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Stock Selection: Research and Results December 2016

The Financials: Now What? Buybacks: Still Potent?
Free Cash Flow – Cast a Wide Net

Around the Bend

- We've thought that it wouldn't take much to make the financial stocks work. They were cheap, cast as anti-bond proxies, and managements were being given the room to repurchase their stock at reasonable valuations. Fundamentals were unexciting, but years of cost cutting had increased operating leverage at a time when the term premium in the bond market was negative. The endogenous trends were fine, it was the larger macro environment that wasn't cooperating. Financials don't do well when fears of debt/deflation are in the air. In the past four months they've evaporated and the stocks have rounded the bend. Relative multiples have returned to where they were a couple of years ago and valuation spreads have fallen to a middling level. The stocks have quickly transitioned from a value to momentum status and now around a third of them rank in the top quintile of price momentum, the greatest representation in this decade.
- At this point we must decide if the post-election shift in sentiment was well founded and if in fact there will be a reflationary wave to ride. The risk in trying to raise the nominals is that policy might provoke another strong Dollar episode that would quash the economic enthusiasm. We've thought the Dollar has less upside that it did two years ago because a significant reset in expectations for monetary policy has already occurred. Moreover, we think the bond vigilantes will be less effective than in the past because borrowing has played a smaller role than usual in funding economic activity. Our judgment is that the direction of the rotation was correct and that the newfound optimism about the financial sector isn't yet excessive. Appendix 1 on page 13 lists financials with above-average valuation support, sorted by their momentum characteristics, as good a screen as any given the circumstances.

Buybacks: What's More Important, the Multiple Paid or Size?

- Clients have asked whether the power of buybacks is being sapped by the market's high P/E multiple. The history is that share count reductions are rewarded in the early stages of a cycle and when the market's multiple is below average. Managements are price insensitive, redeploying excess capital when they have it.
- In this expansion the alpha created by large repurchases has held up better than that in its predecessors. That's because the contractions in share count have been huge, and it takes one of almost (4)% to rank in the top quintile. In a setting of low interest rates debt-financed buybacks have been rewarded. Really big repurchases done when the market's multiple was historically high have led to excess returns, although less than those earned in other settings. Valuation is key and Exhibit 33 on page 10 lists those with a winning combination.

Free Cash Flow: Cast a Wide Net

- We've long been advocates of using free cash flow yield as a primary screening methodology when valuing non-financial stocks. The premise was that the exceptional margins of the Bretton Woods II era would prove resilient, surprising investors, with protectionism the greatest (and now looming) threat. When picking among low-P/E stocks, the cash flow yields have separated the winners from losers. In this cycle a yield computed using enterprise value has outperformed one based on market cap as debt financing took on a newfound luster.
- We track four definitions of free cash flow that range from the simple (i.e., earnings + D&A – capital expenditures – dividends) to more inclusive ones that account for changes in working capital and fixed assets, tax accruals and unconsolidated subsidiaries. Our initial work on this subject, done 13 years ago, suggested that when computing cash flow the inclusive methodologies would perform better, and that's proven to be the case.

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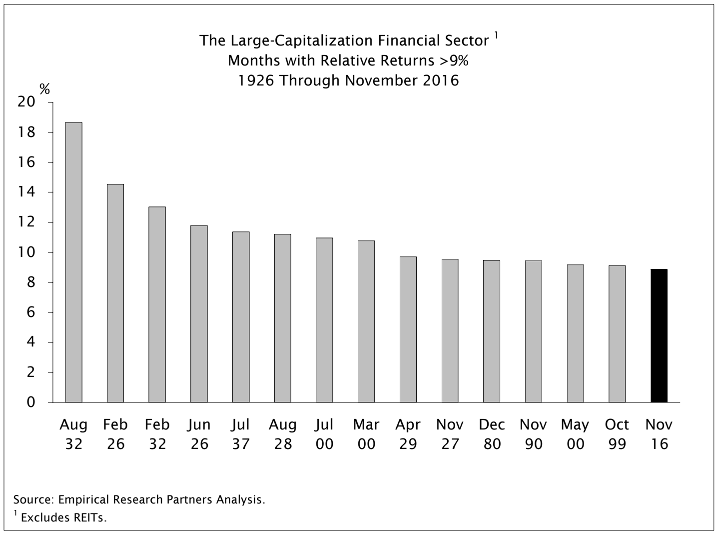
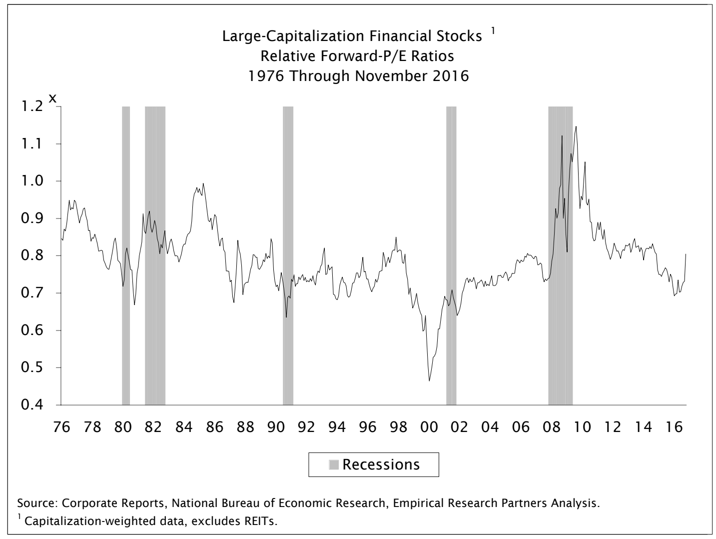
Conclusions in Brief

- November was one of the biggest months ever for the financials…



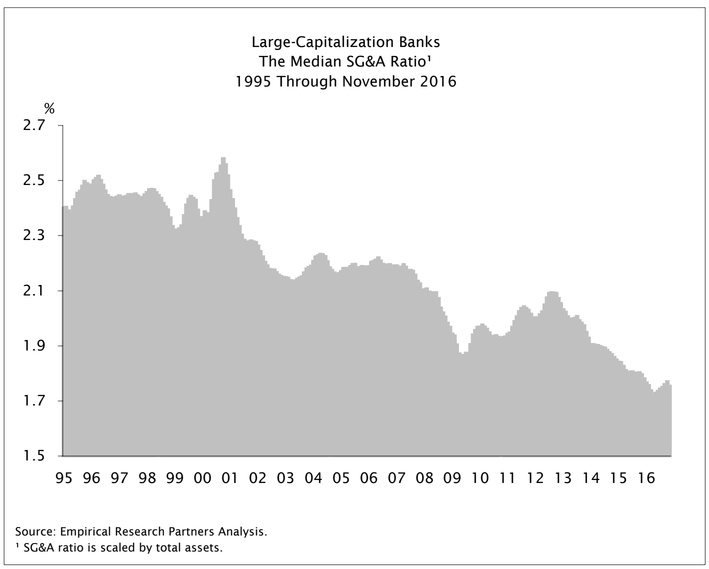
Source: Empirical Research Partners Analysis.
[1] Excludes REITs.

- …And multiples have taken a long round trip:



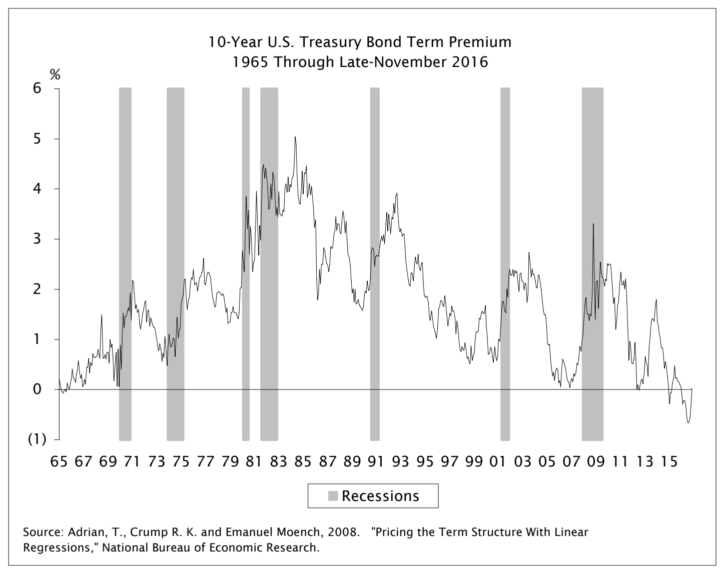
Source: Corporate Reports, National Bureau of Economic Research, Empirical Research Partners Analysis.
[1] Capitalization-weighted data, excludes REITs.

- Years of restructuring has boosted operating leverage…



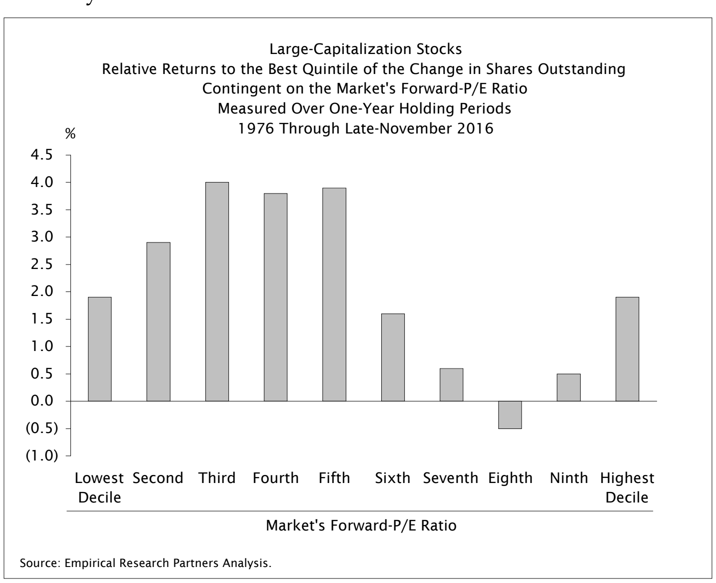
Source: Empirical Research Partners Analysis.
[1] SG&A ratio is scaled by total assets.

- …And the trajectory of the bond markets's term premium is key:



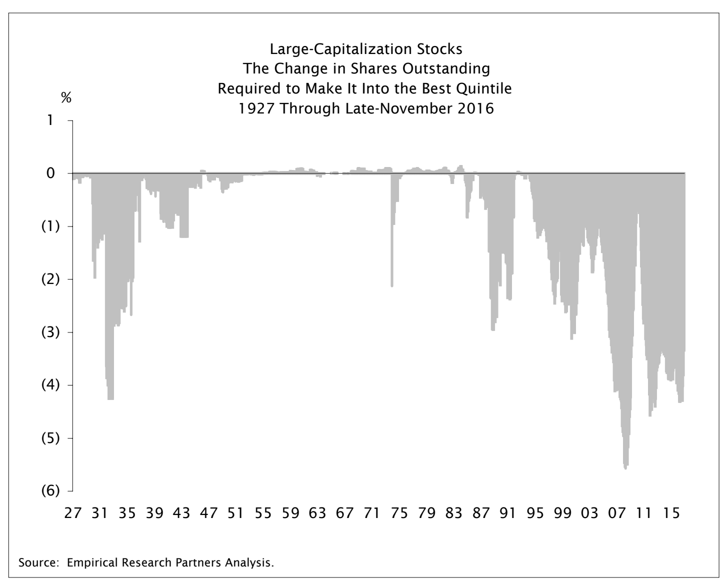
Source: Adrian, T., Crump R. K. and Emanuel Moench, 2008. "Pricing the Term Structure With Linear Regressions," National Bureau of Economic Research.

- The market's multiple influences the payoff from large buybacks...



Source: Empirical Research Partners Analysis.

- …Although lately they've been gigantic, a postiive:



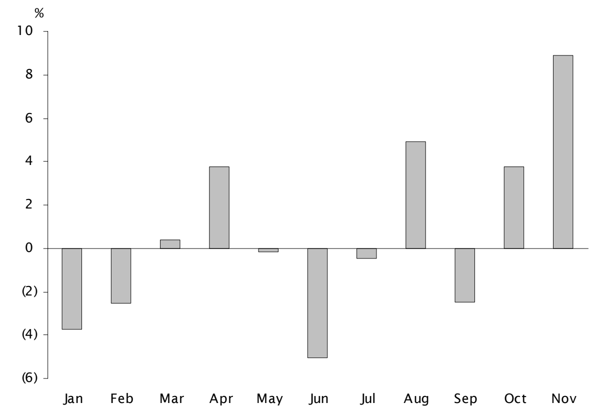
Source: Empirical Research Partners Analysis.

The Financials: Now What?

A Blockbuster Turn

The financial sector has outperformed the market by +15 percentage points in the last four months, with nine points of that coming in November (see Exhibit 1). November's relative return would rank as the 14th best of the last 90 years, with four of the better ones coming in 2000 when the New Economy broke down (see Exhibit 2). Two of the others came at the turning point of the Great Depression in 1932.

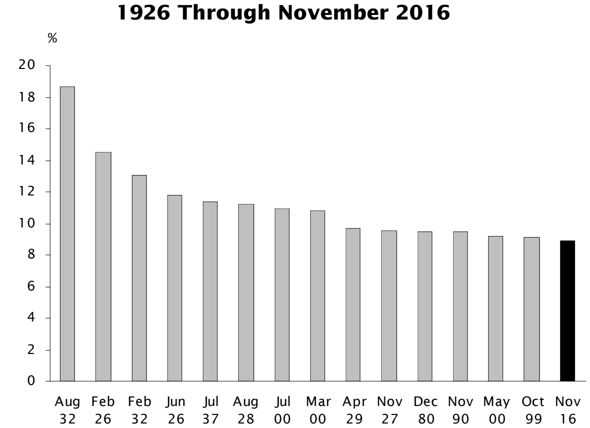
Exhibit 1: The Large-Capitalization Financial Sector Monthly Relative Returns[1] 2016 Through November



Source: Empirical Research Partners Analysis.

[1]Capitalization-weighted data, excludes REITs.

Exhibit 2: The Large-Capitalization Financial Sector[1] Months with Relative Returns >9% 1926 Through November 2016

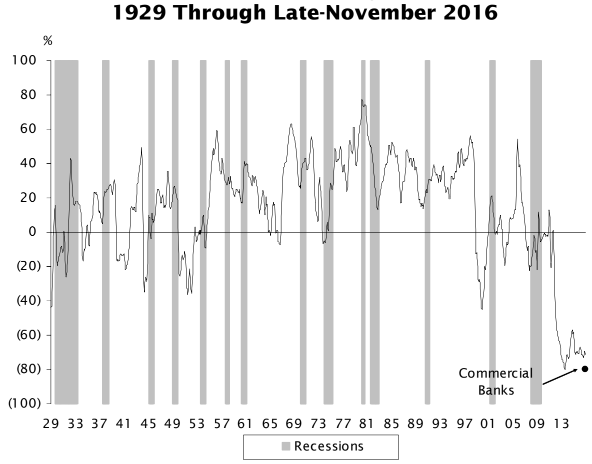


Source: Empirical Research Partners Analysis.

[1]Excludes REITs.

Much of what's gone on lately is of course explained by the violent reversal in the Treasury bond market. The relative returns of financial stocks have been exceptionally anti-correlated with the performance of that market, with banks and life insurers leading the way (see Exhibit 3). Changes in the slope of the yield curve have also become inordinately important, with steepening a good thing (see Exhibit 4). The spread between the 10-year bond's yield and that on the three-month bill is now 190 basis points, the widest in a year although otherwise an unexceptional mid-cycle reading. The term premium in the Treasury market recently turned positive, although it still remains more than a percentage point below its average of the 2000s (see Exhibit 5). The upside in financial stocks is closely related to that differential, the critical measure of sentiment in this cycle.

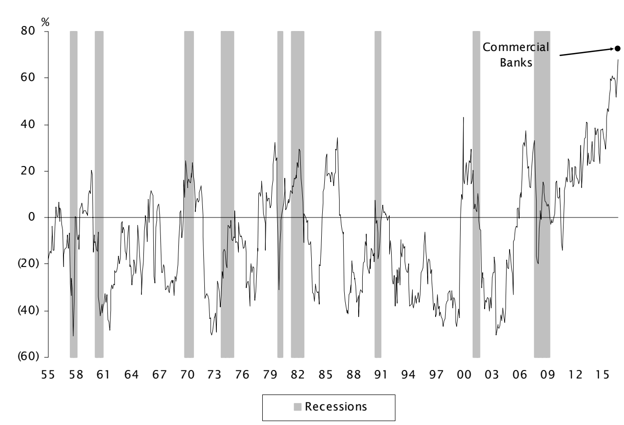
Exhibit 3: Large-Capitalization Financial Stocks Correlation of Relative Returns with the Total Return of Long Treasury Bonds[1] 1929 Through Late-November 2016



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

[1]Constructed using trailing two-year capitalization-weighted returns. Data smoothed on trailing three month basis, excludes REITs.

Exhibit 4: Large-Capitalization Financial Stocks[1] Correlation of Monthly Relative Returns with Changes in the Shape of the Yield Curve[2,3] 1955 Through Late-November 2016

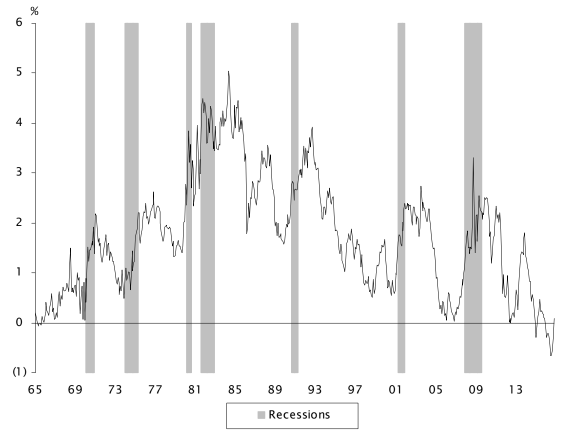


Source: National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Drawn from our largest 1,500 stock universe, excludes REITs.
[2]Measured over the prior twenty-four month basis.
[3]Steepening or flattening in the linear slope of the curve ranging from one month to thirty years compared to the prior month.

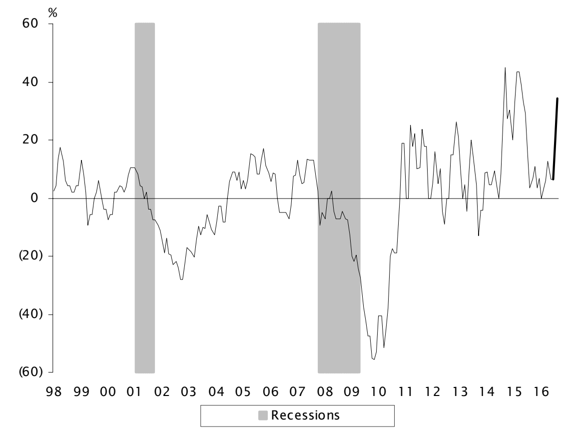
While the results of the election played a huge role in what's transpired, well before that the stage had been set for a change in investors' thinking. Exhibit 6 depicts the year-over-year change in the median wage growth rate, that's accelerated sharply in recent months as the fortunes of low-paid workers turned up.

Exhibit 5: 10-Year U.S. Treasury Bond Term Premium
1965 Through Late-November 2016



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

Exhibit 6: U.S. Median Annual Wage Growth
Year-over-Year Changes
1998 Through October 2016

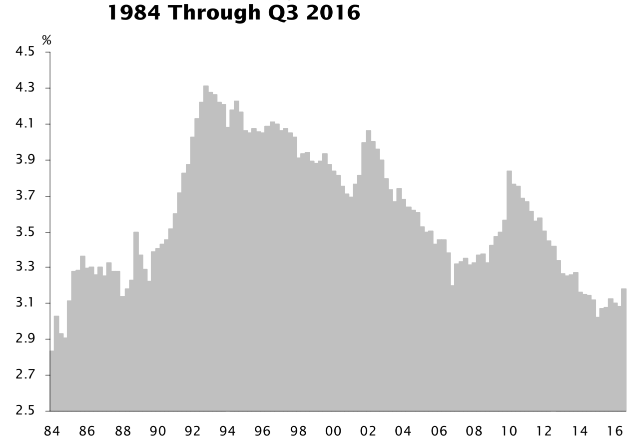


Source: Federal Reserve Bank of Atlanta, National Bureau of Economic Research, Empirical Research Partners Analysis.

Rates Do Matter, Particularly Now

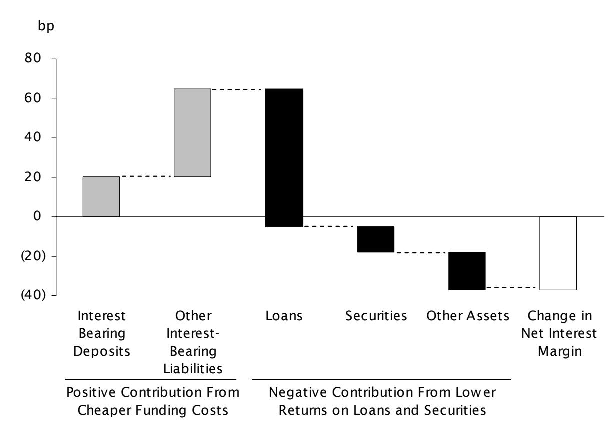
The market's near-myopic focus on interest rates has some merit. In recent years the managements of financial companies have pulled hard on the levers at their disposal, and they've needed to get a little lucky to realize the benefits from those actions. It looks like they did. For example, banks have recently been earning net interest margins of just above three percentage points, or about (40) basis points below where they were five years ago (see Exhibit 7). That deficit has mostly come from the lower yields realized on interest-earning assets (see Exhibit 8). Faced with continuing margin pressures they cut staff and pushed overhead ratios down, by a material amount (see Exhibit 9). A normalization of interest rates could have real consequences for profitability, as the net interest and S,G&A lines carry similar weight in the income statement. Bank of America is the most curve sensitive of the mega-cap banks (see Exhibit 10).

Exhibit 7: U.S. Commercial Banks and Savings Institutions
Net Interest Margins
1984 Through Q3 2016



Source: Federal Deposit Insurance Corporation.

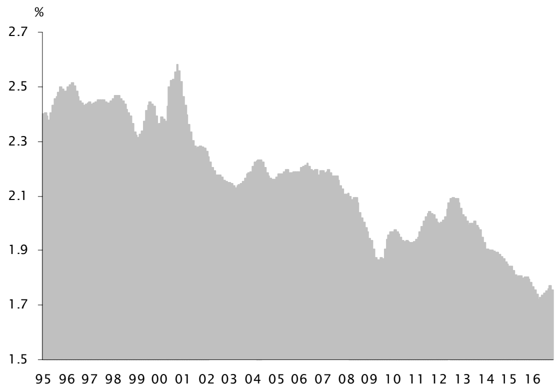
Exhibit 8: Large-Capitalization Banks
Decomposition of Change in Net Interest Margins
Q4 2011 Through Q3 2016



Source: Federal Reserve Board, Consolidated Financial Statements for Holding Companies, Empirical Research Partners Analysis.

The historical evidence suggests that bank stocks do well when their loan books are growing at moderate rates (see Exhibit 11). Too rapid increases have foretold credit problems. For much of the last few years the growth rate has been in the sweet spot, neither too hot nor cold (see Exhibit 12). That industry's overall loan book has increased in size by +37% since 2010 compared to 85% gains in each of the prior two expansions.

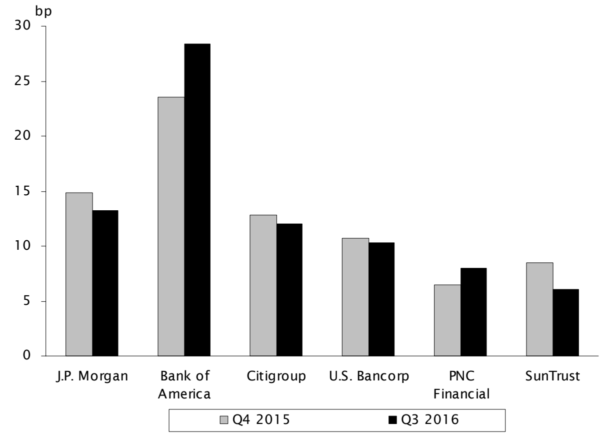
Exhibit 9: Large-Capitalization Banks
The Median SG&A Ratio[1]
1995 Through November 2016



Source: Empirical Research Partners Analysis.

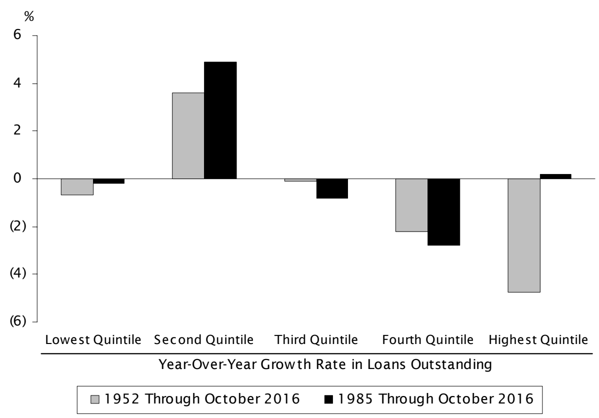
[1]SG&A ratio is scaled by total assets.

Exhibit 10: Select Large-Capitalization Banks
Change in Net Interest Margin for a +100 bp Parallel Shift in Yield Curve
As of Q4 2015 and Q3 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

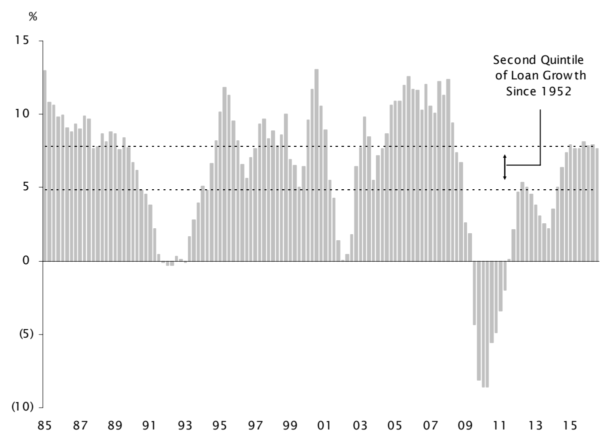
Exhibit 11: Large-Capitalization Bank Stocks[1]
Relative Returns Depending on the Year-Over-Year Growth Rate in the Loans Measured Over One-Year Holding Periods
1952 Through October 2016



Source: Empirical Research Partners Analysis.

[1]Drawn from our largest 1,500 stock universe.

Exhibit 12: U.S. Commercial Banks
Year-Over-Year Loan Growth
1985 Through October 2016



Source: Federal Reserve Board.

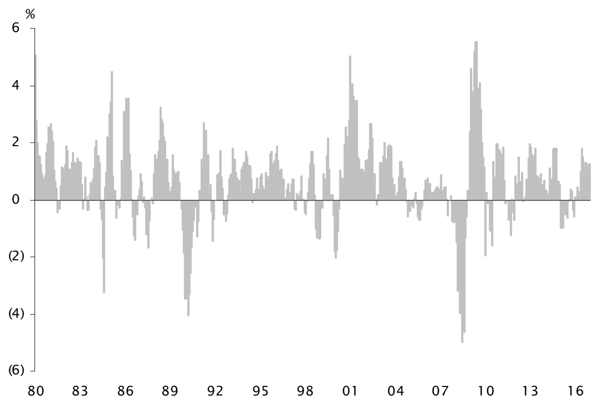
Value DNA

Financials stocks are perpetually surrounded by skepticism, in part because they're financially levered. Most of the time the concerns are misplaced, although occasionally they prove to be painfully correct. Given that, simple value strategies have a good track record, both in the banking industry and throughout the sector, especially when low valuations are accompanied by large reductions in share count (see Exhibits 13 and 14). In addition, companies that had slashed their S,G&A expenses have done very well this year as the outlook for revenue growth unexpectedly took a turn for the better.

In recent months the forward P/E multiples of financial stocks have expanded a good deal and on a cap-weighted basis the sector now sells at a (20)% discount to the market (see Exhibit 15). That's also where it was valued towards the end-of-2014, the point at which the market became worried about the effects of a strong Dollar on the economy. The current multiple sits in the top-half of the distribution seen over the last 40 years, with that for banks in the top quartile (see Exhibit 16).

There are arguments for a still higher multiple that are tied to the state of the business and lending cycles, the lower leverage in throughout the system and the market-beating growth rates that've generated in book value per share (see Exhibits 17 and 18). Still, we think that for the stocks to lead from here we need to see yields work their way higher, probably concurrent with changes in the Fed's rhetoric surrounding monetary policy.

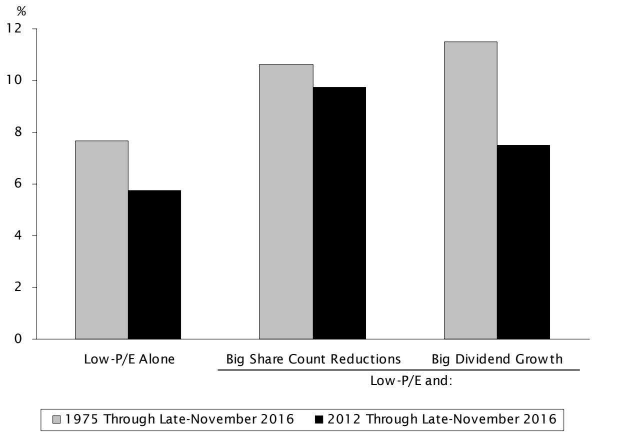
Exhibit 13: Large-Capitalization Commercial Banks
***Industry* Relative Returns to the Lowest Quintile of Forward-P/E Ratios**
Measured Over One-Month Holding Periods[1]
1980 Through Late-November 2016



Source: Empirical Research Partners Analysis.

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

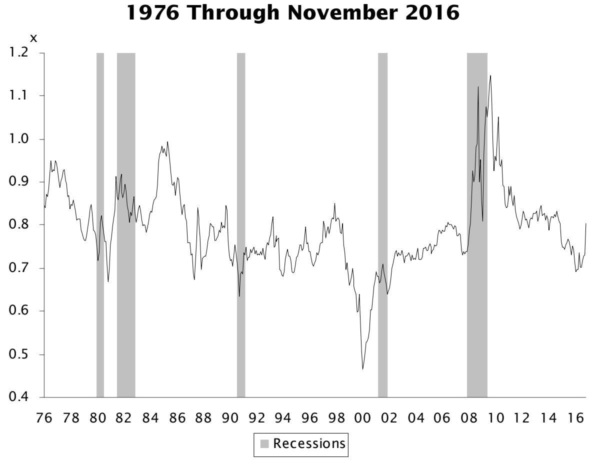
Exhibit 14: Financial Stocks[1]
Relative Returns to the Lowest Quintiles of P/E Ratios Accompanied by Big Reductions in Share Count or Dividend Growth
Monthly Returns Compounded to Annual Periods
1975 Through Late-November 2016



Source: Empirical Research Partners Analysis.

[1]Drawn from our largest 1,500 stock universe, excludes REITs.

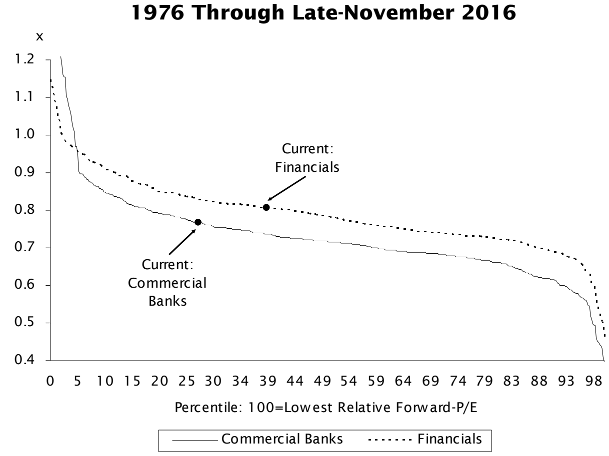
Exhibit 15: Large-Capitalization Financial Stocks[1]
Relative Forward-P/E Ratios
1976 Through November 2016



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

[1]Capitalization-weighted data, excludes REITs.

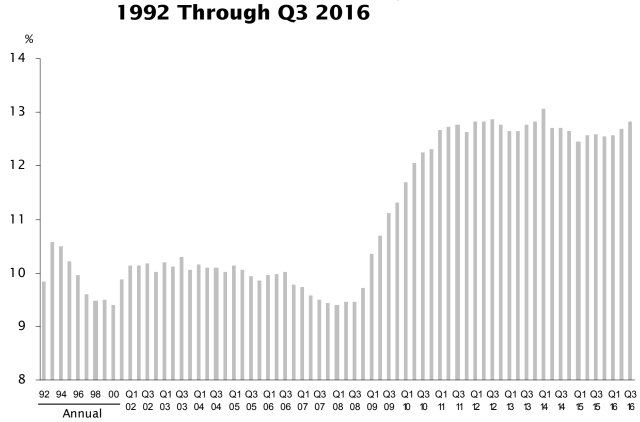
Exhibit 16: Large-Capitalization Financial Stocks[1]
Relative Forward-P/E Ratios
1976 Through Late-November 2016



Source: Corporate Reports, Empirical Research Partners Analysis.

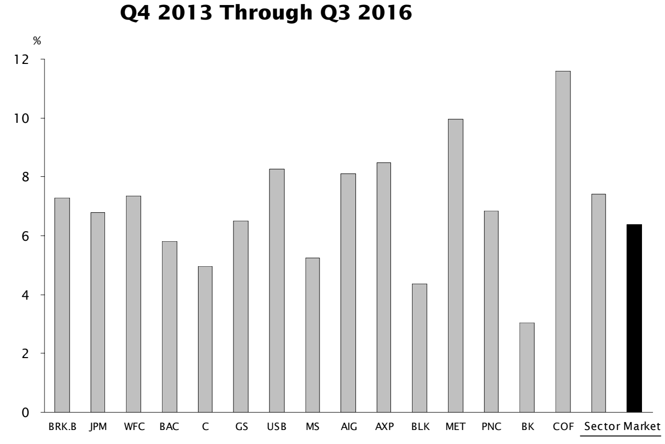
[1]Capitalization-weighted data, excludes REITs.

Exhibit 17: Commercial Banks
Tier 1 Capital to Risk-Weighted Assets
1992 Through Q3 2016



Source: FDIC, Empirical Research Partners Analysis.

Exhibit 18: Mega-Capitalization Financial Stocks
Annualized Growth Rates in Book Value Per Share
Q4 2013 Through Q3 2016



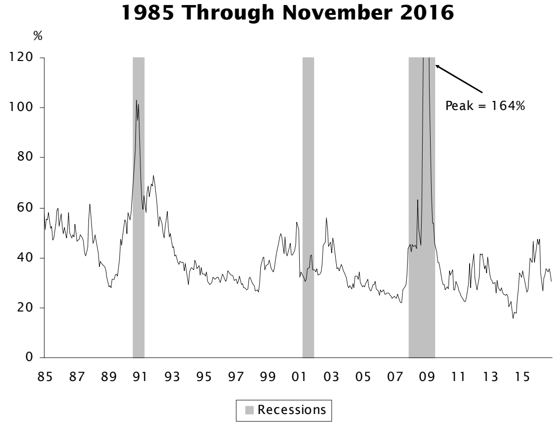
Source: Corporate Reports, Empirical Research Partners Analysis.

Conclusion: Around the Bend

For some time we've thought that it wouldn't take much to make the financial stocks work. They were cheap, cast as anti-bond proxies, and managements were being given room to repurchase their stock at reasonable valuations. Fundamentals were unexciting, but years of cost cutting had increased operating leverage at a time when the term premium in the bond market was negative. The endogenous trends were fine, it was the larger macro environment that wasn't cooperating. Financials don't do well when fears of debt/deflation are in the air.

In the past four months those fears have evaporated and the stocks have rounded the bend. Relative multiples have returned to where they were a couple of years ago and valuation spreads have fallen to a middling level (see Exhibit 19). The stocks have quickly transitioned from value to momentum status, and now around a third of them rank in the top quintile of price momentum, the highest representation in this decade (see Exhibit 20).

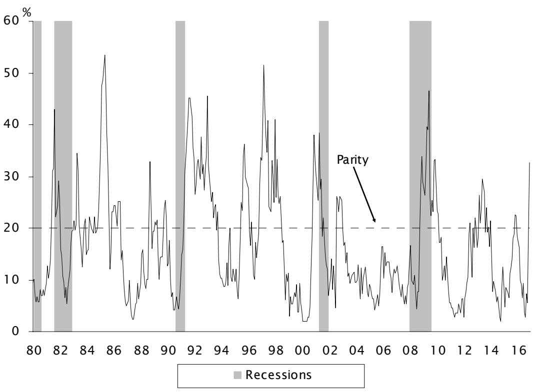
Exhibit 19: Large-Capitalization Financial Stocks[1]
Differential in Book-to-Price Ratios
Cheapest Quintile Compared to the Sector Average
1985 Through November 2016



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

[1]Excludes REITs.

Exhibit 20: Large-Capitalization Financial Stocks[1]
Share of Stocks in the Top Quintile of
Nine-Month Price Trends
1980 Through November 2016

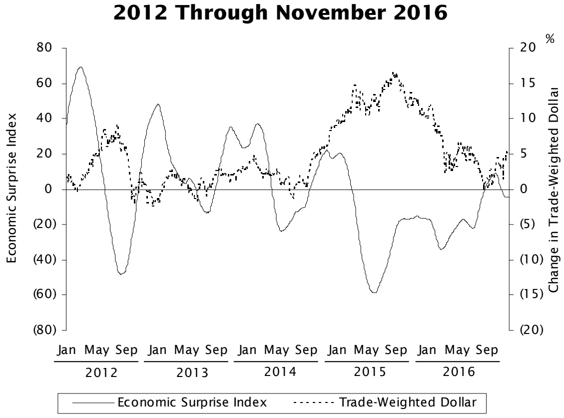


Source: National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Excludes REITs.

At this point we must decide if the post-election shift in sentiment was well founded and if in fact there will be a re-flationary wave to ride. The risk in trying to raise the nominals is that policy might provoke another strong Dollar episode that would quash the economic enthusiasm (see Exhibit 21). We've thought the Dollar has less upside that it did two years ago because a significant reset in expectations for monetary policy has already occurred. Moreover, we think the bond vigilantes will be less effective than in the past because borrowing has played a smaller role than usual in funding economic activity (see Exhibit 22). Our judgment is that the direction of the rotation was correct and that the newfound optimism about the financial sector isn't yet excessive. Appendix 1 on page 13 lists financials with above-average valuation support, sorted by their momentum characteristics, as good a screen as any given the circumstances.

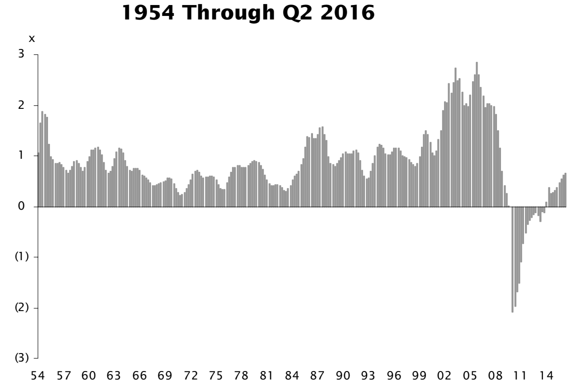
Exhibit 21: Year-over-Year Changes in the Trade-Weighted Dollar and the U.S. Economic Surprise Index[1]
2012 Through November 2016



Source: Citigroup, Bloomberg LP., Federal Reserve Board.

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

Exhibit 22: Ratio of Dollar Growth in Consumer Debt Relative-to-Disposable Personal Income[1]
1954 Through Q2 2016



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

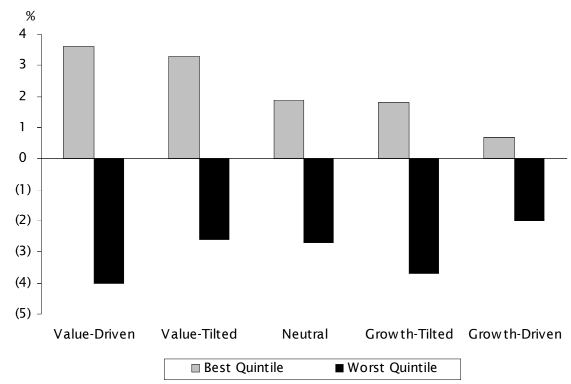
[1]Measured on a year-over-year and smoothed on a trailing one-year basis.

Buybacks: What's More Important, the Multiple Paid or the Size?

The Cycle Has Counted Less This Time Around

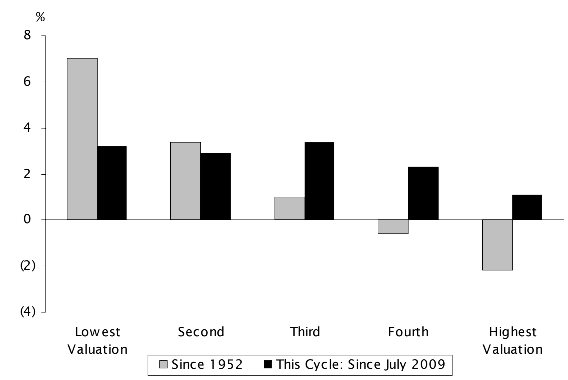
Clients have asked whether the power of big buybacks is being sapped by the market's high P/E multiple. That's a good question because we've long found that the best pay-off to repurchasing shares comes early in a recovery, when it's obvious that there are bargains to be had and the regime favors value (see Exhibit 23). Managements on the other hand tend to buy at high prices, when they've become confident and have more money than they know what to do with. For any given company the price being paid for the shares has mattered, and starting at low valuations has boosted the chances of success (see Exhibit 24). In this expansion though that hasn't really been the case and there's been alpha across the board, irrespective of valuation. In the past decade the outperformance coming from a significant contraction in share count has been fairly consistent, with some degradation this year (see Exhibit 25). Dilution has been punished.

Exhibit 23: Large-Capitalization Stocks
Relative Returns to the Best and Worst Quintiles of the Change in Shares Outstanding Contingent Upon the Market's Regime 1952 Through Late-November 2016



Source: Empirical Research Partners Analysis.

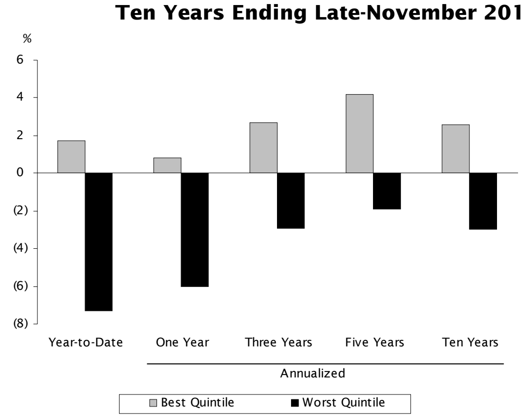
Exhibit 24: Large-Capitalization Stocks
Relative Returns to the Best Quintile of the Change in Shares Outstanding Contingent on the Stock's Valuation Measured Over One-Year Holding Periods 1952 Through Late-November 2016



Source: Empirical Research Partners Analysis.

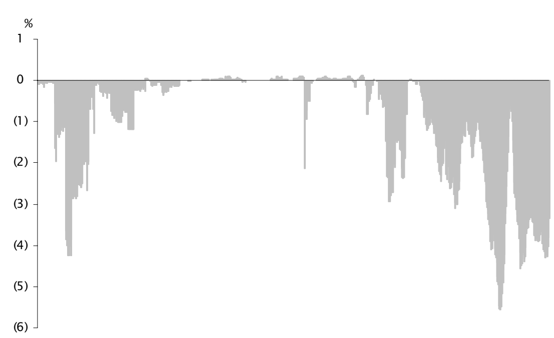
We think that one reason why the maturation of the business cycle has mattered less this time around is that when free cash flow is abundant it takes a gigantic contraction in share count for a buyback to count as significant. At the moment a reduction of (3.5)% or greater is needed for a stock to show up in the best quintile of our change in shares outstanding framework, 50% more than was required in the last business cycle (see Exhibit 26). We delved into the question of what's more important to the performance of companies doing buybacks: the level of the market's multiple or where the threshold is set for what it takes to constitute a big buyback? Much more than usual, the two frameworks are sending conflicting messages.

Exhibit 25: Large-Capitalization Stocks
Relative Returns to the Best and Worst Quintiles of the Change in Shares Outstanding Monthly Data Compounded to Annual Periods Ten Years Ending Late-November 2016



Source: Empirical Research Partners Analysis.

Exhibit 26: Large-Capitalization Stocks
The Change in Shares Outstanding Required to Make It Into the Best Quintile 1927 Through Late-November 2016

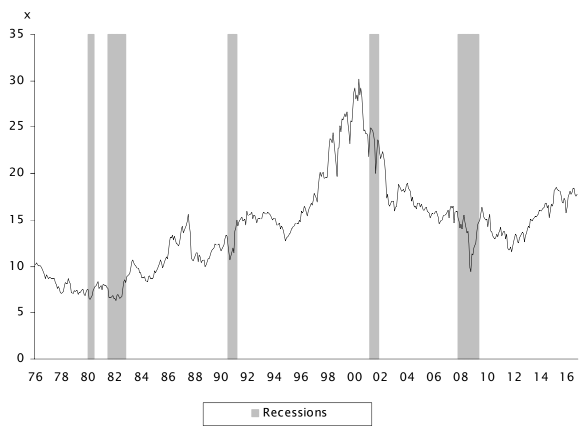


Source: Empirical Research Partners Analysis.

What's More Important, Multiples or Size?

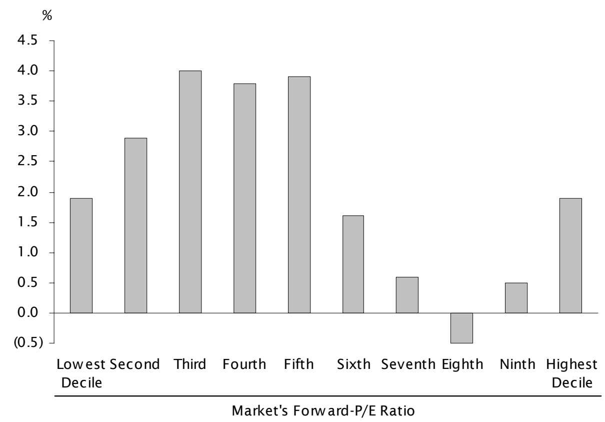
At 17 times estimated earnings the market's multiple is elevated by the standards of the last 40 years (see Exhibit 27). That's relevant because the performance of companies doing sizeable buybacks has been better when it's been in the bottom-half of the distribution (see Exhibit 28). On the other hand, really big buybacks, like those being done now, have generally carried more weight than smaller ones (see Exhibit 29). The very-best results came though when the cut-off for what constitutes a top-quintile buyback was middling and we were in the early stages of a cycle. Even when the market's P/E ratio was high, big buybacks have generated some alpha (see Exhibit 30). Undervalued stocks with meaningful contractions in share count have outperformed irrespective of the market's multiple, but they too have done best when it was low('ish) (see Exhibit 31).

Exhibit 27: Large-Capitalization Stocks
Forward-P/E Ratios
1976 Through Late-November 2016



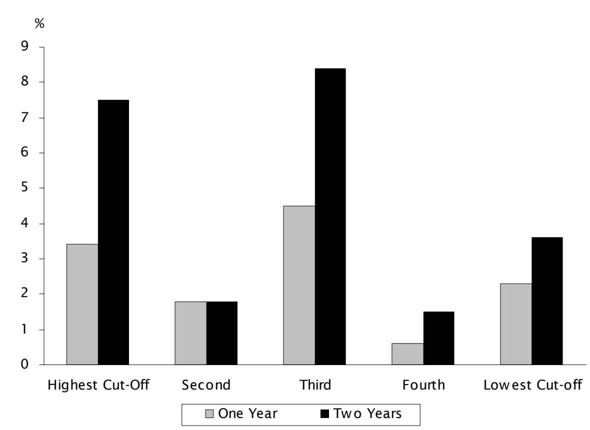
Source: Corporate Reports, National Bureau of Economic Analysis, Empirical Research Partners Analysis.

Exhibit 28: Large-Capitalization Stocks
Relative Returns to the Best Quintile of the Change in Shares Outstanding
Contingent on the Market's Forward-P/E Ratio
Measured Over One-Year Holding Periods
1976 Through Late-November 2016



Source: Empirical Research Partners Analysis.

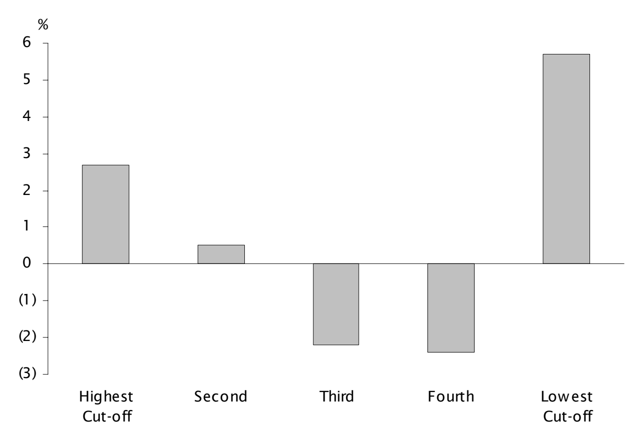
Exhibit 29: Large-Capitalization Stocks
Relative Returns to the Best Quintile of the Change in Shares Outstanding
Contingent on the Size of Buybacks[1]
Measured Over One- and Two-Year Holding Periods
1952 Through Late-November 2016



Source: Empirical Research Partners Analysis.

[1]Decline in share count needed to rank in the best quintile.

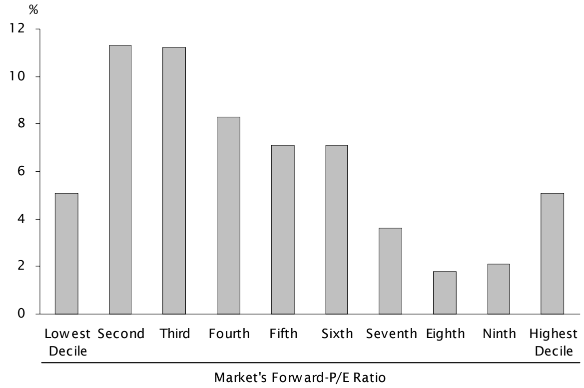
Exhibit 30: Large-Capitalization Stocks
Relative Returns to the Best Quintile of the Change in Shares Outstanding
When the Market's Trailing-P/E Ratio is High
Contingent on the Size of Buybacks
Measured Over One-Year Holding Periods
1952 Through Late-November 2016



Source: Empirical Research Partners Analysis.

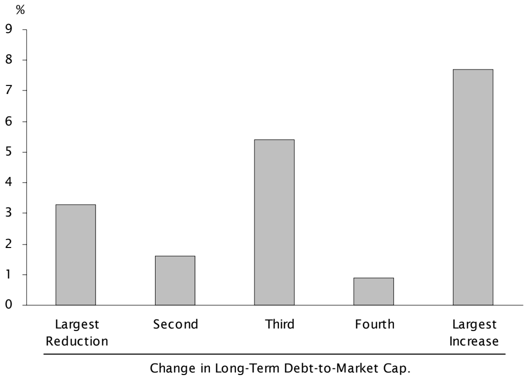
It's also worth noting that in the current cycle debt-financed buybacks have been rewarded, generating more alpha than those financed out of free cash flow (see Exhibit 32). That relationship is in part explained by the longstanding differential between free cash flow yields and the cost of corporate debt.

Exhibit 31: Large-Capitalization Stocks
Relative Returns to the Undervalued Stocks in the Best Quintile of the Change in Shares Outstanding Contingent on the Market's Forward-P/E Ratio Measured Over One-Year Holding Periods 1976 Through Late-November 2016



Source: Empirical Research Partners Analysis.

Exhibit 32: Large-Capitalization Stocks
Relative Returns to the Best Quintile of the Change in Shares Outstanding Contingent on the Change in Debt-to-Cap Monthly Data Compounded and Annualized Five Years Ending Late-November 2016



Source: Empirical Research Partners Analysis.

Conclusion: Diminished Power

Our quantitative models give the most credit to buybacks done in value-oriented regimes, when managements can repurchase their stock at the right price. This time has clearly been different because there's been gigantic amounts of excess cash flow in the system that has been deployed in enormous buybacks, that have proved meaningful to growth rates. In the tug-of-war between the phenomena the level of valuations looks to be the more important of the two, but not by a large amount. Our guess is that buyback activity will continue to generate some alpha for the remainder of this expansion, about half of what was realized in the early years of it. Exhibit 33 highlights undervalued companies with top-decile (i.e., (6)% or greater) reductions in share count.

Exhibit 33: Large-Capitalization Stocks
Top Decile Buybacks + Top Quintile Valuations
Sorted by Valuation Rank and Capitalization
As of Late-November 2016

			Deciles (1=Best, 10=Worst)					
					Memo:			
Symbol	Company	Price	Change in Common Shares Outstanding	Valuation	Free Cash Flow-to-Enterprise Value	Core Model Rank	Forward-P/E Ratio	Market Capitalization ($ Billion)
GILD	GILEAD SCIENCES INC	$75.44	1	1	1	3	6.9 x	$99.7
GS	GOLDMAN SACHS GROUP INC	211.38	1	1	na	1	12.5	88.5
AIG	AMERICAN INTERNATIONAL GROUP	64.44	1	1	na	1	12.9	67.2
GM	GENERAL MOTORS CO	34.25	1	1	10	1	5.9	52.3
COF	CAPITAL ONE FINANCIAL CORP	84.57	1	1	na	1	11.0	41.4
DAL	DELTA AIR LINES INC	49.24	1	1	1	2	9.2	36.9
VLO	VALERO ENERGY CORP	64.86	1	1	1	1	13.4	29.4
HCA	HCA HOLDINGS INC	71.39	1	1	2	2	10.2	26.9
UAL	UNITED CONTINENTAL HLDGS INC	70.09	1	1	1	2	10.2	22.3
BBY	BEST BUY CO INC	46.58	1	1	1	1	12.8	14.8
LNC	LINCOLN NATIONAL CORP	64.15	1	1	na	1	9.5	14.7
DISCA	DISCOVERY COMMUNICATIONS INC	27.54	1	1	1	1	12.3	10.7
JWN	NORDSTROM INC	57.85	1	1	2	1	18.0	10.0
LEA	LEAR CORP	129.62	1	1	1	1	9.0	9.1
KORS	MICHAEL KORS HOLDINGS LTD	48.91	1	1	1	4	10.9	8.0
WYN	WYNDHAM WORLDWIDE CORP	74.20	1	1	2	1	12.2	8.0
VOYA	VOYA FINANCIAL INC	38.10	1	1	na	1	11.2	7.4
BBBY	BED BATH & BEYOND INC	45.52	1	1	1	2	9.3	6.9
MNK	MALLINCKRODT PLC	57.21	1	1	1	3	7.2	6.2
MAN	MANPOWERGROUP	87.72	1	1	1	1	13.8	2.9
UTHR	UNITED THERAPEUTICS CORP	134.55	1	1	1	1	9.2	5.7
AXS	AXIS CAPITAL HOLDINGS LTD	61.49	1	1	na	1	14.1	5.4
NAVI	NAVIENT CORP	17.65	1	1	na	1	9.2	5.3
BA	BOEING CO	150.04	1	2	1	2	17.2	92.9
ESRX	EXPRESS SCRIPTS HOLDING CO	76.90	1	2	1	1	11.4	47.4
TGT	TARGET CORP	78.61	1	2	2	1	14.0	44.3
HPE	HEWLETT PACKARD ENTERPRISE	23.22	1	2	4	1	11.0	38.7
LYB	LYONDELLBASELL INDUSTRIES NV	86.67	1	2	2	5	9.0	35.5
EBAY	EBAY INC	28.95	1	2	1	1	14.3	32.4
TRV	ST PAUL TRAVELERS COMPANIES INC	113.45	1	2	na	3	11.8	32.2
AAL	AMERICAN AIRLINES GROUP INC	46.82	1	2	8	4	9.8	24.3
HIG	HARTFORD FINANCIAL SERVICES	47.87	1	2	na	2	12.6	18.2
XL	XL GROUP LTD	37.32	1	2	na	2	12.6	10.1
WFM	WHOLE FOODS MARKET INC	30.93	1	2	6	2	20.7	9.8
URI	UNITED RENTALS INC	98.12	1	2	1	1	11.5	8.5
AER	AERCAP HOLDINGS NV	44.29	1	2	8	1	7.2	8.0
SPR	SPIRIT AEROSYSTEMS HOLDINGS	58.70	1	2	1	3	12.2	7.1
SIG	SIGNET JEWELERS LTD	93.07	1	2	3	2	10.7	6.5
RNR	RENAISSANCERE HOLDINGS LTD	131.63	1	2	na	2	15.5	5.4
HRB	BLOCK H & R INC	23.98	1	2	2	3	12.5	5.3

Source: Empirical Research Partners Analysis.

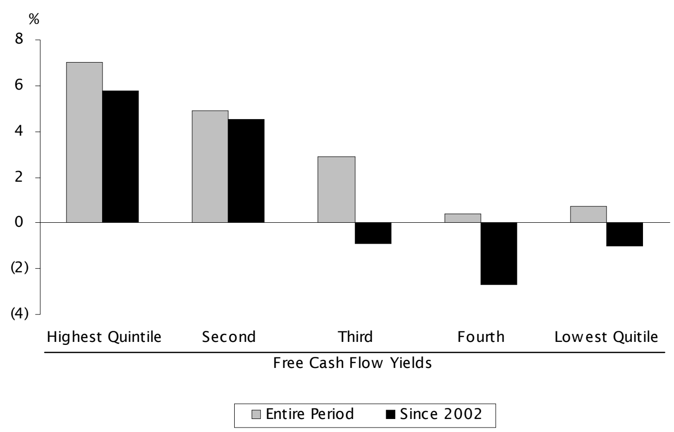
Free Cash Flow Yield: Cast a Wide Net

The Winner of a Special Era

We've long been advocates of using free cash flow yield as a primary screening methodology when assessing the valuation of non-financial stocks. Our premise has been that the exceptional margins of the Bretton Woods II era would be sustained, with protectionism the greatest (and now looming) threat.

In fact, free cash flow yields have told us something we didn't know from just looking at multiples. For example Exhibit 34 presents the relative returns of stocks in the lowest-quintile of trailing-P/E sorted by their free cash flow yields. The grey bars are the results since 1952 while the black ones are those since 2002, the Bretton Woods II era. Within the value universe the free cash flow yields have helped us separate the winners from the losers, more so in the last 15 years than before. Conversely generating no free cash flow has been a real problem for highly-valued companies (see Exhibit 35).

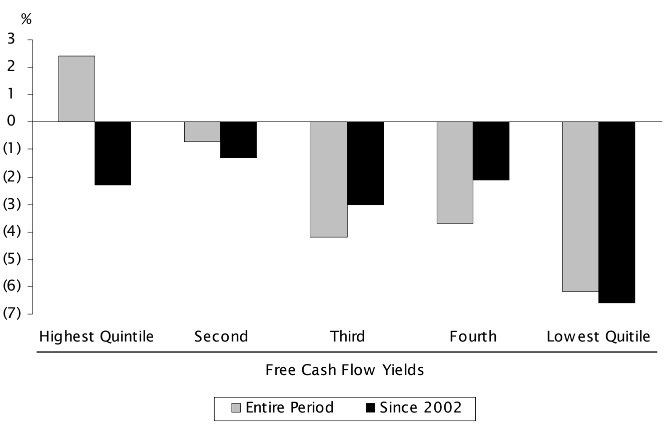
Exhibit 34: Large-Capitalization Stocks[1]
Relative Returns to the Lowest Quintile of Trailing-P/E Ratios
Contingent on the Level of Free Cash Flow Yields
Monthly Data Compounded
1952 Through Mid-November 2016



Source: Empirical Research Partners Analysis.

[1]Excludes financial stocks.

Exhibit 35: Large-Capitalization Stocks[1]
Relative Returns to the Highest Quintile of Trailing-P/E Ratios
Contingent on the Level of Free Cash Flow Yields
Monthly Data Compounded
1952 Through Mid-November 2016



Source: Empirical Research Partners Analysis.

[1]Excludes financial stocks.

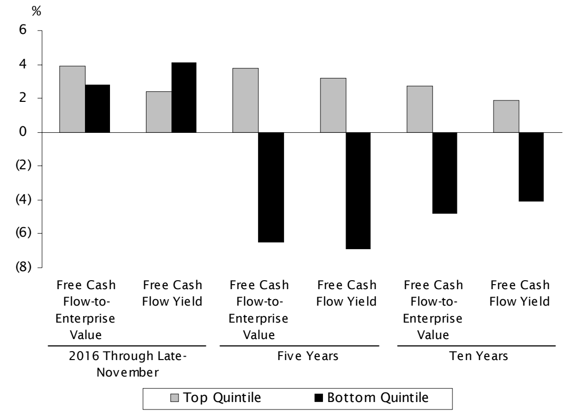
In This Case More is Better

Free cash flow is a vague concept and over the years we've had many discussions with clients about the best way to compute it. We use a free cash flow-to-enterprise value calculation in our stock selection models that adds back interest expense to the numerator and the book value of long-term debt to the denominator. We also keep tabs on a traditional yield measure that includes only the market value of equity in the denominator. Over the long run the two methodologies have produced similar performance, although in the most recent decade though the former has produced the better numbers (see Exhibit 36). That's because in a period of falling interest rates the market has been sanguine about debt financing and companies with high free cash flow yields and rising financial leverage ratios have led (see Exhibit 37).

There are a number of items that could be included in the free cash flow calculation and we've tracked a variety of definitions of yield, varying from the rudimentary to more inclusive ones. The performance of each of them, over the last five years, is presented in Exhibit 38. Consistent with our initial expectations the most-inclusive, the production version, has been the best-performing of the lot (see Exhibit 39). That's because the market has expressed antipathy toward fixed asset-intensive businesses and penalizing companies with large increase in assets has proven to be the right thing to do. That also explains why free cash flow has been much more helpful than gross (i.e., pre-capital spending) cash flow. The pecking order of results looks like what we found 13 years ago, and in an era of bountiful free cash flow the imperative has been to avoid companies devoid of it.[1]

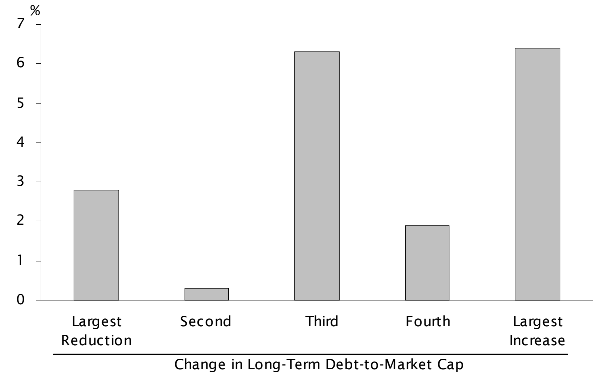
[1]*Stock Selection: Research and Results*, September 2003. "Has Free Cash Flow Had Its Day?"

Exhibit 36: Alternative Free Cash Flow Yield Calculations
Relative Returns to the Top and Bottom Quintiles
Monthly Data Compounded and Annualized
Ten Years Ending Late-November 2016



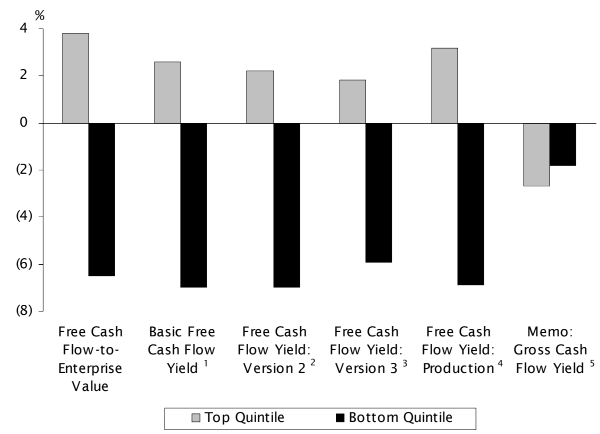
Source: Empirical Research Partners Analysis.

Exhibit 37: Large-Capitalization Stocks
Relative Returns to the Highest Quintile of Free Cash Flow-to-Enterprise Value Contingent on the Change in Debt-to-Cap
Monthly Data Compounded and Annualized
Five Years Ending Late-November 2016



Source: Empirical Research Partners Analysis.

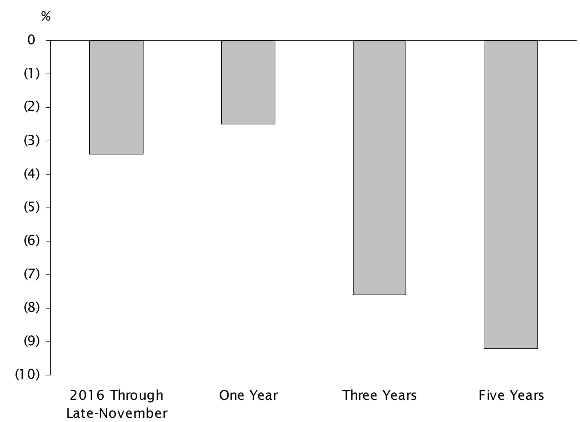
Exhibit 38: Various Definitions of Free Cash Flow
Relative Returns to the Top and Bottom Quintiles
Monthly Data Compounded and Annualized
Five Years Ending Late-November 2016



Source: Empirical Research Partners Analysis.

[1]Operating earnings + minority interests + deferred taxes + depreciation & amortization - capital expenditures - cash dividends.
[2]As above + equity in losses/earnings of unconsolidated subsidiaries + proceeds from the sale of property plant and equipment + other funds from operations.
[3]As above + change in working capital and tax accruals.
[4]As above + changes in noncurrent assets and liabilities.
[5]Same as the production version, excluding capital spending.

Exhibit 39: Large-Capitalization Stocks
Relative Returns to the Highest Quintile of Capital Spending-to-Depreciation[1]
Monthly Data Compounded and Annualized
Five Years Ending Late-November 2016



Source: Empirical Research Partners Analysis.

[1]The universe consists of companies spending at a rate above depreciation.

Conclusion: Probably Still the Best of the Lot

It's possible that the election of Donald Trump will signal the end of the Bretton Woods II era that began when China joined the World Trade Organization in 2001. The market has flirted with that idea in recent weeks but has never really taken it seriously and what's priced in is the presumption that a lot of talk will turn into very little action. The return paradigm within the equity market hasn't changed either and free cash flow yield generated a hundred basis points of alpha in November. Over the last two decades its performance has held up better than that of other anomalies because globalization of the plant floor and other functions supercharged profit margins. Moving production to the emerging world also reduced effective tax rates and moved a significant portion of the capital spending off the cash flow statement. Nowhere was that more true than in the technology sector, the driver of the system's unprecedented margins. If the world changes and trade barriers and tariffs are erected, price levels will be higher. In such a setting the market would reward first movers that build onshore capacity, particularly if it's subsidized by the government. Our faith in free cash flow depends on the facts at hand and it's possible they'll be rewritten by a Trump administration.

Appendix 1: Large-Capitalization Financial Stocks
Top Quintiles of Valuation and Market Reaction
Sorted by Market Reaction and Valuation
As of End-November 2016

Symbol	Company	Price	Quintiles (1=Best, 5=Worst) Valuation	Market Reaction	Core Model Rank	Forward-P/E Ratio	Market Capitalization ($ Billion)
BAC	BANK OF AMERICA CORP	$21.12	1	1	1	13.6 x	$213.8
MS	MORGAN STANLEY	41.36	1	1	1	13.9	77.6
MET	METLIFE INC	55.01	1	1	1	10.3	60.5
PRU	PRUDENTIAL FINANCIAL INC	100.60	1	1	1	10.1	43.4
MFC	MANULIFE FINANCIAL CORP	17.44	1	1	1	11.6	34.4
STT	STATE STREET CORP	78.80	1	1	1	14.3	30.4
STI	SUNTRUST BANKS INC	51.95	1	1	1	14.2	25.8
FITB	FIFTH THIRD BANCORP	26.02	1	1	1	14.8	19.7
RF	REGIONS FINANCIAL CORP	13.54	1	1	1	14.7	16.7
LNC	LINCOLN NATIONAL CORP	64.10	1	1	1	9.5	14.7
UNM	UNUM GROUP	42.27	1	1	1	10.5	9.8
NAVI	NAVIENT CORP	17.23	1	1	1	9.0	5.2
JPM	JPMORGAN CHASE & CO	80.17	1	2	1	13.0	286.9
GS	GOLDMAN SACHS GROUP INC	219.29	1	2	1	12.9	91.8
BK	BANK OF NEW YORK COMPANY INC	47.42	1	2	1	14.1	50.1
IVZ	INVESCO LTD	31.31	1	2	1	12.6	12.8
CNA	CNA FINANCIAL CORP	38.27	1	2	2	12.2	10.4
CIT	CIT GROUP INC	40.85	1	2	1	13.3	8.3
RGA	REINSURANCE GROUP OF AMERICA INC	122.05	1	2	1	12.4	7.8
DFS	DISCOVER FINANCIAL SVCS INC	67.77	2	1	1	11.3	26.9
SLF	SUN LIFE FINANCIAL INC	38.40	2	1	3	13.2	23.5
KEY	KEYCORP	17.31	2	1	2	14.1	18.7
CFG	CITIZENS FINANCIAL GROUP INC	33.51	2	1	1	16.1	17.4
PFG	PRINCIPAL FINANCIAL GROUP INC	57.69	2	1	2	12.3	16.6
RJF	RAYMOND JAMES FINANCIAL CORP	71.94	2	1	1	15.3	10.2
ETFC	E TRADE FINANCIAL CORP	34.51	2	1	1	19.0	9.4
ZION	ZIONS BANCORPORATION	39.79	2	1	1	18.3	8.1
LUK	LEUCADIA NATIONAL CORP	22.02	2	1	2	22.2	7.9
PACW	PACWEST BANCORP	51.25	2	1	2	17.1	6.2

Source: Empirical Research Partners Analysis.