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Long-Termism Versus Short-Termism: Time for the Pendulum to Shift?

EXECUTIVE SUMMARY

- Short-termism does exist; corporate sentiment, investor holding data, and secular trends highlight the short-term pressures that companies face and the tradeoffs that they are making.
- The investment value chain has three key participants: corporations, asset owners, and asset managers. In the past, leaving the burden to companies to deal with short-termism alone has proven to be ineffective, with institutional investors holding shares for shorter time periods and activist investors lying in wait.
- To institute real change, there has to be a paradigm shift. The asset owners who control the capital have the leverage to effect real change.
- A coalition of large-asset owners has realized the need for change and has put forth its recommendations on how the asset owner community can adopt long-termism principles.
- In transitioning to long-termism, an important constant is incorporating long-term metrics. Long-term metrics are both industry specific and sustainability oriented, and they are just as important as GAAP financial measures in following a long-term, value-creation investment process.
- Governance is the sustainable metric that has been viewed by most investors as the most important variable for corporate performance. Governance issues have been at the forefront for a longer period of time, and therefore, investors have a level of familiarity with them that environmental and social issues have yet to match--but they are making strides in catching up.

INTRODUCTION

We are often told to think long-term, keep the big picture in mind, or that it's a marathon, not a sprint; however, evidence shows it's not always in human nature for individuals to behave in a long-term-focused manner. Public companies are no different, and in recent years, the debate has centered on the detrimental impact of the short-term mindset of many public companies. Short-termism (a.k.a. quarterly capitalism) is defined as companies' fixation on managing for the short term, with decisions driven

Short-termism is viewed as a problem because it has the potential to undermine future economic growth with the lack of long-term investment, ultimately leading to slowing GDP, higher unemployment levels, and lower future investment returns for savers.

by the need to meet quarterly earnings at the cost of long-term investment. Short-termism is viewed as a problem because it has the potential to undermine future economic growth with the lack of long-term investment, ultimately leading to slowing GDP, higher unemployment levels, and lower future investment returns for savers—implications that could hurt everyone.

This paper will analyze the short-termism versus long-termism debate, examine how institutional investors are proposing to alleviate short-term thinking, and explore how incorporating long-term metrics is a critical step in this transition to long-termism.

WHAT IS SHORT-TERMISM AND IS IT A PROBLEM?

In 2013, McKinsey and the Canada Pension Plan Investment Board (CPPIB) conducted a McKinsey Quarterly global survey of more than 1,000 board members and C-suite executives to gauge their long-term approach in managing their companies.¹ The authors of the survey (Bailey and Godsall) confirmed the pervasiveness of short-termism in today's corporate mindset.

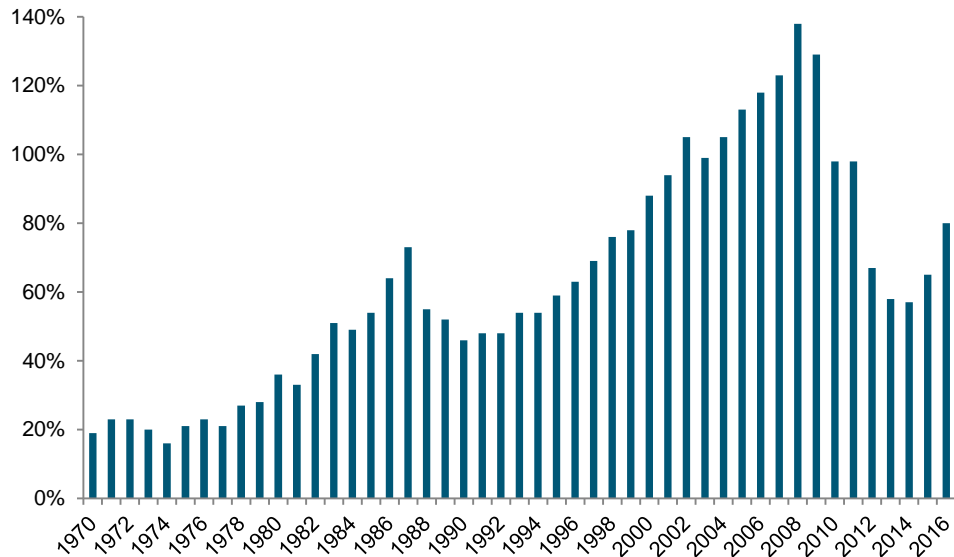
- 63% of respondents said the pressure to generate strong short-term results had increased over the previous five years.
- 79% felt pressured to demonstrate strong financial performance over a period of just two years or less.
- 44% said they use a time horizon of less than three years for setting strategy.
- 73% said they should use a time horizon of more than three years.
- 86% declared that using a longer time horizon to make business decisions would positively affect corporate performance in a number of ways, including strengthening financial returns and increasing innovation.
- 46% said that the pressure to deliver strong short-term financial performance stemmed from their boards, while the board members expressed that they were just channeling the short-term pressures that they feel from institutional investors.

The results were startling and brought to light how deeply the short-term mindset has permeated corporate culture. There is a consensus that the main source of the problem is the tremendous pressure that public companies face from financial markets to maximize short-term results time and time again. It's not just sentiment and surveys that convey this focus on the short term, but also empirical data that appears to support this. There has been a substantial increase in the rate at which individual stocks change hands, often cited as evidence that U.S. institutional investors have

¹ Bailey, Jonathan and Godsall, Jonathan, "[Short-termism: Insights from business leaders. Findings from a global survey of business leaders commissioned by McKinsey & Company and CPP Investment Board.](#)" December 2013. CPPIB and McKinsey & Company.

adopted a “trading” rather than a “buy-and-hold” mentality, which then translates into pressure for companies to deliver on short-term performance targets or risk losing investors. Indeed, some of the turnover may be due to high-frequency electronic trading. However, that cannot be the only driver of the growth, with annual turnover of stocks traded on the NYSE increasing from 36% in 1980 to 63% in 1996, and up to a high of 138% in 2008.

Exhibit 1: Annual Turnover of All Stocks Traded on the NYSE



The annual turnover of stocks traded on the NYSE increased from 36% in 1980 to 63% in 1996, and up to a high of 138% in 2008.

Source: NYSE Factbook. Data as of February 2016. Chart is provided for illustrative purposes.

Lastly, the rise of and prominent role played by “activist” investors is seen as further evidence of secular trends encouraging short-term behaviors at the expense of long-term thinking. Historically, activists had focused on smaller firms, but as their presence grows, they are targeting much larger firms and several large-cap companies. McDonald’s, Apple, JCPenney, and DuPont have been embroiled in public confrontations with large activist investors.

Typically, activists focus their attention on companies undertaking some short-term structural corporate (e.g., spinoffs) or financial actions (e.g., buybacks). In fact, in a study done by Yvan Allaire (MIT 2015), activist objectives were tracked, and almost 75% of the time, their publicly stated objectives centered on the following three points.²

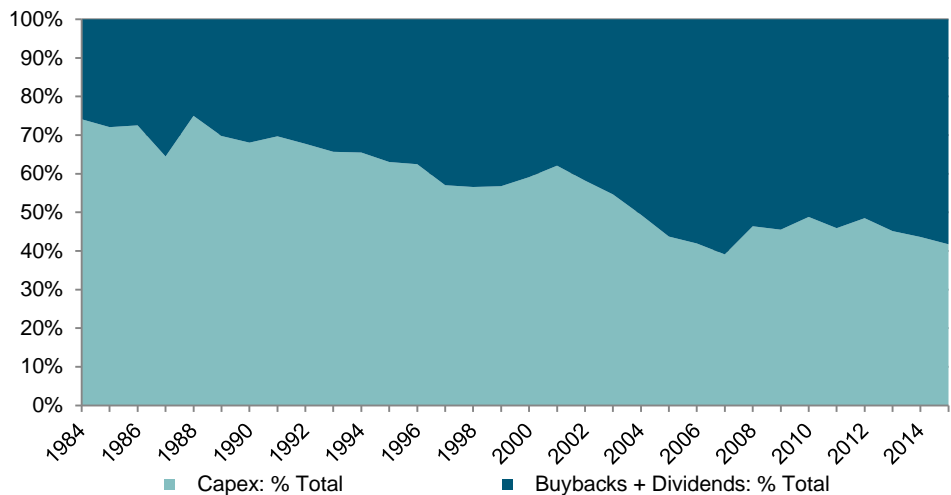
1. Sell the company or some form of asset restructuring or spinoff (31% of the cases).
2. Board change (25%).
3. Change in payout policy, such as share repurchase or dividend increase (17%).

² Allaire, Yvan et al., “[Hedge Fund Activism: Preliminary Results and Some New Empirical Evidence](#),” April 2015. Institute for Governance of Private and Public Organizations.

Activist funds buy shares, get board seats, and then employ their strategy to unlock value from the company. More often than not, unlocking value entails some form of financial engineering that drives up the share price and ultimately allows the activist fund to profit from its initial investment. Allaire’s research showed that there were few strategic, operational, or growth objectives prescribed for companies targeted by activists. In the end, this typically resulted in hollowed-out companies with little resiliency during economic downturns that were less apt to invest in the long term. One point of evidence of activism is the record amount of buybacks from large-cap companies. In Exhibits 2 and 3, we track buyback and dividend activity compared with capital expenditures. Shareholder-payout activity was at or near record levels compared with capital expenditures.

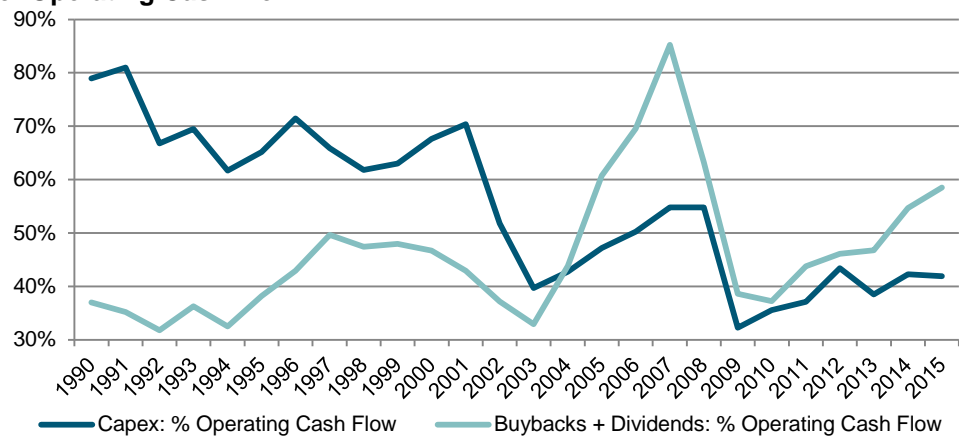
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Exhibit 2: S&P 500® Companies’ Capital Expenditures Versus Buybacks and Dividends



Source: S&P Dow Jones Indices LLC. Data as of December 2015. Chart is provided for illustrative purposes.

Exhibit 3: S&P 500 Companies’ Capital Expenditure and Payout Percentage of Operating Cash Flow



Source: S&P Dow Jones Indices LLC. Data as of February 2016. Chart is provided for illustrative purposes.

Some firms that “make their numbers” do *better* in the long term, reporting better operating results and obtaining higher market valuations than their competitors.

According to Henderson and Rose (2015), a number of studies confirm that some managers trade off future, positive net present value (NPV) projects in order to meet analyst expectations.³ However, their research also supported companies’ focus on meeting earnings as a positive sign. They highlight studies that have shown some firms that “make their numbers” do *better* in the long term, reporting better operating results and obtaining higher market valuations than their competitors. Their argument is that the pressure to meet earnings may reflect the fact that short-term results are a particularly credible signal of the health of the firm and the competence of the management, rather than an undue focus on the short term on the part of investors.

Differing motivations for meeting earnings, whether they stem from a desire to appear credible or are a reaction to short-term pressures, do not negate the fact that trade-offs are occurring, with long-term considerations falling by the wayside to deliver short-term earnings.

Of note, despite empirical evidence that corporations are engaging in short-termism and making trade-offs, some highly respected economists, such as Larry Summers, caution against going too far in reforming “quarterly capitalism.”⁴ He mentions risks such as driving the U.S. economy towards a “Japan’s keiretsu system,” which insulated corporate management from share-price pressure by encouraging cross holdings among large Japanese conglomerates.

Keiretsu was widely seen as a great Japanese strength. However, Summers noted that many “Japanese companies, despite the macroeconomic difficulties there, have lacked market discipline and have squandered leads in sectors ranging from electronics to automobiles to information technology.” While Japanese firms may represent one polar extreme, in the U.S. and elsewhere, there appears to be a real trade-off mentality present at the corporate level between producing current results and investing for the future, with the balance more heavily weighted toward short-term considerations.

COALITION TO DEAL WITH SHORT-TERMISM

In recent years, the issue of short-termism has come back to the forefront of investing. Whether it is investors, academics, think tanks, or economic organizations, the issue continues to garner a great deal of thought on how it can be addressed across a wide spectrum of participants.

In 2011, the World Economic Forum published a report titled “The Future of Long-Term Investing,” containing recommendations for both investors and

³ Henderson, Rebecca and Rose, Clayton “Investor “Short-Termism”: Really A Shackle?” January 2015. Harvard Business School Case Study.

⁴ Summers, Lawrence, “[Corporate Long-Termism is No Panacea—But it is a Start.](#)” August 2015. Financial Times.

The coalition of institutional investors in FCLT is realizing that telling company management to focus on the long term, and thereby placing the entire onus on them, is both unrealistic and ineffective.

regulatory authorities to remove obstacles to long-term investment and increase the positive impact of a long-term investment strategy.⁵ In 2013, the IMF weighed in and published “Procyclical Behavior of Institutional Investors During the Recent Financial Crisis: Causes, Impacts, and Challenges,” a paper that examined the reasons behind this procyclical behavior.⁶ Its conclusion was that behaving in a manner consistent with long-term investing would lead to better long-term, risk-adjusted returns and, importantly, could lessen the potential adverse effects of the procyclical investment behaviors of institutional investors on global financial stability.

Focusing Capital on the Long Term (FCLT) was set up in 2013 by McKinsey & Company and CPPIB in order to develop practical frameworks, metrics, and approaches for promoting longer-term behaviors in the investment and business worlds.⁷ Since then, over 100 pension funds, asset managers, and companies have joined the initiative.

Prior thoughtful recommendations often focused on what companies can do to shift away from short-termism—such as refrain from publically projecting quarterly earnings or extend the time horizons for executive compensation—without enough focus on what asset owners can do (Pozen, 2014).⁸ However, the coalition of institutional investors in FCLT is realizing that telling company management to focus on the long term, and thereby placing the entire onus on them, is both unrealistic and ineffective.

If one looks at the capital markets and the investment value chain, the major parties are companies, asset owners, and asset managers (there are intermediaries involved but the key parties listed control the flow of capital). If it’s any consolation to companies, they are not alone in facing increased pressures; asset owners face increased regulatory and funding pressures, while asset managers continue to operate in the “hire and fire” model. With the increased pressure, the time frame they are given to beat their benchmarks gets ever shorter in duration.

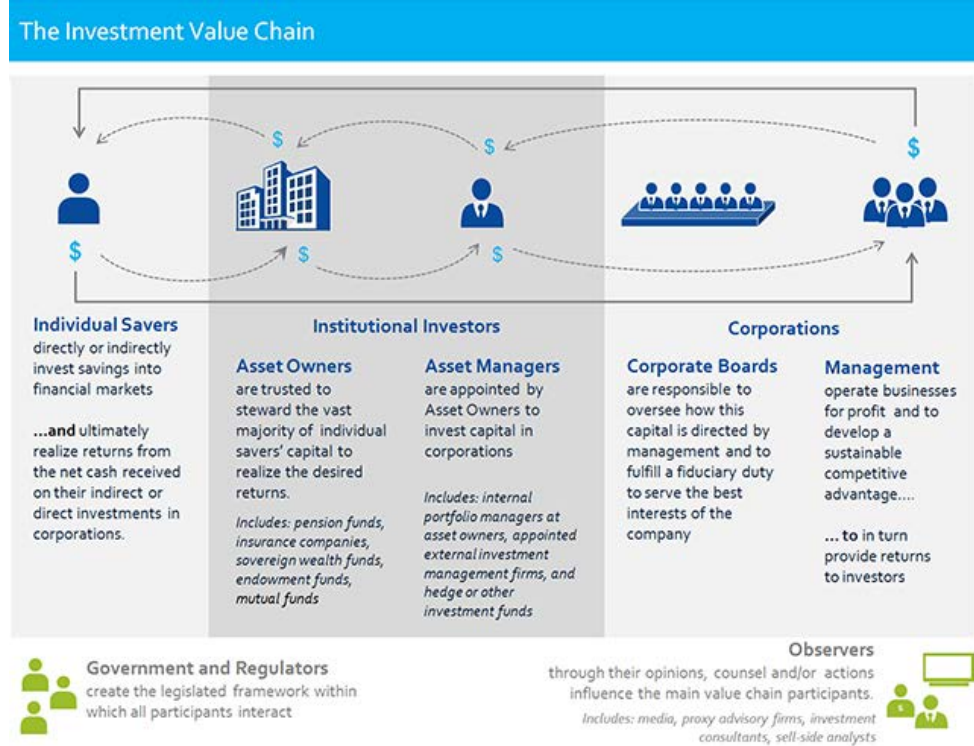
⁵ [“The Future of Long-Term Investing,”](#) 2011. World Economic Forum.

⁶ Papaioannou Michael G., Joonkyu Park, Jukka Pihlman, and Han van der Hoorn. [“Procyclical Behavior of Institutional Investors During the Recent Financial Crisis: Causes, Impacts, and Challenges,”](#) September 2013. IMF.

⁷ [“Long-Term Portfolio Guide: Reorienting Portfolio Strategies and Investment Management to Focus Capital on the Long Term,”](#) March 2015. Focusing Capital on the Long Term.

⁸ Pozen, Robert. [“Curbing Short-Termism in Corporate America: Focus on Executive Compensation,”](#) May 2014. Brookings.

Exhibit 4: Investment Value Chain Participants



Source: FCLT. Chart is provided for illustrative purposes.

Asset owners are the key constituent to effect real change, and their buy-in to long-term thinking will facilitate the process for other players.

According to FCLT, “the single most realistic and effective way to move forward is to change the investment strategies and approaches of the participants who form the cornerstone of our capitalist system: the big asset owners.”⁹ Asset owners are the key constituent to effect real change and, their buy-in to long-term thinking will facilitate the process for other players, such as asset managers, corporate boards, and company executives, to move away from short-termism.

ASSET OWNER ACTION PLAN

FCLT brought together nine major asset owners, controlling an aggregate of over USD 6 trillion in assets under management in order to create a detailed action plan with specific implementation strategies to help asset owners around the world incorporate a long-term mindset throughout the investment process. Their recommendations revolve around steps across five core action areas that all institutional investors must consider:

1. Investment beliefs,
2. Risk appetite statement,
3. Benchmarking process,
4. Evaluations and incentives, and
5. Investment mandates.

⁹ Barton, Dominic and Wiseman, Mark, “[Focusing Capital on the Long Term](#),” January-February 2014. Harvard Business Review.

The S&P Long Term Value Creation Global Index was designed as a vehicle to identify the companies that embody long-termism and give long-term investors an index that seeks to track the performance of these like-minded companies.

Exhibit 5: Asset Owner Action Plan	
Five Core Action Areas for Institutional Investors	Institutional Investors Should...
1. Investment Beliefs Set the investment philosophy and provide a compass to select investment strategies and navigate short-term turbulence.	Clearly articulate investment beliefs, with a focus on their portfolio consequences, to provide a foundation for a sustained long-term investment strategy.
2. Risk Appetite Statement Establish the risk framework by clarifying the asset owner’s willingness and ability to prudently take risks and accept uncertainties.	Develop a comprehensive statement of key risks, risk appetite, and risk measures appropriate to the organization and oriented toward the long term.
3. Benchmarking Process Measure the success of investment strategies and their execution over the long term.	Select and construct benchmarks focused on long-term value creation; distinguish between assessing the strategy itself and evaluating the asset managers’ execution of it.
4. Evaluations and Incentives Ensure alignment between asset owner’s and asset manager’s financial interests toward the long term.	Evaluate internal and external asset managers with an emphasis on process, behaviors, and consistency with long-term expectations. Formulate incentive compensation with a greater weight on long-term performance.
5. Investment Mandates Define and formalize the portfolio approach and the relationship between asset owner and asset manager.	Use investment-strategy mandates, not simply as a legal contract but, as a mutual mechanism to align the asset managers’ behaviors with the objectives of the asset owner.

Source: [FCLT](#). Table is provided for illustrative purposes.

The five areas collectively provide a framework for institutional investors to improve long-term outcomes for their portfolios, their investee companies, and ultimately for all stakeholders. Their guide can be found on the FCLT website and is a comprehensive document. Analyzing the detailed prescriptions outlined by FCLT is beyond the scope of this paper.

Throughout the recommendations, a common theme is continually emphasized: the need for incorporating long-term metrics that go beyond standard GAAP accounting numbers into the investment analysis process.

S&P Dow Jones Indices worked extensively with CPPIB to create a long-term value creation benchmark, which is the third imperative in their portfolio guide to asset owners (see Exhibit 5). The [S&P Long Term Value Creation Global Index](#) was designed as a vehicle to identify the companies that embody long-termism and give long-term investors an index that seeks to track the performance of these like-minded companies. We will be releasing a follow-up paper that will give a deeper overview on the objective, the process, and the structure that went into creating the index.

LONG-TERM METRICS

In general, long-term metrics can be classified into two general categories: (1) industry-specific metrics that will vary by sector, and (2) sustainability metrics that encompass environmental, social, and governance (ESG) evaluation criteria.

For the first category, despite the lack of uniformity and the variation by industry, asset owners and managers must realize the importance of these figures in the investment analysis process and work with company management to identify and obtain these metrics. For example, Natura, a

The wide acceptance of ESG sustainability metrics has been hindered by their emerging status, the lack of uniformity in data and criteria, and limited history for back-testing portfolios.

Brazilian cosmetics company, is pursuing a growth strategy that requires it to scale up its decentralized door-to-door salesforce without sacrificing high-quality salespeople. To help investors understand its performance on this key indicator, the company publishes data on salesforce turnover, training hours per employee, salesforce satisfaction, and salesperson willingness to recommend the role to a friend.

The second category of sustainability metrics requires that analysts give appropriate weight to inherently long-term factors, including the long-term implications of ESG risks and opportunities. Environmental criteria focus on a company's energy use, waste, pollution, and natural resource conservation, as well as evaluate the environmental risks inherent in the company's business model and how the company is managing these risks. Social criteria evaluate a company's business, employee, and community relationships. They seek to determine whether a company works with suppliers who hold similar values, involves itself with its community, has working conditions that show a high regard for employees' health and safety, upholds other stakeholders' interests, etc. Lastly, governance issues deal with a company's leadership, executive compensation, audits, internal controls, and shareholder rights.

The wide acceptance of ESG sustainability metrics has been hindered by their emerging status, the lack of uniformity in data and criteria, and limited history for creating robust back-tested portfolio models. However, there is an ever-growing group of industry coalitions that seek to educate, publicize, and standardize ESG data, which is helping ESG metrics gain greater support. Groups such as the Carbon Disclosure Project (CDP), the G20-based Financial Stability Board, the Sustainability Accounting Standards Board (SASB), the Global Reporting Initiative (GRI), the investor-driven International Integrated Reporting Council (IIRC), and the UN-led Principles for Responsible Investment are helping the investment community understand, accept, and implement sustainability metrics in their investment process.

Of the three ESG factors, governance has been viewed by most investors as the most important variable for corporate performance and has more of an established history, followed by environmental and social factors. However, the longer the investor horizon, the more weight may be given to beliefs in environmental risks and opportunities, as well as to social impacts.

For sustainability metrics, S&P Dow Jones Indices partners with RobecoSAM, an investment data firm that is known for its Corporate Sustainability Assessment (CSA), which consists of an annual survey and analysis of the sustainability performance of global companies. The CSA has been conducted annually since 1999. Given its extensive history and experience in surveying and analyzing material, beyond financial long-term metrics, RobecoSAM's data provides findings on the corporate level of how

long-term metrics and long-termism in general can take better hold in the investment value chain.

The following section describes RobecoSAM's view on developing a robust research framework to capture drivers of long-term value creation.

ROBECOSAM'S PERSPECTIVE ON RESEARCH FRAMEWORKS AND INVESTOR ENGAGEMENT

In order to orient corporate decision-making toward a longer-term time frame, RobecoSAM's view is that companies need to employ long-term metrics and incentives that orient the decision making of senior managers and employees more generally toward a longer-term time horizon and in turn report these to investors.

Based on the results of the [2015 Dow Jones Sustainability Index assessment](#), RobecoSAM observed that only 18% of the 1,845 companies assessed demonstrated clear evidence of CEO incentives that were longer than three years.¹⁰ To orient management decisions around long-term issues, companies will need to change the way they motivate senior executives and employees in order to adopt a greater role in long-term incentive schemes.

In order to facilitate this change, it is important that investors' research frameworks also adapt to include a greater focus on long-term corporate strategy and the corresponding metric. This requires moving beyond traditional sustainability or ESG key performance indicators (KPIs), measuring past performance, and adopting a greater focus on evaluating long-term planning and future-oriented KPIs, metrics, and targets that measure long-term value creation.

Specifically, research frameworks should focus on three key areas in evaluating company performance. First, in evaluating corporate governance, research frameworks should not only measure the level of executive compensation but, more importantly, the time frame and the performance metrics used for senior executive compensation.

Evaluating the existence and extent of long-term incentive plans is essential in order to measure whether the company orients executive behavior toward long-term goals and strategic targets. In addition, research frameworks should provide a more granular evaluation of the nature of the incentive schemes used in order to evaluate whether and to what extent companies create the incentives for executives to orient strategies around the key drivers of long-term value. The transparency of companies in terms of the target and the results of executive performance

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¹⁰ [Dow Jones Sustainability Index Assessment, 2015. September 2015. RobecoSAM.](#)

are also critical elements in determining the quality of the corporate governance of a company in relation to long-term performance.

Second, research frameworks should focus in greater depth not only on the risk-management frameworks that companies employ but also on the degree to which they disclose longer-term risks and mitigation actions to investors. It is important for investors to evaluate the ability of companies to identify and report on new and emerging risks that may affect the business over a period longer than three years, and evaluations of risk management should account for the awareness and transparency of companies in regard to such longer-term risks. Research frameworks evaluating risk management should also address key qualitative elements of risk management relating to risk culture, risk reporting, and innovations in a company's risk-management system.

Research frameworks should be developed to evaluate companies' ability to identify and report on the sources of long-term value creation itself.

Third, and perhaps most importantly, research frameworks should be developed to evaluate companies' ability to identify and report on the sources of long-term value creation itself. Only by companies clearly disclosing the drivers of long-term value creation can investors evaluate whether and to what extent companies are orienting strategic decisions around long-term value drivers. Consequently, investor research should evaluate whether companies identify the long-term value drivers underlying the performance, as well as their use of metrics to measure this performance in a long-term time frame.

Sustainability reporting initiatives such as the GRI, SASB, IIRC, and the CDP have aided in orientating corporate reporting in the direction of sustainability issues and performance, which is an essential step in the right direction. However, more work is required within sustainability frameworks and buy- and sell-side research to move beyond traditional sustainability issues and encompass a broader scope that evaluates the time frame and direction of corporate strategy. This will help investors make better-informed decisions and ultimately should help incentivize companies to provide greater reporting on their actions relating to long-term value creation.

The McKinsey research for the FCLT clearly indicates a significant disconnect between the timeframes that C-Suite executives indicate they should be using to manage their business effectively and the actual time frames by which they orient their decisions currently.¹¹ The source of this disconnect, according to companies, is the pressure that they receive from investors to focus on short-term results.

¹¹ Bailey, Jonathan and Godsall, Jonathan, "[Short-Termism: Insights from Business Leaders. Findings from a Global Survey of Business Leaders Commissioned by McKinsey & Company and CPP Investment Board](#)," December 2013. CPPIB and McKinsey & Company.

To begin to overcome this misalignment, it is incumbent upon the investment community not only to analyze corporate performance differently, but also to engage companies on questions relating to long-term performance. Sustainability researchers, buy- and sell-side analysts, and investors in general must engage companies directly in requesting clear information on long-term strategy and metrics. Only when investors pose the right questions will companies begin to feel the pressure to reorient their decisions around long-term strategies as well as reorient their communications toward issues that matter over the long term.

CONCLUSION

The issue of short-termism is not a new phenomenon, and in fact it was 30 years ago that Peter Drucker noted in a Wall Street Journal editorial that, “Everyone who has worked with American management 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 toward decisions they know to be costly, if not suicidal, mistakes.” As noted by Roger Martin, (HBR, October 2015) “short-termism is a debate that is difficult to settle because the answer is fundamentally unknowable. There is no control group; we cannot compare the performance of corporate America with short-termism to that of corporate America without short-termism.”¹²

However, there is palpable evidence of short-term pressures with those who matter most: the managers executing business strategy. In the past, companies have had to deal with short-termism alone, despite increased pressure from both institutional investors and activist investors. Large asset owners are realizing that the single most effective way to deal with short-termism is by changing the investment strategies and approaches of the participants who control the capital: the asset owners. Therefore they have put forth their detailed recommendations on how the asset owner community can adopt long-termism principles.

In transitioning to long-termism, an important constant is for investors to incorporate long-term metrics, which should be viewed as equal in importance to GAAP financial measures. RobecoSAM’s experience is that investors also need to build a more in-depth framework in evaluating companies, with a greater focus on executive compensation, detailed risk-management analysis, and increased shareholder engagement.

In closing, investors are in the position that will most likely have the most leverage to halt short-term behavior from corporations. They hold the key as their buy-in to long-term thinking could facilitate the process for other key players, such as asset managers, corporate boards, and company executives, to move away from short-termism.

Large asset owners are realizing that the single most effective way to deal with short-termism is by changing the investment strategies and approaches of the participants who control the capital: the big asset owners.

¹² Martin, Roger, “[Yes, Short-Termism Really Is a Problem.](#)” October 2015. Harvard Business Review.

REFERENCES

Allaire, Yvan et al., "Hedge Fund Activism: Preliminary Results and Some New Empirical Evidence." April 2015. Institute for Governance of Private and Public Organizations.

Bailey, Jonathan and Godsall, Jonathan, "[Short-Termism: Insights from Business Leaders. Findings from a Global Survey of Business Leaders Commissioned by McKinsey & Company and CPP Investment Board](#)," December 2013. CPPIB and McKinsey & Company.

Barton, Dominic and Wiseman, Mark, "[Focusing Capital on the Long Term](#)," January-February 2014. Harvard Business Review.

[Dow Jones Sustainability Index Assessment, 2015. September 2015. RobecoSAM.](#)

Martin, Roger, "[Yes, Short-Termism Really Is a Problem](#)," October 2015. Harvard Business Review.

"[Long-Term Portfolio Guide: Reorienting Portfolio Strategies and Investment Management to Focus Capital on the Long Term](#)," March 2015. Focusing Capital on the Long Term.

Papaioannou Michael G., Joonkyu Park, Jukka Pihlman, and Han van der Hoorn. "[Procyclical Behavior of Institutional Investors During the Recent Financial Crisis: Causes, Impacts, and Challenges](#)," September 2013. IMF.

Henderson, Rebecca and Rose, Clayton, "Investor 'Short-Termism': Really A Shackle?" January 2015. Harvard Business School Case Study.

Pozen, Robert. "[Curbing Short-Termism in Corporate America: Focus on Executive Compensation](#)," May 2014. Brookings.

Summers, Lawrence. "Corporate Long-Termism is No Panacea—But it is a Start," August 2015. Financial Times.

"[The Future of Long-Term Investing](#)," 2011. World Economic Forum.

ABOUT S&P DOW JONES INDICES

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