

Sweet Spots in the C-Suite: Executive Best Practices for Shareholder Friendly Firms

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The onset of the COVID-19 pandemic wreaked havoc on many commercial markets, leaving corporations to reassess strategies and priorities. In times of uncertainty, business leaders and investors are well served to remember management practices that have created value and withstood the test of time. This report highlights four types of executive policy that drive value creation: profitability vs. growth decisions, mergers & acquisitions policy, return of cash to shareholders, and insider stock ownership. In it, we demonstrate *empirically* those practices that increase corporate value over time, thereby rewarding shareholders, employees, and other stakeholders. These practices also form a scorecard by which stakeholders can evaluate whether or not management is undertaking actions likely to increase corporate prosperity. Research findings include:

- **Profitability lays the foundation for financial and operational flexibility and stakeholder return.** Highly profitable firms persistently outperform their peers ([Section 1.1](#)). Both the level and the *trend* in profitability matter, and even small profit margin improvements are treated positively by the market ([Section 1.2](#)).
- **Good corporate managers strike a balance between profitability and growth.** Companies that grow assets too quickly underperform, while low-to-moderate asset growth companies outperform ([Section 1.3](#)). Highly profitable, moderate asset growth companies outperform strongly, as managers of such companies pursue growth until it is no longer profitable and then return cash to shareholders.
- **Large M&A deals negatively affect fundamentals and returns, often for years following an acquisition** ([Section 2.1](#)). Although post-M&A excess returns are generally negative, smaller cash deals done by financially disciplined companies (especially those buying back shares and avoiding serial acquisitions) work best ([Section 2.2](#)). *Stock deals severely underperform.*
- **Strategies that return cash to shareholders are rewarded by investors, while over-reliance on the capital markets is punished.** Buybacks provide a tax-advantaged way to return cash, but are most effective when done at attractive valuations ([Section 3.1](#)). Dividend increases and initiations are treated favorably by the market, but dividend cuts and cancellations cause sharp underperformance ([Section 3.2](#)). Companies that issue large amounts of shares or debt also see severe underperformance ([Section 3.3](#)).
- **Insider stock purchases signal to investors that management is confident in both a company's prospects and its current valuation.** Net insider buys are treated positively by the market, and the larger the purchase, relative to market cap, the larger the market response over time ([Section 4](#)).

1. Prefer a Balanced Profitability and Growth Strategy

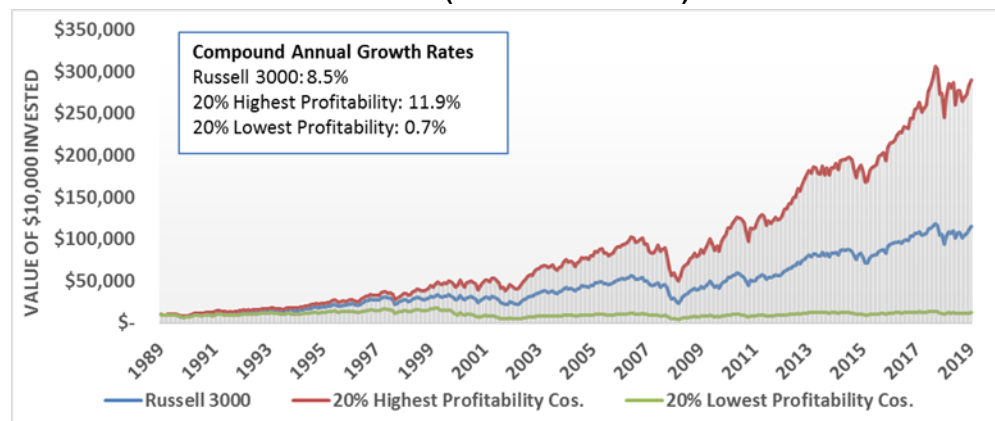
“At Berkshire, our managers will continue to earn extraordinary returns from what appear to be ordinary businesses. As a first step, these managers will look for ways to deploy their earnings advantageously in their businesses. What’s left, they will send to Charlie and me. We then will try to use those funds in ways that build per-share intrinsic value.”¹

1.1 Profitability Lays the Foundation for Stakeholder Returns

Profitability provides a scorecard for how well business managers and employees are executing on corporate strategy. It signals that management is employing people and resources effectively, controlling expenses, and positioning its products and services well relative to competitors. Profitability also provides the financial flexibility needed to fund growth and reward stakeholders.

Empirical research shows that shares of profitable companies continue to outperform, even after they report strong results. A hypothetical \$10,000 investment in firms with the highest profitability² (Figure 1, red line) resulted in a total value of \$290,000 after 30 years, or an 11.9% compound annual growth rate. The same investment in the firms with the lowest profitability resulted in a final value of \$12,000 (green line), or a 0.7% CAGR. The most profitable firms also outperformed the Russell 3000 over the same period.

Figure 1. Value of \$10,000 Invested Over Time by Gross Profit to Assets Ratio, Russell 3000, 1990-2019 (Excludes Financials)



Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

1.2 Both the Level and the Trend of Profitability Matter

The best businesses are able to improve profit margins year after year, through enhancements in cost efficiency and productivity. AMETEK Inc. (AME), an electronics manufacturer, has increased operating profit margins in 24 of the past 30 years. Over this period, its operating

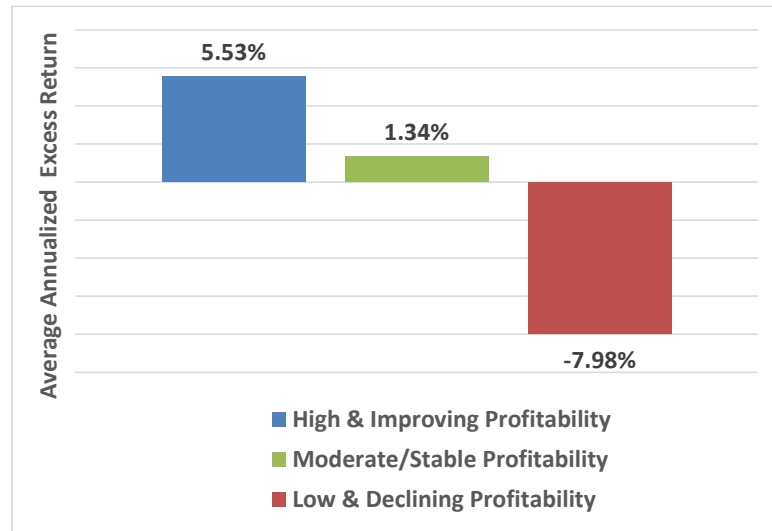
¹ Berkshire Hathaway, Chairman’s Letter – 1994, quoted from Cunningham (2019), p. 223.

² Profitability is measured as trailing 12-month gross profits to average assets. Firms with the highest profitability are defined as the 20% of Russell 3000 firms with the highest gross profits to assets ratio. Firms with the lowest profitability are defined as the bottom 20% by gross profits to assets. Data excludes financials, portfolios are rebalanced on a monthly basis, and total returns are calculated over the following month.

margins doubled, to 22.7% from 10.3%, and its shares saw an average total return of 19.1% annually, ahead of industry peers. Even small annual margin improvements add up over time and are rewarded by the market. AME's average annual operating margin improvement over the period was 43 basis points (0.43%).

Both the level and trend of profitability matter. Companies with both high and improving profitability (Figure 2, blue bar) have outperformed peers by an average of 5.5% annually over the past 30 years. Conversely, companies with low and declining profitability (red bar) have underperformed peers by an annual average of 8.0%.

Figure 2. Annualized Excess Total Returns by Gross Profit to Assets Ratio & Gross Profit Trend,³ Russell 3000, 1990-2019 (Excludes Financials)



Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

1.3 Growth and Profitability Should Be Balanced

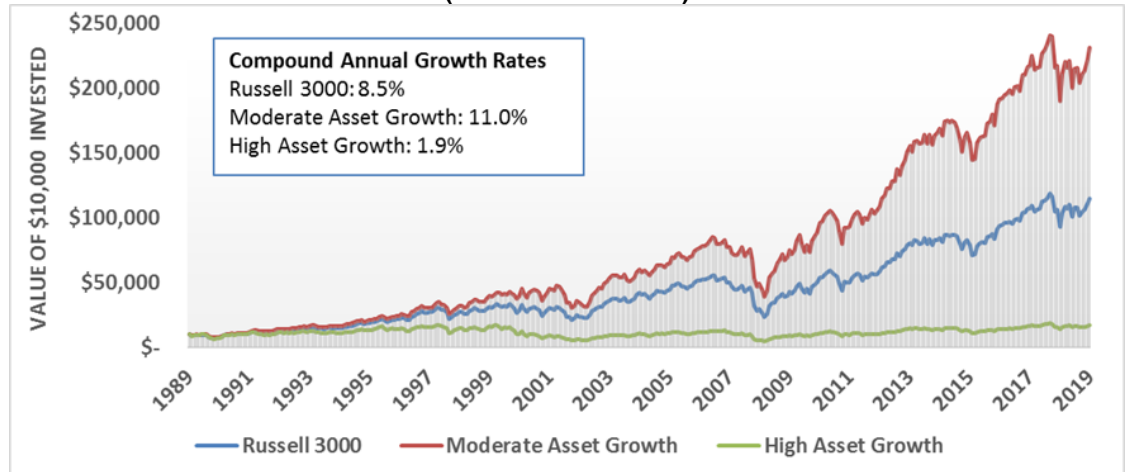
Successful companies balance growth and profitability. High asset growth is often associated with high levels of merger & acquisition activity, and extended periods of high growth are often accompanied by operational and financial difficulties. Empirical results show that high asset growth creates a drag on corporate profitability and stock returns and leads to reduced levels of operating cash flow.

GoPro Inc., grew assets from \$100 million in 2011 to over \$1.1 billion in 2015, a compound annual rate of 80%. GoPro debuted on the NASDAQ in 2014 as a digital video-camera maker, and then expanded into businesses including drones and online entertainment. Its rapid growth, however, came with a series of missteps and profitability declined. Return on assets dropped from 19.1% in 2012 to 3.4% in 2015, going negative the following year. Its stock price has fallen by about 85% since its IPO.

³ Gross profit trend is the year-over-year change in the ratio of trailing 12-month gross profits to average assets.

Moderate asset growth companies perform best over time. Figure 3 shows that shares of firms with moderate asset growth⁴ (red line) have outperformed those with high asset growth⁵ (green line) by a compound annual rate of about 9.0% over the past 30 years.⁶ Moderate asset growth companies also easily outperformed the Russell 3000 index.

Figure 3. Value of \$10,000 Invested Over Time by 1-Year Asset Growth, Russell 3000, 1990-2019, (Excludes Financials)



Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

2. Mergers & Acquisitions (Generally) Destroy Value

“The sad fact is that most major acquisitions display an egregious imbalance: They are a bonanza for the shareholders of the acquiree; they increase the income and status of the acquirer’s management; and they are a honey pot for the investment bankers and other professionals on both sides. But, alas, they usually reduce the wealth of the acquirer’s shareholders, often to a substantial degree.”⁷

2.1 M&A Negatively Impacts Growth, Profitability, and Returns

Mergers & acquisitions negatively affect acquirer fundamentals and returns, often for years after an acquisition. Large acquisitions affect returns more negatively than small-to-medium sized acquisitions. Clearly, acquisitions are good for stockholders of the acquired companies. Kengelbach and Roos (2011)⁸ found that the average takeover premium from 1990-2010 was 36%. Shareholders of the acquiring firms, however, do not fare nearly as well.

⁴ Companies ranked in the 61st to 80th percentiles by the 1-year change in assets, with 1% being the highest growth.

⁵ Companies ranked in the 1st to 20th percentiles by the 1-year change in assets, with 1% being the highest growth.

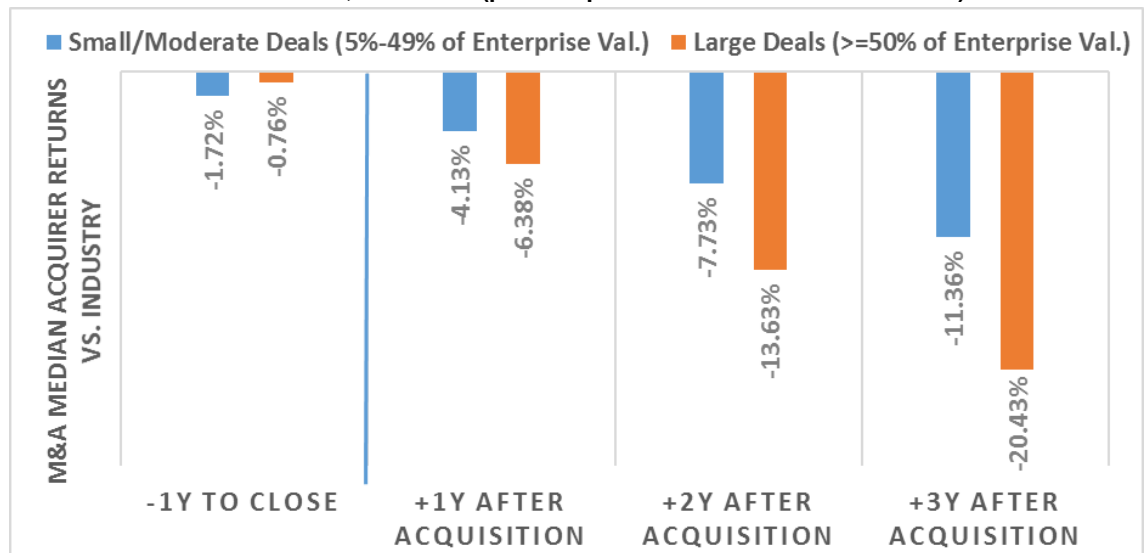
⁶ One might ask if lower asset growth is good, why the lowest asset growth companies don’t perform best. The answer is that the lowest 20% of firms by asset growth are actually shrinking assets and the market does not price companies with declining assets positively (as a group, they perform in line with the overall market). The lowest 20% of companies by year/year asset growth saw assets decline by 8% vs. a 4% increase for the “moderate” growth group.

⁷ Berkshire Hathaway, *Chairman’s Letter – 1994*, quoted from Cunningham (2019), p. 223.

⁸ Kengelbach, J., and Roos, A. (2011). *Riding the Next Wave in M&A: Where Are The Opportunities to Create Value?* Boston Consulting Group Report.

Figure 4 shows that returns for acquirers lag industry peers by up to 20%, on average, over the three year period following a major acquisition. The cause for these poor returns can be found in company fundamentals. Following a major acquisition, profit margins, earnings growth, and returns on capital for the acquirer all decline relative to peers, as acquiring companies often have difficulty realizing the projected benefits of an acquisition (cost savings, productivity improvements, etc.). For example, one year after a large acquisition⁹ GAAP EPS growth for the acquirer is 20% lower than peers, on average, and return on invested capital is 4% lower. Both of these metrics remain below peer levels for up to three years following a deal.

Figure 4. Median Acquirer Total Returns before and after Small/Moderate vs. Large M&A Deals, Russell 3000, 2001-2016 (post-Acquisition Returns Are Cumulative)



Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

2.2 Company and Deal Characteristics That Improve the Chance of M&A Success

There are a number of reasons M&A deals generally don't work out well. Many executives view deal making with relish, leading to a tendency to overpay. Other deals are motivated by executives' desire to expand the size of corporate domains, adding to prestige and paychecks but not to shareholder returns. Another mistake is timing. Much M&A occurs at the top of the business cycle when stock prices are high but economic prospects are poor.¹⁰ Oshkosh Corp. (OSK), a maker of specialty vehicles, acquired JLG Industries (commercial lift equipment), for \$3 billion in December 2006, financing the deal with long-term debt. In the ensuing recession, the market for lifts collapsed, as did OSK's profits. Shares fell from a high of \$66 in July 2007 to a bear market low of \$4, an approximate 94% decline.

⁹ Large acquisitions are defined as cases where the total deal value is equal to 50% or more of the acquirer's enterprise value as of the closing date.

¹⁰ The annual value of acquisitions in 2000 was three times the annual value of acquisitions in each year from 1996 to 1997 and the value of acquisitions in 2007 was three times the annual value of deals in the 2002-2004 period.

How can the chances of deal success be improved? Empirical results provide a few answers:

- **Prefer cash deals.** Stock is often incorrectly viewed as a low-cost form of currency, while cash is viewed as “dear.” Issuing shares is equivalent to giving away part of the company, and oftentimes in stock deals not enough value is received for value given. Our research shows that stock deals underperform cash deals by 12% over three years, on average.
- **Avoid accessing capital markets.** Companies that buy back shares in the year prior to an acquisition outperform companies that have been issuing shares by 12% over three years. We’ll see in the next section that companies that buy back shares, in general, outperform. In the context of M&A, buybacks are a sign of fiscal conservatism.
- **Don’t over-acquire.** A moderate M&A policy may signal that management approaches the use of shareholder funds with caution and prudence. Companies with the highest asset growth in the year prior to an acquisition underperform low asset growth companies by 6% over three years.
- **Prefer small-to-moderate sized deals** to large deals (see Figure 5, above). Although some management teams may be exceptional deal integrators, research and experience show that large M&A deals are complex and difficult to integrate smoothly.

3. When Opportunities Fall Short: Return Cash to Shareholders

“Owners must guess as to what the rate [of return on an investment] will average over the intermediate future. However, once an informed guess is made, the rest of the analysis is simple: you should wish your earnings to be reinvested if they can be expected to earn high returns, and you should wish them paid to you if low returns are the likely outcome of reinvestment.”¹¹

3.1 Return of Cash: Share Buybacks

Successful businesses often generate more cash than they have high-return investment opportunities. While this may be viewed as a good problem to have, it also creates a dilemma. Holding too much cash on the balance sheet (cash in excess of working capital needs plus a reserve for rainy days) lowers a company’s overall return on assets. It can also encourage poorly thought out M&A decisions. The solution is to return excess cash to shareholders.

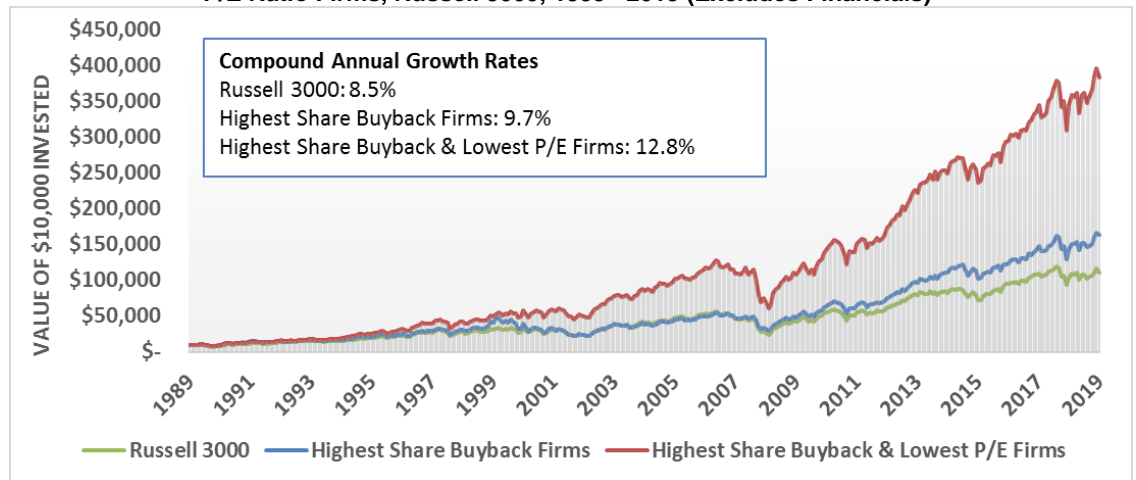
Corporate managers have turned increasingly to buybacks to return capital to shareholders over the past 30 years.¹² Buybacks are a non-taxable event for shareholders and provide managers with a high degree of flexibility in terms of the amount and timing of the cash outlay. However, they also represent an investment choice. A large buyback done at a discount to intrinsic value can provide shareholders with sizable future returns, while a buyback done well above intrinsic value can put a drag on returns.

¹¹ Berkshire Hathaway, [Chairman’s Letter - 1984](#), quoted from Cunningham (2019), p. 205. Buffett notes that the above does not apply to “restricted earnings” – those that must be retained in a business to fund its operations and maintain its economic position. If such restricted earnings are not retained, the business is unlikely to survive.

¹² Dividends comprised over 70% of shareholder payouts in 1990 but have fallen to just over 40% in recent years.

The ability to do large share buybacks can be viewed as a sign of financial health.¹³ A hypothetical \$10,000 investment in the firms with the highest level of net share buybacks¹⁴ (Figure 5, blue line) resulted in a total value of \$163,000 after 30 years, a 9.7% compound annual growth rate.¹⁵ However, large buybacks *in the presence of a low P/E ratio* perform much better.¹⁶ A hypothetical \$10,000 investment in the firms with both the highest level of buybacks and the lowest P/E ratios, relative to industry peers, returned \$382,000 after 30 years (red line), or 12.8% compound annual growth. In other words, buybacks done at attractive valuations generate significantly more value for shareholders than do buybacks done at high valuations.

Figure 5. Value of \$10,000 Invested, High Share Buyback Firms vs. High Share Buybacks at Low P/E Ratio Firms, Russell 3000, 1999 –2019 (Excludes Financials)



Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

3.2 Return of Cash: Dividends

Dividends not only provide shareholders with a cash return on investment, but dividend declarations (and increases) also serve as a signal to investors that management sees good prospects ahead for the company.¹⁷ Empirical evidence shows that dividend policy is important to firm value. Companies that initiate and increase their dividends outperform their peers over time, while companies that cancel or decrease dividends see strong underperformance (Figure 6).¹⁸ Investors have a strong expectation that once a dividend has been initiated it will continue to be paid at its current level, or higher, for the foreseeable future. This in turn suggests that dividend policy be carefully planned to account for foreseeable fluctuations in earnings relative to anticipated working capital and investment needs, etc.

¹³ Assuming that the buybacks are not financed by debt.

¹⁴ Net share buybacks are measured as cash spent on share repurchases minus cash received from share issuance, scaled by assets. All ratios are measured relative to a company's industry group.

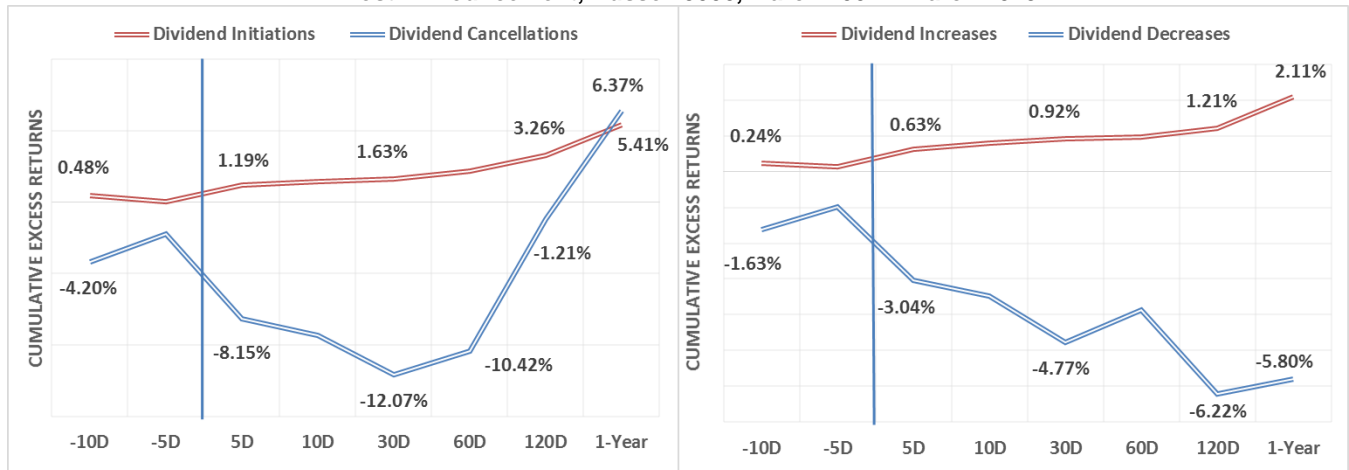
¹⁵ The top 20% of Russell 3000 firms by cash spent on share repurchases (net of share issuance) to total assets.

¹⁶ Price to earnings ratios are averaged over the year in which the buybacks take place.

¹⁷ Dividend signaling is a theory backed by academic research, for example see: Garrett, I., and Priestly, R. (2000). Dividend Behavior and Dividend Signaling. *The Journal of Financial and Quantitative Analysis*, 35:2, pp. 173-189.

¹⁸ The up-move in returns that occurs 60 days following dividend cancellation (Figure 6, left graph, blue line) may occur because the market believes "all of the bad news is out" by that point in time.

Figure 6. Average Industry-Relative Returns for Dividend-Related Events, 10 Days Prior to Announcement to 1-Year Post-Announcement, Russell 3000, March 2004 – March 2019

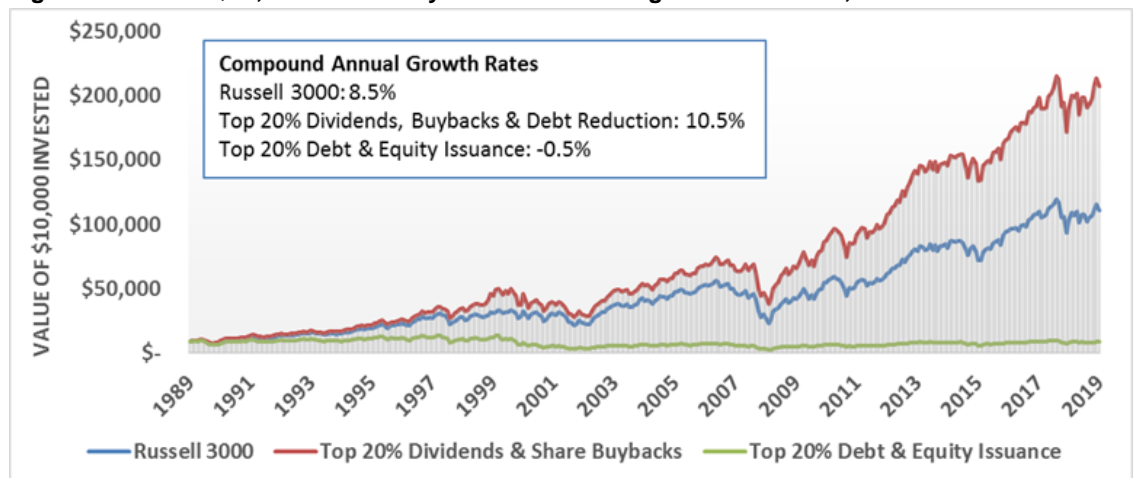


Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

3.3 Returning Cash to Shareholders vs. Accessing the Capital Markets

The use of cash for buybacks, dividends, and debt reduction suggests management has shareholder interests at heart. Conversely, access to the equity and debt markets dilutes current shareholders and increases financial risk. A hypothetical \$10,000 investment in firms spending the most cash on dividends, buybacks, and debt reduction¹⁹ (Figure 7, red line) resulted in a total value of \$207,000 over 30 years, or a 10.5% compound annual growth rate. On the other hand, a hypothetical \$10,000 investment in firms that access the debt and equity markets in order to fund growth (green line) results in a terminal value of \$8,600, or a -0.5% CAGR.

Figure 7. Value of \$10,000 Invested by External Financing to Assets Ratio, Russell 3000 1990-2019



Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

¹⁹ The external financing ratio equals cash used for share buybacks (net of issuance) + cash used to pay off debt (net of issuance) + cash dividends, all divided by average assets.

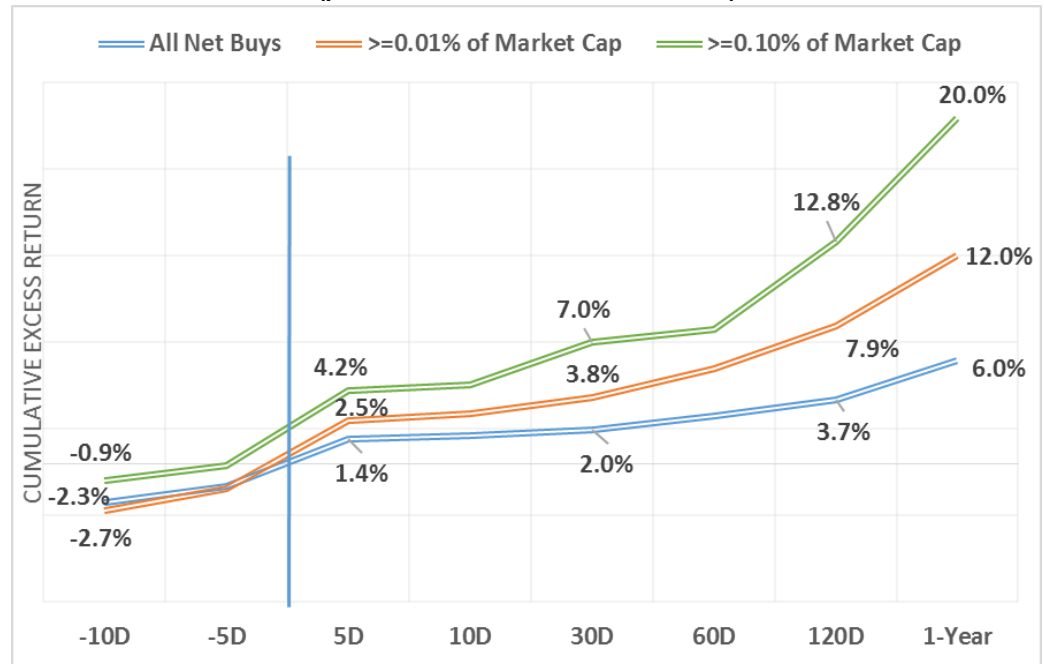
4. Insider Share Ownership Matters

“In line with Berkshire’s owner-orientation, most of our directors have a significant portion of their net worth invested in the company. We eat our own cooking.”²⁰

Iconic Fidelity Magellan manager Peter Lynch once said, *“Insiders might sell their shares for any number of reasons, but they buy them for only one: they think the price will rise.”* Like dividends, insider buys signal that those-in-the-know have confidence in the future of the company and its stock.

Our research shows that insider buys have historically had a significant positive effect on subsequent stock returns, and large buys have had an even stronger effect on excess returns.²¹ Figure 8 shows that insider net buys,²² on average, are correlated with excess industry-relative returns, up to one year following purchase (blue line). These results are enhanced further for large insider purchases. Purchases equal to 0.10% of market cap or greater result in average excess returns of 20% one year from the purchase date, historically (green line).²³

Figure 8. Average Industry-Relative Returns for Net Insider Purchases, Russell 3000, 2009-2019 (post-Event Returns Are Cumulative)



Source: S&P Global Market Intelligence Quantamental Research. All returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results. Data as of 6/1/2020.

²⁰ Berkshire Hathaway, *Owner’s Manual*, quoted from Cunningham (2019), p. 31.

²¹ Our research shows that negative share price effects for net insider sells are not significant on average unless very large amounts are sold, e.g., greater than 0.2% of market cap.

²² A net insider buy is defined as any day on which one or more insiders are net purchasers of shares.

²³ The median amount of purchases greater than or equal to 0.10% of market cap is \$500,000.

Data

S&P Global data packages used in this report are available through Xpressfeed™, which includes 200 data sets including point-in-time financials, estimates, industry classification and GICS®. Datasets used to create this report include:

- [Compustat® Point-in-Time Fundamentals](#)
- [S&P Capital IQ Estimates](#)
- [Equity Prices, Market Cap, Dividends & Splits](#)
- [Key Developments, Future Events, and Events](#) (for dividends and buybacks)
- [Transactions](#) (for mergers & acquisitions)
- [Ownership](#) (for insider buys)
- [Professionals Data](#) (for insider buys)

Conclusion

This research identifies four important corporate management topics: profitability vs. growth decisions, mergers & acquisitions policy, return of cash to shareholders, and insider stock ownership. Our research in each of these areas provides empirical backing for corporate best practices. In specific, we highlight the importance of balancing profitability and growth, avoiding value-destroying M&A, returning cash to shareholders, and insider stock ownership.

In terms of profitability, we find that both the level and the trend of profitability matter and even small profit margin improvements are treated positively by the market. Highly profitable firms with *moderate* asset growth not only outperform peers but also demonstrate better-than-peer fundamental results, while high asset growth companies underperform.

We also find that large M&A deals negatively affect fundamentals and returns, often for years following the acquisition. Smaller cash deals done by companies that have low asset growth and have been buying back shares tend to work best, while stock deals strongly underperform.

Conversely, strategies that return cash to shareholders are rewarded by investors. Dividend increases and initiations result in positive excess returns, while dividend cuts and cancellations lead to sharp underperformance. Buybacks are most effective when done at attractive valuations. Companies that access the capital markets through debt and share issuance see strong underperformance.

Finally, insider stock purchases signal confidence and value to investors. Net insider buys are treated positively by the market, and the larger the purchase, relative to market cap, the larger the market response, in terms of excess returns over time.

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Our Recent Research

August 2020: The Analyst Matrix: Profiting from Sell-Side Analysts' Coverage Networks

Sell-side analyst coverage data provides a new and rich source of establishing connections between firms, as analysts (given their industry expertise) are likely to cover fundamentally related firms. This report uses sell-side analysts' coverage data to build a connected-firm network (CFN) - a portfolio of companies that are covered by analyst(s) that follow a focal firm. This network has three broad applications: measuring the "strength" of economic relationships between companies; forecasting fundamentals of companies in the network; and as a stock selection signal.

June 2020 Research Brief: The Information Supply Chain Begins Recovering From COVID

May 2020 Research Brief: Never Waste a Crisis - Following the Smart Money through Beneficial Ownership Filings

May 2020 Research Brief: Risky Business - Foot Traffic, Vacancy Rates, and Credit Risks

May 2020 Research Brief: Finding the Healthy Stocks in Health Care During Lockdown

May 2020 Research Brief: No More Walks in the (Office) Park: Tying Foot Traffic Data to REITs

May 2020 Research Brief: Do Markets Yearn for the Dog Days of Summer? COVID, Climate, and Consternation

April 2020 Research Brief: Cold Turkey - Navigating Guidance Withdrawal Using Supply Chain Data

April 2020 Research Brief: Data North Star - Navigating Through Information Darkness

March 2020: Long Road to Recovery: Coronavirus Lessons from Supply Chain and Financial Data

COVID-19 continues to disrupt global supply chains in unprecedented ways. Leveraging maritime shipping data from Panjiva, this report includes a review of trade and financial data to analyze the impact of the SARS-CoV-2 / COVID-19 coronavirus outbreak. Findings include:

- Second-order supply chain effects are also emerging with the apparel industry now seeing a shortage of materials globally due to earlier outages in China.
- Retailers including Costco and Target are gaining from increased sales of health- and personal care products. Yet, supply shortages are rapidly emerging in part due to medical supply export restrictions in several countries.
- There is a notable, but not statistically significant, relationship with firms with higher exposure to Asia having seen a weaker sector neutral stock price performance.

February 2020: Ship to Shore: Mapping the Global Supply Chain with Panjiva Shipping Data in Xpressfeed™

World merchandise trade accounted for an estimated \$19.7 trillion in 2018, about 90% of which is by sea. While financial data tells us "how a company has done in the past," shipping data provides a closer-to-real time indicator of "what a company is doing now." Panjiva's shipping data allows investors to track trends, identify anomalies, and assess risks for companies

engaged in international trade. This paper illustrates how to find investment insights in Panjiva's US seaborne and Mexican datasets using the US auto parts industry as a case study.

Findings include:

- Shipment trends often lead fundamentals: Rising shipments amid flat or declining fundamentals may signal future financial trend reversal
- Growth in the number of a company's suppliers and in the types of products it imports may signal strengthening demand and/or product line diversification.
- Tracking industry-level product-line trends can help identify companies with significant exposure to rising or declining product lines.

January 2020: Natural Language Processing – Part III: Feature Engineering Applying NLP Using Domain Knowledge to Capture Alpha from Transcripts

Unstructured data is largely underexplored in equity investing due to its higher costs. One particularly valuable unstructured data set is S&P Global Market Intelligence's machine readable earnings call transcripts.

- Topic Identification – Firms that referenced the most positive descriptors around their financials outperformed historically.
- Transparency – Firms that provided greater call transparency exhibited by executives' behaviors and decisions outperformed historically.
- Weighted Average Sentiment – Quantifying call sentiment using a weighted average construct led to better returns and less volatility historically.
- Additive Forecasting Power – The newly introduced signals demonstrated additive forecasting power above commonly used alpha and risk signals historically.

December 2019: The “Trucost” of Climate Investing: Managing Climate Risks in Equity Portfolios

Does sustainable investing come at a “cost”, and is the fear of investors around the performance concessions of “green” portfolios warranted? Our latest research suggests investors' fears are misplaced – carbon-sensitive portfolios have similar returns and significantly better climate characteristics than portfolios constructed without carbon emission considerations. Other findings include:

- Highly profitable firms are likely to be leaders in reducing their carbon emission levels.
- There is no degradation in fundamental characteristics for the carbon-sensitive portfolios compared to the baseline portfolio, even though the difference in constituents can be as high as 20%.
- Carbon-sensitive portfolios were observed as having significant reductions in water use, air pollutants released and waste generated.

October 2019: #ChangePays: There Were More Male CEOs Named John than Female CEOs

This report examines the performance of firms that have made female appointments to their CEO and CFO positions. Our research finds that firms with female CEOs and/or CFOs:

- Are more profitable and generated excess profits of \$1.8 trillion over the study horizon.
- Have produced superior stock price performance, compared to the market average.

- Have a demonstrated culture of Diversity and Inclusion, evinced by more females on the company's board of directors.

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