up half a point of earnings yield in order to buy into that inferior growth profile (see Exhibit 9). Even now, the surrogates' earnings yields remain at close to parity with those of our growth stock universe, that grows about twice as fast (see Exhibit 10). The comparisons are even more striking when free cash flows are substituted for earnings (see Exhibit 11). It's no wonder then that dividend growth strategies have won out over those focused on yield, leading by +25 percentage points since the beginning-of-2011 (see Exhibit 12).

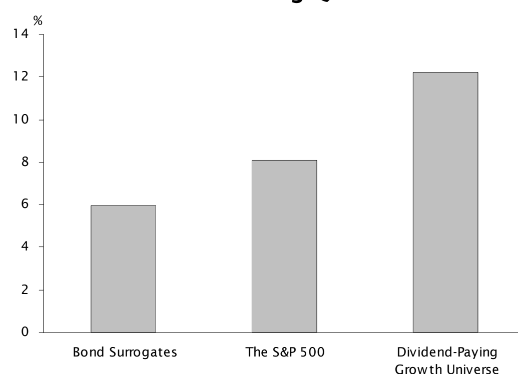
Exhibit 7: Large-Capitalization Bond Surrogates Versus the Market Differential in Dividend Yields[1] 1963 Through Mid-January 2018



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

[1]Equally-weighted data.

Exhibit 8: Large-Capitalization Bond Surrogates, the S&P 500 and the Growth Universe Annualized Dividend Per Share Growth Rates[1] Two Years Ending Q3 2017

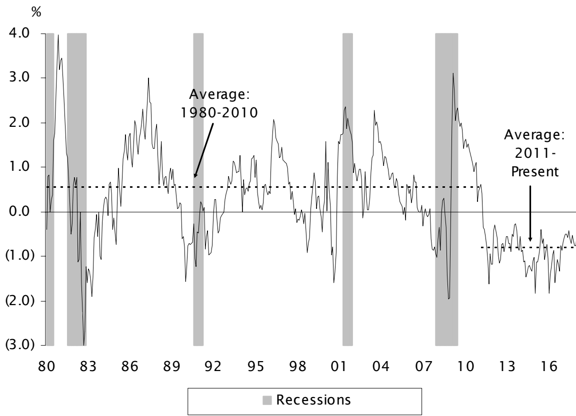


Source: Standard & Poor's, Empirical Research Partners Analysis.

[1]Equally-weighted data.

[1]*Portfolio Strategy* November 2017. "The Bond Surrogates: Stress Cracks."

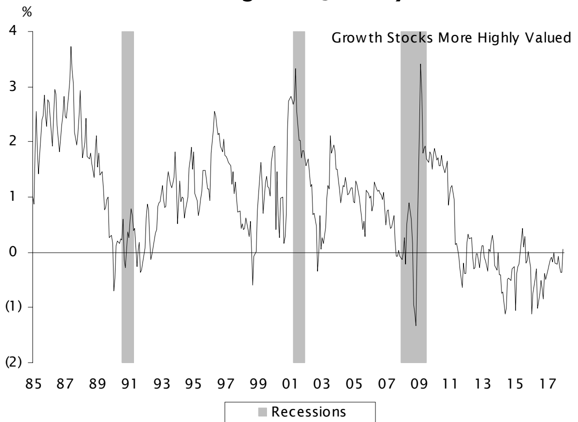
Exhibit 9: Large-Capitalization Bond Surrogates
Relative Forward Earnings Yield[1]
1980 Through Mid-January 2018



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

[1]Equally-weighted data.

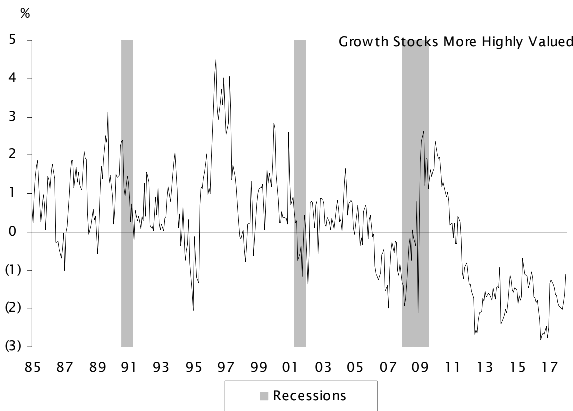
Exhibit 10: Large-Capitalization Bond Surrogates
Versus Growth Stocks
Spread of Forward Earnings Yields[1]
1985 Through Mid-January 2018



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

[1]Equally-weighted data.

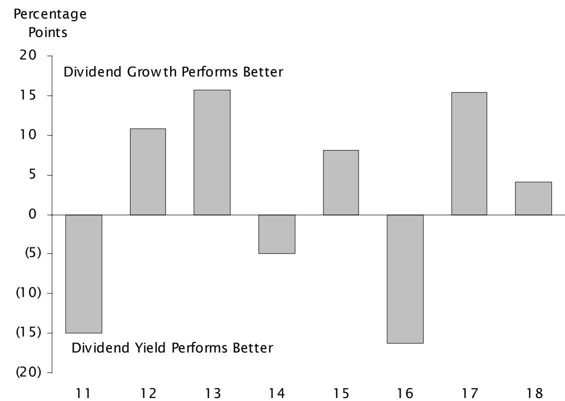
Exhibit 11: Large-Capitalization Bond Surrogates
Versus Growth Stocks
Spread of Free Cash Flow Yields[1]
1985 Through Mid-January 2018



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

[1]Equally-weighted data.

Exhibit 12: Large-Capitalization Stocks
Top Quintiles of Dividend Growth and Yield:
Annual Return Differential[1]
Monthly Returns Compounded to Calendar Years
2011 Through Mid-January 2018



Source: Empirical Research Partners Analysis.

[1]Equally-weighted data. 2018 is year-to-date.

We at Empirical Research believe that even in the era of artificial intelligence and big data the price we pay matters, and the vulnerability of the surrogates has been their excessive valuations. They've weighed even when the economy was growing at just its trend rate. Pattern-identification exercises that fail to take into account the price of entry will do more harm than good.

Term Premia, Supply and Demand

In the last 30 years inflation really hasn't been an issue, and as Brad DeLong has pointed out, a lot of the thinking about how it's created stems from the unusual developments of the mid-1960s through the early-1980s (see Exhibit 13).[2] In that era monetary policy, buffeted by political pressures, underreacted to signs of a burgeoning inflationary threat as policymakers proved to be too complacent after a long sanguine stretch.[3] That complacency ultimately proved disastrous. Like in the mid-1960s, in the past decade there's been no reason to worry, and that's what's conveyed in both the level of real rates and in the volatility statistics for Treasury bills drawn from the options market (see Exhibits 14 and 15).

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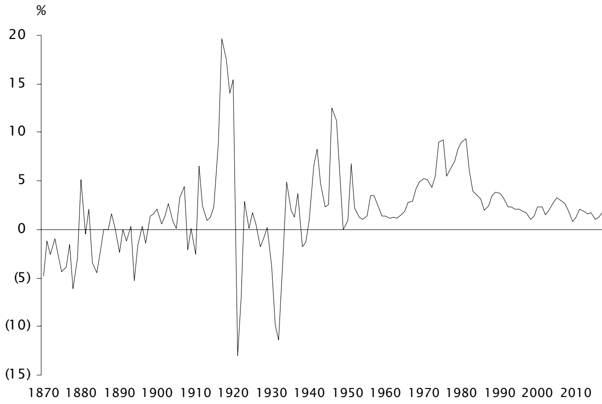
[2]J. Bradford DeLong, 2018. "Why Low Inflation is No Surprise," Project Syndicate Commentary.

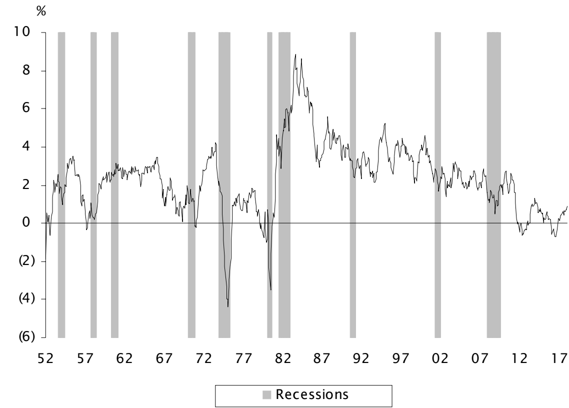
[3]Jeffrey M. Lacker, 2017. "Inflation Dynamics in Stable and Unstable Policy Regimes: Comment on 'Deflating Inflation Expectations,'" Federal Reserve Bank of Richmond Speeches.

Exhibit 13: U.S. GDP Deflator 1870 Through Q3 2017



Source: Bureau of Economic Analysis, Thomas Piketty, Paris School of Economics.

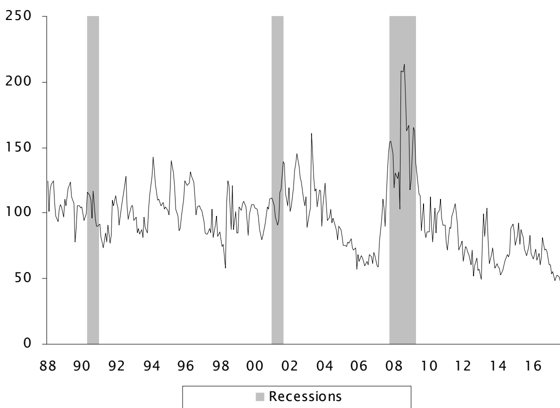
Exhibit 14: Ten-Year Treasury Bond Yield Less Core Inflation 1952 Through Mid-January 2018



Source: Federal Reserve Board, Bureau of Labor Statistics, National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Prior to 1957, overall CPI is used.

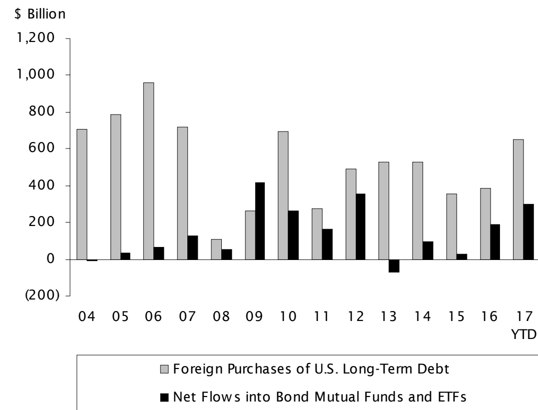
Exhibit 15: One-Month Treasury Bill Options[1] Implied Volatilities 1988 Through Mid-January 2018



Source: Bloomberg L.P., National Bureau of Economic Research.

[1]Based on the Merrill Lynch MOVE Index.

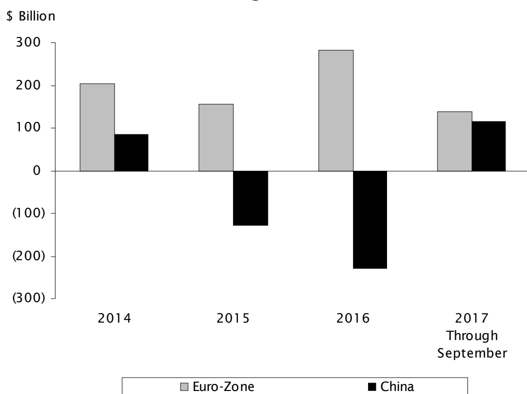
Exhibit 16: Foreign Purchases of U.S. Long-Term Debt and Net Flows into Bond Mutual Funds and ETFs 2004 Through Q3 2017



Source: Investment Company Institute, Bureau of Economic Analysis, Empirical Research Partners Analysis.

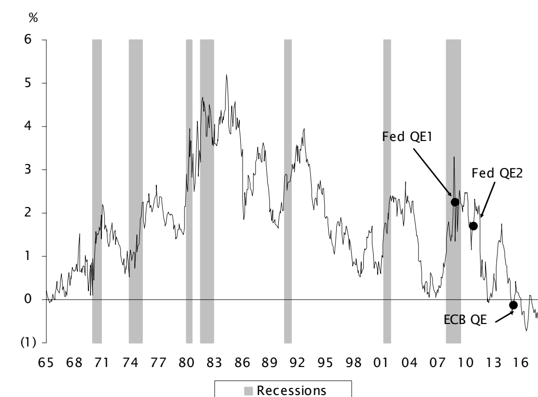
There's also the matter of *global* yield seeking. Foreign flows into the U.S. bond market have dwarfed those coming from retail investors and in recent years European demand has been much larger than that from China (see Exhibits 16 and 17). The absence of a term premium in the Treasury market is in part related to the demand for bonds stemming from central banks' quantitative easing programs that are gradually drawing to a close (see Exhibit 18).

Exhibit 17: Euro-Zone and Chinese Purchases of U.S. Long-Term Debt 2014 Through Q3 2017



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

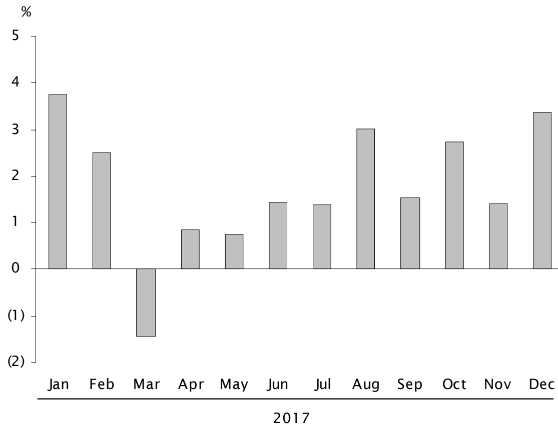
Exhibit 18: Ten-Year Treasury Bond Term Premium 1965 Through Mid-January 2018



Source: Adrian, T., Crump, R. K. and Emanuel Moench, 2008. "Pricing the Term Structure with Linear Regressions," National Bureau of Economic Research.

The inflation data firmed in the last five months of 2017 after a spate of weakness earlier in the year (see Exhibit 19). Consistent with its unpredictable character, the categories that had been weak turned strong (i.e., pharmaceuticals and used cars), while apparel and airfares became drags, albeit smaller ones (see Exhibit 20). Looking forward, the weakness in the Dollar should boost import prices in a setting in which the economy is poised to grow at an above-trend rate (see Exhibit 21). That data, along with the expected stimulus from the tax cuts has worked its way into the expectations for monetary policy. The Fed Fund futures now forecast at an almost 2% rate by the end of the year, +50 basis points more than was expected at the end of May (see Exhibit 22). On balance, the data has supported the Fed's view of the world.

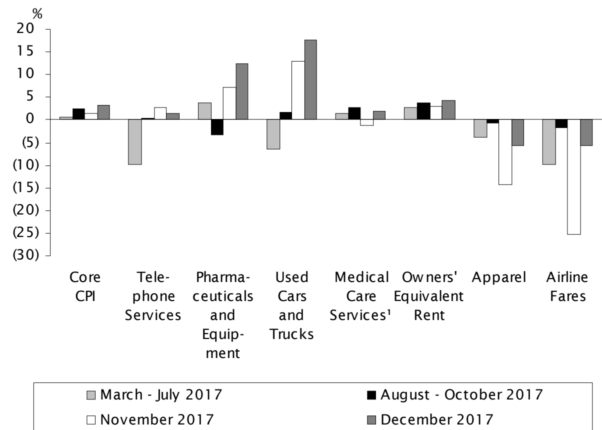
Exhibit 19: The Core CPI[1]
Month-over-Month Changes
Annualized Data
2017



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

[1]Seasonally-adjusted data.

Exhibit 20: The Core CPI and Select Components
Month-over-Month Changes
Annualized Data
March Through December 2017



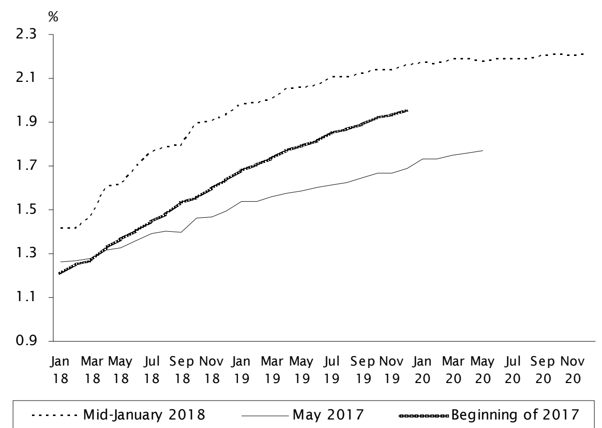
Source: Bureau of Labor Statistics, Empirical Research Partners Analysis.

[1]Hospitals, HMOs and physicians.

Exhibit 21: Price of U.S. Manufactured Good Imports
and the Trade-Weighted Dollar
Year-over-Year Changes
2007 Through 2017

Source: Bureau of Labor Statistics, Federal Reserve Board, Empirical Research Partners Analysis.

Exhibit 22: The Fed Fund Futures Curves
As of the Beginning of 2017, in May,
and Mid-January 2018

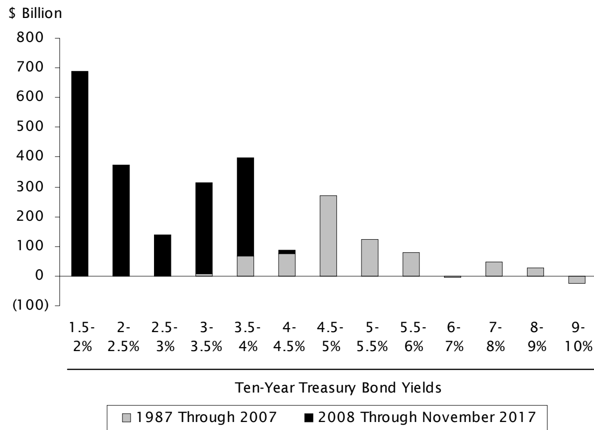


Source: Bloomberg L.P.

Retail Investors Love a Sure Thing

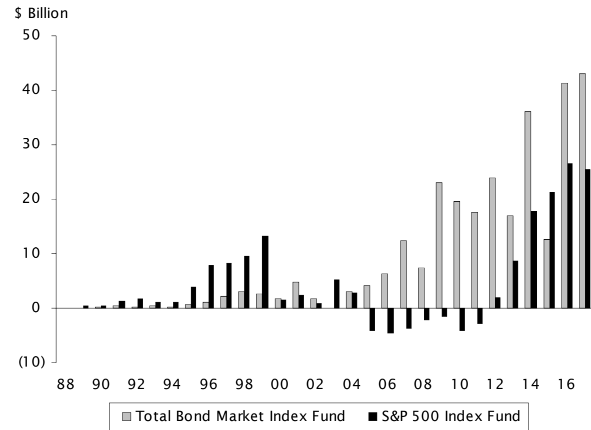
Retail investors fell in love with bond funds and ETFs and since 2008 the inflows into them have exceeded those of the prior three decades combined. As shown in Exhibit 23 much of the money came in when yields were below today's levels. For example, net flows into Vanguard's Total Bond Market Index Funds, that have assets of $337 billion, have been much larger than those into their S&P 500 products (see Exhibit 24). It's easy to understand why that is; the ride in the bond fund has been almost entirely bump free, with losses few and far between. Exhibit 25 depicts its trailing 12-month returns. It will take a lot to shake the confidence of retail investors although many are already underwater.

Exhibit 23: Bond Mutual Funds and ETFs
Net Flows by the Level of Ten-Year Treasury Bond Yields at the Date of Inflows
1987 Through November 2017



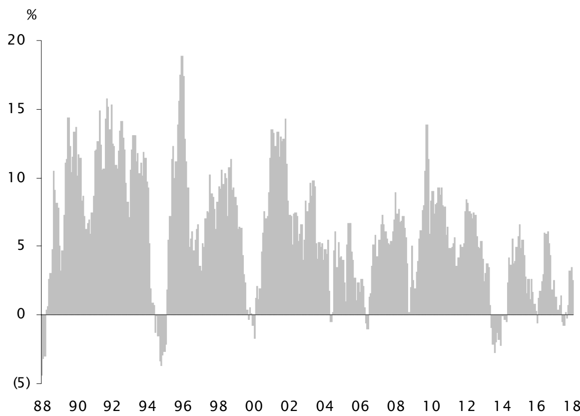
Source: Investment Company Institute, Federal Reserve Board, Empirical Research Partners Analysis.

Exhibit 24: Vanguard Total Bond Market and S&P 500 Index Funds
Net Flows
1988 Through November 2017



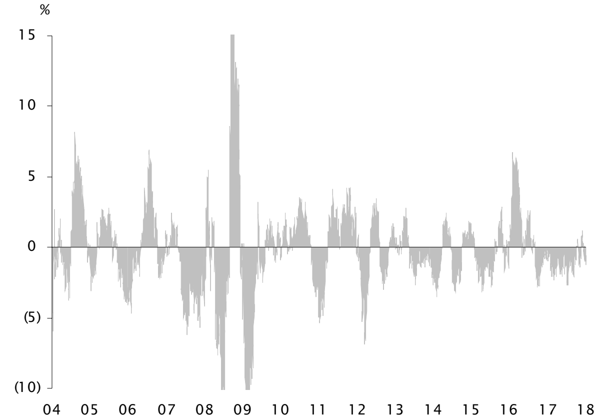
Source: Strategic Insight Simfund.

Exhibit 25: Vanguard Total Bond Market Index Fund
Trailing Twelve-Month Nominal Returns
1988 Through Mid-January 2018



Source: Bloomberg L.P.

Exhibit 26: Major U.S. Dividend Yield ETFs[1]
Relative Returns Versus the S&P 500
Measured Over Three-Month Holding Periods
2004 Through Mid-January 2018



Source: FactSet Research Systems, Empirical Research Partners Analysis.

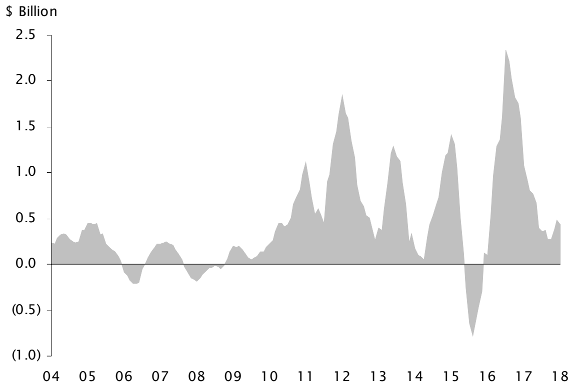
[1] U.S. dividend yield ETFs with assets under management greater than $1 billion. Returns are asset-weighted.

It appears that yield-hungry investors will accept sub-par equity returns in exchange for being paid a higher coupon. We see evidence of that in the ETF market where dividend-yield-focused products have continued to attract substantial sums despite having lagged the S&P 500 throughout most of the past five years (see Exhibits 26 and 27). On a month-to-month basis though we've found that performance has had a demonstrable effect on flows (see Exhibit 28). The strong nominal returns of stocks have kept the yield-seeking clientele content.

For Equity Investors There's Still Some Runway

A key issue for equity investors is whether we're near the point at which good becomes bad, and multiples come under pressure as the duration of the expansion is called into question. We don't think we're close to that juncture, in part because the equity market hasn't been priced to the same scenario as the bond market, nor have investors' assessments of the riskiness of the two markets been aligned. We can see evidence of that in Exhibits 29 through 31, that present the yield relationships, comparing those based on forward earnings, free cash flow and dividends to those of ten-year Treasury bonds. The forward earnings yield spread has narrowed most, with the premium down to about +45 basis points. Those based on free cash flow and dividend yields have further room to narrow with premia in the +100 to +150 basis point range. Our view is that we need ten-year Treasury yields of 3.25% or higher before the market's multiple comes under real pressure.

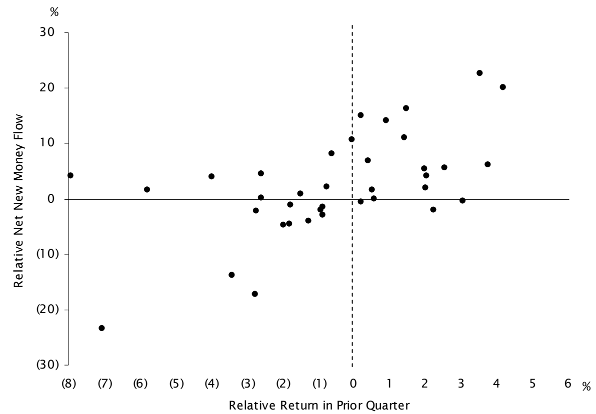
Exhibit 27: Major U.S. Dividend Yield ETFs[1] Monthly Net Inflows[2] 2004 Through Mid-January 2018



Source: FactSet Research Systems, Empirical Research Partners Analysis.

[1]U.S. dividend yield ETFs with assets under management greater than $1 billion.
[2]Smoothed on a trailing six-month basis.

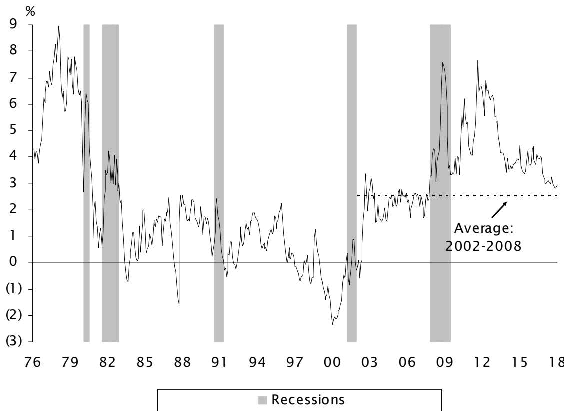
Exhibit 28: U.S. Equity Yield ETFs[1] Relative Net New Money Flow Versus Relative Return in Prior Quarter[2] 2007 Through 2017



Source: Strategic Insight, Empirical Research Partners Analysis.

[1]Based on underlying securities held being U.S.-listed.
[2]Relative return is equally-weighted return of all yield ETFs less the S&P 500 return. Relative net new money flow is the net flow into yield ETFs as a percent of start-of-period assets less that for all ETFs.

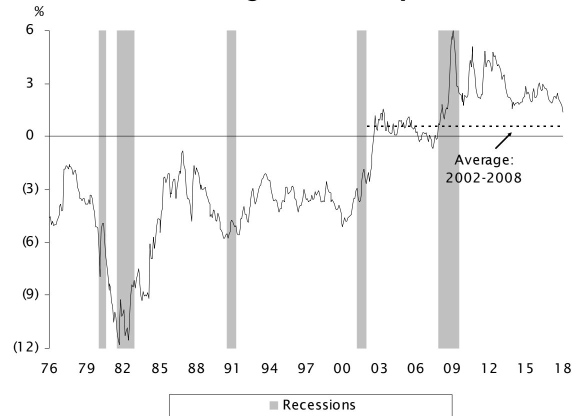
Exhibit 29: Large-Capitalization Stocks[1] *Forward* Earnings Yield Less That of the Ten-Year Treasury Bond 1976 Through Mid-January 2018



Source: Federal Reserve Board, Corporate Reports, National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Capitalization-weighted data.

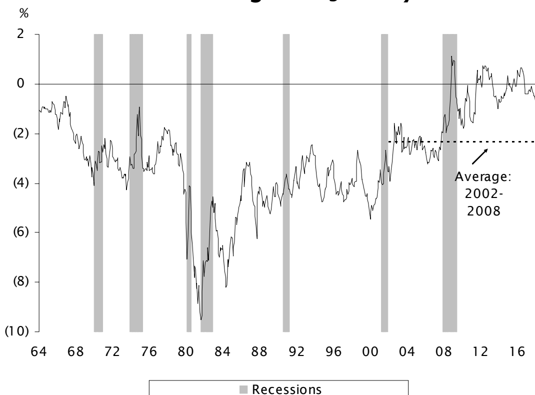
Exhibit 30: Large-Capitalization Stocks[1] Free Cash Flow Yield Less That of the Ten-Year Treasury Bond 1976 Through Mid-January 2018



Source: Federal Reserve Board, Corporate Reports, National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Excludes financial and utilities; capitalization-weighted data.

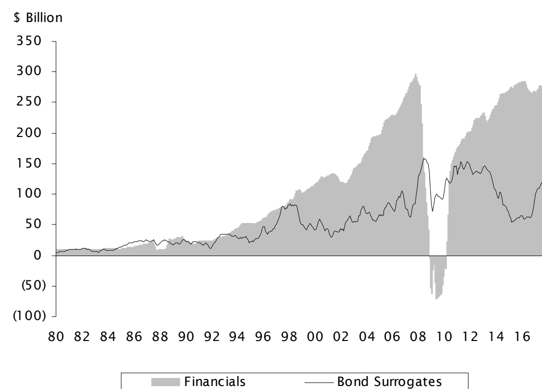
Exhibit 31: Large-Capitalization Stocks[1] Dividend Yield Less That of the Ten-Year Treasury Bond 1964 Through Mid-January 2018



Source: Federal Reserve Board, Corporate Reports, National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Capitalization-weighted data.

Exhibit 32: Large-Cap Bond Surrogates and Financials Trailing Four-Quarter Earnings[1] 1980 Through 2017



Source: Empirical Research Partners Analysis.

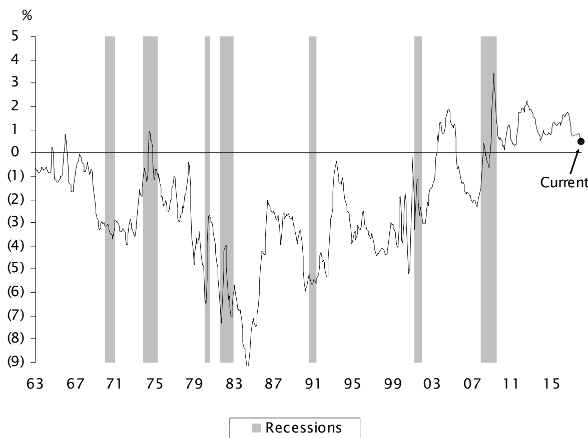
[1]Data smoothed on a trailing three-month basis.

The repudiation of the bond surrogates' valuation doesn't pose a mortal threat to the equity market because their opposite numbers, the financials, carry a much greater weight in the composite. The financials have more than twice the earnings of the surrogates and a capitalization that's 60% larger (see Exhibit 32 overleaf).

At the moment the surrogates together offer a dividend yield that tops that of the ten-year Treasury bond by just shy of +50 basis points (see Exhibit 33). If that premium disappears we expect that they'll be revalued based on their earnings, sending them to their final resting places. We expect the process to be stop and go.

We believe it will take a significant amount of evidence to push the market to adopt a more hawkish scenario because inflation has been so low for so long. That's clearly reflected in expectations (see Exhibit 34). We're wagering on glacial rather than abrupt change, and we don't think it's wise to take a preemptive defensive stance, that remains costly to adopt.

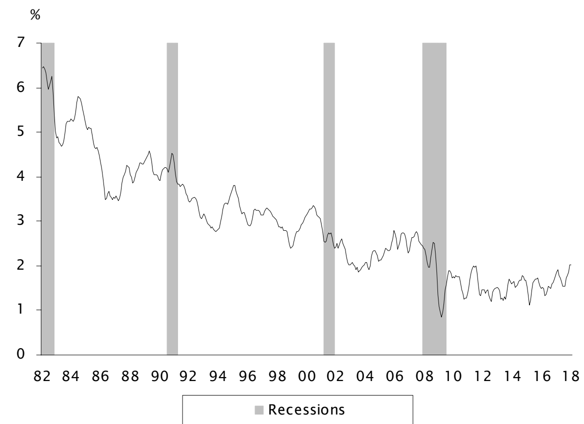
Exhibit 33: Large-Capitalization Stocks Dividend Yields of the Bond Surrogates Less the Ten-Year Treasury Bond Yields[1] 1963 Through Mid-January 2018



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

[1]Capitalization-weighted data smoothed on a trailing three-month basis.

Exhibit 34: Two-Year-Forward Inflation Expectations 1982 Through January 2018



Source: Federal Reserve Bank of Cleveland, National Bureau of Economic Research.

One chart we've emphasized throughout the post-Crisis years has related the free cash flow of public companies plus a similar construct for the consumer sector of the economy to nominal GDP (see Exhibit 35). In this version we've added Baa corporate bond yields as a comparator. At the end of the third-quarter of last year combined the cash flows were still about 8% of GDP, 8½ years after the economic trough. That's nearly double the marginal pretax cost of financing. The point is that we've never had an investment cycle big enough to eat away the liquidity and undermine the benign status quo. The fear engendered by the Crisis has extended the cycle.

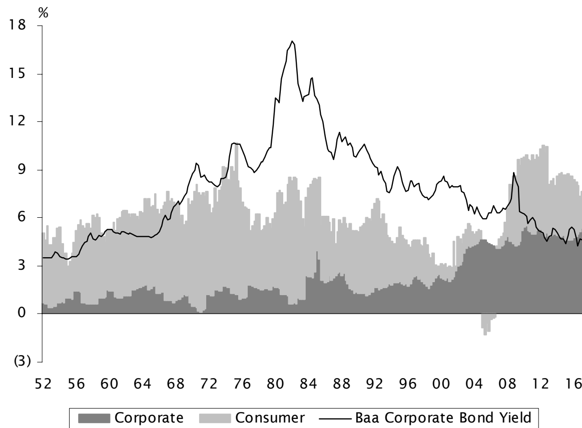
Oliver Blanchard, now at the Petersen Institute, has made a related argument.[4] He examined the growth rates for the major components of GDP in each of the last seven business cycles (see Exhibit 36). In this one, not only were the growth rates low, they've been almost identical. That suggests that growth has been balanced, making the chances of an excess less.

Conclusion: Not Dark Yet

We've had a procyclical, financials and tech-heavy portfolio, with exposure to only a couple of the hundred bond surrogate issues (see Exhibit 37). Our judgment is that the timing isn't yet right to change that stance and what's been going on is that an anomaly, the misvaluation of stable dividend yield, is being corrected. That outcome isn't disconcerting, it's encouraging. The market has gradually come to the realization that a second business cycle broke out about seven quarters ago when the income gains first broadened out and then flowed through to consumption. Being young it's yet to develop bad habits.

[4]Blanchard, O. and Colombe Ladreit de Lacharrière, January 2, 2018. "An Unusually Balanced U.S. Recovery," *Realtime Economic Issues Watch.* Retrieved from: https://piie.com.

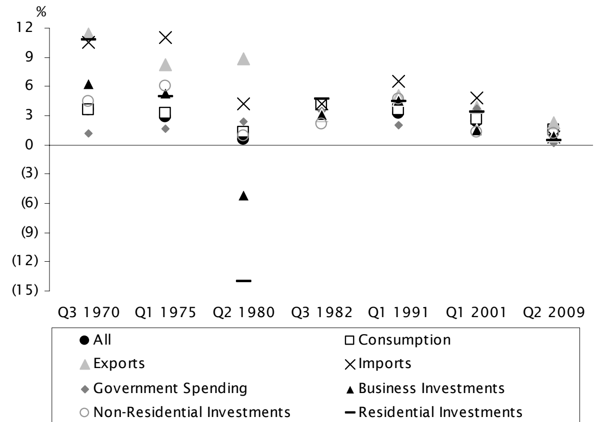
Exhibit 35: The U.S. Consumer and Corporate America Free Cash Flow as a Share of Nominal-GDP[1] and Baa Corporate Bond Yield 1952 Through Q3 2017



Source: U.S. Department of Commerce, Federal Reserve Board, Bloomberg L.P., Corporate Reports, Empirical Research Partners Analysis.

[1]Corporate data for the largest 1,500 stocks excluding financials and utilities.

Exhibit 36: Real Demand by Components[1] Business Cycle Growth Rates 1970 Through Q2 2009



Source: Blanchard, O. and Colombe Ladreit de Lacharrière, January 2, 2018. "An Unusually Balanced U.S. Recovery," *Realtime Economic Issues Watch*. Retrieved from: https://piie.com.

[1]Demand components deflated by their own price deflators.

Exhibit 37: Empirical Research Partners The Large-Capitalization Core Portfolio Benchmarked to the S&P 500 As of Mid-January 2018

Symbol	Company	Weight	Price at Inclusion	Price 01/12/18	S&P 500 Weight
CYCLICALS					
Consumer Durables and Apparel					
LEA	LEAR CORP	2.1 %	$109.51	$189.14	
FCAU	FIAT CHRYSLER AUTOMOBILES NV	1.3	7.96	23.39	
PHM	PULTEGROUP INC	1.2	24.36	34.48	
GM	GENERAL MOTORS CO	1.0	36.14	44.07	
SNE	SONY CORP	0.6	30.88	50.03	
		6.2 %			2.5 %
Capital Equipment					
BA	BOEING CO	2.5 %	$74.78	$336.21	
NOC	NORTHROP GRUMMAN CORP	1.3	62.51	315.15	
SPR	SPIRIT AEROSYSTEMS HOLDINGS	1.2	54.55	96.55	
HON	HONEYWELL INTERNATIONAL INC	1.1	27.16	159.07	
CBI	CHICAGO BRIDGE & IRON CO	0.2	22.51	19.01	
		6.3 %			6.9 %
Commercial Services					
MCO	MOODY'S CORP	1.3	$28.63	$157.25	
		1.3 %			0.8 %
Industrial Commodities					
LYB	LYONDELLBASELL INDUSTRIES NV	2.8	$74.81	$117.68	
FCX	FREEPORT-MCMORAN INC	1.2	15.71	19.75	
		4.0 %			2.7 %
Transports					
UAL	UNITED CONTINENTAL HOLDINGS INC	0.7 %	$22.38	$78.40	
		0.7 %			2.3 %
GROWTH-ORIENTED					
Technology					
MSFT	MICROSOFT CORP	4.5 %	$52.15	$89.60	
AAPL	APPLE INC	3.1	63.25	177.09	
XLNX	XILINX INC	2.2	35.08	74.66	
TSM	TAIWAN SEMICONDUCTOR MFG CO	2.1	9.16	41.19	
VRSN	VERISIGN INC	2.0	74.26	113.61	
ACN	ACCENTURE PLC	2.0	50.25	160.11	
FLEX	FLEX LTD	2.0	10.12	19.14	
TEL	TE CONNECTIVITY LTD	1.3	40.96	100.17	
FDC	FIRST DATA CORP	1.3	15.62	17.66	
GLW	CORNING INC	1.2	20.51	34.66	
EBAY	EBAY INC	1.0	24.57	38.02	
HPE	HEWLETT PACKARD ENTERPRISE	0.4	9.67	15.81	
HPQ	HP INC	0.3	14.98	22.92	
		23.4 %			20.8 %
Pharmaceuticals & Biotechnology					
JNJ	JOHNSON & JOHNSON	1.9 %	$50.87	$145.76	
AMGN	AMGEN INC	1.4	132.53	185.04	
ABBV	ABBVIE INC	1.0	88.86	100.34	
PFE	PFIZER INC	0.9	21.76	36.54	
GILD	GILEAD SCIENCES INC	0.9	97.21	79.02	
AGN	ALLERGAN PLC	0.6	229.32	176.05	
		6.8 %			8.1 %
GROWTH-ORIENTED (Cont.)					
Health Care Equipment and Services					
ANTM	ANTHEM INC	3.3 %	$75.58	$239.82	
UNH	UNITEDHEALTH GROUP INC	2.7	37.16	228.64	
SYK	STRYKER CORP	1.3	49.25	158.23	
CAH	CARDINAL HEALTH INC	0.9	35.27	71.49	
HCA	HCA HOLDINGS INC	0.8	81.95	88.80	
		8.8 %			5.1 %
Retail, Media and Other Consumer Cyclicals					
H	HYATT HOTELS CORP	3.1 %	$58.67	$78.93	
TJX	TJX COMPANIES INC	1.4	10.84	78.28	
COST	COSTCO WHOLESALE CORP	1.2	41.94	191.84	
WYN	WYNDHAM WORLDWIDE CORP	1.0	85.03	117.93	
LVS	LAS VEGAS SANDS CORP	1.0	62.27	71.02	
M	MACY'S INC	0.9	61.47	26.89	
		8.6 %			11.5 %
Consumer Staples					
PM	PHILIP MORRIS INTERNATIONAL	1.7 %	$42.16	$104.50	
PEP	PEPSICO INC	0.9	95.34	117.38	
		2.6 %			8.9 %
OTHER					
Financials					
C	CITIGROUP INC	4.1 %	$55.03	$76.84	
COF	CAPITAL ONE FINANCIAL CORP	4.1	66.87	105.43	
JPM	JPMORGAN CHASE & CO	4.0	46.90	112.67	
MS	MORGAN STANLEY	3.2	39.04	55.12	
PNC	PNC FINANCIAL SERVICES GROUP INC	2.5	66.75	151.84	
GS	GOLDMAN SACHS GROUP INC	1.8	120.49	257.03	
BAC	BANK OF AMERICA CORP	1.4	35.40	31.19	
CFG	CITIZENS FINANCIAL GROUP INC	1.2	26.77	45.52	
DFS	DISCOVER FINANCIAL SVCS INC	1.0	59.41	80.51	
LM	LEGG MASON INC	0.4	62.76	43.74	
		23.7 %			15.0 %
Energy					
COP	CONOCOPHILLIPS	2.7 %	$46.36	$60.05	
HES	HESS CORP	1.3	67.69	54.54	
MPC	MARATHON PETROLEUM CORP	1.2	20.00	71.42	
OXY	OCCIDENTAL PETROLEUM CORP	1.2	91.75	76.53	
NBL	NOBLE ENERGY INC	0.6	39.46	32.23	
APA	APACHE CORP	0.4	97.66	47.16	
MDR	MCDERMOTT INTL INC	0.2	17.28	7.79	
CHK	CHESAPEAKE ENERGY CORP	0.2	25.64	4.28	
		7.7 %			7.2 %
Telecommunication Services					
None					
		0.0 %			2.5 %
Utilities					
None					
		0.0 %			2.9 %
Real Estate					
None					
		0.0 %			2.8 %
TOTAL		100.0 %			100.0 %

Source: Empirical Research Partners Analysis.