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Note on Rationality

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The main obstacles to the success of the analyst's work are threefold: (1) the inadequacy or incorrectness of the data, (2) the uncertainties of the future, and (3) the irrational behavior of the market.

—Benjamin Graham and David Dodd
[2009, p. 68]

Rationality is a term that comes up often during investment discussions. For example, Grant [2015a] propounded an investment thesis for certain private-mortgage insurance companies, observing that “After the [2007–2008] financial crisis, you had what turned out to be multiple years of the best mortgage insurance ever written: higher return, lower loss content, written during a time when you see material home price appreciation, which helps with risk. ‘You are coming out of bad times, *the industry is becoming a lot more rational*, and you put these good vintages on the books’” (p. 4; italics added).

The subject of rationality also comes up in Warren Buffett’s writings. For example, during the research for Calandro [2010], I had the opportunity to speak with Leon G. Cooperman, the founder, chairman, and chief executive officer (CEO) of Omega Advisors. In our conversation, Mr. Cooperman referred to a letter that Mr. Buffett wrote to him regarding the late Henry Singleton’s managerial behavior. In that letter, Buffett referred to Dr. Singleton as being “100% rational,”¹

which seemed to be an important statement, depending how *rational* was being defined.

The objective of this article is to profile three general definitions of the term *rationality* and then to demonstrate how one of these definitions is practically applicable to investment management. This is demonstrated first via historical profiles of two executive managers who publicly declared their intention to create shareholder value. Such declarations are often made, but not all executive managers follow through; for those who do, there is wide variation in value creation effectiveness, especially over time. Therefore, insight into when such declarations have a higher probability of being realized could help to practically inform investment analyses.

Given the profile nature of this article, it is not my intention to thoroughly survey or examine the intricacies of either the concept of rationality or executive management in general. Rather, the intention is to introduce the concept of rationality from an investment perspective and then to practically profile its usefulness. Toward this end, the article closes with suggestions on how to supplement traditional forms of investment analysis with rationality-based/inspired input.

DEFINITION OVERVIEW

Economists generally hold that expectations are rational when they are expected

to yield decisions that are correct but for the presence of random error. One problem with this definition is that many nonrandom erroneous decisions have been made over time, including erroneous managerial and investment decisions. For a historical example, consider that over 100 years ago, an early biography of J.P. Morgan observed that:

The theory of competition contains the assumption, accepted for over a century, that when the returns from an undertaking fall below the cost of service, competition will come to an end. According to the school books no railroad could afford to carry freight and passengers for less than cost, and would not attempt to do so [author's note: for to do so would lose money and that would not be rational]. And as the big established lines knew that they were in a position to provide a service more economically than any newcomer could furnish it they did not fear competition. But the worthy theory failed in the case of the railroads (Hovey [1911, pp. 98-99]).

J.P. Morgan, of course, went on to earn enormous sums advising railroads how to avoid value-destroying behaviors so that those railroads could responsibly fulfill their obligations to the holders of their securities, many of whom were Mr. Morgan's clients.² Meanwhile, the economic textbooks moved on to the idea of *bounded rationality*, which can be summarized as follows:

How do managers deal with all the information in front of them? They try to pick out and isolate only that which is important: ... In other words, we [as human beings] eliminate all apparently irrelevant information, thereby using a subset of all existing information, much of which we won't ever know. [Herbert] Simon called this model "bounded rationality," proposing that decisions are made within a set of constraints, and that the information available to the decision-maker limits his or her rationality. He cannot be omniscient, hence he might not make the best possible choice (Shih [2014, pp. 1-2]).

Although I do not know Warren Buffett, I doubt this quote in any way relates to what he meant by the term rational when he described Henry Singleton's executive

management behavior. The qualification "doubt" is important because I have been unable to locate a source for how either Warren Buffett or the late Benjamin Graham specifically define the terms rational and rationality. I therefore spoke with a well-known Buffett scholar and investor, Robert Hagstrom. During our conversation, Mr. Hagstrom commented on rationality in a way that closely followed Hagstrom [2013, p. 151], namely, that "The most common thinking errors have less to do with intelligence and more with rationality—or, more accurately, the lack of it."³ Upon hearing this, I inquired how he was specifically defining the term rationality. His reply included a reference to Stanovich [2009, p. 16], who defined this term very practically: "Behaving in the world so that you get exactly what you want, given the resources (physical and mental) available to you."⁴ This definition logically links strategic (or aspirational) statements with execution (or operational) activities.

Definition Summary

As can be seen, rationality is a highly subjective term that can be defined in various ways. Nevertheless, each of the definitions given can be useful from an investment perspective:

- The traditional economic view of rationality holds that marketplace decisions are generally correct but for the presence of random error, which forms the basis of many financial models. In practice, the market does tend to "get it right" most of the time, but it does not always get it right, as Taleb [2004], for example, eloquently explained. The implications of this fact can, and should, inform a wide variety of investment and risk management analyses.
- The concept of bounded rationality is based on information flow and managerial constraints and therefore is much more theoretically rigorous than the above definition. Aside from control investors, however, it can be difficult to apply practically. Control investors operate within a firm and therefore are in a position to identify and eliminate value-destroying institutional constraints and information impediments.
- The behavioral definition of rationality is based on actions that are consistent with statements and objectives; therefore, it is broadly applicable to investment analysis. For example, consider

the many puff pieces that adorn the business and financial press about executive managers declaring their allegiance to creating shareholder value. Such statements are meaningless in and of themselves because they must be evaluated in the context of the actions that were taken following such declarations. If those actions are consistent with the rhetoric, then managerial behavior can be considered rational. If, however, the actions are not consistent with the rhetoric, then managerial behavior cannot be considered rational. To illustrate the investment implications of this simple yet insightful taxonomy, we will examine the rationality of two executive managers, both of whom declared their intention to create value for their shareholders.

IRRATIONAL MANAGERIAL BEHAVIOR

Tracking actual performance against expected performance is a widely followed performance management practice. Such practices tend to be highly tactical, focusing on the sales, profit, and growth projections profiled in strategic plans compared to short-term (i.e., monthly, quarterly, and annual) performance metrics. However, similar kinds of analyses can be applied more broadly to assess executive management rationality, which can practically inform various kinds of investment analyses. For example, consider the case of Al Dunlap, who was a controversial turnaround manager.

Mr. Dunlap's method of operation was to drastically cut the costs of troubled firms, sell off noncore assets to pay down/off debt, and then position or otherwise stage the new, leaner firm for sale to strategic buyers. The most well-known and successful of his turnarounds was the Scott Paper Company (Scott), which was sold in 1995 to Kimberly Clark for \$9.4 billion (Calandro [2011]). Following this deal, on November 18, 1996, Dunlap participated in a panel discussion, "Corporate Responsibilities," the video of which is available online from C-Span.⁵ At approximately the one-hour mark in the video, Dunlap makes the following statement: "I believe that when shareholders give you the money, they want you to come up with new products, new facilities, new ideas, and I believe if you create genuine wealth for the shareholders..." This statement will help to form the basis of our forthcoming analysis, but first it is important to note that, in addition to participating in this panel in 1996, Dunlap was also appointed CEO of Sunbeam.

Sunbeam was suffering from significant performance issues at the time, and as a result its shareholders effectively wanted to replicate Scott's turnaround success.⁶ That did not occur. Byrne [1999] helps to explain why:

For one thing, Dunlap's celebrity had helped push the stock [of Sunbeam] to premium levels, making it too rich for most acquirers. For another, it was becoming increasingly difficult to meet Dunlap's projections. To double revenues to \$2 billion by 1999, Sunbeam would have to increase sales five times faster than rivals. To boost operating margins to 20% in just over a year, Sunbeam would have to improve its profitability more than twelvefold from the measly 2.5% margins it had. To generate \$600 million in sales through new products by 1999, the company would have to smash home runs with every at-bat.

Almost all his executives believed these goals were impractical. Dunlap, however, refused to acknowledge the near-impossibility of meeting them. Instead, he began putting excruciating pressure on those who reported to him, who in turn passed that intimidation down the line. People were told that either they meet their goals or another person would be found to do it for them. Their livelihood hung on making numbers that were not makeable.

Several elements profiled in this quote reflect increasing levels of risk at Sunbeam, of which the firm's board, financial analysts, and more active shareholders could have been mindful of. First is the price appreciation caused by Dunlap's celebrity: Premium price levels are difficult to sustain and therefore are indicative of investment risk.⁷ Also, and as Graham and Dodd [2009, p. 582] insightfully observed, creating shareholder value includes an "obligation" by executive managers to prevent "either absurdly high or unduly low prices for their securities."⁸ This is not what occurred at Sunbeam: Rather than caution against excessive market valuation, Dunlap implemented aggressive *stretch goals*, presumably to rationalize and enhance the market valuation, and he exerted significant pressure on his employees to meet those goals.

As the drive to achieve the stretch goals progressed, it led to gaming behavior. According to Byrne [1999], "In an effort to hang on to their jobs and their [stock]

options, some Sunbeam managers began all sorts of game playing. Commissions were withheld from independent sales reps. Bills went unpaid. Some vendors were forced to accept partial payment. One director reported getting a call from a headhunter begging for help in collecting a bill from Sunbeam.” In can be argued that behavior like this was not only well within the realm of possibility but was indeed rational. To explain why, consider that if Sunbeam managers did not meet their stretch goals, they would lose their jobs with near 100% certainty, but if they gamed the system and met their goals, they might not lose their jobs; hence, it was rational, albeit unethical, for them to game the system. Clearly, this state of affairs was not, and is not, consistent with creating value.⁹

When the risk of deviant behavior such as performance gaming is not mitigated, it can come to be normalized, whereby such behavior incrementally increases until it reaches a critical point (Calandro [2015b], p. 32). This appears to have happened at Sunbeam inasmuch as its gaming behavior seems to have spilled over into accounting. For example:

As Sunbeam moved toward the holiday season, its struggle to make its numbers became more desperate. Of all the ploys, few were as controversial and daring as the “bill-and-hold” sales of barbecue grills the company began making in early November. Anxious to extend the selling season for the product and boost sales in Dunlap’s “turn-around year,” the company offered retailers major discounts to buy grills nearly six months before they were needed. The retailers did not have to pay for the grills or accept delivery of them for six months. The downside was evident: The company was booking what would have been future sales in the present. Indeed, after Dunlap’s departure from the company, outside auditors would force a restatement of Sunbeam’s financials, pushing most of these sales—\$62 million worth—into future quarters (Byrne [1999]).

A great deal can be said about the above quotes, one of which is that they are obviously not consistent with the statements Dunlap made earlier about creating shareholder value during his participation on the corporate responsibilities panel; in other words, his decisions and behaviors at Sunbeam did not involve the creation of new products, new facilities, new ideas, or genuine

wealth. Therefore, those decisions and behaviors were irrational according to Stanovich [2009]. Significantly, the term *irrational* is used here not simply as a descriptor but as a leading indicator of business risks that were observable in real time and thus could have been closely monitored and acted on by the firm’s board, financial analysts, and more active shareholders.

RATIONAL MANAGERIAL BEHAVIOR

Consider now the example of the late Henry Singleton, who was mentioned earlier. By way of background, Dr. Singleton founded the firm Teledyne based on a technological core competency that he grew by way of economical funding strategies and targeted acquisitions. When private market valuations became expensive, he stopped acquiring and instead focused on buying back the undervalued stock of his firm, as well as the stock of other firms that were offered at economical public market prices, which were financed with either equity or debt depending on which was the most cost effective at the time. Singleton also employed insurance leverage (or float) at a time when very few other executives were doing so, which helped to economically fund his investment strategy in a manner similar to what Berkshire Hathaway is now doing.¹⁰

In 1986, toward the end of his career, Singleton spun off Teledyne’s Argonaut Insurance Group for \$234 million, which equated to a gain of 169% based on the 1969 acquisition price. As Savitz [1990, p. 16] observed after Singleton spun off the rest of Teledyne’s insurance companies in 1990:

Spin-offs, of course, are now familiar on Wall Street, but what makes this one a little different is that it represents another in a long series of moves by Singleton to enrich his shareholders. While other companies spend a lot of time talking about “maximizing shareholder value,” Singleton’s company has a history of doing just that. As noted in a profile of the company in *Barron’s* last December, Teledyne, over the years, has repeatedly repurchased its stock, lifted its dividend and spun off profitable subsidiaries, all of which have appreciably benefited shareholders.

Throughout his career, Singleton’s actions were extremely consistent with his communicated goals,

objectives, and statements; thus, it could reasonably be stated that, per Stanovich [2009], his decisions and behaviors were indeed “100% rational,” as Warren Buffett observed. Furthermore, I believe this is consistent with how Mr. Buffett—and Benjamin Graham before him—define rationality, but that is just my opinion. Much more important is Dr. Singleton’s track record of rational behavior that was clearly observable in real time, assuming investors were looking for it, thereby offering numerous opportunities to invest in his firm’s securities.

INVESTMENT APPLICATIONS

The historical cases of Henry Singleton and Al Dunlap are extreme examples and therefore useful for illustration purposes. In practice, few executive managers (or, for that matter, investment managers) are either 100% rational or completely irrational. Therefore, some could argue that while rationality may be an interesting research topic, it has limited value from an investment perspective. Such arguments would be mistaken. For example, to the extent investments are made in going concerns, those investments have a greater chance of being profitable if they are made in firms that are led by executive managers who have a track record of delivering performance consistent with their stated goals and objectives over time, assuming those goals and objectives lead to sustainable profitability, increased productivity and/or growth, subject, of course, to the prices at which such investments are made.¹¹

Following this, one way to identify potential value-creating investments is to rationalize corporate performance with publicly communicated goals, objectives, and strategies over time. For example, during one firm’s recent merger and acquisition deliberations, intense focus was directed to evaluating a target’s asking price, which was very high but consistent with private market valuations at the time. To enhance the analysis, we compared the target to its peer group in terms of the consistency with which the performance of each firm rationalized to the public statements of its executive managers over time. Results of this analysis are not available for publication, but the target in this case scored lower than its peers, thereby suggesting potential value realization issues that possibly warranted a lower valuation. Although issues like this may have been discovered during the course of normal due diligence, the fact that we actively looked for them,

guided by rationality-inspired information, enabled a much more insightful analysis, which ultimately resulted in a lower bid than a traditional private market valuation suggested.¹²

Clear and candid executive communication enables such an analysis. Identifying such communication is highly qualitative and thus can require significant amounts of time to both collect and analyze. To facilitate such analysis, Rittenhouse [2015] presented the latest edition of its annual “CEO Candor & Culture Survey,” which lists the top and bottom firms from candor and communication-related perspectives.¹³ Information like this is highly actionable; for example, consider the firms toward the top of such lists, which could present lucrative investment opportunities to the extent their securities are favorably priced. Additionally, the change in candor rankings year over year could also help to inform investment analysis. For example, to the extent a particular firm’s candor rankings improve along with its performance, greater confidence could be placed in the executive managers to achieve their stated goals and objectives in a timely manner and to close any identified *value gap* (Fruhan [1988]). Furthermore, information like this can also be used to determine if investors should become active in certain investments. For example, investors such as Michael Price and Paul Johnson have each stated that, although they do not start out active, they will become active when boards and managements of the firms they invest in do “things that are not in the interest of long-term shareholders.”¹⁴ Active trigger points could be informed by, for example, a negative change in a firm’s candor rankings, performance that is increasingly inconsistent with a firm’s public statements, and so on.

CONCLUSION

This article profiled four ways that rationality-based/inspired insights can practically inform investment analyses. Each flowed from the basic definition that rational decisions and actions are those that are consistent with the goals, objectives, and statements that preceded the decisions and actions over time.

- Disconnects between executive managers’ goals, objectives, and statements and their decisions and actions are indicative of increasing levels of business risk. This was observed at Sunbeam, which

destroyed significant levels of value. For a more current example, Grant [2015b, p. 8] employed a similar analysis—namely, comparing the words that Restoration Hardware Holdings (RH), Inc.’s “irrepressible chairman and CEO, Gary Friedman, might say, with the words he has already spoken and with the deeds the company has already performed and may perform in the future. Our predisposition is bearish.” The stock price for RH on December 8, 2015, which is presumably when Grant [2015b, p. 9] went to press, was quoted at \$92.34/share. On December 14, 2015, Google Finance quoted RH at \$78.65/share, a decline of nearly 15%.

- Executive managers who candidly communicate their intention to create value for their shareholders and who have a history of doing so over time—as, for example, the late Henry Singleton did—offer lucrative investment opportunities when their firms’ securities are favorably priced, such as during periods of general market distress, periods of expanding market volatility, and so forth.
- Comparing the rationality of a firm’s executive managers with those of its peer group over time can help to provide context for relative valuations, which can supplement other forms of investment and risk management analyses.
- *Candor scores* could be useful investment screening aids; for example, the reasonably priced securities of a firm with a high candor ranking (especially over time) could present a lucrative investment opportunity. Such scores could also serve as potential risk management screens; for example, the securities of a firm with falling candor scores (especially after a prolonged price run-up) or performance that is increasingly inconsistent with external communications could be indicative of increased levels of business risk, thereby warranting more active investment management.

There are many other uses of rationality-based/inspired analysis, including the following example, which will conclude this introductory note. Warren Buffett [1973, p. vii] once observed that “To invest successfully over a lifetime does not require a stratospheric IQ, unusual business insights, or inside information. What’s needed is a sound intellectual framework for making decisions and the ability to keep emotions from

corroding that framework.” The concept of rationality can enable both aspects of this observation. First, anchoring an analytical framework to rational executive management is a practical way of narrowing the investment universe down to the best managed firms, thereby helping to mitigate investment risk; and second, making a concerted effort to invest rationally, or consistently with one’s goals, objectives, and statements, will help to prevent emotions from corroding that framework. To the extent investors are able to accomplish this over time, they will be well placed to capitalize on the irrational behavior of others in the modern, highly uncertain capital markets that tend to be characterized by a wide variety of information asymmetries. Such investors therefore should be able to overcome the main obstacles of investment analysis that were observed by Benjamin Graham and David Dodd in the quote introducing this article.

ENDNOTES

The author would like to thank Brian Bruce, Leon G. Cooperman, Robert Hagstrom, Paul Johnson, James Russell Kelly, and Larry Pitkowsky for helpful questions, comments, and suggestions on earlier drafts of this article. The usual caveat applies.

¹Copy courtesy of Mr. Cooperman, which follows Train [1980, p. 25]: “According to [Warren] Buffett, if one took the top 100 business school graduates and made a composite of their triumphs, their record would not be as good as that of Singleton, who incidentally was trained as a scientist, not an MBA. The failure of business schools to study men like Singleton is a crime, he says. Instead, they insist on holding up as models executives cut from a McKinsey & Company cookie cutter.”

²As Hovey [1911, p. 125] explained, “There was no logic in [the railroad] business. It was not business; it was a dog-fight. The conservative journals of the day, unable to find the word for it, coined a phrase—they called it Criminal Competition.” This is obviously an interesting choice of words, even from a historical perspective; nevertheless, and as James Grant has observed, “Markets, after all, are only as rational as we are” (Mahar [2003, p. 69]). See Chandler [1977] for a superb historical analysis of the railroad industry.

³Mr. Hagstrom and value investor Larry Pitkowsky inspired the research that resulted in this note.

⁴On this definition, see also Hagstrom [2014, pp. 205–206] and Mauboussin and Callahan [2015]. By way of background, Keith E. Stanovich is professor emeritus

of Applied Psychology and Human Development at the University of Toronto. His website can be found at <http://www.keithstanovich.com/Site/Home.html>. Professor Stanovich's work raises obvious behavioral economic implications. For example, Kahneman [2011, p. 49] observed that "Time will tell whether the distinction between intelligence and rationality can lead to new discoveries."

⁵The video can be found at <http://www.c-span.org/video/?76876-1/corporate-responsibilities>.

⁶This supposition was confirmed during a recent (mid-2015) conversation the author had with someone involved in the hiring of Dunlap at Sunbeam, who shall remain nameless.

⁷According to Graham [1973, p. 61], "the concept of risk" pertains "solely to a loss of value which either is realized through actual sale, or is caused by a significant deterioration in the company's position—or, more frequently perhaps, is the result of the payment of an excessive price in relation to the intrinsic worth of the security."

⁸The reason for this can be found in market behavior itself. As Benjamin Graham observed: "Most of the time common stocks are subject to irrational and excessive price fluctuations in both directions, as the consequence of the ingrained tendency of most people to speculate or gamble—*i.e., to give way to hope, fear and greed*" (Kahn and Milne [1977, p. 48], italics original).

⁹Klarman [1991, p. 146] observed that executive managers "not only respond to uncertainty; they sometimes enhance it by taking unpredictable or ill-considered actions," which certainly seems to have been the case here.

¹⁰For more information on funding strategies and how they can contribute to value creation, see Calandro [2015a].

¹¹This is a fairly basic but important point because, as investor Stanley Druckenmiller observed, "Frankly, even today, many analysts still do not know what makes their particular stocks go up and down" (Schwager [2008, p. 222]). Such concerns obviously matter less in liquidations and certain (e.g., nonturnaround-related) distressed investments.

¹²The deal did not close, but the potential buyer was comfortable walking away for risk management reasons.

¹³For background, see Rittenhouse [2013]. Interestingly, in his profile of the leadership characteristics of the late General of the Army, Secretary of State, and Noble Peace Prize winner George C. Marshall, Havers [2015] listed candor as the first leadership characteristic.

¹⁴For more information, see "'It Is the Judgment that Counts'—Michael Price" from *Graham & Doddsville*, Issue XII, (Spring 2011), pp. 1 and 4, and Greenwald et al. [2001, p. 246]. See also "'Big Companies in Small Industries'—Paul Johnson" in *Graham & Doddsville*, Issue XII, (Spring 2011), p. 17 (issue available at <http://www8.gsb.columbia.edu/rfiles/Heilbrunn/Graham%20%26%20Doddsville%20-%20Issue%2012%20-%20Spring%202011%20V2.pdf>).

The quote in the narrative is from Mr. Johnson and reads in full as follows:

We tend to have an active dialogue with the company regarding their corporate strategy, investor relations, capital allocation and compensation, although we do not get involved in the daily operations of the business. If the company starts doing things that are not in the interest of long-term shareholders, we get a bit more active in the traditional sense. We will call or write letters letting them know that their actions are not serving shareholders and we have found that those conversations usually result in a fairly constructive dialogue. If the behavior continues to be a problem or management continues to do things that we do not think are in the interest of shareholders, we will become much more active.

Note also Klarman [2009, pp. xxxv-xxxvi].

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