

HOLT Wealth Creation Principles

Was Warren Buffet Right: Do Wonderful Companies Remain Wonderful?

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Key Points

- Corporate profitability is sticky. Good companies tend to remain good companies, and poor companies tend to remain stuck in the mud. Sustainable corporate turnarounds are difficult to execute, and investors should be careful about overestimating the odds of success.
- Companies in defensive industries exhibit more stickiness in corporate profitability than firms in cyclical industries. The reputation of the business tends to remain intact regardless of industry. Companies with an operational edge tend to maintain it, and those without it tend to repeat their operational mistakes.
- Firms with excellent profitability tend to outperform those with the worst return on capital. The outperformance improves if high quality firms are purchased at a fair price. The outperformance can be further improved by purchasing quality firms at a fair price that are exhibiting positive relative momentum.

Introduction

When asked who wins when a talented manager is tasked with collaring a poor corporate culture, Warren Buffett put it best:

*"When a management with a reputation for brilliance tackles a business with a reputation for bad economics, it is the reputation of the business that remains intact."*¹

This pithy observation is astonishing in its inference to managers, boards and investors. Buffett is implying that initiatives to turn around poor businesses generally end in failure, even when superstar CEOs or iconic consulting firms are appointed. Is this insight generally applicable?

Distinguishing Good Companies from Poor Companies

A financial measure to distinguish good from poor businesses is necessary to answer this question. The metric should reverse accounting distortions and non-cash charges such as depreciation and amortization. It should be a real measure to remove the effects of inflation, so firms can be compared over time and across borders. It should be rooted in financial economics, reflecting the underlying economic return to capital providers.

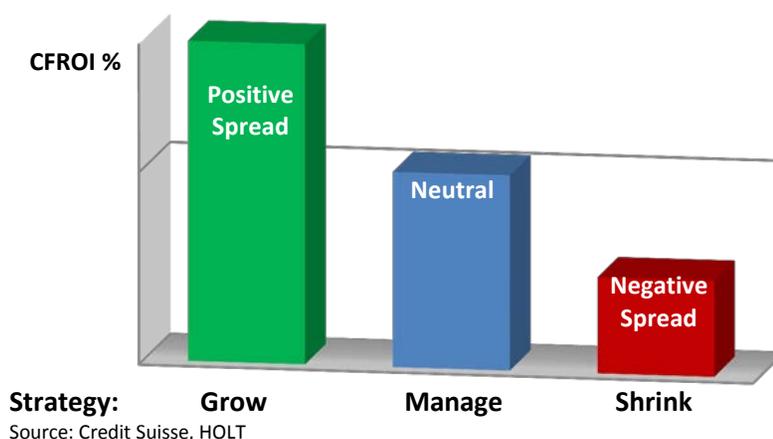
The HOLT CFROI® metric, which is an inflation-adjusted cash flow return on operating assets, meets all of these objectives and is ideal for comparing firms and industries². The long-term global average CFROI for industrial and service firms is 6%. We use this as a baseline in our economic references. Firms that generate economic returns (CFROI) above 6% are said to be value creators, and firms that fail to meet this threshold are said to be value destroyers. For the Financials industry, we measure the real return on equity, CFROE®, which averages 7.5% over the long-term. Regulated Utilities tend to have a lower economic return due to government oversight and stable cash flow generation. The mean-reverting CFROI is 3.5% for regulated Utilities, whereas unregulated Utilities are assumed to trend toward a 6% CFROI.

¹ Connors, Richard J. *Warren Buffett on Business: Principles from the Sage of Omaha*, page 143. John Wiley & Sons, 2010. Print.

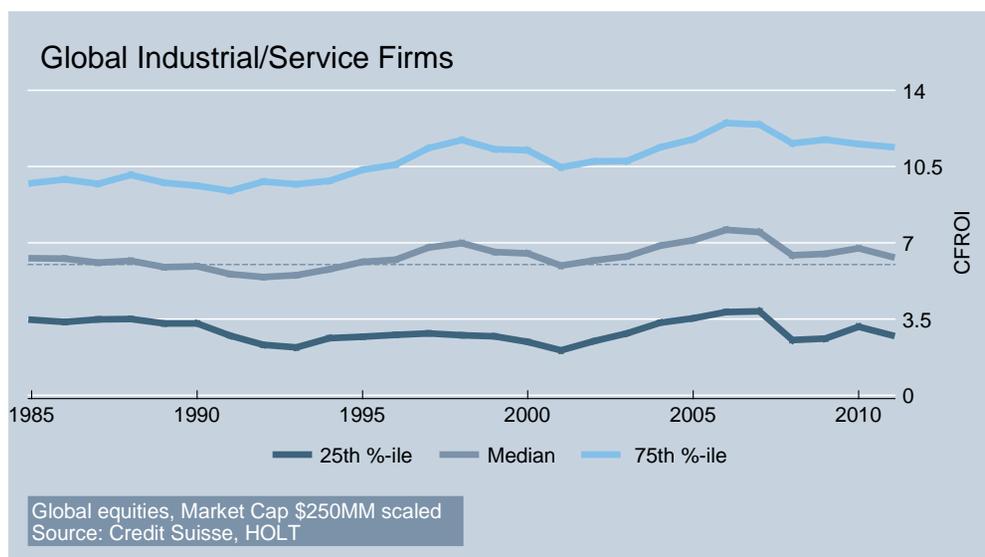
² Holland, David and Tom Larsen. *Beyond Earnings: A User's Guide to Excess Return Models and the HOLT CFROI® Framework*. John Wiley & Sons, 2008. Print.

You can compare CFROI to a cost of capital, adjusted for inflation, to distinguish whether a firm is creating or destroying shareholder value. This has enormous implications for a firm's strategy and valuation. For example, a firm whose CFROI exceeds its cost of capital should focus on reinvestment and growth to increase shareholder value. Mature firms with a CFROI at or below their cost of capital should focus on managing and leveraging key value drivers such as operating margins and asset turns. It is not earnings growth that matters but rather the quality of earnings growth. Boards and investors who don't appreciate the difference might reward management for growing earnings while destroying shareholder wealth. In the words of Warren Buffett:

*"The primary test of managerial economic performance is the achievement of a high earnings rate on equity capital employed (without undue leverage, accounting gimmickry, etc.) and not the achievement of consistent gains in earnings per share."*³



In our Industry CFROI Performance Handbook⁴, we investigated industry group CFROI performance back to 1985. We charted the CFROI time series for 25th percentile, median and 75th percentile for each global industry group. The chart for the entire global sample of industrial and service firms is shown below.



³ Connors, Richard J. *Warren Buffett on Business: Principles from the Sage of Omaha*, page 100. John Wiley & Sons, 2010. Print.

⁴ Matthews, Bryant and David Holland (2012). "Global Industry CFROI Performance Handbook." Credit Suisse HOLT. Available upon request.

The average firm tends to earn a CFROI close to 6%, which is the 60-year average CFROI for industrial and service firms⁵. 25% of the observed returns beat a CFROI of 11%; 25% fell below a poor return level of 3%. These results are informative but tell us nothing about the persistence, or *stickiness*, of CFROI. This can be evaluated by studying the historical transition between performance levels over successive five-year periods.

A CFROI transition matrix is shown below. The 1st quartile (Q1) represents the poorest CFROI performance across all firms; the 4th quartile (Q4) represents the best CFROI performance; Q2 and Q3 are below average (-) and above average (+) firms, respectively. If operating performance were random, all probabilities would be 25%, indicating that the starting and ending points are independent. This is not the case. For the global sample, the best performing firms based on CFROI level have a 51% probability of remaining amongst the best performing firms (row 4, column 4), which is an extraordinary result. Note that the worst performing firms have a 56% probability of remaining the poorest performers. There is only a 17% chance that they'll shift to the top half of performance. Corporate turnarounds are difficult to enact. **Warren Buffett's observation is supported by empirical evidence.**

		Transition Probability, %			
		Ending Quartile			
		Q1: --	Q2: -	Q3: +	Q4: ++
Starting Quartile	Q1: --	56	27	11	6
	Q2: -	28	40	23	8
	Q3: +	13	28	39	20
	Q4: ++	9	12	28	51

Source: Credit Suisse, HOLT

And what are the odds of a top performer transitioning to the bottom quartile? Only 9% (row 4, column 1)⁶. The transition matrix clearly shows that operating performance is not a random walk phenomenon and that firms tend to remain in their starting quartile. Great companies tend to remain great companies, and poor performers tend to remain stuck in the mud. Investors should beware of putting too much faith in the turnaround ability of celebrity CEOs and turnaround experts. It is also interesting to note that the probability is higher that firms will transition down to the next lower performance quartile than up to the next higher performance quartile. Investors should always bear in mind that it is difficult to improve operating performance on a consistent basis. We can summarize by another Buffett quote:

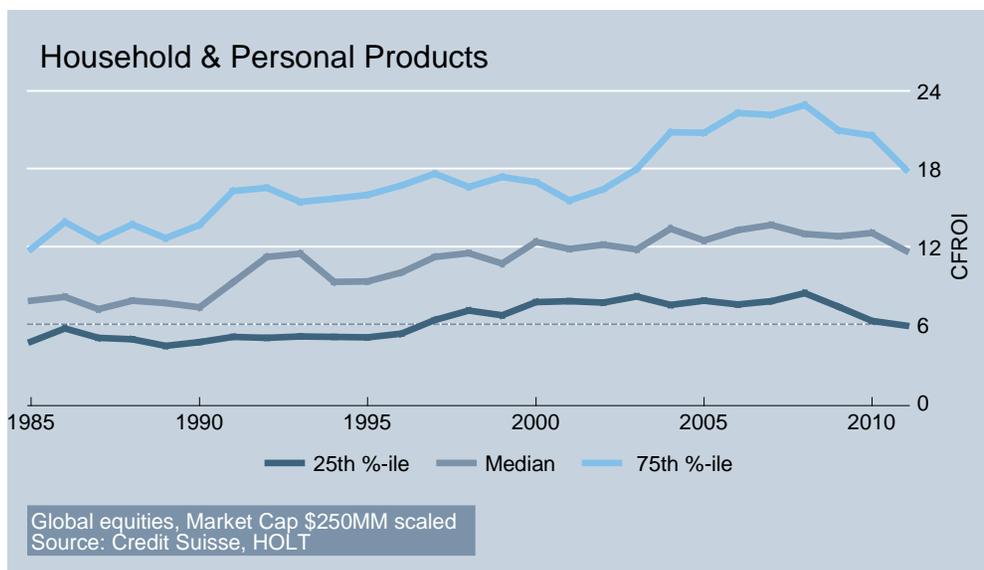
"The way to get a reputation for being a good businessman is to buy a good business."⁷

Critical readers might argue that persistence in performance is a function of industry for the global sample. We have generated transition matrices for each of the 24 industry groups and the finding remains the same. Let's take a look at two very different industries, Household & Personal Products, and Materials. The former is the dominion of brand managers and price-makers. The latter is driven by commodity prices and is occupied by price-takers. A CFROI time series for the Household & Personal Products industry is shown below.

⁵ Credit Suisse HOLT research dating back to 1950. Available upon request.

⁶ 80% of tail transitions (1 to 4 or 4 to 1) occur for cyclical firms.

⁷ BRK Annual Meeting 2003 Tilson Notes. <http://www.buffettfaq.com/>



The Household & Personal Products industry is on average a value creating industry. The average CFROI since 1985 is an outstanding 13% (placing these firms in the top 15th percentile of all industrial firms globally) with a median of 11.4%. 25% of the observed returns beat a stellar CFROI of 18% and 25% fell below a level of 6.3%. There is a wide discrepancy in performance. Operating performance for the Household & Personal Products industry has improved in a striking fashion since 1989. The median CFROI appears to have topped out at 13%. Best-in-class firms have been generating economic returns of 18% or better since 2003. Worst-in-class firms have been producing economic returns of 7% for most of the past decade.

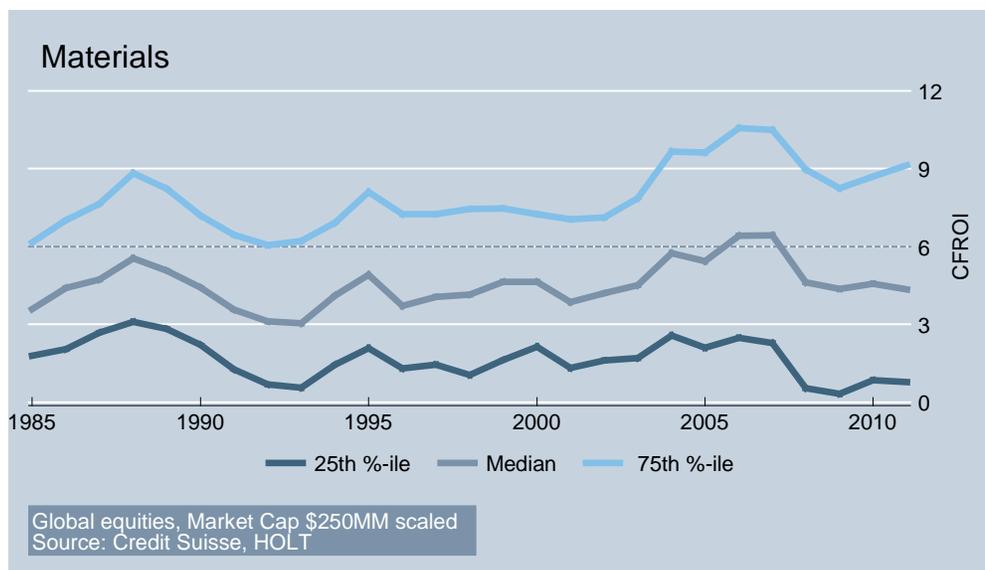
Probability outcomes of achieving various CFROI levels are shown below in the transition matrix. Performance is very sticky and fade minimal. It is worth noting a higher degree of stickiness than other industries underscoring an industry-based component to fade. Nonetheless, our conclusions are applicable across all industries: great companies tend to remain great with an 80-95% chance of remaining in the top two quartiles while poor industry performers have an 80-96% probability of remaining in the bottom two quartiles.

Transition Probability, %

		Ending Quartile			
		Q1: --	Q2: -	Q3: +	Q4: ++
Starting Quartile	Q1: --	74	22	4	1
	Q2: -	25	52	21	2
	Q3: +	7	29	45	19
	Q4: ++	2	3	22	73

Source: Credit Suisse, HOLT

If Household & Personal Products is a strong value creating industry, then Materials is its antithesis. A CFROI time series and transition matrix for the Materials industry are shown below



The Materials industry is on average a value destroying industry. The average CFROI since 1985 is 4.8% with a median of 4.6%. Only 25% of the observed returns beat a modest CFROI of 8.2% and 25% fell below a very poor return level of 1.6%.

Operating performance for the Materials industry has been fairly volatile since 1985, hitting its peak in 2007 during the commodities super cycle. Except for 2006 and 2007, the median CFROI has been well below 6%. Best-in-class Materials firms barely cleared their cost of capital in the past but now generate economic returns of 8% or more. Worst-in-class Materials firms generate economic returns of around 2% or less.

Probability outcomes of achieving various CFROI levels are shown below in the table and we noted a strong tendency to fade in our Industry Performance Handbook. The transition probabilities are much lower than brand managing Household & Personal Products companies but still indicate significant stickiness in performance despite being price-takers. Companies with an operational edge tend to maintain it, and those without it tend to repeat their operational mistakes.

Transition Probability, %

		Ending Quartile			
		Q1: --	Q2: -	Q3: +	Q4: ++
Starting Quartile	Q1: --	48	30	14	9
	Q2: -	24	41	25	10
	Q3: +	13	28	39	21
	Q4: ++	9	14	29	48

Source: Credit Suisse, HOLT

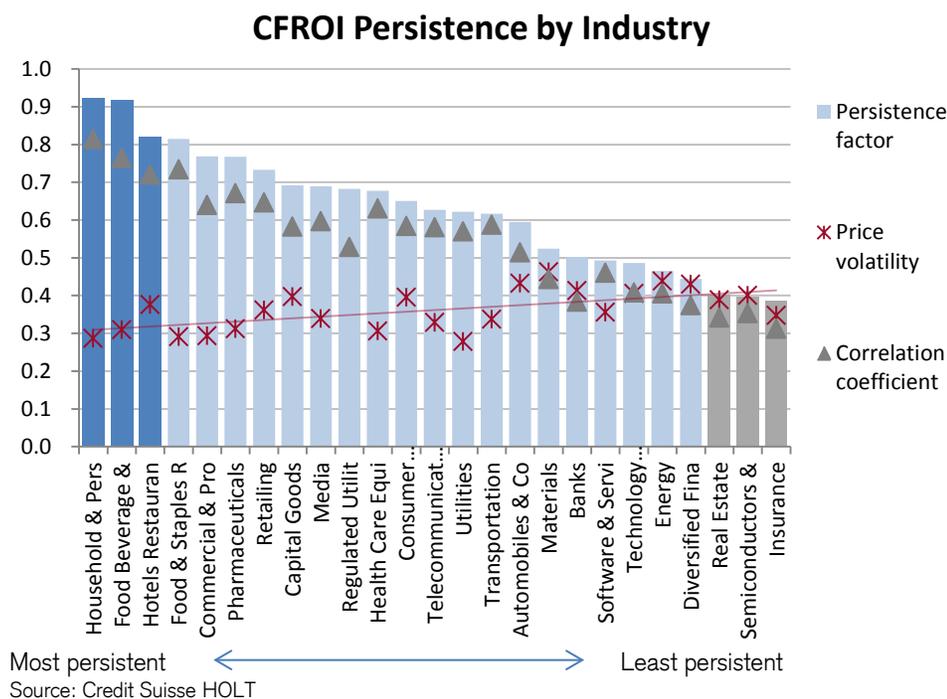
For readers who prefer a summary of average Industry Group CFROI persistence⁸, we offer the chart below which highlights, from left to right, industries with the highest CFROI persistence to those with the lowest. The rank order of industries should come as no surprise to most investors, with defensives occupying the far left and cyclical industries residing on the right. We highlight the average 36-month price volatility for each industry group using red asterisks.

⁸**CFROI persistence** is measured as the strength of association between CFROI(t) and CFROI(t-4), and is the beta coefficient (slope) in the equation $E(Y | X=x) = x'\beta + \epsilon$, where x' is the vector CFROI(t-4). In this equation, β indicates the average degree of persistence in CFROI over a lagged 4-year period. $\beta=1$ indicates that CFROI does not fade and $\beta=0$ indicates full reversion to the mean.

The **correlation coefficient** ρ is the Pearson product moment coefficient and indicates relative ranking over a 5-year period. $\rho=0$ indicates random ranking and $\rho=1$ indicates that rank order remains constant.

Price volatility is the annualized median 36-month standard deviation of price returns for all firms within an industry group.

The correlation coefficient indicates how stable the relative ranking in firm profitability is for each industry group. The results indicate that firm ranking is highly persistent, especially for defensive sectors. Correlation coefficients and the transition matrices do not indicate the extent to which profitability fades, which can be measured by the CFROI persistence factor. A CFROI persistence factor of 1 indicates no fade in CFROI and a factor of zero indicates full reversion to the mean. Corporate profitability is most sticky for defensive industries but remains highly significant for all industries. These results along with our transition matrices leave little doubt that wonderful companies tend to remain wonderful, and poor companies remain stuck in the mud. It is worth noting that price volatility increases as CFROI persistence and stability decrease, i.e., as the tendency toward mean-reversion becomes more prevalent.



Wonderful Company at a Fair Price

Buffett believes that time is on the side of great businesses and in one of his most famous quotes advises investors to prefer buying quality companies over companies trading at discounts:

“It's far better to buy a wonderful company at a fair price than a fair company at a wonderful price.”⁹

We ran a number of backtests to assess this advice. Our sample included global firms with market capitalization greater than 2 billion USD, scaled through time. Sector-relative scoring was applied to minimize industry bias. The sample was tested over the past 20 years from 1993 using quarterly and annual rebalancing. Similar results were recorded. Our results below are based on quarterly rebalancing.

Our first test examined whether high quality firms, as indicated by CFROI, outperform low CFROI firms. The highest quintile CFROI firms earn an average annual return of 10.9% versus 9.1% for the universe. Conversely, the lowest quintile firms earn an average return of 4.5% versus the

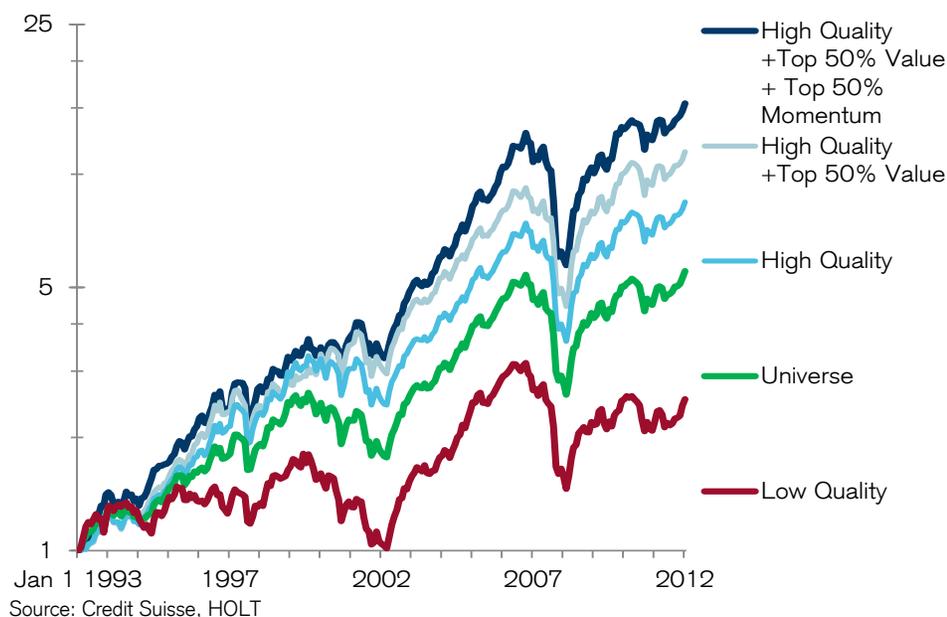
⁹ Connors, Richard J. *Warren Buffett on Business: Principles from the Sage of Omaha*, page 142. John Wiley & Sons, 2010. Print.

universe, and display higher tracking error, e.g., besides underperforming the market, they are riskier relative to the market. Critically, risk-adjusted returns for high quality firms are significantly higher, by a factor of nearly 3. The total shareholder return evidence: on average, the best companies performed well, the worst companies performed poorly. A possible explanation is that investors didn't expect high quality firms to maintain their excellent operating returns, and overestimated the odds of low quality companies to improve.

We next tested whether investing in high quality companies at a fair price improved performance. We defined "fair price" as the top half in value¹⁰ attractiveness to avoid over-emphasizing any value effects. Annual outperformance for high quality companies at a fair price increases to 3.3% from 1.7%. Value plays a critical role for improving the investment performance of high and low quality firms. Not surprisingly, value's importance increases as quality declines and adds 5.4 percentage points to the annual performance of the lowest quality firms (taking the total annual outperformance from -4.1% to 1.3%). **An investment strategy of buying wonderful companies at a fair price has empirical grounding. It works even better if you can buy them at an attractive price.**

Our final test combined quality, value and momentum¹¹. Inexpensive, high quality firms with above average momentum significantly outperformed inexpensive, low quality firms with above average momentum (4.4% relative outperformance at a lower tracking error). The addition of above average momentum to high quality firms at a fair price added 2.1 percentage points of annual outperformance (for a total annual outperformance of 5.4%) but with a higher tracking error due to the ephemeral nature of momentum. Investors shouldn't underestimate the positive effect of earnings upgrades and price momentum in their investment decisions.

In summary, history indicates that it is wise to buy high quality companies at a fair price, and even better to wait until they are attractively valued with positive momentum. Lucky investors who had employed this strategy over the past two decades could have beaten the market. Skilled investors would have had to beat the market by a significant amount more without increasing risk to reveal a true prowess for stock-picking. Both groups would have been pleased with their investment performance.



¹⁰ We defined value as a sector-relative combination of HOLT Percent-to-Best (50%), HOLT Economic P/E (30%), HOLT Price to Book Ratio (10%) and Dividend Yield (10%).

¹¹ We defined momentum as a sector-relative combination of HOLT CFROI Momentum (60%), 12-month price momentum (30%) and liquidity (10%).

The Role of Skill versus Luck in Operating Performance

The discussion above underscores that both good and poor companies tend to “stick” in a similar range of performance over a time horizon of 5 years. Turnarounds are difficult to enact, and while great brands can be destroyed rather quickly through poor management decisions (Sara Lee, Lehman Brothers, Firestone, Digital Equipment, Kmart, American Motors, RCA, Kodak, Motorola, etc), most firms tend to earn an operating return similar to last year’s. How, then, can we distinguish skillful managers from lucky or poor managers? What is the definition of skillful management? Is it the ability to earn a return in the top 10 percent of its peers? Is it the ability to outperform the market over a sustained period, as Jim Collins stated in *Good to Great*¹²:

“Greatness” is defined as financial performance several multiples better than the market average over a sustained period.”

Implicit in Collins definition is the outperformance of a stock relative to the market over an extended timeframe. In other words, better relative price performance. We propose a more conservative definition of firm greatness: the ability to generate **excess economic profits** compared to rivals **over sustained periods**. This definition has the benefit of separating shareholder expectations from operating performance. Management decisions have a cumulative effect on corporate performance over time, with the best managers making seemingly small decisions again and again that lead the firm in a direction of sustained superior operating performance. A great culture sustains a great business; great management sustains and is sustained by great culture.

Using this definition, we will focus a future article on firms able to generate excess profits over sustained periods of time. We will also seek to differentiate between lucky managers in highly profitable industries (Tobacco) and skillful managers in average industries (Capital Goods, Industrials). We will investigate the difficulty of talented managers successfully transitioning bad companies from a state of poor performance to outperformance, an outcome that Warren Buffett considers highly unlikely, as stated in our first quote.

Summary

Corporate profitability is sticky. Wonderful companies tend to remain wonderful, and poor companies tend to remain stuck in the mud. Our empirical evidence suggests that sustainable corporate turnarounds are difficult to execute and that Warren Buffett’s insight was prescient in advising that poor culture tends to win when pitted against brilliant management.

Companies in defensive industries exhibit more stickiness in corporate profitability than firms in cyclical industries. However the persistence in performance remains highly significant and thus the reputation of the business tends to remain intact regardless of industry.

Firms with excellent profitability tend to outperform those with the worst return on capital. The outperformance improves if high quality firms are purchased at a fair price. The outperformance can be further improved by purchasing quality firms at a fair price that are exhibiting positive relative momentum.

¹² Collins, Jim (2001). *Good to Great*. Random House Business.

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