

MCKINSEY GLOBAL INSTITUTE

MEASURING THE ECONOMIC IMPACT OF SHORT-TERMISM

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DISCUSSION PAPER



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INTRODUCTION

Corporate short-termism has been the subject of ongoing debate among leaders in business, government, and academia for more than 30 years, with much of the discussion focusing on whether it destroys value. Recent surveys of C-suite executives that we have conducted suggest that pressure to deliver strong short-term results has increased in the past five years and, as a result, many executives believe their companies are using excessively short time horizons in their strategic planning.¹ However, evidence that short-termism genuinely detracts from corporate performance and economic growth has remained scarce, partly because of difficulties in measuring the phenomenon, which does not correspond to any single quantifiable metric and is a confluence of many complex factors.

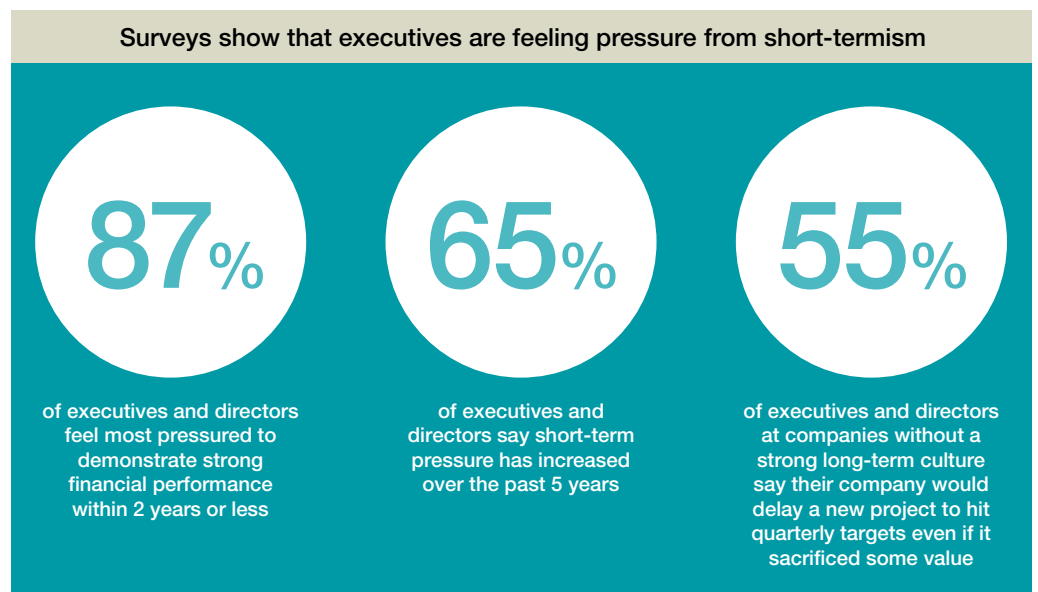
This discussion document aims to provide a fact base for this ongoing debate through a systematic measurement of long- and short-termism at the company level. Using a data set of 615 large- and mid-cap US publicly listed companies from 2001-2015, we have created a five-factor Corporate Horizon Index. It is based on patterns of investment, growth, earnings quality, and earnings management. It enables us to separate long-term companies from others and compare their relative performance, after controlling for industry characteristics and company size. Our findings show that companies we classify as “long term” outperform their shorter-term peers on a range of key economic and financial metrics. These findings include:

- From 2001-2014, the revenue of long-term firms cumulatively grew on average 47 percent more than the revenue of other firms, and with less volatility. Cumulatively, the earnings of long-term firms also grew 36 percent more on average over this period than those of other firms, and their economic profit grew by 81 percent more on average.
- Long-term firms invested more than other firms from 2001 to 2014. Although they started this period with slightly lower research and development spending, cumulatively by 2014, long-term companies on average spent almost 50 percent more on R&D than other companies. More important, they continued to increase their R&D spending during the financial crisis while other companies cut R&D expenditure; from 2007 to 2014, average R&D spending for long-term companies grew at an annualized rate of 8.5 percent vs. 3.7 percent for other companies.

¹ Dominic Barton, Jonathan Bailey, and Joshua Zoffer, *Rising to the challenge of short-termism*, FCLT Global, September 2016, available for download at <http://www.fcltglobal.org/docs/default-source/default-document-library/fclt-global-rising-to-the-challenge.pdf?sfvrsn=0>.

- Long-term companies exhibit stronger financial performance over time. On average, their market capitalization grew \$7 billion more than that of other firms between 2001 and 2014. Their total return to shareholders was also superior, with a 50 percent greater likelihood that they would be top decile or top quartile by 2014. Although long-term firms took bigger hits to their market capitalization during the financial crisis than other firms, their share prices recovered more quickly after the crisis.
- Long-term firms added nearly 12,000 more jobs on average than other firms from 2001-2015. Had all US publicly listed firms created as many jobs as the long-term firms, the US economy would have added more than five million additional jobs over this period. On the basis of this potential job creation, this suggests that the potential value unlocked by companies taking a longer-term approach was worth more than \$1 trillion in forgone US GDP over the past decade, or 0.8% of GDP per year on average; if these trends continue, it could be worth nearly \$3 trillion through 2025.

These findings are by no means the final word in the debate on corporate short-termism. Indeed, they have raised further questions (see section, “An agenda for further research”) that MGI will continue to research.



SOURCE: *Rising to the challenge of short-termism*. FCLT Global, September 2016.

THE CORPORATE HORIZON INDEX

Our Corporate Horizon Index (CHI) is based on patterns of investment, growth, earnings quality, and earnings management captured in five variables, with data drawn from McKinsey's Corporate Performance Analytics database (Exhibit 1).² Each variable corresponds to a hypothesis, grounded in the academic literature and insights generated by McKinsey's Strategy and Corporate Finance Practice, for how long-term companies behave differently from short-term ones and how these differences might manifest in financial data when companies are compared to industry peers.³

Exhibit 1

Corporate Horizon Index methodology

Indicator	Hypothesis	Measurement approach
1 Investment	Long-term firms will invest more and more consistently than short-term firms	Ratio of capital expenditures to depreciation
2 Earnings Quality	Long-term firms will generate earnings that reflect cash flow, not accounting decisions	Accruals as a share of revenue
3 Margin Growth	Short-term firms are more likely to grow margins unsustainably in order to hit near-term targets	Difference between earnings growth and revenue growth
4 Quarterly Management	Short-term firms will do whatever they can to hit short-term targets, whereas long-term firms are willing to miss them if needed	Incidence of beating EPS targets by less than 2 cents and incidence of missing EPS targets by less than 2 cents
5 Earnings-per-share Growth	Long-term firms are less likely to over-index on EPS rather than true earnings and act to boost EPS (e.g., with buy-backs)	Difference between EPS growth and true earnings growth

SOURCE: McKinsey Global Institute Analysis

We hypothesize that long-term oriented companies will differ primarily in the following ways: consistency of investment rates, with long-term firms investing more and more consistently; the quality of their earnings, with long-term firms relying less on accruals and accounting methods to boost reported earnings; and their focus on metrics closely tracked by Wall Street such as earnings per share, rather than the fundamentals of value creation such as revenue, with long-term firms focused less on analyst metrics and more on fundamental value.

To ensure valid results and avoid any bias in our sample and long-term group construction, we conducted several controls and robustness tests. These included evaluating all firms in the CHI only relative to their industry peers, scaling indicators by company size to avoid size bias, ensuring a relatively even representation of industries between the long-term group and the remaining companies, and ensuring each indicator in the index provides unique signal value for identifying long-term firms. For details, see the note on methodology at the end of this discussion document. These findings constitute a descriptive analysis: our methodology enables us to classify firms as "long term" or not and report differences in historical performance. It is not an econometric analysis that reports statistical relationships between given variables, that is, it does not enable us to assert causality between long-termism and outperformance or short-termism and underperformance.

² <http://www.mckinsey.com/solutions/corporate-performance-analytics>.

³ Our data include 615 non-financial firms with continuous revenue data from 2000 to 2015 (covering 60 to 65 percent of total US public market capitalization over this period) and market capitalization of \$5 billion in at least one year during that period. These controls were applied to (1) exclude financial firms for which these indicators do not readily apply and (2) ensure a consistent data set that includes companies large enough to feel potential short-term pressure exerted by their shareholders, board, and other sources. Our sample roughly tracks the Global Industry Classification Standard sector representation of the S&P 500, other than the exclusion of financials and telecommunications services (due to low representation in the sample), and thus constitutes a reasonably representative sample of large US public firms.

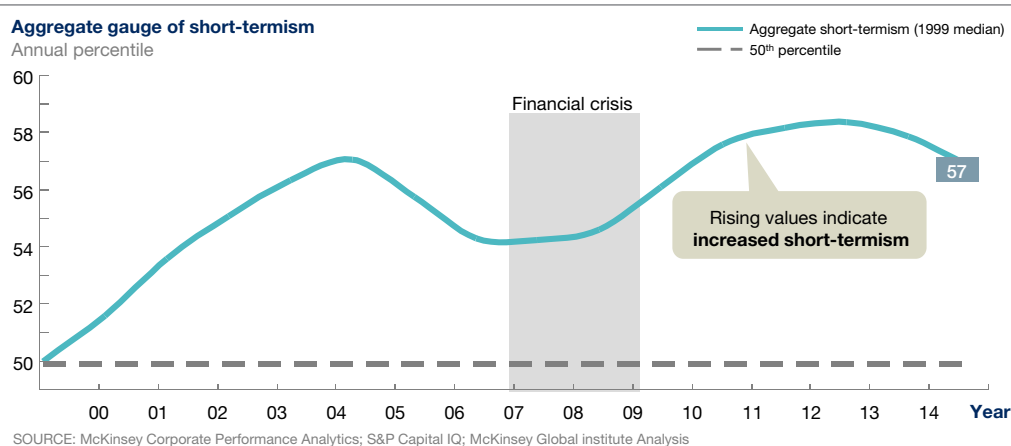
ANALYSIS AND FINDINGS

SHORT-TERMISM IS INCREASING

We track how overall levels of short-termism have changed over time by examining how a company at the median of our index in 1999 would perform in subsequent years. We find that the median CHI score, across our entire sample, has become increasingly short-term over time. While the overall trend is clear, our analysis shows a slight reversion away from short-termism in the years immediately preceding the financial crisis (Exhibit 2). This is mostly driven by increases in fixed asset investment and strong earnings growth during this period. However, short-termism resumed during the crisis and has largely continued to increase since.

Exhibit 2

Short-termism is on the rise



It is important to understand these results in the context of changing competitive landscapes within industries. Previous MGI research has shown that profits have migrated toward idea-intensive industries such as pharmaceuticals and technology, while margins have been squeezed in capital- and labor-intensive industries including automobiles, machinery, and retail.⁴ On an industry level, our findings suggest that as of 2015, idea-intensive industries such as software and biotechnology are among the most long-term, while capital-intensive industries such as automobiles and chemicals are among the most short-term. Against this backdrop, it seems plausible that in some industries a growing profit pool encourages long-termism within an industry, while adverse economic conditions may drive short-termism as investors grow increasingly worried about short-term viability. Using a sample of 615 companies over 15 years, we attempt to capture these macroeconomic changes and their effects on corporate horizons and performance at an aggregate level.

LONG-TERM FIRMS EXHIBIT STRONGER FUNDAMENTALS

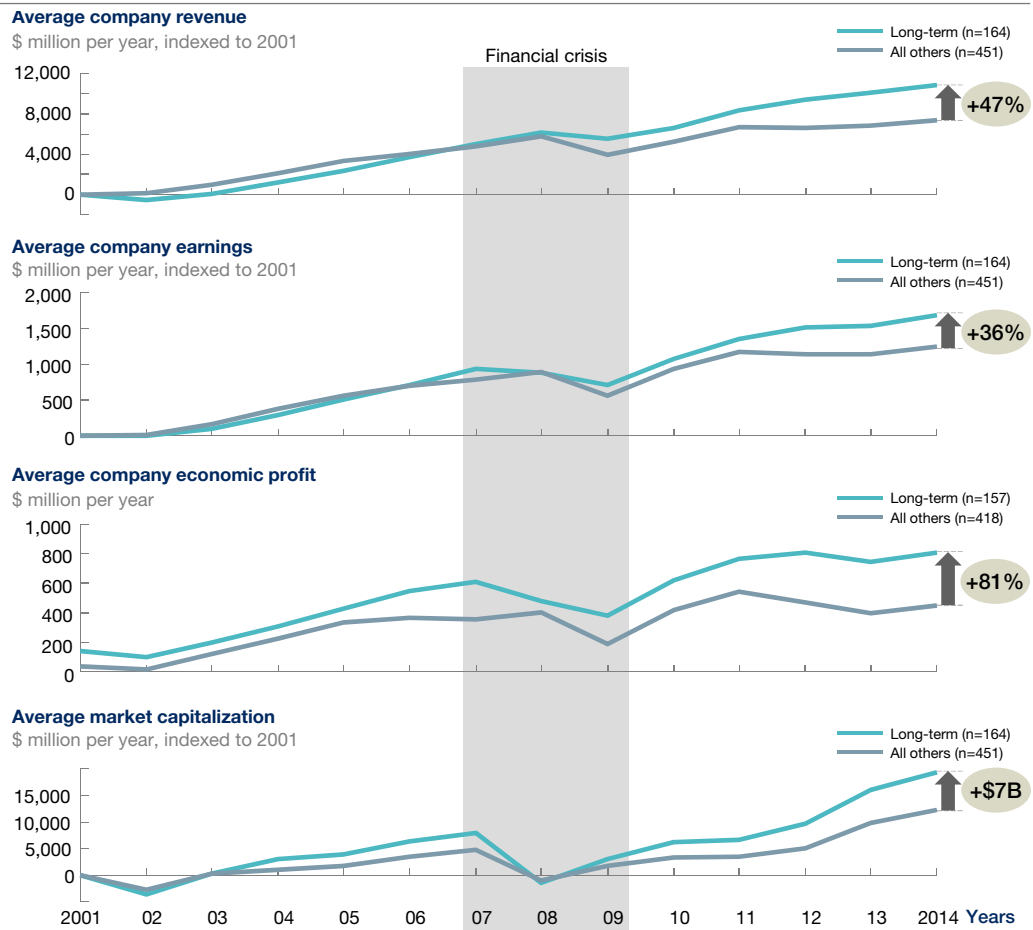
The long-term companies with the highest CHI scores significantly outperformed other companies on the basis of revenue. Their revenue cumulatively grew 47 percent more on average, by 2014, and was less volatile over the sample period. Long-term companies slightly trailed other companies in terms of absolute revenue in the lead-up to the financial crisis. However, their revenue declined less during the financial crisis and grew more rapidly after the crisis; the revenue of long-term companies grew at an average annualized rate of 6.2 percent from 2009 to 2014, compared with 5.5 percent for other firms (Exhibit 3).

The strong fundamentals exhibited by these long-term companies allowed them to better weather the 2008 global financial crisis and its aftermath. Over the entire sample period,

⁴ *Playing to win: The new global competition for corporate profits*, McKinsey Global Institute, September 2015.

Exhibit 3

Long-term firms exhibit stronger fundamentals and performance



SOURCE: McKinsey Corporate Performance Analytics; S&P Capital IQ; McKinsey Global Institute Analysis

long-term companies had less volatile revenue than others, with a standard deviation of average revenue growth of 5.6 percent compared with 7.6 percent for other firms.

Long-term companies experienced higher earnings growth than other firms and, as with revenue, these earnings declined less than the earnings of other companies during the financial crisis. Long-term companies' earnings also rebounded much more quickly after the crisis. By the end of the 14-year period, their earnings cumulatively grew 36 percent more on average than other firms.

The outperformance of long-term companies on the fundamentals of value creation becomes even more pronounced when measured in terms of economic profit, a more direct way to assess the total value created by a company. Economic profit represents a company's profit after subtracting a charge representing the opportunity cost of the capital the firm has invested (working capital, fixed assets, goodwill). The capital charge equals the amount of invested capital times the return that shareholders expect to earn from investing in companies with similar risk (that is, the opportunity cost of investing that capital elsewhere). Economic profit thus measures not only a company's profitability but also how effective it is at using its capital to grow the business by allocating to the best available opportunities relative to other options. Consider, for example, Company A, which earns \$100 of after-tax operating profit, has an 8% cost of capital and \$800 of invested capital. In this case its capital charge is \$800 times 8%, or \$64. Subtracting the capital charge from profits (\$100 minus 64) gives \$36 of economic profit. A company is creating value when its economic profit is positive and destroying value if its economic profit is negative.

Long-term companies delivered higher levels of economic profit over the sample period, generating 81 percent higher annual economic profit in absolute terms by 2014, on average. This finding indicates that the higher revenue and earnings exhibited by long-term firms is

no fluke—these companies delivered more value than other companies. Perhaps more important, this value did not materialize overnight. Although long-term firms had higher average economic profit over the whole sample, the gap widened over time as long-term plans came to fruition.⁵

LONG-TERM COMPANIES DELIVER SUPERIOR FINANCIAL PERFORMANCE

The increased value delivered by long-term firms in terms of revenue, earnings, and economic profit translated into higher market capitalization: long-term firms added \$7 billion more in market capitalization on average than other firms between 2001 and 2014.

However, long-term firms were penalized during the financial crisis with larger decreases in market capitalization than other firms: they experienced peak-to-trough declines of 38 percent vs. 34 percent declines for others. However, in the post-crisis period, the market capitalization of long-term firms increased by two percentage points more per year on average than other firms, delivering an additional \$7 billion of market capitalization from trough to peak on average.

If all other firms had appreciated at the same rate as long-term firms, US public equity markets could have added more than \$1 trillion in incremental asset value from 2001 to 2014, increasing total US market capitalization by roughly 4 percent. This forgone value would have been enough to eliminate a substantial portion of the total funding gap among US public pensions that are among the largest shareholders of these companies.⁶

Over the sample period, long-term firms also delivered greater total returns to shareholders (TRS) than other companies. Examining the quartile distribution of TRS for companies relative to industry peers, we find that long-term firms are approximately 50 percent more likely to be in the top decile and top quartile for total shareholder returns in their industry than other companies and approximately 10 percent less likely to have total shareholder returns below their industry median. Long-term companies representing 27 percent of the total sample capture a disproportionate 44 percent of the growth in total returns to shareholders from 2001-2014.

Moreover, in the industry groups that delivered above-average shareholder returns during this 14-year period, long-term companies captured an even greater share of the total returns (47 percent) while representing an even smaller percentage of the sample (26 percent). Even in the industries with below-average shareholder returns, long-term companies captured a greater percentage of the total returns than would be expected given their share of the sample.

LONG-TERM COMPANIES CONTINUE TO INVEST IN DIFFICULT TIMES

The ability of the long-term companies to deliver more consistent and higher revenue growth and, ultimately, higher earnings relative to other firms, even during the financial crisis, suggests that these companies maintained consistent and sustainable sources of growth, key goals of long-term planning. R&D expenditures offer one way to measure the degree to which a company implements long-term planning—both in identifying products or technology that could give the company an edge in the future, and in then committing resources to bring them to life. Consistent with this hypothesis, long-term companies invested significantly more in R&D on average than other companies over 14 years, amounting to almost 50 percent greater average annual R&D spending by 2014.

⁵ Not all companies in our sample consistently reported the components needed to calculate economic profit over the full sample. Thus, the number of companies included in the analysis of economic profit is smaller than for other outcome variables.

⁶ For a discussion of the pension gap, see *Diminishing returns: Why investors may need to lower their expectations*, McKinsey Global Institute, May 2016; Attracta Mooney, “US faces disastrous \$3.4tn pension funding hole,” *Financial Times*, April 10, 2016.

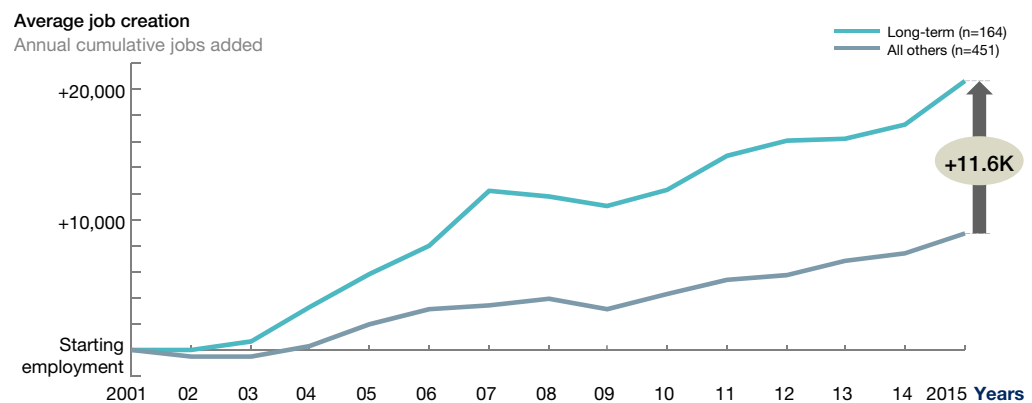
This trend was particularly pronounced during the financial crisis, during which long-term companies continued to invest while others cut R&D spending: from 2007 to 2014, R&D spending for long-term companies grew at an annualized rate of 8.5 percent vs. 3.7 percent for other companies. This finding provides an intuitive explanation for the outsized revenue and earnings growth these companies experienced after the financial crisis: they invested in future growth when others failed to do so, and they were rewarded for it.⁷

LONG-TERM COMPANIES ADD MORE TO ECONOMIC OUTPUT AND GROWTH

As long-term companies have captured large shares of US corporate growth and delivered outsized returns to shareholders, they have also hired millions of workers to fuel their growth. Between 2001 and 2015, long-term companies added more jobs to the economy than other firms, with this disparity growing sharply in both the lead-up to the financial crisis and in the recovery period afterward. By 2015, long-term companies had created nearly 12,000 more jobs on average than other companies since 2001 (Exhibit 4). Extrapolating from this difference, US companies would have added roughly eight million more jobs from 2001 to 2015 if the entire market were long term, translating into over five million more jobs in the United States, after controlling for the share of likely job creation overseas.

Exhibit 4

Long-term companies contribute more to employment and economic output than other firms



SOURCE: McKinsey Corporate Performance Analytics; S&P Capital IQ; McKinsey Global Institute Analysis

Based on these estimates of job creation, the potential value that could have been unlocked had all US publicly listed companies taken a long-term orientation exceeded \$1 trillion over the past ten years, or 0.8% of GDP per year on average.⁸ Assuming the rates of job creation for long-term companies and all other companies observed from 2001 to 2015 continue over the next decade, the average differential would grow to about 25,000 jobs by 2025, amounting to \$2.7 trillion (in 2015 dollars) in additional GDP growth if all companies perform as well as the long-term firms over the next decade, or over \$350 billion per year by 2025.

Whether the economy would have the capacity to create and fill these jobs depends on many factors, but there should be little doubt that if those five million additional workers had entered the workforce, the US could easily have absorbed them. The key is to remember that the fall in unemployment since the crisis was paralleled by a large drop in overall labor force participation rates, as discouraged workers stopped looking for jobs and dropped out of the statistics. Assuming the 66 percent labor force participation rate in 2007 persisted to 2015 (versus falling, as it did, to 62.5 percent), there would have been about 16 million unemployed in the US and not the 8 million we officially counted that year.⁹ In other words, more long-term oriented companies creating more jobs would have been likely to find willing workers among this larger pool of the long-term unemployed who otherwise simply gave up.

⁷ Not all companies in our sample consistently reported R&D expenditures over the full sample. Thus, the number of companies included in the analysis of R&D is smaller than for other outcome variables.

⁸ Estimate assumes the differential in job creation observed in the sample (which accounts for roughly 65 percent of US public market capitalization) applies to the entire universe of US public companies and controls for overseas job creation by US companies.

⁹ US Bureau of Labor Statistics.

AGENDA FOR FURTHER RESEARCH

This discussion document is just a first step toward understanding the scope and magnitude of corporate short-termism. We know from surveys and academic work that this issue is not confined to the United States, our focus in this document, and that its sources are too complex to unravel without deeper analysis. The next step is to advance this work by continuing to test our understanding of short-termism, its costs, and potential solutions. Questions still in need of research include:

- **Company-level drivers:** Is it possible to identify predictors of short-termism at a company level, and if so, what are they? Can these drivers be used to identify interventions to reduce short-termism?
- **Industry and sector differences:** To the extent that short-termism differs between sectors and industries, what differentiates long-term sectors and industries from others? Are the differences driven by broad, secular trends or are they within the control of companies, governments, or investors?
- **Ownership structure drivers:** Are the effects and extent of short-termism different among private companies? What can public companies learn from the ways private companies approach long-term planning? Among public companies, are there differences between those that are narrowly owned vs. broadly owned, and those more or less represented by different investor types?
- **Additional geographies:** What are the costs of short-termism in other markets? Do the same relationships between short-termism and financial performance and economic growth hold, and what distinguishes markets where results differ?
- **Secular stagnation:** Is corporate short-termism linked to secular stagnation, in particular as a source of low investment rates? Is it possible that tackling short-termism can help resolve the tension between low investment and growth and high corporate profits?
- **Productivity:** Is corporate short-termism linked to declining productivity growth? Is it the case that short-term companies, and markets where they are concentrated, are less productive due to short-term firm-level decisions?

* * *

This discussion document constitutes a first effort to measure short-termism systematically at a company level, assess how it has changed over time, and quantify its effects on corporate financial performance and macroeconomic growth. Our findings—that short-termism is rising, that it harms corporate performance, and that it has cost millions of jobs and trillions in GDP growth—are sobering. Companies and governments should begin to take proactive steps to overcome short-term pressure and focus on long-term value. The economic success of their companies and their countries depends on it. Corporate short-termism will remain a topic for future research by the McKinsey Global Institute. We welcome any reactions to this discussion document and look forward to feedback and suggestions on our work.

A NOTE ON METHODOLOGY

To assess the role of short-termism in driving financial performance and economic outcomes, we identified a set of long-term companies within our sample. This group includes those that are consistently long term (those with CHI scores above their industry median for at least 12 of 15 sample years) or that clearly switch from being short-term in the first half of the sample to being long-term in the second half (those with CHI scores above their industry median in three years more in the second half of the sample than the first). This approach was designed to capture both companies always subject to the differences offered by a long-term outlook and those that experienced the “natural experiment” of changing their outlook during the sample period. Based on this methodology, approximately 27 percent of the sample was classified as long-term companies and compared to the remaining companies in the data set.¹⁰

To ensure valid results and avoid any bias in our sample and long-term group construction, we conducted several robustness tests:

- All indicators were calculated with rolling three-year averages (that is, each single year score incorporates three years of data) to prevent extreme outlier years from skewing the results.
- All companies were scored on the CHI relative to industry peers and treated as “long term” or “short term” in a given year based on whether they were above or below their industry median for that year.
- Where necessary, indicators were scaled by company size (for example, by revenue) to eliminate any size bias.
- R^2 decomposition and analysis of variance (ANOVA) were conducted to ensure that all five indicators provide unique information and truly work as an index of corporate horizon and that no one factor dominates the results.

After constructing the “long-term” group, we assessed the industry representation of each group to avoid any bias due to industry skew.¹¹

Along with our caveat that we have constructed a descriptive analysis rather than an econometric one, it should also be noted that the construction of the CHI makes no attempt to assign different weights to the five factors comprising it. We began with no ex ante hypotheses for the relative power of our indicators in predicting short- or long-termism. Instead, we treated each of them as a likely predictor and constructed an index that weights each of them equally to paint a picture of each firm in the sample over a series of years. The index relies on ordinal rankings of firms on each indicator (relative to their industry peers) to form a composite score for each company for each year of sample data. Performance on each indicator is thus normalized and does not communicate anything about the distribution of outcomes for each individual indicator.

¹⁰ After construction, the two samples were tested to avoid size or industry bias in the results. In both cases, the samples showed no major bias that would jeopardize the integrity of the findings.

¹¹ Between the “long-term” group and all remaining companies, 20 of the 26 industry groups in our sample have nearly identical representation within the two groups (differences in proportional representation of 1 percent or less), and only one industry has a difference in proportional representation of more than 3 percent.

ACKNOWLEDGMENTS

This discussion document draws on the body of existing and ongoing research at MGI, including projects on global competition, productivity, and secular stagnation, to inform our understanding of the macroeconomic trends underlying observed short-termism.

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FURTHER READING

Asker, John, Joan Farre-Mensa, and Alexander Ljungqvist, “Corporate investment and stock market listing: A puzzle?” *Review of Financial Studies*, volume 28, number 2, February 2015.

Barton, Dominic, Jonathan Bailey, and Joshua Zoffer, *Rising to the challenge of short-termism*, FCLT Global, September 2016, available for download at <http://www.fcltglobal.org/docs/default-source/default-document-library/fclt-global-rising-to-the-challenge.pdf?sfvrsn=0>.

Bhojraj, Sanjeev, Paul Hribar, Marc Picconi, and John McInnis, “Making sense of cents: An examination of firms that marginally miss or beat analyst forecasts,” *Journal of Finance*, volume 64, number 5, October 2009.

Brochet, Francois, Maria Loumiotis, and George Serafeim, “Speaking of the short term: Disclosure horizon and managerial myopia,” *Review of Accounting Studies*, volume 20, number 3, September 2015.

Flammer, Caroline, and Pratima Bansal, *Does a long-term orientation create value? Evidence from a regression discontinuity*, SSRN, September 2016.

Focusing Capital on the Long Term, *Long-term portfolio guide: Reorienting portfolio strategies and investment management to focus capital on the long term*, March 2015, available for download at [http://www.fcltglobal.org/docs/default-source/default-document-library/fclt_long-term-portfolio-guide-\(investing-for-the-future\).pdf?sfvrsn=2](http://www.fcltglobal.org/docs/default-source/default-document-library/fclt_long-term-portfolio-guide-(investing-for-the-future).pdf?sfvrsn=2).

Focusing Capital on the Long Term, *Straight talk for the long term: An in-depth look at improving the investor-corporate dialogue*, March 2015, available for download at http://www.fcltglobal.org/docs/default-source/default-document-library/straight-talk_in-depth_vfo3363494db5326c50be1cff0000423a91.pdf?sfvrsn=0.

Galston, William, and Elaine Kamarck, *More builders and fewer traders: A growth strategy for the American economy*, Brookings Institution, June 2015.

Gutiérrez, Germán, and Thomas Philippon, *Investment-less growth: An empirical investigation*, NBER working paper number 22897, December 2016.

Kaplan, Steve, “American companies are thinking long-term,” *Chicago Booth Review*, November 2016.

Sampson, Rachele, and Yuan Shi, *Evidence and implications of short-termism in US public capital markets: 1980–2013*, SSRN, July 2016.

Terry, Stephen, *The macro impact of short-termism*, Stanford Institute for Economic Policy Research working paper number 15-022, June 2015.