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Short-Termism and Corporate Myopia: The Values Assigned by the Market to Short-Term and Long-Term Firms

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Claremont McKenna College

**Short-Termism and Corporate Myopia: The Values Assigned by the Market to Short-Term
and Long-Term Firms**

submitted to
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by
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I. Introduction

In January 2005, the auction site eBay released its financial data for the fourth quarter of 2004. One of the figures that drew attention was its earnings per share of \$1.21 for that quarter. Wall Street was hardly impressed – analysts had forecasted earnings per share of \$1.22 instead (Koller, Raj, and Saxena 2013). When word spread that eBay missed the estimate by just one penny, the financial markets were quick to react: eBay shares plunged 19%, from \$103.05 a share to \$83.33 a share (Gaither and Petruno 2005).

Such media stories are not uncommon. Financial news is rife with examples of companies that miss consensus earnings estimates and quickly see their stock prices plummet. Just this year, for instance, financial advisor group LPL Financial's shares dropped 34.92% in February, entertainment giant Disney's shares dropped 5.4% in May, and shoemaker Skecher's shares dropped 12% in July, all as a result of negative reaction to missed earnings estimates (Witkowski 2016; Yu 2016; Yurieff 2016). Even though the magnitudes of share price reductions vary, this phenomenon has occurred in a wide range of industries and over an expansive period of time (Koller, Raj, and Saxena 2013).

Episodes like these have created a business environment that is increasingly driven by the pressure to meet earnings benchmarks (Andringa et al. 2015). This is indicative of a larger problem known as *short-termism*, defined as an excessive focus on the part of corporate managers, the investing public, and market analysts on short-term metrics like quarterly earnings, and a corresponding lack of attention to future strategy and long-term value creation (Sullivan 2014). In other words, corporations may make decisions based on short-term incentives and at the expense of long-term alternatives, which may reward them in the present but jeopardize them in the future. Atherton, Lewis, and Plant (2007) find, for

example, that many managers reject value-creating investment opportunities, neglect to develop the corporation's strategy and reputation, and reward other managers for meeting targets rather than building the corporation's long-term health.

Importantly, a significant amount of financial literature has emphasized the practice of *long-term value creation*. McKinsey & Company, a leading group of finance and consulting practitioners, encourages companies to focus on underlying drivers of growth and cash flows, which it believes to be measures of long-term value, rather than earnings per share and net income, which are subject to constant manipulation (Copeland, Koller, and Murrin 2010). In addition, a focus on long-term value creation is essential: companies that practice doing so create more employment, treat their employees better, give customers greater satisfaction, and tackle more corporate responsibility than their rivals (Copeland, Koller, and Murrin 2010). Davis (2005) therefore suggests that it is critical for a company to be able to transform its growth prospects and assets into future cash flows for stakeholders, since in theory, these cash flows are the true manifestations of value.

Many academics and practitioners seem to subscribe to this view, believing that short-termism is dangerous. Lavery (1996) observes that short-termism puts companies at a disadvantage to global competitors that invest in sustainability and long-term value creation. In particular, underinvestment in manufacturing capabilities, workforce skills, and relationships between managers and capital markets may make short-term companies fall behind. Furthermore, if the problem is systematic and pervasive, U.S. economic development as a whole may be depressed; the U.S. may begin to lag behind savvy competitors like China and Germany.

Atherton, Lewis, and Plant (2007) additionally find that short-termism can undermine the confidence and credibility of financial markets, cause companies to develop improper outlooks and strategies, and depress economic development. Notably, they also find that it can allow the inefficient allocation of capital across the economy. For example, if I purchase shares of company *X*, it is my expectation that *X*'s managers act to maximize the price of those shares. But if they exhibit short-termism and continuously neglect to invest in profitable projects, then I am likely not going to get a return that is commensurate to the level of risk I take on. In other words, *X* may not be using my capital as optimally as other companies would, which is neither beneficial for me nor *X*. It would be in my (and other companies') interest to invest elsewhere. Again, if this problem is systematic and pervasive, investment in the overall economy can be significantly diminished.

Despite the warnings of practitioners and academics alike, short-termism remains a glaring problem. Graham and Rajgopal (2006) find that many managers believe consistently meeting earnings targets will keep stock prices high in the long run, and they are willing to sacrifice value-creating projects to meet those targets. Legendary management scholar Peter Drucker has said, "Everyone who has worked with American managements can testify that the need to satisfy the pension fund manager's quest for higher earnings next quarter, together with the panicky fear of the raider, constantly pushes top managements towards decisions they know to be costly, if not suicidal, mistakes" (Lavery 1996, 830-831). While there is empirical evidence to suggest that investors and analysts do prefer smoother and more predictable earnings (Kasznik and McNichols 2002), it may be difficult to constantly meet earnings expectations (Andringa et al. 2015). As a result, managers may resort to questionable accounting techniques and business practices

to create illusions of stability (Levitt 1998). They may paint pictures of the corporation's financial health that are quite different from reality (Koller, Raj, and Saxena 2013).

To be sure, many managers have expressed frustration at the tremendous pressure that the financial markets exert upon them. As a result of their interactions in the markets over many years, managers begin to believe that many investors are mainly interested in short-term issues and downplay longer-term business drivers or sustainability-related issues (Sullivan 2014). In a letter to shareholders in 2014, famed value investor Warren Buffett said, "Games are won by players who focus on the playing field – not by those whose eyes are glued to the scoreboard" (Buffett 2014, 2). Even if companies wanted to focus on the playing field, however, financial markets are apparently so fixated on the scoreboard that companies wind up in the same boat.

The purpose of this paper is to answer an interesting question that arises from the prior discussion: do financial markets assign more value to short-term firms or long-term ones?¹ From a similar perspective, does the market's short-sightedness fade over time, and does it eventually begin to care more about growth, free cash flows, and other manifestations of value? Past studies on these questions have been relatively fragmented. Researchers have focused primarily on identifying variables that are hypothesized to correspond with short-termism. However, they have not explicitly measured the effect of short-termism on valuation multiples, financial metrics that, in theory, reveal the market's perceptions of the value of firms. Investigating the relationship between these measures of

¹ Hereafter, short-term firms refer to those that exhibit a tendency of short-termism, while long-term firms refer to those that exhibit a tendency of engaging in long-term value creation.

short-termism and valuation multiples, then, aims to reveal the extent to which financial markets favor short-term versus long-term firms over time.

I first examine a selection of S&P 500 firms and create a data set based on variables that indicate whether a firm is short-term or long-term. These variables are drawn from prior literature and will be further discussed in upcoming sections. I then run regressions involving these variables on three popular and widely examined valuation multiples. The higher the multiples are for any one company, the more value the market has assigned to the company. To summarize, if long-term value creation is truly essential and favored, long-term firms should possess higher valuation multiples than short-term firms.

Overall, I find evidence that the market generally assigns higher values to long-term firms. This is evidenced by the fact that firms that exhibit long-term characteristics possess higher valuation multiples relative to their short-term counterparts. This is a positive result, showing that despite the widespread influence of short-termism and ubiquity of market myopia, financial markets apparently do reward long-term firms and punish short-term ones.

In the rest of the paper, I first discuss prior literature revolving around short-termism. This literature demonstrates the magnitude of the problem in the contemporary corporate world, as well as details empirical efforts to identify appropriate measures of short-termism. I then describe the data set I create, along with all relevant variables that serve as measures of short-termism, measures of control between firms, and measures of the value assigned to firms by markets (in the form of valuation multiples). Next, I discuss my empirical strategy, along with the results of my regressions. Finally, I discuss the implications of these results and suggest avenues for future research.

II. Literature Review

While the debate on short-termism has raged on since the days of classical economists, the first empirical evidence has been brought to light only in 1964. Using questionnaire responses, Neild finds that investors in his sample of firms usually demanded full payback on their investments within 3-5 years on average, while the life of plant and equipment was often 10 times greater on average (Haldane 2015).

In the coming decades, a variety of researchers have continued to find evidence of short-termism in companies' core financial and capital budgeting principles, namely that of discounting future cash flows to the present. In the process of discounting, cash in the future is assumed to be worth less than cash today (because cash today can be invested to yield some return, and because cash today can be spent immediately). Furthermore, expected cash flows that assets generate in the future are discounted at a rate that reflects their riskiness. The greater the discount rate used, the less the present value of cash flows (Haldane 2015).

Hayes and Abernathy (1980) provide quantitative evidence that firms have been using excessive rates to discount future cash flows, leading to an underinvestment in capital projects, R&D, and intangible aspects of the corporation that may contribute to its success. Miles (1993) finds similar evidence in UK markets. Poterba and Summers (1995) note that Fortune-1000 firms have been using discount rates that are much higher than both the costs of debt and equity,² implying that they have either been too conservative on their outlooks of future cash flows, or undervalue them altogether.

² It can be argued that future cash flows are highly uncertain and discounting them should therefore be a conservative process. However, the computation of the relevant discount rate for free cash flows, the

These problems have persisted over time and are reinforced in an important paper by Graham and Rajgopal (2006). Their research ties in prior observations of excessive discounting to the widespread influence of short-termism in the contemporary corporate world. Asking 401 senior executives of U.S. companies a variety of questions, they provide evidence of significant managerial myopia, or tendency to favor short-termism. First, Graham and Rajgopal focus on motivations for earnings management. They ask the reasons for which executives seek to consistently meet earnings benchmarks. The executives' responses have ranged from "building credibility with the capital market," "maintaining or increasing stock price," and "reducing stock price volatility." Conversely, they cite factors like "creating uncertainty about future prospects" and "outsiders think there are previously unknown problems" as the consequences of failing to meet targets (Graham and Rajgopal 2006, 29-30). These responses reinforce the fact that executives believe greatly in both the power of investor expectations and the potential benefits of smoothing earnings.

More importantly, however, Graham and Rajgopal ask whether or not the executives would make decisions detrimental to long-term value creation if it means that those decisions would help meet earnings targets. Among other things, the executives state that they would "decrease discretionary spending," "delay starting a new project," and manipulate accounting by booking revenues early, incentivizing customers to buy more products this quarter, and postponing charges, among other techniques (Graham and Rajgopal 2006, 31-33). The executives' comments largely echo what Tom Sweet, CFO of

weighted average cost of capital (WACC), should theoretically be bounded by the cost of debt and equity, and deriving a discount rate in excess of both may be inappropriate.

Dell, has said: “Attention is focused on the ninety-day cycle of achieving the earnings per share target” (Andringa et al. 2015).

To be sure, academic literature and even practitioners’ wisdom indicate that using questionable accounting methods to polish the financial status of a firm is misleading and should be discouraged (Bushee 2001; Levitt 1998; Koller, Raj, and Saxena 2013). However, sophisticated investors may be able to see through these gimmicks, and the firm is likely to experience some form of backlash in upcoming periods anyway if its managers tamper with current financials (Copeland, Koller, and Murrin 2010). Premature booking of revenues this quarter, for instance, simply means a deficit of revenues sometime in the future.

Yet, questionable accounting may not be as harmful as decreasing spending for future growth or rejecting value-creating projects. In these cases, the backlashes are of a different kind: value might be lost forever (Graham and Rajgopal 2006), and without the knowledge of even sophisticated investors. Not making necessary investments today may mean that the investments can become outright unavailable in the future. The problem is exacerbated when, as a result of the Enron and WorldCom scandals, firms have the incentive to engage in this kind of value-destroying activity rather than manipulating accounting itself.

In particular, Graham and Rajgopal (2006) further discover that over 75% of executives would reject positive-net present value (NPV) projects if it meant that doing so would allow them to hit consensus earnings targets for the quarter. In general, financial theory states that positive-NPV projects create positive free cash flows after taking the effects of time value of money and risk into account; therefore, they are value-creating.

From a purely financial perspective, then, corporations should accept positive-NPV projects and, given the choice between two projects, they should accept the one that yields the higher NPV (Haldane 2015).³

Problems arise, however, when short-termism is weaved into the picture. Due to executives' tendencies to reject various positive-NPV projects, they have essentially made the decision to trade real value for smoother earnings. Further, some of them believe that they are doing no harm or are simply getting to a level playing field with others. One CFO has said, "You have to start with the premise that every company manages earnings." Another has admitted that he scrapped four "valuable long-term projects" for fear of failing to meet quarterly targets (Graham and Rajgopal 2006, 30).

The story is not altogether different from the point of view of investors. Lavery (1996) argues that the growth of market activity places more attention on short-term price movements than on long-term value. Some also believe that stocks are treated increasingly like a commodity, and shareholders are more interested in current performance and short-term information rather than value drivers and economic fundamentals (Lavery 1996). Furthermore, investment managers may also focus on short-term performance and discourage long-run and risky projects (Bushee 1998). They are often evaluated on quarterly or monthly portfolio performance. Instead of extending their investment horizons into the future, then, they naturally begin to develop a short-term perspective (Sullivan 2014).

³ This is still an imperfect investment decision rule. There are other intricacies: for example, the NPV rule must be refined when analyzing projects of unequal lives; positive-NPV projects may still be excessively risky in times of financial distress; and so on. Nevertheless, it remains a useful tool.

Analysts also exacerbate the problem. Graham and Rajgopal (2006) cite the complexity of financial markets and the need to synthesize various metrics into a seemingly all-inclusive value that summarizes a corporation's performance, is relatively simple and intuitive, and is comparable across companies. The value that meets these criteria is earnings per share, which analysts emphasize and routinely obsess over. However, Atherton, Lewis, and Plant (2007) find that analysts do not usually build in long-term value drivers into their analyses, downplaying the importance of these more intangible factors.

Besides lost value and misleading financials, short-termism is a problem for three other large reasons. First, it prevents corporations from considering sustainability-related issues: in their quest to manage earnings, they may neglect to focus on elements that preserve their competitive advantage, or they could even destroy a business altogether (Atherton, Lewis, and Plant 2007). For example, commercial cod fisheries have deteriorated significantly because of overfishing to maximize short-term profit. Had sustainable fishing practices been developed, and the long-term value of cod been carefully considered, the destruction of the fisheries could have been prevented and value creation would persist into the future (Atherton, Lewis, and Plant 2007).

Second, it makes corporations reluctant to invest in the more qualitative elements of the business that are still linked to financial performance. Certainly, aspects of the firm like strategy, customer relationships, brand perceptions, innovative products and services, a good reputation with governments and regulators, and effective human resources contribute to the functioning of the corporation. When these are deficient, companies are likely unable to maximize value. They typically underinvest in these intangible elements, however, because they provide no immediate financial payoff (Sullivan 2014).

Thirdly, and perhaps most importantly, preoccupation with short-term results could have huge impacts beyond the corporation itself: in fact, it could have disastrous effects on financial markets and economies more generally (Copeland, Koller, and Murrin 2010). In the extreme case, speculation, myopia, and obsession with the short term can feed into the minds of investors worldwide, subjecting the market to bouts of “irrational exuberance” and causing them to bid up the value of assets beyond reasonable values. With the expectation that growth in corporate earnings and stock prices is sustainable, or that a “greater fool” might always come along and be prepared to pay higher prices, companies’ stock begin to trade at absurdly high prices relative to fundamental measures (Malkiel 2003). Ultimately, a bubble is formed, eventually bursts, and unleashes incredible distress onto the economy.

The painful episodes of the dot-com bubble, for instance, provide testimony to the market’s preoccupation with short-term results and diminished emphasis on long-term value, with devastating consequences. As an example, stocks of various large companies from Amazon.com to Yahoo.com declined by over 95% during this period, wiping out millions of dollars of shareholder value (Malkiel 2003). In addition, Copeland, Koller, and Murrin (2010, 5) find that “the rise and fall of business conglomerates in the 1970s, hostile takeovers in the United States in the 1980s, the collapse of Japan’s bubble economy in the 1990s, the Southeast Asian crisis in 1998...and the economic crisis starting in 2007 can, to some extent, be traced to a misunderstanding or misapplication of [the principles of long-term value creation].” As they fittingly describe, these crises are partly the consequence of “forgetting to value value.”

To this point, it has been argued that short-termism is theoretically a widespread problem with dire consequences. Other empirical research, though, focuses on measuring short-termism rather than describing its implications. A variety of measures have been developed over the years; I discuss three examples. First, many researchers find that short-termism is associated with reduction in R&D (research and development) expenses (Brochet 2015; Lavery 1996; Marginson and McAulay 2008). This is because forgoing R&D today increases current earnings, but prepares the corporation less for future challenges. Related to R&D expenses, Ladika and Sautner (2016) also find that short-termism is associated with reduction in capital expenditures, since investments in and betterments of fixed assets are also expected to generate cash flows in the future rather than immediately.

Additionally, Terry (2016) finds that short-term firms have the tendency to *just* meet (or fail to meet) consensus analyst earnings estimates. This is presumably because short-term firms pad earnings per share numbers so that they are at least somewhat in line with estimates. As mentioned earlier, managers of these firms believe that stable earnings will be rewarded and take many actions to tamper with earnings (Kasznik and McNichols 2002). On the other hand, long-term firms place less emphasis on earnings estimates, focusing on real value creation. Thus, their earnings per share values are expected to demonstrate greater absolute deviations from consensus estimates, since they deemphasize the expectations built into these estimates.

Third, Bushee (1998) finds that short-term firms are more likely to have a greater proportion of myopic institutional investors. That is, certain institutional investors with transient outlooks can place significant pressure on firms to boost present earnings. They

do so by, for example, coercing managers to sacrifice R&D so that a sufficient level of earnings growth is maintained. Bushee refines his analysis in a later paper by arguing that these transient institutional investors have detrimental effects on the corporations in which they invest, by lowering their stock prices, for example (Bushee 2001).

There are certainly other measures of short-termism. A recent particularly creative study finds that short-termism is associated with specific language emphasized during conference calls (Brochet, Loumioti, and Serafeim 2015). For example, firms that use short-term oriented words in conference calls, such as “days”, “months”, or “short-run” are found to be noticeably more myopic than those that use long-term oriented words, such as “years”, “looking ahead”, and “outlook.” Nevertheless, all of these measures of short-termism have not been synthesized into a coherent whole, and their impact on valuation multiples has not been assessed thoroughly. This paper aims to fill this notable gap in the literature.

III. Data

Since there is no predefined data set that past researchers have used, I create a data set consisting of various variables derived from S&P Capital IQ (CAP IQ) and the Wharton Research Database (WRDS). I restrict my sample to companies that have been on the S&P 500 index since January 1, 2001 until December 31, 2015. However, since the composition of the index changes throughout this 15-year period, companies that became listed on the index after 2001, along with those that are no longer listed as of 2015, are excluded. I impose this restriction in order to narrow the sample down to a set of companies whose data can continuously be collected throughout the 15-year period. This period is one of

special interest due to the frequent exposure of accounting fraud and the recent financial crisis; it is also the most relevant for this paper, as it involves a lot of earnings management activity as well as active discussion of short-termism in both academic and practitioner literature.

I then collect annual data for the sample of companies throughout the 15-year period. Cumulatively, I have a balanced panel data set. I begin by using S&P CAP IQ to collect valuation multiples for the companies as the dependent measures of interest. First, I collect two of the companies' Enterprise Value (EV) multiples. Their numerators consist simply of Enterprise Value, which can be interpreted as the total market value of a business, commonly calculated as:

$$EV = MVD + MVE + MI - C \quad (1)$$

where *EV* is Enterprise Value, *MVD* is market value of debt, *MVE* is market value of equity, *MI* is minority interest, and *C* is cash. The EV multiples' denominators consist of some measure that is relevant to all stakeholders, including debt- and equity-holders, which are generally line items that can be found on companies' income statements before interest expense. Overall, the specific EV valuation multiples I use are *EV/EBITDA* and *EV/EBIT*, since these are among the most popular multiples used in financial analysis. A testimony to this is their frequent usage in financial databases like Bloomberg, as well as in typical modeling and valuation templates.

Next, I use S&P CAP IQ to collect the companies' *P/E (Price/Earnings) Ratios*, an Equity Value multiple. Equity Value multiples' numerators consist of some proxy of equity, such as share price. Their denominators consist of some measure that is relevant to equity-holders only, which are generally line items that can be found on companies'

income statements after interest expense. Again, I use the P/E Ratio since it is an extremely popular valuation multiple.

Having obtained the 3 dependent measures as discussed above, I then collect data for my independent variables. First, I collect the companies' *Free Cash Flow Margins*, defined as the ratio of free cash flows to sales revenues. Financial theory suggests that cash flows are the true determinants of financial health, since cash is ultimately the source of value (Copeland, Koller, and Murrin 2010). To this end, prominent financial models like discounted cash flow valuation are fixated on cash flows, echoing the mantra that "cash is king." By contrast, sales revenues have long been a source of controversy in U.S. generally accepting accounting principles (GAAP); managers have exercised great discretion in revenue recognition policies. In other words, sales revenues lose credibility as a metric of financial health due to the fact that they can easily be tampered with. The free cash flow margin should, in theory, provide an insight to companies' outlooks. Firms that continuously exhibit low free cash flow margins may be manipulating revenues while underlying free cash flows remain poor.⁴ Thus, short-term firms are assumed to demonstrate lower free cash flow margins over time.

Next, I collect the companies' *Capital Expenditures* (CAPEX), defined as funds used by companies to acquire and upgrade fixed assets – notably, property, plant, and equipment. As discussed earlier, many researchers have documented evidence that short-term firms often underinvest in R&D that serves to sustain the corporation's long-term health. However, R&D data was not consistently available for the sample of companies.

⁴ Free Cash Flows could be very low year-to-year because companies are investing heavily in capital expenditures, but this is another variable that I collect and factor into my data, so it has, in some sense, been controlled for here.

Related to R&D are CAPEX; Ladika and Sautner (2016) document evidence that short-term firms generally underinvest in CAPEX. Thus, short-term firms are assumed to demonstrate lower CAPEX over time.

Third, I collect the companies' *Earnings Per Share Spreads*, defined as the absolute value of analysts' estimated earnings per share less actual reported earnings per share for any one company. In accordance with prior research (Terry 2016), short-term firms are assumed to demonstrate lower absolute earnings per share spreads, since they have the tendency to just meet or fail to meet earnings targets.

All of the above data is collected using S&P CAP IQ. My final independent variable, *Short-Term-to-Long-Term (STLT) Institutional Investor Ratio*, comes from WRDS, since the information is available here. This variable is defined as a company's ratio of short-term institutional investor holdings (holdings of banks, pension funds, and endowments) to long-term institutional investor holdings (holdings of investment advisors and insurance companies). These institutional investor classifications are based on Bushee's (1998) research which finds that institutional investors that face stringent fiduciary standards favor near-term earnings. Thus, short-term firms are assumed to demonstrate a greater STLT institutional investor ratio.

Finally, I use S&P CAP IQ to collect data on various other operating and financial variables to control for inherent economic differences in firms that are unrelated to short-termism. I collect data on *Return on Assets (ROA)* to control for the general performance of firms, the *Debt-Equity Ratio* to control for differences in capital structure, the *Current Ratio* to control for firm liquidity, and *Market Capitalization* to control for firm size. These control variables mirror those used in prior tests of short-termism (Brochet, Loumiot, and

Serafeim 2015). A summary of all the variables and their formal descriptions is presented in Table 1.

This data set does have a number of limitations. First, it only considers a subset of companies in the S&P 500 index. These companies include those that are some of the largest and most actively-traded companies, and come from a wide range of industries; hence, the index is thought to be a microcosm of the U.S. stock market. Nevertheless, it certainly does not include small-to-medium cap companies and private companies, which could exhibit behavior that is drastically different. Furthermore, the composition of the S&P 500 is consistently changing, so we cannot be sure that companies already in the index exhibit behavior resembling companies to be added to the index.

Second, a total of 187 companies are removed from the sample because of the restrictions discussed earlier (the complete 15 years of data is unavailable for them), leaving only 313 companies in the sample. However, there is still a significant amount of data remaining, and 313 large companies should paint a relatively representative picture of publicly-traded companies. Insofar as these companies model the behavior of others, they should reveal interesting patterns and observations that can be generalized to the larger market.

Third, only 15 years of data are collected. A problem that arises is that, since this period does not cover the full scope of historical data, it may not be representative of prior periods. Moreover, there are a few problems with using historical data in general, the largest one being that past data does not forecast future behavior. Nevertheless, many models in finance, such as the widely-used CAPM, utilize backward-looking inputs (such as market risk premiums) and are still widely used. These models, as well as my data set,

are predicated on the notion that there are few better alternatives than historical data to study the present and the future.

Fourth, the data set neglects other potential variables of interest. There may be many other measures of short-termism that are equally or more revealing than the ones employed in my data set, such as percentage of stock-based compensation, but they are not readily available. Furthermore, the only dependent measures considered are valuation multiples. A significant drawback of these multiples is that they are particularly simplistic, highly variable, and prone to market aberrations. If they are negative (for example, if a company's earnings are negative one year, necessarily leading to a negative P/E ratio), they also do not provide much information, and analysts typically label them "NM" ("not meaningful"). Alternatives to valuation multiples could include measures of risk, such as the cost of equity capital. However, these measures suffer from copious estimation errors and, unlike basic valuation multiples, can be computed in many inconsistent ways. Therefore, they are excluded from this paper.

Finally, the variables are collected at snapshot points in time: each is collected at the end of a year. This does not realistically model the yearlong behavior of the variables, and they may fluctuate widely throughout periods of time. The fact that they have been collected over a 15-year period aims to lessen this problem to some degree, but the static nature of the variables remains troubling.

Selected summary statistics are shown in Table 2. The data set consists of 4,695 total observations. However, some of the observations for the valuation multiples are negative and, as discussed, therefore not meaningful. These have been excluded from any empirical analyses. The summary statistics also attest to the highly variable nature of

valuation multiples. For example, the P/E ratio has a mean of 26.3707 and standard deviation of 22.8784, with minimum and maximum values of 1.1886 and 298.8784 respectively. Nevertheless, these valuation multiples remain the most discernible source of value that the market assigns to companies.

IV. Empirical Strategy and Results

To investigate the extent to which the market values short-term versus long-term firms, I focus on the impact of various short-term metrics on three valuation multiples. Specifically, I estimate a linear regression model of the following form:

$$VALUE_i = \beta_0 + \beta_1*FCFM_i + \beta_2*CAPEX_i + \beta_3*ESPREAD_i + \beta_4*STLT_i + \beta_5*ROA_i + \beta_6*DE_i + \beta_7*CR_i + \beta_8*MCAP_i + \varepsilon_i \quad (2)$$

where *VALUE* is measured as *EVEBITDA* (the EV/EBITDA multiple), *EVEBIT* (the EV/EBIT multiple), and *PE* (the Price/Earnings ratio) in specifications 1, 2, and 3 respectively. Irrespective of specification, *FCFM* is the free cash flow margin, *CAPEX* is capital expenditures, *ESPREAD* is earnings per share spread, *STLT* is the ratio of short-term to long-term institutional investor holdings, *ROA* is return on assets, *DE* is the debt/equity ratio, *CR* is the current ratio, and *MCAP* is market capitalization. The subscript *i* refers to the *ith* firm. Finally, an error term with the usual properties is included.

Table 3 presents a breakdown of how the variables are estimated to characterize short-term versus long-term firms, the rationale for which has been discussed in the Data section of this paper. In accordance with the insights from prior literature, predictions for the sign of the independent variables' coefficients are also made. All else equal, it is

assumed that firms with higher valuation multiples have higher values assigned to them by the market. I additionally hypothesize that long-term firms are valued more highly by the market than short-term firms.

Table 4 reports the results for specification 1. It can be seen that the market generally values long-term firms more than short-term firms; overall, of the three statistically significant independent variables, two provide evidence that the market favors long-term firms in a manner that is consistent with expectations and prior literature. In particular, the coefficient on *FCFM* is positive and significant, suggesting that the higher a company's free cash flow margin, the higher its EV/EBITDA multiple. As previously discussed, prior literature indicates that long-term firms are expected to have higher free cash flow margins than short-term firms, since short-term firms are more likely to exhibit discretion in revenue recognition policies while underlying free cash flows remain poor. Therefore, this result is consistent with expectations because it suggests that the market values long-term firms more highly.

Moreover, the coefficient on *CAPEX* is negative and significant, suggesting that the lower a company's capital expenditures, the higher its EV/EBITDA multiple. As previously discussed, long-term firms are expected to have greater capital expenditures than short-term firms. This is because capital expenditures are investments in fixed assets that are expected to generate cash flows in the future; they can therefore be seen as investments with a long-term time horizon. Surprisingly, this result is therefore inconsistent with expectations because it suggests that the market values short-term firms more highly.

In addition, the coefficient on *ESPREAD* is not significant. Finally, the coefficient on *STLT* is negative and significant, suggesting that the lower the amount of short-term institutional investor holdings relative to long-term institutional investor holdings in a company, the higher its EV/EBITDA multiple. As previously discussed, long-term firms are expected to display a lower ratio, since long-term institutional investors would likely possess more holdings in long-term firms. Therefore, this result is consistent with expectations because it suggests that the market values long-term firms more highly.

The results for specification 2, where the valuation multiple of interest is the EV/EBIT multiple, are presented in Table 5. Overall, the patterns for the EV/EBIT multiple are very similar to those based on the EV/EBITDA multiple, although the magnitudes of the coefficients differ relative to those discussed in specification 1. This is to be expected, since the only difference between the two multiples is DA (depreciation and amortization). Again, the results of this specification provide evidence that the market generally values long-term firms.

Finally, the results for specification 3, where the valuation multiple of interest is the P/E ratio, are presented in Table 6. Based on this measure, the evidence that the market values long-term firms more than short-term firms is more compelling than the previous two valuation multiple measures. In this specification, all four independent variables are statistically significant, and three of them provide evidence that the market favors long-term firms in a manner that is consistent with expectations and prior literature. Like in the prior specifications, I find that the coefficient on *FCFM* is positive and significant, suggesting that the higher a company's free cash flow margin, the higher its P/E ratio. This result is consistent with expectations. I also find that the coefficient on *CAPEX* is negative

and significant, suggesting that that the lower a company's capital expenditures, the higher its P/E ratio. This result is inconsistent with expectations. Next, I find that the coefficient on *STLT* is negative and significant, suggesting that the lower the amount of short-term institutional holdings relative to long-term institutional investor holdings in a company, the higher its P/E ratio. Once again, this is consistent with expectations.

Moreover, unlike in the previous two specifications, I find that the coefficient on *ESPREAD* is positive and significant, suggesting that the higher a company's absolute difference between analysts' estimated earnings per share and its actual reported earnings per share, the higher its P/E ratio. As discussed in prior literature, there is evidence that short-term firms have the tendency to barely meet (or fail to meet) earnings targets, indicating that they may be engaging in earnings management to meet the required targets. Therefore, this result is consistent with expectations because it suggests that the market values long-term firms more highly.

V. Discussion and Conclusion

In this paper, I begin by showing that short-termism, the excessive focus of the corporate world and investors on short-term financial results and simultaneous downplaying of long-term value creation, can be intensely problematic. A rich tradition of literature, dating from many decades ago and extending to the present, is devoted to short-termism, and the issue remains a hotbed of discussion. The essence of the literature is that short-term firms may lag behind their long-term counterparts, which have better relationships with stakeholders and are more prepared to tackle future challenges (Laverty 1996; Marginson and McAulay 2008). Furthermore, short-termism is pervasive and is

exhibited by various parties, including corporate managers, analysts, and investors (Atherton, Lewis, and Plant 2007; Graham and Rajgopal 2006; Sullivan 2014). Historically, it may have led to bubbles that eventually released great distress onto the economy (Copeland, Koller, and Murrin 2010). Prior literature has also focused on devising measures of short-termism (Brochet 2015; Bushee 1998; Terry 2016), but the efforts have been relatively fragmented and they have not been comprehensively condensed into one measure. Furthermore, the literature neglects to examine the impact of short-termism on valuation multiples; it has not revealed the market's preferences for and attitudes towards short-termism.

Thus, in this paper, I investigate whether financial markets place greater value on short-term firms (that is, those that exhibit short-termism) or long-term firms (that is, those that invest heavily in long-term value creation and the future). Using a self-created data set composed of multiple independent variables that seek to characterize short-term firms and long-term firms, I provide evidence that long-term firms generally have higher valuation multiples than short-term firms. Thus, I provide evidence that the market values long-term firms more highly, which is a promising result.

The results are not without their shortcomings. First, as discussed in the Data section, the self-created data set introduces many potential errors. For instance, it only examines a subset of publicly-traded companies, and many companies either have not been listed on the S&P 500 index for 15 years (the specific period examined), or have significant amounts of data unavailable altogether. These issues may call into question the generalizability of the results: for example, it can be argued that this period, which is characterized by an especially large wave of scandals and bubbles, does not mirror past

periods, and cannot forecast future periods. It can also be argued that small and private firms, which are not examined in this paper, may exhibit different behavior, have a very different investor base, and so on. However, 313 companies are still examined over 15 years, and since these are some of the largest publicly-traded companies on the market, the assumption is that they generally model or influence the behavior of other companies, allowing observations to be made about them as well. Also, there are few better alternatives to forecasting the future than examining past data.

Additionally, the data set may exclude many important variables, introducing some degree of omitted variable bias. Measures of short-termism that have been developed in the past have occasionally utilized sophisticated techniques and extensive data sets that are unavailable to the general public. These may be highly important, but were unfortunately unable to be introduced into this paper. Moreover, the regressions in this paper only examine the impact of firm characteristics on valuation multiples, which are largely imperfect. Certain results that are contrary to expectations are also observed: for example, in all regressions performed, it is apparent that firms that have greater capital expenditures correspondingly have lower valuation multiples. Since capital expenditures are seen as investments in long-term assets, this result is contradictory.

Nevertheless, the bulk of the results are generally consistent with expectations. As expected, companies with higher free cash flow margins and lower proportions of short-term institutional holdings have higher EV/EBITDA multiples, EV/EBIT multiples, and P/E ratios. Additionally, those with higher spreads between estimated and actual earnings per share have higher P/E ratios. Thus, there is evidence that the market indeed values long-term firms more than short-term ones.

Despite the shortcomings, my findings may have important implications for corporations, managers, investors, and other players in the financial markets. As discussed, short-termism drives corporate managers to take actions that gratify the corporation today, but sacrifice its future health, growth, and ability to create value (Sullivan 2014). In the long-run, excessive earnings management, combined with the rejection of value-creating projects (Graham and Rajgopal 2005), is detrimental to the corporation's success, and undermines its relationships with stakeholders of all forms (Copeand, Koller, and Murrin 2010). Corporate managers do have their reasons to engage in this kind of activity, the most common argument being that doing so will keep stock prices high in the long run. This has not only been demonstrated in survey research (Graham and Rajgopal 2006), but also empirical research (Kasznik and McNichols 2002).

But the fact that markets may value long-term firms more highly and, by extension, disfavor short-termism and its related managerial activities, may change the landscape. After all, these activities are apparently discredited by the market; thus, it may be in managers' interest to focus on the long term regardless of whatever beliefs they currently hold. They may not have to resort to accounting tricks; they may not have to obsess with earnings per share and analyst expectations; they may not have to forgo valuable investment opportunities to enhance the corporation's current health. The evidence provided in this paper echoes the age-old adage that the market can be remarkably sophisticated (Malkiel 2003) and, in the long run, may punish short-termism while rewarding long-term value creation.

Yet, short-termism remains a systemic problem, and as with all problems of great magnitude and scope, cannot be curbed rapidly. It will require a revolution in the way

managers, investors, analysts, and other parties currently think, one that defies their instinctive urge to resort to treasured financial metrics like earnings per share. Unfortunately, this does not seem likely to occur in the near future. It will take many a brave corporation to realize the empirical insights derived in this paper and to act upon them, rather than succumb to the expectations and demands of the majority of today's financial world.

Thankfully, efforts to focus on long-term value creation are currently being supplemented by practitioners' initiatives like the Aspen Institute, a group consisting of 28 distinguished business figures aiming to work together to abolish short-termism. In a recent publication, the institute passionately argued: "We believe that short-term objectives have eroded faith in corporations continuing to be the foundation of the American free enterprise system, which has been, in turn, the foundation of our economy. Restoring that faith critically requires restoring a long-term focus for boards, managers, and most particularly, shareholders—if not voluntarily, then by appropriate regulation" (Farren et al. 2009, 1).

Future research can devote more time to seeking determinants of short-termism, and devising proxies that can better model the relationship between short-termism and investor perceptions. The overarching goal should be to help the corporate world and financial markets transition from a short-term to a long-term mindset. Whatever the case may be, there is certainly much more room for firms to adapt from their current myopia. Maybe they will one day focus on the playing field rather than the scoreboard.

Appendix

TABLE 1

Variable Descriptions⁵

Variable	Description
EVEBITDA	EV/EBITDA, a valuation multiple calculated as Enterprise Value ⁶ divided by EBITDA (earnings before interest, taxes, depreciation, and amortization)
EVEBIT	EV/EBIT, a valuation multiple calculated as Enterprise Value divided by EBIT (earnings before interest and taxes)
PE	Price/Earnings ratio, a valuation multiple calculated as price per share divided by earnings per share
FCFM	Free Cash Flow Margin, calculated as free cash flows divided by sales revenues
CAPEX	Capital Expenditures, funds used to acquire or upgrade fixed assets, in millions
ESPREAD	Earnings Per Share Spread, calculated as the absolute difference between analysts' estimated earnings per share less actual reported earnings per share
STLT	Short-Term to Long-Term Institutional Investor Ratio, calculated as short-term institutional investor (banks, pension funds, and endowments) holdings divided by long-term institutional investor (investment advisors and insurance companies) holdings
ROA	Return on Assets, calculated as net income divided by average total assets
DE	Debt/Equity Ratio, calculated as debt divided by equity
CR	Current Ratio, calculated as current assets divided by current liabilities
MCAP	Market Capitalization, calculated as shares outstanding multiplied by price per share, in millions

⁵ All of these variables are calculated for companies annually, at year end. They are obtained from WRDS (STLT) and S&P CAP IQ (all other variables).

⁶ As described in Equation (1), Enterprise Value is calculated as Market Value of Debt + Market Value of Equity + Minority Interest – Cash.

TABLE 2*Descriptive Summary Statistics*

Variable	N	Mean	SD	Min	Max
EVEBITDA	4,622 ⁷	11.7680	11.3046	2.0504	289.7887
EVEBIT	4,563	16.6378	16.4400	2.1906	177.5344
PE	4,491	26.3707	22.8784	1.1886	298.8784
FCFM	4,695	0.0471	1.3787	-68.3717	3.8898
CAPEX	4,695	1103.8370	2453.1340	0.0000	37985.0000
ESPREAD	4,695	0.4659	0.8706	0.0000	19.3597
STLT	4,695	0.3274	0.2495	0.0000	6.7210
ROA	4,695	0.0706	0.0490	-0.3622	0.3410
DE	4,695	0.9743	5.1553	0.0000	279.6841
CR	4,695	1.8988	1.7348	0.0360	48.4077
MCAP	4,695	25600.9900	45139.6500	19.7886	647361.0000

⁷ In some case, the valuation multiples produced NM (non-meaningful) results. This explains the mismatch between the observed number of values, N, for these variables, compared to the complete data set's 4,695 values.

TABLE 3*Estimated Variable Characterizations for Short-Term vs. Long-Term Firms*

ESTIMATIONS FOR DEPENDENT VARIABLES			
Variable	Short-Term Firms	Long-Term Firms	
EVEBITDA	Low	High	
EVEBIT	Low	High	
PE	Low	High	
ESTIMATIONS FOR INDEPENDENT VARIABLES			
Variable	Short-Term Firms	Long-Term Firms	Coefficient⁸
FCFM	Low	High	+
CAPEX	Low	High	+
ESPREAD	Low	High	+
STLT	High	Low	-

⁸ A “+” indicates a positive expected coefficient, and a “-” indicates a negative expected coefficient.

TABLE 4*Specification 1: EV/EBITDA Multiple*

This specification attempts to measure the impact of *FCFM* (the free cash flow margin), *CAPEX* (capital expenditures), *ESPREAD* (absolute differences between analysts' estimated and actual reported earnings per share), and *STLT* (the ratio of short-term to long-term institutional investor holdings) on the EV/EBITDA multiple. For a more detailed description of each variable, please see Table 1 in this appendix.

Variable	Coefficient	Standard Error	P-Value
FCFM	1.87294	0.91262	0.04*
CAPEX	-0.00061	0.00008	0.00**
ESPREAD	0.50380	0.18843	0.08
STLT	-2.37274	0.64456	0.00**
ROA	-32.06971	3.82365	0.00**
DE	-0.01490	0.03080	0.63
CR	1.92147	0.11616	0.00**
MCAP	0.00003	0.00000	0.00**
CONSTANT	10.97685	0.43369	0.00**
Fixed Effect	Year		
Observations	4,622		
R^2	0.0863		

*Statistically significant, $p < 0.05$

**Statistically significant, $p < 0.01$

TABLE 5*Specification 2: EV/EBIT Multiple*

This specification attempts to measure the impact of *FCFM* (the free cash flow margin), *CAPEX* (capital expenditures), *ESPREAD* (absolute differences between analysts' estimated and actual reported earnings per share), and *STLT* (the ratio of short-term to long-term institutional investor holdings) on the EV/EBIT multiple. For a more detailed description of each variable, please see Table 1 in this appendix.

Variable	Coefficient	Standard Error	P-Value
FCFM	3.64438	1.33597	0.01**
CAPEX	-0.00061	0.00012	0.00**
ESPREAD	0.25404	0.27902	0.36
STLT	-3.52944	0.94185	0.00**
ROA	-96.59939	5.71730	0.00**
DE	-0.02229	0.04481	0.62
CR	1.99402	0.17002	0.00**
MCAP	0.00003	0.00000	0.00**
CONSTANT	20.83607	0.64178	0.00**
Fixed Effect	Year		
Observations	4,563		
R^2	0.0844		

*Statistically significant, $p < 0.05$

**Statistically significant, $p < 0.01$

TABLE 6*Specification 3: Price/Earnings Ratio*

This specification attempts to measure the impact of *FCFM* (the free cash flow margin), *CAPEX* (capital expenditures), *ESPREAD* (absolute differences between analysts' estimated and actual reported earnings per share), and *STLT* (the ratio of short-term to long-term institutional investor holdings) on the P/E ratio. For a more detailed description of each variable, please see Table 1 in this appendix.

Variable	Coefficient	Standard Error	P-Value
FCFM	4.78384	2.05136	0.02*
CAPEX	-0.00121	0.00017	0.00**
ESPREAD	1.53914	0.39410	0.00**
STLT	-7.21533	1.30976	0.00**
ROA	-111.9836	8.05169	0.00**
DE	-0.08806	0.06234	0.16
CR	3.12903	0.23809	0.00**
MCAP	0.00004	0.00000	0.00**
CONSTANT	30.75625	0.90345	0.00**
Fixed Effect	Year		
Observations	4,491		
R^2	0.0912		

*Statistically significant, $p < 0.05$

**Statistically significant, $p < 0.01$

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