Empirical Research Partners

Michael Goldstein 212 803-8010 | Nicole Price 212 803-7935 | Longying Zhao 212 803-7940 | Yi Liu 212 803-7942

September 19, 2016

Stock Selection: Research and Results September 2016

The Industrial Capital Equipment Stocks: Flying Low, The Stable Stock Infantry, New CEOs, Saviors?

Capital Goods Makers: Coping with Stagnation

- The cycle of 2002 through 2007 was nirvana for the industrial capital goods companies as China, Europe and the commodity businesses were engines of demand, firing on all cylinders. Helping matters the Dollar was trending down, boosting pricing power. In this cycle they've suffered a hangover as much of what was good went bad and the Dollar reversed course. The companies have coped remarkably well, adapting to low-single-digit top-line growth by reinvesting little in their businesses, generating gobs of free cash flow and repurchasing their own shares. That formula has paid off and despite tepid demand the stocks have outperformed the market.

- Usually when investing in these stocks we want to buy into cheapness and high operating leverage and hope for things to get better. We don't think that's the right formula this time around and given the sector's double-digit free cash flow margins we're utilizing a GARP approach, taking advantage of compounding, while steering clear of controversies. Appendix 1 on page 10 ranks the stocks on that basis, with Emerson Electric and Illinois Tool Works among those at the top of the list.

The Stable Stock Infantry: No Defections, Yet

- A bright line divides the equity market, and the relative returns of value and stable stocks have been almost (90)% anti-correlated, an extreme relationship heretofore only seen in the aftermath of bank crises and recessions. Much more than is typical stocks with stable fundamentals are trading with little volatility while value stocks have been unusually erratic. The stable issues sell at a +66% P/E premium to the value ones, a wide gap, but not a record. There's no middle ground, investors must choose a side.

- The behavior in the current quarter illustrates just how potent the situation has become. The tone of the global economic data improved, particularly that drawn from the labor market, causing the value issues to outperform the stable ones by +9 percentage points. Some of the value stocks offer high dividend yields, aiding the performance of that strategy. Investors have continued to pour money into yield-oriented ETFs, a hot product. ETFs focused on low-vol strategies performed worse and money has begun to dribble out of them. Given this year's extraordinary returns to dividend yield strategies, a top-decile outcome relative to the 90-year history, it will take a shift in global monetary policy to prompt a reversal in retail investors' sentiment. The third-quarter results do demonstrate though that the dividing line isn't cast in stone.

New CEOs, Saviors?

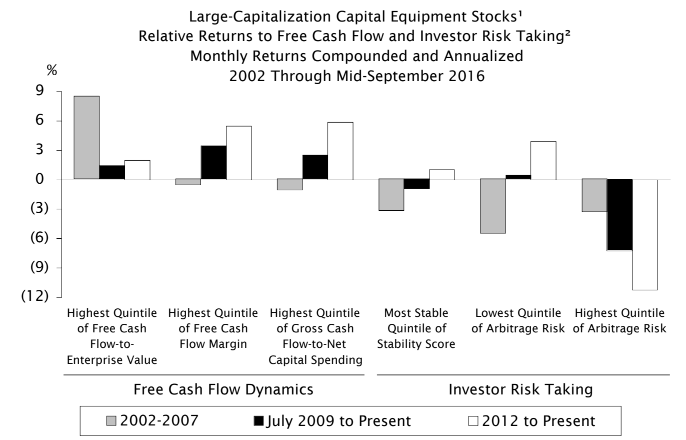
- It's widely believed that bringing in a new CEO represents a catalyst for the simple reason that they're not wed to the mistakes of the past. Three years ago we analyzed the data and found that there was a pop in the stock that occurred in the first year of a new CEO's tenure. The honeymoon was generally short lived though and that excess return was given back in the subsequent years.

- We added a module to our stock selection models to give credit to companies making a chief executive hire. In the intervening years it's added a couple of hundred basis points of alpha per annum, and double that amount if the company was top-ranked in our model. Appendix 2 on page 11 lists attractive large-cap stocks with leadership changes in the last year and Appendix 3 is a small-cap variant.

Sungsoo Yang (212) 803-7925 Yu Bai (212) 803-7919 Janai Haynes (212) 803-8005

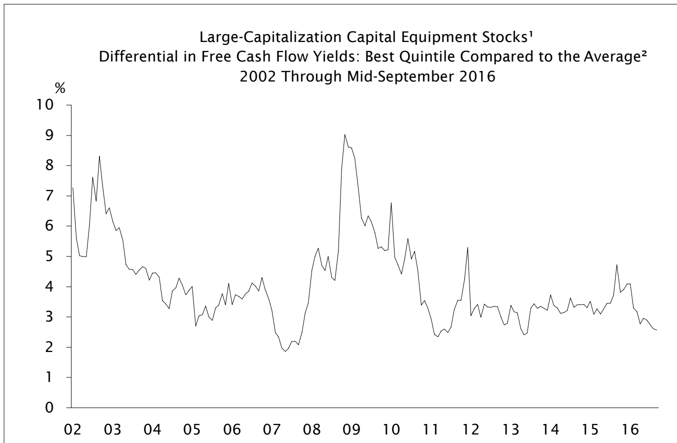
Conclusions in Brief

- When picking capital equipment stocks a GARP approach has worked…



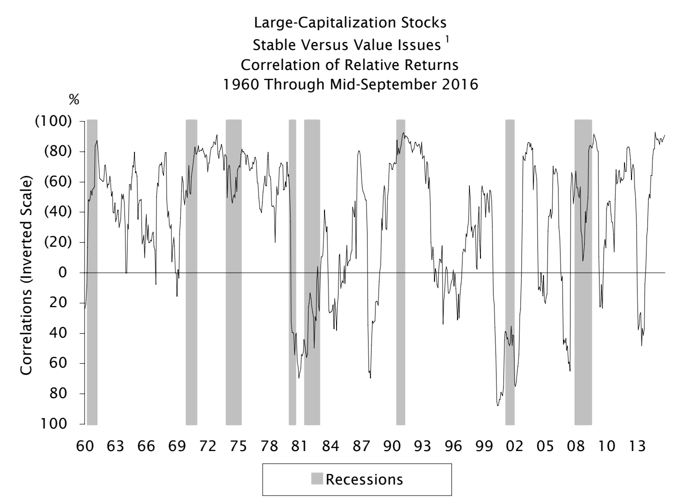
Source: Empirical Research Partners Analysis.
¹Aerospace, electrical equipment, industrial conglomerates, and machinery.
²Ranked within and returns relative to the group; equally-weighted data.

- …And we're not being paid to take big risks here:



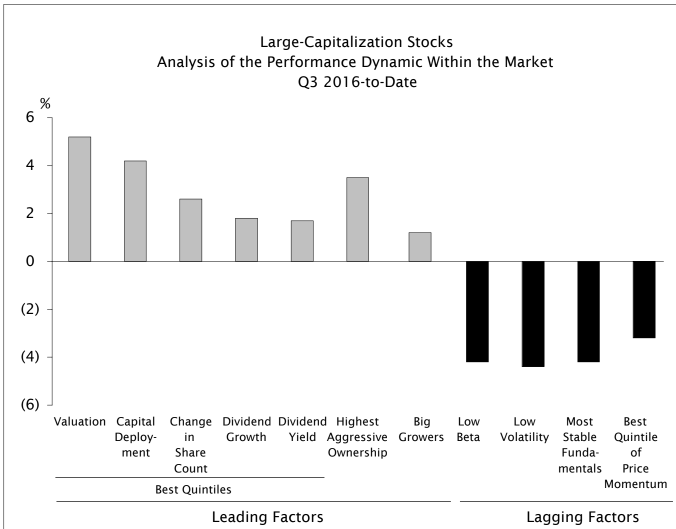
Source: Empirical Research Partners Analysis.
¹Aerospace, electrical equipment, industrial conglomerates, and machinery.
²Equally-weighted data.

- A bright line divides the stable and value stocks…



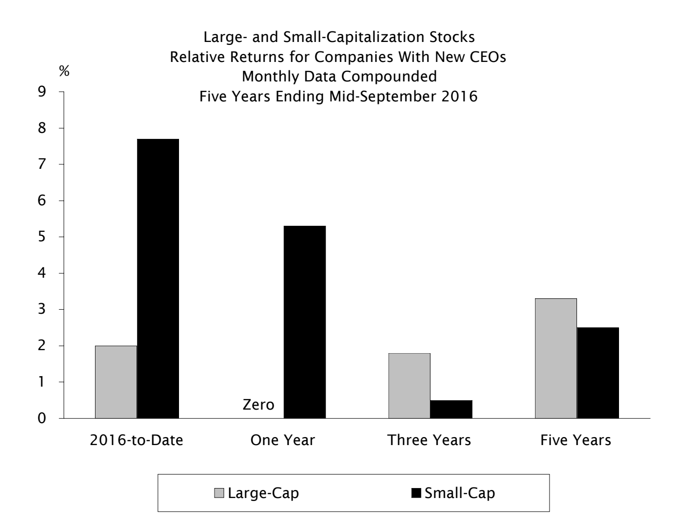
Source: National Bureau of Economic Research, Empirical Research Partners Analysis.
¹ Computed over a twelve-month window.

- …And in the third-quarter it proved to be moveable:



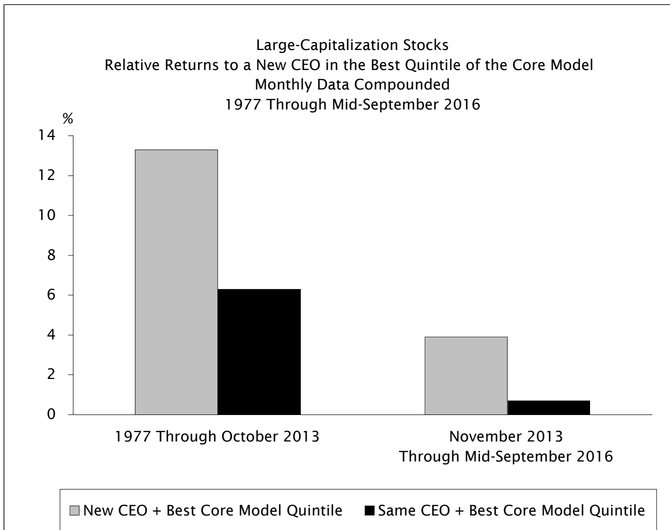
Source: Empirical Research Partners Analysis.

- Adding a new CEO has been a catalyst...



Source: Empirical Research Partners Analysis.

- …That's paid off most in otherwise attractive stocks:



Source: Empirical Research Partners Analysis.

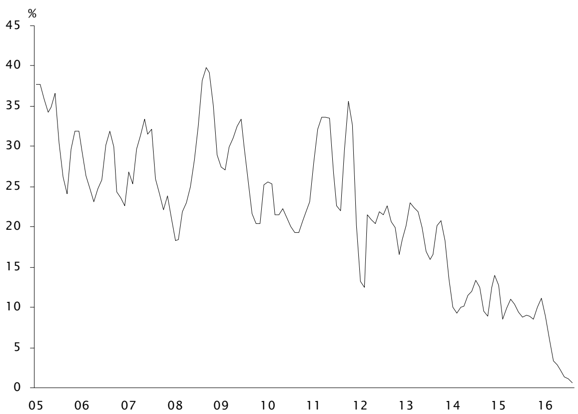
The Industrial Capital Equipment Stocks: Flying at Low Altitudes

Coping with Near Stagnation

This business cycle has proven much more challenging for industrial capital equipment makers than the last one, as three engines of growth – China, the oil industry and Europe - all ground to a halt. The strength in the Dollar has exacerbated the effects of the demand weakness. Given that tough setting the stocks have fared quite well, leading the market by +2 percentage points per annum over the past five years, matching the performance of the tech sector. Absent a tailwind, what's worked when picking among them has been conservatism, and companies that were self propelled and could move forward in calm waters have led.

End demand has been weak and Exhibit 1, that depicts the growth in China's capital equipment purchases, tells the story in a nutshell. The growth rate fell from the mid-20s in the last cycle to close to zero lately. In addition since 2012 China's imports of most types of capital goods have been shrinking (see Exhibit 2).

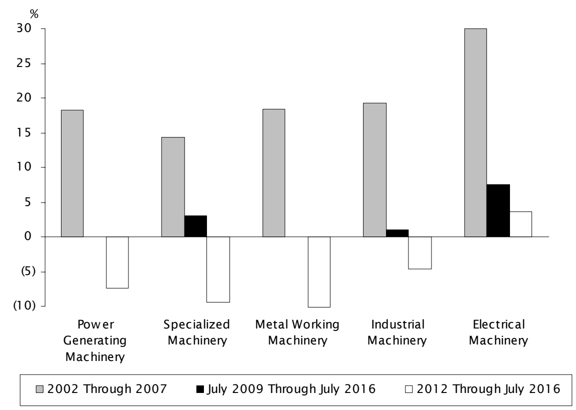
Exhibit 1: China
Capital Equipment Purchases
Year-over-Year Changes[1]
2005 Through August 2016



Source: CEIC, Empirical Research Partners Analysis.

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

Exhibit 2: China
Imports of Machinery[1]
Annualized Rates-of-Change
2002 through July 2016

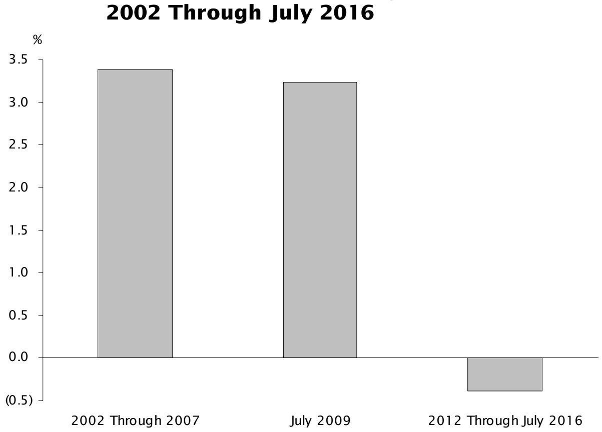


Source: CEIC, Empirical Research Partners Analysis.

[1]Expressed in local currency.

We see something similar in the Euro Area, where the production of machinery and equipment has been stagnant since the debt crisis of four years ago (see Exhibit 3). There, exports held up better than imports, having benefited from first a weakening and then a stable Euro (see Exhibit 4). Still, even there, the rate of export growth has been only a third that produced in the previous cycle.

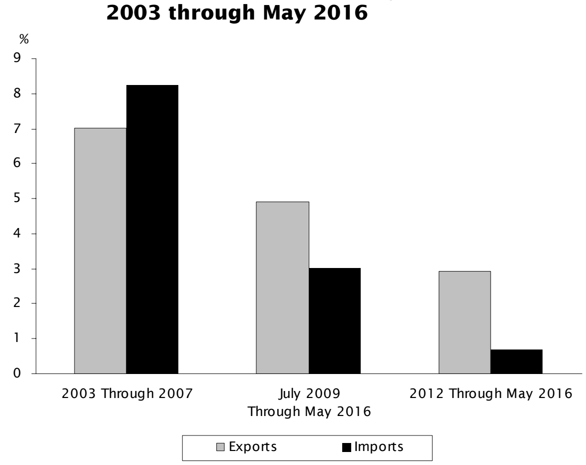
Exhibit 3: The Euro Area
Production of Machinery and Equipment[1]
Annualized Rates-of-Change
2002 Through July 2016



Source: Eurostat, Empirical Research Partners Analysis.

[1]Measured on a volume basis.

Exhibit 4: The Euro Area
Exports and Imports of Machinery and Equipment[1]
Annualized Rates-of-Change
2003 through May 2016

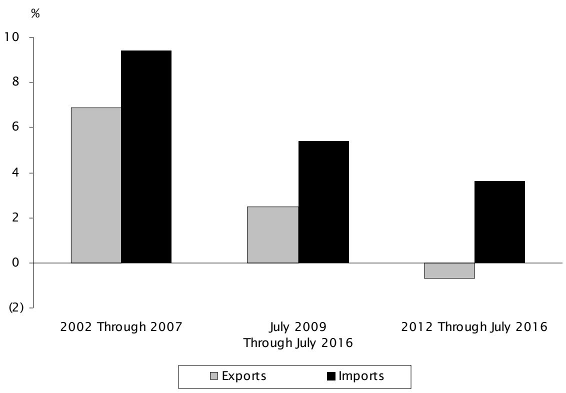


Source: Eurostat, Empirical Research Partners Analysis.

[1]Measured in local currency; cumulative trailing twelve-month data.

In the U.S. we see the opposite pattern from that in Europe and exports have shrunk (see Exhibit 5). The relative returns of the U.S. capital equipment makers have been inversely-related to movements in the Dollar and we'd expect them to perform best when it's weakening (see Exhibit 6). That rule-of-thumb has held up this time around. One reason for that relationship is that changes in the exchange rate generally don't show up in prices, and in the Aughts, when depreciation was the norm, export prices were strong (see Exhibit 7). In the 2010s that tailwind disappeared and the price trend reversed. The collapse in the commodity cycle had a large effect on the domestic demand picture as well (see Exhibit 8).

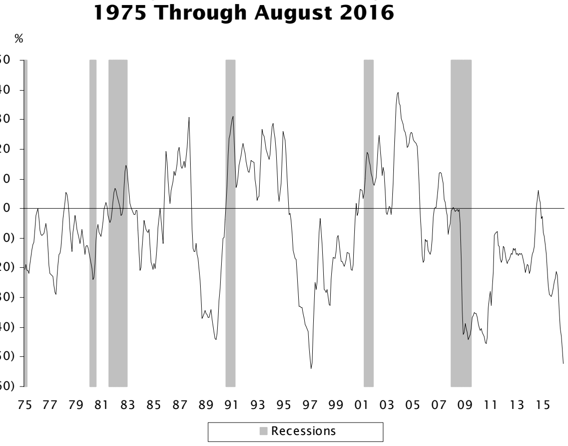
Exhibit 5: The U.S.
Exports and Imports of Machinery and Equipment[1]
Annualized Rates-of-Change
2002 Through July 2016



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

[1]Measured in local currency; cumulative trailing twelve-month data.

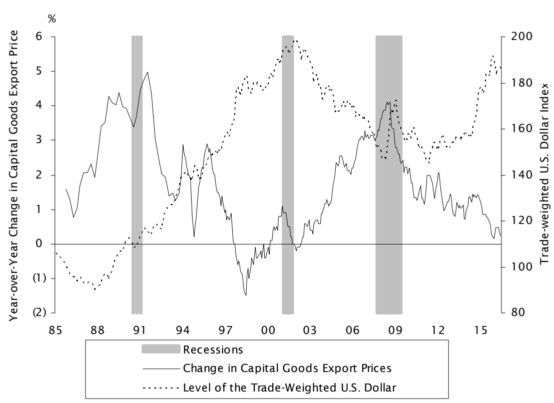
Exhibit 6: Large-Cap Industrial Capital Equipment Stocks
Correlation of Monthly Relative Returns with
Changes in the Trade-Weighted Dollar[1]
1975 Through August 2016



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

[1]Correlations computed over trailing twenty-four month windows and smoothed on a trailing three-month basis. Equally-weighted relative returns. Trade-weighted dollar versus a basket of developed and developing market currencies.

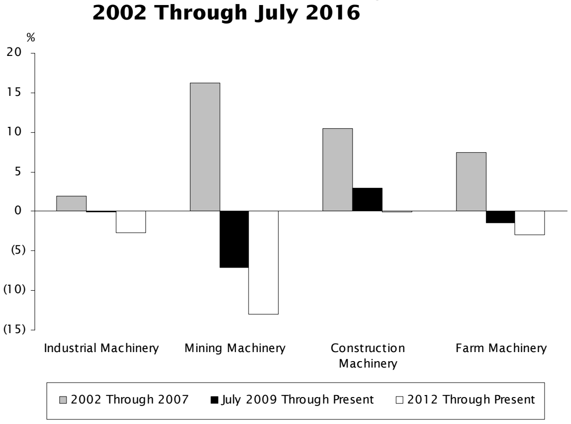
Exhibit 7: Year-over-Year Changes in U.S. Capital Goods Export Prices and the Level of the Trade-Weighted Dollar Index[1]
1985 Through August 2016



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

[1]Trade-weighted dollar with a broad set of developed and developing market currencies.

Exhibit 8: The U.S.
Machinery Shipments
Annualized Rates-of-Change
2002 Through July 2016



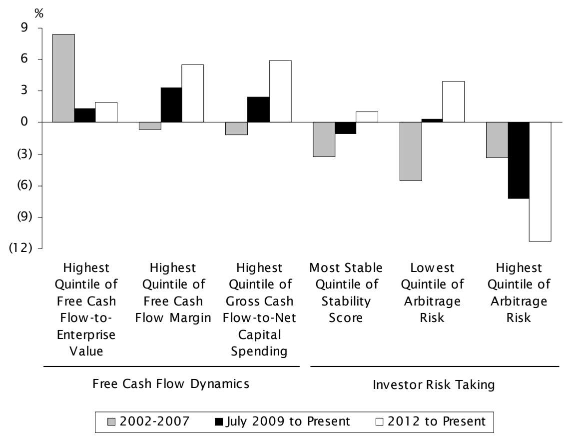
Source: U.S. Census Bureau, Empirical Research Partners Analysis.

High Margins Win Out

When investing in industrial cyclicals ofttimes it's been wise to dive into the deep end of the pool and go long the leverage. When the turn arrives the payoff makes the wait worthwhile. That hasn't been the case in the middle phases of this cycle and what worked were the free cash flow machines and running from the battles (see Exhibit 9). Profitable companies producing the highest free cash flow margins have led, and what failed was taking on controversy, as identified in our arbitrage risk framework. It quantifies the stock's unexplained idiosyncratic volatility after accounting for beta. The reason behind all of this is that the companies responded to a setting of low-single digit top-line growth by restraining their spending, leaving them with strong cash flow margins (see Exhibit 10). Investors have generally endorsed that behavior, and the stocks are priced to the same forward-P/E ratio as the market. Their reinvestment needs are modest and they offer a +100 basis point advantage in free cash flow yields. The contraction in their share counts has matched the growth rate of the top lines, and, as in the technology sector, financial engineering has been a source of alpha for these mature businesses.

This cycle can be seen as payback for the last one and we've thought that demand for traditional capital goods would be tepid. We don't see a strong case to be aggressive here, and expect the existing, conservative stock-picking dynamic to prevail. The market is rewarding reaping over sowing.

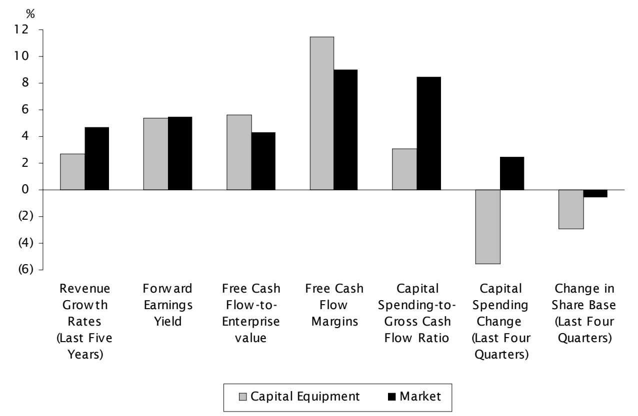
Exhibit 9: Large-Cap Capital Equipment Stocks[1]
Relative Returns to Free Cash Flow and Investor Risk Taking[2]
Monthly Returns Compounded and Annualized
2002 Through Mid-September 2016



Source: Empirical Research Partners Analysis.

[1]Aerospace, electrical equipment, industrial conglomerates and machinery.
[2]Ranked within and returns relative to the group; equally-weighted data.

Exhibit 10: Large-Cap Industrial Capital Equipment Stocks
Select Financial Attributes Compared to Those of the Market: Medians
As of Mid-September 2016

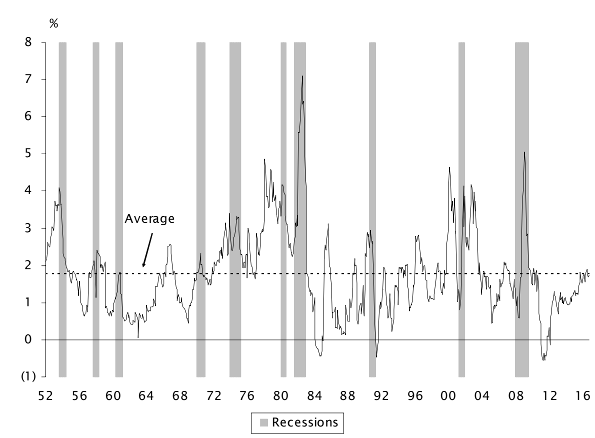


Source: Empirical Research Partners Analysis.

Conclusion: A Stability Bias

The capital equipment stocks are undistinguished in our work. Their free cash flow yields are above that of the market, while the dispersion among those yields is low (see Exhibits 11 and 12). We're not being paid to reach for return here. Taking account of that we created a model that ranks the companies based on their free cash flow dynamics and the controversy surrounding it (see Appendix 1 on page 10). Issues topping the list include ABB Ltd., Rockwell Automation, Emerson Electric and Illinois Tool Works.

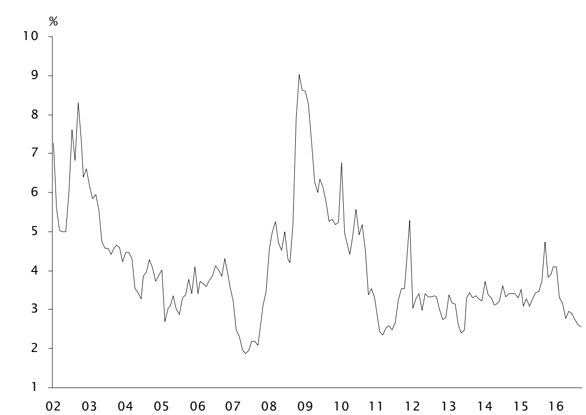
Exhibit 11: Large-Cap Capital Equipment Stocks[1]
Relative Free Cash Flow Yield[2]
1952 Through Mid-September 2016



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

[1]Aerospace, electrical equipment, industrial conglomerates and machinery.
[2]Relative to large-capitalization stocks. Equally-weighted data.

Exhibit 12: Large-Cap Capital Equipment Stocks[1]
Differential in Free Cash Flow Yields:
Best Quintile Compared to the Average[2]
2002 Through Mid-September 2016



Source: Empirical Research Partners Analysis.

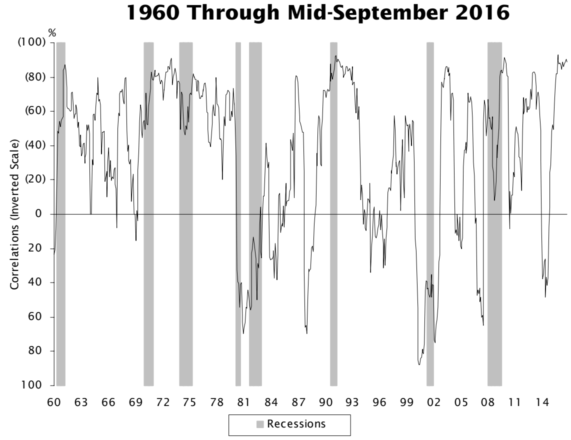
[1]Aerospace, electrical equipment, industrial conglomerates and machinery.
[2]Equally-weighted data.

The Stable Stock Infantry: No Defections, Yet

Desert Warfare

There's a bright line that divides the equity market. On one side sit the value stocks, with more than a quarter of them drawn from the financial sector. On the other side are the fundamentally-stable issues, and just over a third of them come from the consumer staples, telecom and utilities sectors. We don't expect to see a rapprochement between those two warring camps anytime soon and their relative returns have been almost (90)% anti-correlated (see Exhibit 13). That's an exceptional statistic that resembles that produced following the banking crises of 1990 and 2008. More than usual companies with stable fundamentals have behaved as low-vol stocks, while value and volatility have been synonymous (see Exhibits 14 and 15). It's hard to distinguish how much of those relationships is explained by systemic vulnerabilities in the global economy, and how much is the vestige of the search for low-vol by investors of many ilks. The stable issues currently sell at a P/E premium of 66% to their value counterparts, a wide, but not unprecedented differential (see Exhibit 16).

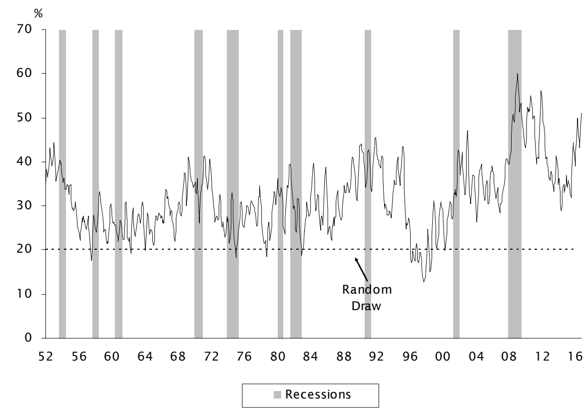
Exhibit 13: Large-Capitalization Stocks Stable Versus Value Issues Correlation of Relative Returns[1] 1960 Through Mid-September 2016



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

[1]Computed over a twelve-month window.

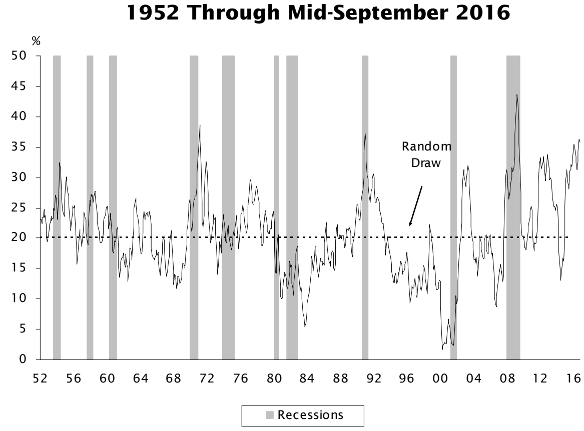
Exhibit 14: Large-Cap Fundamentally-Stable Stocks Share in the Lowest Quintile of Stock Price Volatility[1] 1952 Through Mid-September 2016



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

[1]Based on the returns of trailing 63 days, annualized and smoothed on a three-month basis.

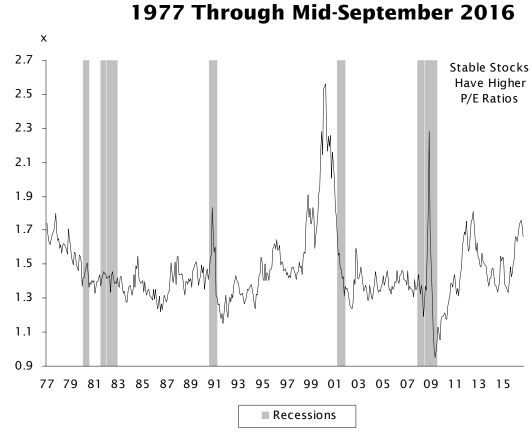
Exhibit 15: Large-Capitalization Value Stocks Share in the Highest Quintile of Stock Price Volatility[1] 1952 Through Mid-September 2016



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

[1]Based on the returns of trailing 63 days, annualized and smoothed on a three-month basis.

Exhibit 16: Large-Capitalization Stocks Stable Versus Value Issues Ratios of Forward-P/E Ratios[1] 1977 Through Mid-September 2016

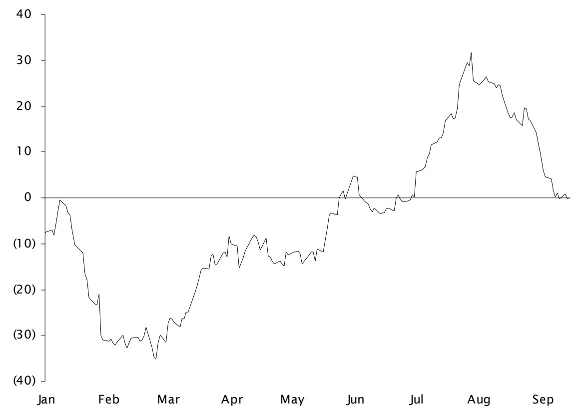


Source: Corporate Reports, National Bureau of Economic Research, Empirical Research Partners Analysis.

[1]Equally-weighted data.

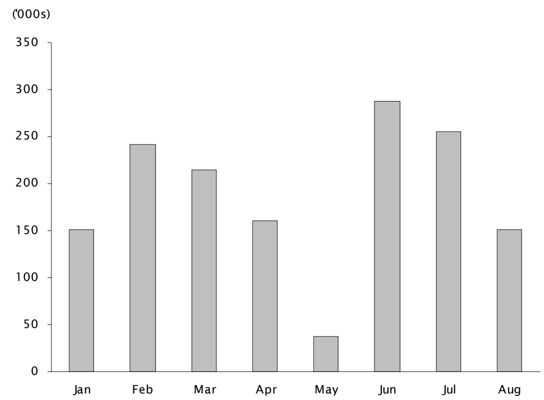
The performance differentials in the current quarter make clear just how potent the situation has become. After many months of disappointments G-10 economic surprises turned positive in late-June and thereafter the payroll numbers improved (see Exhibits 17 and 18). A handful of economic releases are always critical to stock performance and all the excess returns of equities have come on the days when the data is released (see Exhibit 19). In the current quarter the returns of value and stable issues have been mirror images of one another (see Exhibit 20). Stocks heavily owned by hedge funds and aggressive long managers have done well too, as have the Big Growers.

Exhibit 17: G-10 Economic Surprise Index
2016 Through Mid-September



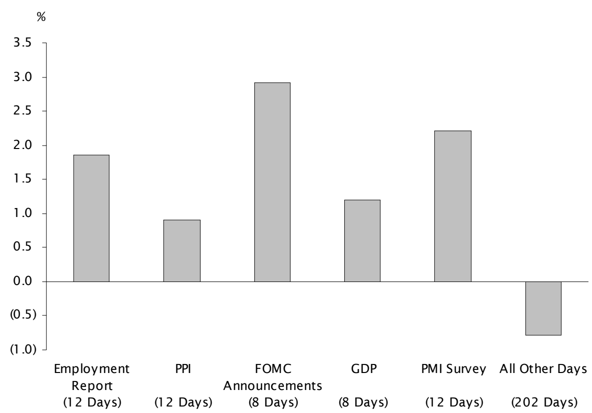
Source: Citigroup, Bloomberg L.P.

Exhibit 18: U.S. Non-Farm Payrolls
Month-over-Month Changes
(As Initially Released)
2016 Through August



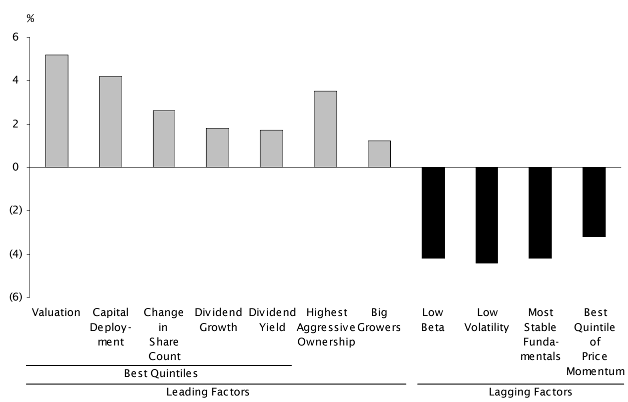
Source: Bureau of Labor Statistics.

Exhibit 19: Equity Market Excess Returns on Days
of Key Economic Releases
1997 Through 2014



Source: Ali, H. and Ravi Bansai. 2016. "Risk Preferences and the Macro Announcement Premium," NBER Working Paper 22527.

Exhibit 20: Large-Capitalization Stocks
Analysis of the Performance Dynamic
Within the Market
Q3 2016-to-Date



Source: Empirical Research Partners Analysis.

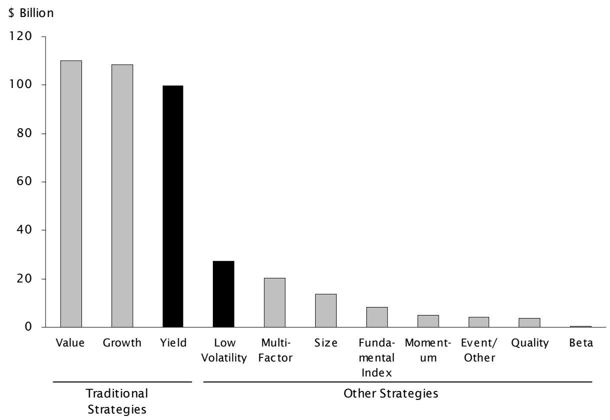
Marching Forward, Undeterred

We examined whether the latest price weakness has been enough to quell retail investors' enthusiasm for yield and low-volatility ETFs (see Exhibit 21). Dividend yield strategies have had a great 2016 and their performance in the current quarter didn't materially undercut that result (see Exhibit 22). In fact their returns in the first eight-and-a-half months of this year rank in the top decile of the 90-year record (see Exhibit 23). It's not surprising then to find that there's been no fall off in the pace of inflows into yield-oriented ETFs (see Exhibit 24). The numbers are still too good for that to happen. In the much-smaller low-vol category the performance has been worse, and there was a modest retreat in August (see Exhibits 25 and 26).

Conclusion: Loyalty, Not Yet Under Heavy Fire

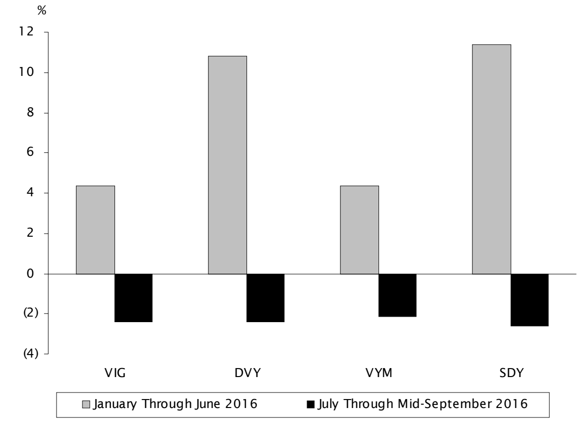
It will take a lot to undermine the trend behind the yield/stable issues. We'll need to see some combination of better domestic economic data, fiscal stimulus in Europe and more aggressive tightening rhetoric from the Fed chair to cause a new psychology to get priced into the market. The bar is set even higher to change the minds of retail investors who've embraced the yield story, thus far with success. What the third-quarter results do demonstrate though is that the battle line in the equity market is moveable, and that data dependence is a two-way street.

Exhibit 21: U.S. Smart-Beta ETFs
Assets Under Management By Strategy
As of August 2016



Source: Strategic Insight Simfund, Empirical Research Partners Analysis.

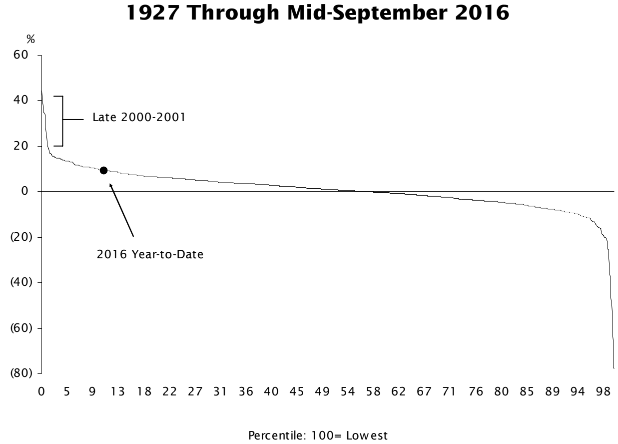
Exhibit 22: Large Yield-Oriented Equity ETFs[1]
Relative Returns Versus the S&P 500
2016 Through Mid-September



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

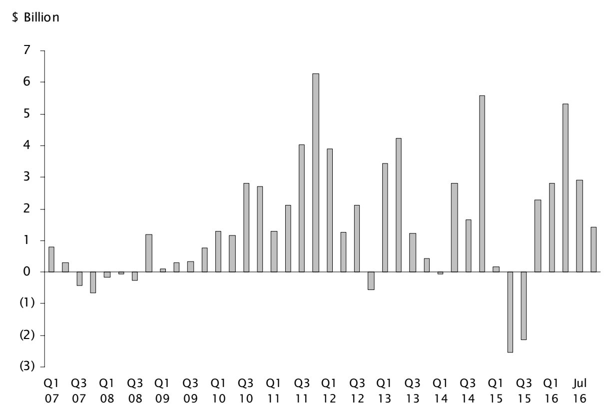
[1]Includes four largest U.S. low volatility ETFs: VIG, DVY, VYM, and SDY. Combined assets approximately $68 billion.

Exhibit 23: Large-Capitalization Stocks
Trailing-Nine-Month Relative Returns to
the Highest Quintile of Dividend Yield
Ranked from Best to Worst
1927 Through Mid-September 2016



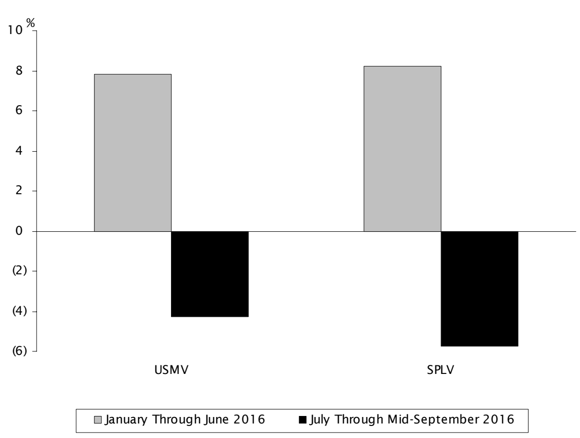
Source: Corporate Reports, Empirical Research Partners Analysis.

Exhibit 24: Yield-Oriented Equity ETFs
Net New Money Flows
2007 Through August 2016



Source: Strategic Insight Simfund, Empirical Research Partners Analysis.

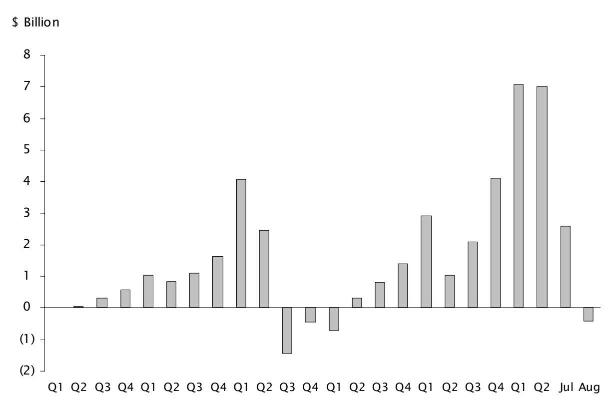
Exhibit 25: Low Volatility ETFs[1]
Relative Returns Versus the S&P 500
2016 Through Mid-September



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

[1]Includes two largest U.S. low volatility ETFs: USMV and SPLV. Combined assets approximately $21 billion.

Exhibit 26: Low Volatility ETFs[1]
Net New Money Flows
2011 Through August 2016



Source: Strategic Insight Simfund, Empirical Research Partners Analysis.

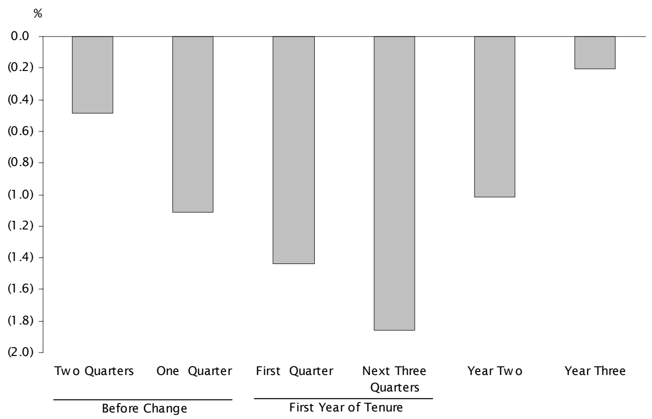
[1]Includes low beta ETFs.

Saviors: Have New CEOs Made a Difference?

Hope Springs Eternal

Three years ago we looked into the question of whether bringing in a new CEO was a catalyst for outperformance in the equity market.[1] Relying on data that goes back nearly 40 years we found that there was a minor pop in the stock following the hiring, that materialized over the first year of the leader's tenure. It was given back in the next two years as most of them disappointed expectations. If the stock was undervalued the new CEO meant more for equity performance, with the enthusiasm peaking six months into their tenure. Profitability of companies doing the hiring was typically sub-par, although it did improve after a couple of years of new leadership (see Exhibit 27). Once that began to happen buybacks were likely to ensue causing share count to shrink. If the former CEO had resigned rather than retired, the odds of the stock doing well improved.

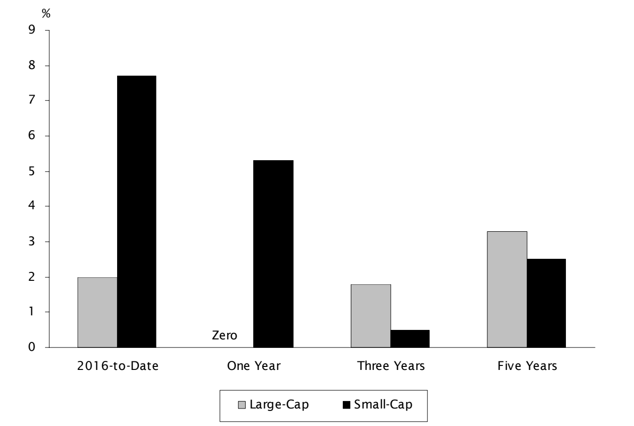
Exhibit 27: Large-Capitalization Stocks
Relative ROE by CEO Tenure[1]
1977 Through Mid-September 2016



Source: Empirical Research Partners Analysis.

[1] Measured relative to stocks with tenure data, three-quarters of the large-cap universe.

Exhibit 28: Large- and Small-Capitalization Stocks
Relative Returns for Companies with New CEOs
Monthly Data Compounded
Five Years Ending Mid-September 2016



Source: Empirical Research Partners Analysis.

While not a major source of alpha we thought the new CEO pop was significant and unique enough to merit inclusion in our stock selection models. The new CEO flag got a small weight, contributing about 1% of the model's overall expected return. Typically 5% to 10% of the CEOs of large-cap companies have been in the job for less than a year causing us to add a bit to the scoring of those stocks.

The live results generated by the flag have largely been in keeping with our initial findings and in the large-cap market it's generated a couple of hundred basis points of alpha per annum over the past three years (see Exhibit 28). Undervalued companies that took on a new top manager lagged the market during that span, but by less than those that stayed with the incumbent (see Exhibit 29).

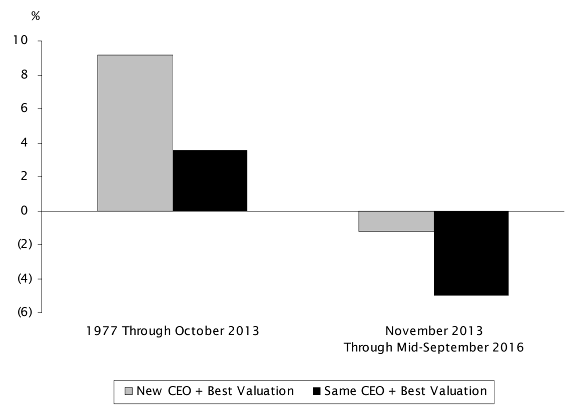
The combination of a new CEO and an attractive rank in our core model fared better but the returns were weaker than those that comprise the historic record (see Exhibit 30). It may be that after decades of intense focus on profitability much of the low-lying fruit has been picked. Another explanation is that it's easier to be a savior at the bottom of a cycle.

Conclusion: A Catalyst of Sorts

Bringing in a new CEO creates a modest and relatively short-lived positive for the stock of the company making the hire. The consequences of the change aren't discounted immediately but rather emerge slowly. Eventually reality falls short of expectations and the "new CEO premium" is given back. In the age of activism we need to be on the lookout for catalysts and a new hire is a legitimate one. Appendix 2 on page 11 provides a short list of large-cap companies that've hired a new leader and are attractive in our core model, while Appendix 3 does the same, focused on the small-cap space.

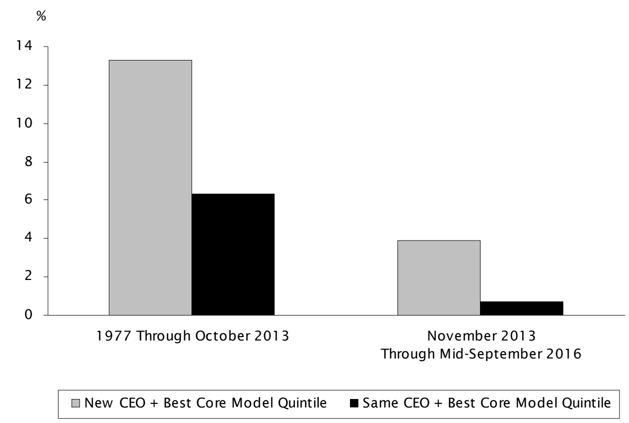
[1] *Stock Selection: Research and Results* October 2013. "A New CEO Premium? An Empirical Analysis."

**Exhibit 29: Large-Capitalization Stocks
Relative Returns to a New CEO
in the Best Quintile of Valuation
Monthly Data Compounded
1977 Through Mid-September 2016**



Source: Empirical Research Partners Analysis.

**Exhibit 30: Large-Capitalization Stocks
Relative Returns to a New CEO
in the Best Quintile of the Core Model
Monthly Data Compounded
1977 Through Mid-September 2016**



Source: Empirical Research Partners Analysis.

**Appendix 1: Large-Capitalization Capital Equipment Stocks
Custom Ranking Report
Sorted by Composite Rank
As of Mid-September 2016**

			Quintiles (1=Best; 5=Worst)								
			Free Cash Flow Dynamics				Controversy				
Symbol	Company	Price	Free Cash Flow-to-Enterprise Value	Free Cash Flow Margin	Gross Cash Flow -to-Net Capital Spending	Change in Common Shares Outstanding	Stability Rank (1: Stable, 5: Volatile)	Arbitrage Risk (1=Lowest; 5=Highest)	Composite Rank	Forward-P/E Ratio	Market Capitalization ($ Billion)
ABB	ABB LTD	$22.24	1	2	1	1	na	2	1.4	18.7 x	$49.4
ROK	ROCKWELL AUTOMATION	114.18	1	2	1	2	2	1	1.5	18.9	14.8
ETN	EATON CORP PLC	63.21	1	2	1	2	3	1	1.7	14.3	28.7
EMR	EMERSON ELECTRIC CO	51.21	1	2	1	2	2	2	1.7	16.9	33.0
AME	AMETEK INC	47.91	2	2	1	2	2	1	1.7	20.1	11.1
CSL	CARLISLE COS INC	99.97	1	2	1	3	2	1	1.7	16.9	6.5
ITW	ILLINOIS TOOL WORKS	115.69	2	2	1	2	2	1	1.7	19.8	41.1
WAB	WABTEC CORP	74.92	1	2	1	1	2	3	1.7	17.7	6.8
GE	GENERAL ELECTRIC CO	29.85	2	1	2	1	4	1	1.8	18.9	267.5
DOV	DOVER CORP	68.38	1	2	1	3	3	1	1.8	19.1	10.6
BA	BOEING CO	128.76	1	3	3	1	2	1	1.8	16.6	80.6
UTX	UNITED TECHNOLOGIES CORP	102.32	2	3	2	1	2	1	1.8	15.3	85.6
SNA	SNAP-ON INC	146.76	2	2	1	3	2	1	1.8	15.5	8.5
TDG	TRANSDIGM GROUP INC	281.74	4	1	1	3	1	1	1.8	22.3	15.0
HON	HONEYWELL INTERNATIONAL INC	111.60	2	2	3	2	1	1	1.8	16.2	84.9
MMM	3M CO	176.07	3	2	2	2	1	1	1.8	20.8	106.4
IEX	IDEX CORP	90.52	3	2	1	2	3	1	2.0	23.3	6.9
HUBB	HUBBELL INC	103.10	3	3	2	1	2	1	2.0	18.8	5.7
TTC	TORO CO	93.56	2	2	3	3	1	1	2.0	21.7	5.1
PH	PARKER-HANNIFIN CORP	120.84	1	3	2	2	3	2	2.2	16.2	16.2
SWK	STANLEY BLACK & DECKER INC	119.66	2	3	2	2	3	1	2.2	17.8	18.0
ROP	ROPER TECHNOLOGIES INC	177.58	3	1	1	4	2	2	2.2	25.9	18.0
FTV	FORTIVE CORP	50.04	3	1	2	na	1	4	2.2	20.0	17.3
IR	INGERSOLL-RAND PLC	63.78	2	4	1	2	3	2	2.3	15.9	16.5
CMI	CUMMINS INC	117.31	1	3	3	1	2	4	2.3	14.6	19.8
BEAV	B/E AEROSPACE INC	49.42	3	3	1	1	4	3	2.5	14.5	5.0
TXT	TEXTRON INC	39.78	3	4	1	2	3	2	2.5	12.9	10.7
NDSN	NORDSON CORP	95.30	3	2	2	1	3	4	2.5	20.0	5.5
PNR	PENTAIR PLC	58.81	2	2	1	4	5	2	2.7	17.5	10.7
WBC	WABCO HOLDINGS INC	104.33	2	2	2	2	4	4	2.7	17.5	5.8
XYL	XYLEM INC	49.48	3	3	3	3	2	2	2.7	23.1	8.9
DE	DEERE & CO	81.09	1	3	3	1	4	5	2.8	20.7	25.5
FLS	FLOWSERVE CORP	46.08	3	4	1	2	4	3	2.8	18.6	6.0
SPR	SPIRIT AEROSYSTEMS HOLDINGS	45.29	1	3	4	1	5	4	3.0	9.8	5.8
CAT	CATERPILLAR INC	80.23	2	4	4	2	4	2	3.0	22.4	46.9
PHG	KONINKLIJKE PHILIPS ELECTRONICS-ADR	28.34	2	4	2	4	na	3	3.0	15.8	26.9
ST	SENSATA TECHNOLOGIES HLDG NV	38.05	2	2	3	4	4	4	3.2	12.9	6.5
PCAR	PACCAR INC	56.36	2	4	4	3	4	2	3.2	14.7	19.8
AYI	ACUITY BRANDS INC	259.42	4	3	3	4	3	2	3.2	26.9	11.4
MIDD	MIDDLEBY CORP	121.30	4	3	2	4	3	4	3.3	23.6	7.0

Source: Empirical Research Partners Analysis.

Appendix 2: Large-Capitalization Stocks
With New CEOs
Top Two Quintiles of the Core Model
Sorted by Model
As of Mid-September 2016

			Quintiles (1=Best; 5=Worst)							
				Super Factors						
Symbol	Company	Price	Free Cash Flow-to-Enterprise Value	Valuation	Capital Deployment	Earnings Quality and Trend	Market Reaction	Core Model Rank	Forward P/E-Ratio	Market Capitalization ($ Billion)
ETN	EATON CORP PLC	$62.98	1	2	3	2	1	1	14.3 x	$28.6
PWR	QUANTA SERVICES INC	24.67	1	1	1	4	1	1	14.3	3.7
OI	OWENS-ILLINOIS INC	17.14	3	1	2	3	2	1	7.1	2.8
DAL	DELTA AIR LINES INC	37.12	1	1	1	2	5	1	6.5	27.8
HPQ	HP INC	14.27	1	1	1	1	3	1	8.8	24.4
GILD	GILEAD SCIENCES INC	77.62	1	1	2	5	5	1	6.6	103.3
FITB	FIFTH THIRD BANCORP	20.37	na	1	2	na	3	1	12.4	15.6
HFC	HOLLYFRONTIER CORP	24.12	4	1	4	2	4	1	18.3	4.3
NRG	NRG ENERGY INC	10.89	2	1	1	1	4	1	13.3	3.4
LEG	LEGGETT & PLATT INC	49.06	2	4	3	1	1	2	18.7	6.6
HOT	STARWOOD HOTELS & RESORTS WORLDWIDE	75.27	2	4	1	1	2	2	25.0	12.8
CCK	CROWN HOLDINGS INC	53.81	1	2	4	4	3	2	13.3	7.5
AVY	AVERY DENNISON CORP	75.52	2	3	2	2	1	2	18.3	6.7
ESRX	EXPRESS SCRIPTS HOLDING CO	70.37	1	1	2	3	5	2	10.7	44.3
SJM	SMUCKER (JM) CO	136.95	2	2	2	3	2	2	16.7	15.9
CHD	CHURCH & DWIGHT INC	46.81	2	3	1	2	2	2	25.6	12.1
CIT	CIT GROUP INC	34.96	na	1	5	na	5	2	12.2	7.1
TRV	ST PAUL TRAVELERS COMPANIES INC	113.71	na	2	1	na	4	2	11.8	32.8
DRE	DUKE REALTY CORP	26.52	na	5	4	1	1	2	75.5	9.3
SWN	SOUTHWESTERN ENERGY CO	13.89	5	4	2	4	1	2	42.1	6.9

Source: Empirical Research Partners Analysis.

Appendix 3: Small-Capitalization Stocks
With New CEOs
Top Two Quintiles of the Core Model
Sorted by Model
As of Mid-September 2016

			Quintiles (1=Best; 5=Worst)							
				Super Factors						
Symbol	Company	Price	Free Cash Flow-to-Enterprise Value	Valuation	Capital Deployment	Earnings Quality and Trend	Market Reaction	Core Model Rank	Forward P/E-Ratio	Market Capitalization ($ Million)
AEO	AMERICAN EAGLE OUTFITTERS INC	$18.78	1	2	1	3	1	1	13.2 x	$3,413.5
CAR	AVIS BUDGET GROUP INC	35.08	3	1	4	1	1	1	10.9	3,227.4
CBT	CABOT CORP	49.83	1	2	1	1	1	1	14.2	3,108.3
ENS	ENERSYS INC	68.33	1	2	2	2	2	1	14.1	2,967.4
TEX	TEREX CORP	24.35	1	1	3	2	2	1	23.0	2,644.4
GEF	GREIF INC -CL A	47.51	2	2	2	1	1	1	17.6	2,517.3
TCB	TCF FINANCIAL CORP	14.50	na	1	2	na	2	1	11.9	2,480.1
CHS	CHICOS FAS INC	12.29	1	1	1	1	1	1	14.3	1,622.7
SKYW	SKYWEST INC	27.41	4	1	1	1	1	1	9.9	1,412.7
CSGS	CSG SYSTEMS INTL INC	43.00	1	2	2	1	2	1	15.8	1,394.8
ANF	ABERCROMBIE & FITCH -CL A	17.62	1	1	1	1	5	1	20.7	1,192.3
FINL	FINISH LINE INC -CL A	22.91	1	1	1	1	1	1	13.0	972.1
HWAY	HEALTHWAYS INC	24.67	1	2	3	1	1	1	11.2	906.4
KLIC	KULICKE & SOFFA INDUSTRIES	12.38	1	1	1	2	4	1	15.6	871.6
AMBC	AMBAC FINANCIAL GROUP	18.00	na	1	4	na	1	1	6.8	812.2
IPHS	INNOPHOS HOLDINGS INC	37.26	2	1	2	4	1	1	14.5	724.0
RTEC	RUDOLPH TECHNOLOGIES INC	17.40	1	3	1	1	1	1	16.3	538.4
OSK	OSHKOSH CORP	56.17	3	3	4	2	1	2	16.6	4,127.7
EXP	EAGLE MATERIALS INC	75.58	2	4	2	1	2	2	14.6	3,657.5
WEN	WENDY'S CO	10.81	3	4	1	1	4	2	26.2	2,846.4
GHC	GRAHAM HOLDINGS CO	500.50	4	4	1	2	3	2	20.5	2,811.3
EGP	EASTGROUP PROPERTIES	69.30	na	4	4	2	1	2	33.1	2,279.1
DECK	DECKERS OUTDOOR CORP	60.02	3	1	3	4	3	2	12.7	1,923.0
TGI	TRIUMPH GROUP INC	30.01	3	1	2	1	4	2	6.6	1,486.4
LABL	MULTI-COLOR CORP	66.47	2	2	3	4	1	2	17.2	1,121.1
AKS	AK STEEL HOLDING CORP	4.06	1	2	5	3	2	2	9.8	967.1
TYPE	MONOTYPE IMAGING HOLDINGS	20.80	1	2	2	1	5	2	19.3	848.8
GTY	GETTY REALTY CORP	23.30	na	3	2	4	1	2	20.6	786.4
FSS	FEDERAL SIGNAL CORP	13.11	1	2	1	3	4	2	18.0	785.7

Source: Empirical Research Partners Analysis.