



# bringing long-term thinking into business

A Systematic Review



Network for  
Business Sustainability  
Canada

[nbs.net](http://nbs.net)

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We have to maintain a balance between prudence in the short term and confidence in the long term....Marks & Spencer will have been on the high street 125 years next year. It will be there for 100 years to come.<sup>1</sup>

SIR STUART ROSE, EXECUTIVE CHAIRMAN, MARKS & SPENCER

<sup>1</sup>MacDonald, G. July 11, 2008. Rose reigns as shareholders back promotion to chairman. *Retail Week*.

Short-term and long-term actions can bring value to business, but most businesses tilt toward the short term. This report shows how businesses can manage the tension between short and long term.

# bringing long-term thinking into business

Prepared by Dr. David Souder, Dr. Greg Reilly and Rebecca Ranucci,  
the University of Connecticut School of Business

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Dear Reader,

Corporate short-termism is one of the most significant issues confronting both business and society today. Actions that aim to maximize value today, with limited consideration of their future consequences, can create enormous harm. The sustainability of our society and planet, by definition, requires businesses to manage resources for the long term.

Yet, businesses face continual short-term pressures from investors, customers, and even their own managers. Short-term action offers quick wins, while long-term action offers lasting success and sustainability. **Successfully addressing this tension is critical to meeting the needs of business *and* society.**

In this groundbreaking report, researchers Dr. David Souder, Dr. Greg Reilly and Ms. Rebecca Ranucci (University of Connecticut) have systematically reviewed relevant research on how businesses can incorporate long-term thinking. By drawing on 200 relevant articles, they identify the factors that affect short- and long-term thinking on organizations.

Academics will benefit from this review's detailed analysis and identification of remaining research needs (Chapter 4). **We recommend managers draw on the Executive Report**, available at <http://nbs.net/publications/executive-reports/> The Executive Report provides action-oriented guidance and mini-cases, all emphasizing the sustainability implications of this research.

I am sincerely grateful for the stellar guidance provided throughout the research process by the team's guidance committee: Eli Angen (Pembina Institute), Paula Brand (Environment Canada), Grete Bridgewater (Canadian

Pacific Railway), Philip Bromiley (University of California, Irvine), Richard Chartrand (3M Canada), Luc Robitaille (ex-Holcim Canada), Brenda Goehring (BC Hydro) and Kim Rapagna (Target Canada). NBS staff member Rick Bunch facilitated the development of this project.

NBS's systematic reviews form the basis of our knowledge. The topics are chosen by our Leadership Council, a group of multi-sector organizations leading in sustainability whose names you will find at the end of this report. This group meets annually to identify the sustainability topics most salient to business. Identifying how businesses can incorporate long-term thinking was at the top of their list for 2014. The reports from all their past priorities are available freely on our website at **nbs.net**.

We are proud of our systematic reviews. We have drawn from the principles of evidence-based medicine, but have introduced novel processes to accommodate cutting-edge knowledge from the field. The result is an authoritative account of the strategies and tactics of managing sustainably, as well as the gaps for further research.

I hope this research will help organizations manage the tension between the short and long term, with benefits for us all.

Sincerely,



Tima Bansal, PhD  
Executive Director, Network for Business Sustainability  
Professor, Ivey School of Business

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## Executive Summary

How can organizations incorporate long-term thinking about future implications into their businesses today? Most leaders confront this question repeatedly in their careers, and yet the question remains largely unanswered. Based on a systematic review of relevant literature, the authors of this report have summarized what has been learned to date. We found many examples of behaviours focused on the short term and many explanations for why these behaviours occur, despite their potential for negative long-term consequences. Other than pleas to focus on the long term, however, we found little research to help leaders avoid emphasizing the short term in their own organizations.

In bringing together everything that has been written, we have been able to develop several tools of our own. We found that most organizations have little trouble generating long-term ideas, but considerable difficulty fostering the ability to pursue these ideas. Even when such ideas are pursued, organizations find it challenging to communicate their rationale to stakeholders. To help organizational leaders, we have developed some analytical tools inspired by the systematic review. These insights can be found in our executive report available for download at <http://nbs.net/knowledge/strategy/long-term-thinking/executive-report/>.

Social and environmental sustainability are often linked to long-term thinking. Our review included some research addressing social and environmental sustainability directly. However, this document frames our findings as related to the short and long terms. In the executive report, we emphasize the sustainability implications of this knowledge.

### NOTE FOR MANAGERS



**This icon has been placed throughout this document to draw your attention to sections that are particularly relevant to managers.**

# chapter 1

From ancient Egypt to the present, observers have called for more long-term thinking by business. This report identifies factors leading to short- and long-term thinking and the consequences of each perspective.



*“Five years into the economic recovery, businesses still aren’t plowing much money into big-ticket investments for the future. Nonresidential fixed investment — what businesses spend on equipment, software, buildings, and intellectual property — still hasn’t bounced back to its pre-crisis share of the economy, let alone made up for lost ground from the record lows of 2009.... If firms increased their spending enough to close that gap, it would mean an extra \$220 billion in annual economic activity and perhaps a couple of million more jobs. But there may be even more important and lasting consequences for this lack of spending by business. Capital spending improves worker productivity. And worker productivity improves living standards. Less capital spending by businesses means less investment in the kinds of equipment, software, and intellectual property that will make the economy more competitive over the long haul.”*

Neil Irwin, The New York Times, July 22, 2014

*“Of course there is a potential downside to all this transparency: If a board becomes too enamored with a particular view from a set of shareholders, it could lead to short-term thinking that undermines long-term performance.”*

Andrew Ross Sorkin, The New York Times, July 22, 2014

Much has been written about the future impact of decisions made today. Sentiments echoing those quoted above, taken from the same newspaper on the same day, can be found routinely. Corporate leaders, politicians and the general public have all been accused of short-termism. Experts have repeatedly raised concerns that general business practices contribute to the long-term detriment of economic systems, the natural environment and even businesses themselves. Similar concerns have been recorded throughout traditional literature, all the way back to Aristotle’s (350 B.C.E./1991) analysis of ethics and Joseph’s agricultural planning in Egypt (Genesis 41: 46–57). In modern times, a prominent study of U.S. competitiveness in the early 1990s sharply criticized the reluctance to take a long-term perspective (Porter, 1992). A decade prior, Hayes and Abernathy (1980) came to the same conclusion in a highly cited Harvard Business Review article.

Seemingly every year, experts publish a report that criticizes decision-makers for having a short-term bias, and instead promote the importance of a longer horizon view. (See Figure 1.1 for quotes from recent examples.)

And yet, as each generation puts its own spin on the theme, it is hard to escape the conclusion that few solutions have been found. This report represents a new attempt to advance a long-standing conversation by compiling, synthesizing and analyzing prior findings.

Figure 1.1

## EXAMPLES FROM RECENT LITERATURE ON LONG-TERM THINKING

*“There is no greater impediment to good corporate governance and long-term value creation than earnings obsession.... The potential payoff from reducing short-term performance obsession in the investment and corporate communities is substantial.”*

Alfred Rappaport, Financial Analysts Journal, 2005

*“The insights of our symposia participants ... confirm what the academic research suggests: namely, that the obsession with short-term results by investors, asset management firms, and corporate managers collectively leads to the unintended consequences of destroying long-term value, decreasing market efficiency, reducing investment returns, and impeding efforts to strengthen corporate governance.”*

Alfred Rappaport, Financial Analysts Journal, 2005

*“Long-term oriented firms are “built to last,” and expect to create value over five years and beyond, although individual metrics may have shorter time horizons. The goal of such metrics is to maximize future value (even at the expense of lower near-term earnings) and to provide the investment community and other key stakeholders the information they need to make better decisions about long-term value.”*

The Aspen Institute, 2007

*“Decision making based primarily on short-term considerations damages the ability of public companies — and therefore of the US economy — to sustain superior long-term performance. Emphasis on quarterly earnings, compensation tied to earnings per share, shortened CEO tenures, and financial reports that fail adequately to inform about company performance impede the task of building long-term value.”*

Research and Policy Committee of the Committee for Economic Development, 2007

*“What has changed since 2003? The 24/7 availability of a growing information stream has increased the speed and reduced the reaction time of today’s markets, which may be putting additional pressure on executives to think and act with a short-term bias. Did the focus on short-term, forward-looking earnings guidance and the pressure to meet that guidance contribute to what some observers have called the biggest financial crisis since the Great Depression? Some would argue that it did and that it exacerbated the market’s fall.”*

Robert Kueppers, Nicole Sandford, and Thomas Thompson, Deloitte and Financial Executives Research Foundation, 2009

*“Somehow our culture has managed to develop the splendid contradiction of being able to use “short-termist” as a recognised slur on the respectability of someone’s thinking, at the same time as reveling in our own addiction to short-term wins. It’s as though Bogart and Bacall had gone around flinging the word “smoker!” at each other as a stinging insult. To be fair, some of our interview panel point to upsides from short-term thinking. ”*

Martin Newman, The Leadership Council, 2010

*“Debates over short-termism come and go from the public eye along with the business cycle. Heavily debated during the economic turmoil of the 1980s, the issue receded to the background during the 1990s information technology boom.... Now in the midst of an unprecedented global financial and economic crisis, the time is right to ask a fundamental question regarding the corporate economy: do managers and investors tend to pursue short-term gains in ways that have detrimental effects on the long-term prospects of companies or even national economies?”*

Gregory Jackson and Anastasia Petraki, Glasshouse Forum, 2011

*“Investors in fossil fuel companies can gain attractive short-term returns from high oil prices. However, carbon emissions will have an impact on the long-term health of the economy as well as the environment, and the value of investors’ portfolios could suffer unless they shift out of these carbon-intensive companies and into alternatives in a managed way.”*

Ruth Curran and Alice Chapple, Forum for the Future, 2011

*“Executives face two daunting challenges as they embrace the value of long-term thinking and strive to create sustainable businesses. First, the genuine need for short-term stewardship can distract from their long-term vision. Second, defining the long term and embedding it into today’s operations are more complicated tasks than they may seem at first glance. The key is to think creatively about the challenge of juggling short- and long-term goals.”*

Gillian Lees and Roger Malone, Chartered Institute of Management Accountants, 2011

*“R&D is thus an easy target when firms face quarterly earnings pressure. Since it is expensed rather than capitalized, cuts yield immediate increases in profit, while the detrimental impact of those cuts aren’t felt for a few years.”*

Anne Marie Knott, Harvard Business Review, 2012

*“Amidst concerns about the negative effects on long-run value and competitiveness, one overlooked consequence of short-termism is its impediment to corporate social responsibility (CSR). This oversight is not surprising because it is entirely possible to be alarmed by short-termism while remaining uninterested in CSR. Nevertheless ... [I]ike research and development, CSR also requires current expenditures that reduce earnings.”*

David Millon, Seattle University Law Review, 2013

## 1.1 Research Questions

Our approach aims to review and synthesize existing knowledge about incorporating long-term impacts into today's decisions. Based on a comprehensive review of academic journal articles, as well as highly salient industry reports and popular press, the report addresses three research questions:

1. What are the contributors to, and consequences of, short-term decision-making in organizations?
2. When are the consequences of short-term decision-making at odds with sustainability?
3. What are the decision-making processes that incorporate both the short term and long term?

All three questions are crucially important. The executive report provides additional thoughts on question 3, using this systematic review as the foundation for providing managers with ways to figure out the right balance between the short and long terms in their business. Rather than generate wish lists of things we might like other people to do, the executive report seeks to identify tangible actions decision-makers can take to improve their own odds for future success and the sustainability of the broader systems in which they operate. Talk is cheap, and many of these actions will be costly. But incurring these costs also represents an investment in pursuit of a sustainable upside that other expenditures may lack.

Our work deliberately emphasizes a managerial perspective. Our approach differs from much of the practitioner literature on short-termism, which puts a lot of weight on actors in the finance chain — such as analysts and various types of fund managers — or the potential for government interventions. Responsibility for today's lack of long-term thinking is shared among managers and all of these groups, and we certainly do not single out managers for blame. Instead, we view top managers of businesses as the most likely group to initiate changes for the better, both because of the types and scale of resource allocation decisions they make and because managers participate in a more organized decision-making structure than investors, regulators or politicians. Such a management-centric perspective has strong roots in this literature (Hayes & Abernathy, 1980), and we used an exhaustive review of the scholarly literature on management to identify more selectively the relevant literature from other academic areas that helps shed light on short- and long-term thinking.

## 1.2 Approach

We want to call attention to two research philosophies embedded in this report. First, in conducting the systematic review, we observed that a broad range of behaviour has been described as short-termist, short-sighted or otherwise lacking a long-term perspective. Not all of this literature has a clear connection with time. Some authors use these terms in general ways to criticize business practices they dislike — which runs the risk of producing an “everything but the kitchen sink” model that lacks sufficient precision to generate useful advice. We have thus focused on literature that truly incorporates temporal trade-offs, choices for which alternatives with meaningfully different outcome time horizons exist, and pay less attention to literature that uses temporal terminology but lacks a direct connection to time.

Second, our review revealed that long-term thinking can be described in principled language or analytical language. Principled language treats long-term thinking as an end goal and essentially as an attitude or value that managers can try to instill in an organization’s culture (what we ought to do). Analytical language treats long-term thinking more as a means to an end

— a possible way to help managers achieve the goals of an organization that accounts for both the current situation and additional contextual considerations (what we might do). (See Table 1.2). Both principled and analytical treatments of long-term thinking are important. We found that past reviews of this subject have mostly described long-term thinking with principled language, a judgment validated by the example quotes in Figure 1.1. Consequently, we have chosen to emphasize the analytical way of describing long-term thinking. In our judgment, making the analytical case for improving long-term thinking complements the principled case that has already been made elsewhere. The analytical view has the potential to motivate managerial behaviour better by acknowledging and incorporating the contextual complexities that managers encounter routinely when making resource allocation decisions.

There are no easy rules for analyzing temporal trade-offs; otherwise, managers would already be using them. Likewise, analyzing temporal trade-offs is difficult enough without confusing the issue by including other behaviours that arise for reasons only tangentially related to time (e.g. risk preferences). We thus primarily focus on the analytical treatment of organizational challenges that are directly time-related and mention non-temporal concerns and use principled language only in passing.

Table 1.2

### COMPARISON OF PRINCIPLED VS. ANALYTICAL LANGUAGE

DIFFERENTIATING FACTORS	PRINCIPLED LONG-TERM THINKING	ANALYTICAL LONG-TERM THINKING
Reflects...	Attitudes	Current needs
Incorporates....	Values	Context
Recognizes value of...	Culture	Limited short-term thinking

## 1.3 Methodology

This report was generated through a systematic review of existing literature (see Appendix A for full details). Six major steps were completed:

1. **Development of keywords.** Through conversations with a variety of experts, we identified 15 search terms that would identify literature with possible relevance to future thinking in organizational settings: future perspective, futurity, horizon, hyperbolic discounting, long-short problem, long-term orientation, long-term perspective, long-term sustainability, present focus, short-term perspective, short-termism, temporal depth, temporal myopia, temporal orientation and time orientation. Some of these terms appear more frequently in the literature than others, but with a more general usage than pertains to this project (e.g. horizon).
2. **Identification of potential sources.** Using the Web of Science and Business Source Premier, we first performed a series of screens to identify existing research that addresses these terms. This primary search was conducted on organization-level research within the field of Management. We then selectively identified additional literature from related fields that also addressed at least one of the research questions. Moreover, focusing on the topic, we searched for practitioner articles, books and relevant reports from government, industry or nongovernmental organizations (NGOs). We identified over 6,000 potential sources of material.
3. **Determination of relevant literature.** We then eliminated from further review any literature that did not address organization-level decision-making, had little relevance to long-term thinking or used the keywords listed above only in passing and not in substantial ways. This filter reduced the volume of material to 163 scholarly journal articles, 21 books and 15 reports from industry, government or NGOs. We also included salient literature from publications outside the systematic review, including 12 practitioner-oriented articles previously identified as valuable by the researchers.
4. **Collection of data.** For each publication deemed relevant, we extracted citation details, level of analysis, study context, theoretical framing, research design, preliminary assessment of methodological quality, observed results and implications for long-term decision-making in organizations.
5. **Assessment of quality.** Each publication received different weight or importance based on its quality, as demonstrated through the reputation of the publishing journal or organization, the amount of supporting evidence provided, the robustness of the study design and the consistency of results across multiple studies.
6. **Synthesis of findings.** Our research team then combined the various studies' findings to determine the overall emerging themes covered in this report.



## 1.4 Search Terms

In this literature, authors have used different terms to refer to very similar concepts, and terms have been used inconsistently from study to study. For example, sometimes authors will use the term short-termism to describe disliked behaviour, whether or not the behaviour focuses primarily on time-related concerns. Suppose a driver looks at a phone instead of the road and collides with a mailbox. Although a temporal description of this scenario is feasible — i.e. the short-term benefit of obtaining information from the phone pales in comparison to the longer-term cost of higher insurance premiums — the driver made a bad decision independent of the role of time. Many references to short-termism in existing literature could be similarly described as critiques of decision-making that invoke the language of time, but with little relevance to temporality. To build a robust understanding of how time-based thinking influences managers, we needed to isolate the time-essential usages of key terms from their less precise usages as catch-all descriptions of poor decision-making. These terms fall into two categories: 1) properties of individuals or organizations, and 2) outcomes associated with such properties.

Appendix B provides definitions of the search terms used in the review. These definitions raise awareness of the subtle distinctions among different concepts in this literature. Except in direct quotes from other published works, we use all terms below consistently throughout our report.

## 1.5 Examples of Long-term Activities

Long-term thinking is enacted via a wide range of managerial choices in numerous activities throughout the business. While researchers have long focused on research and development (R&D) spending as a default measure for long-term orientation, Laverty (1996) argued compellingly that this focus captures only one of many future-oriented activities. Various authors have identified many examples of activities thought to receive insufficient investment because they involve immediate charges to accounting earnings but the corresponding benefits will not be realized for some time (Millon, 2013; Rappaport, 2005). These activities occur throughout a business, from demand generation to demand fulfillment to enterprise support, and often intersect with external pressures and constituencies. Specific categories appearing in prior literature include the following:

- Capital expenditures (Shao, Kwok, & Zhang, 2013; Souder & Bromiley, 2012)
- Maintenance and repairs (Millon, 2013)
- Research and development (Desyllas & Hughes, 2010; Hopp, 1987; Knott, 2012)
- Employee training (Lees & Malone, 2011)
- Growth infrastructure (Souder & Shaver, 2010)
- Innovation (Bergfield & Weber, 2011)
- Environmental management (Beale & Fernando, 2009; Hill & Thompson, 2006)
- Corporate social responsibility (CSR) (Millon, 2013; Neubaum & Zahra, 2006; Wang & Bansal, 2012)

- New product introductions (Souza, Bayus, & Wagner, 2004)
- Customer retention (Lees & Malone, 2011)
- Customer service (Mei-Liang & Kuang-Jung, 2010)
- Supplier relationships (Chung, 2012; Lopez-Navarro et al., 2011)
- Joint ventures and alliance partnerships (Buck, Liu, & Ott, 2010; Das, 2006; Lopez-Navarro, Callarisa-Fiol, & Moliner-Tena, 2013)
- Corporate reputation (Lees & Malone, 2011).

## 1.6 Summary of Our Approach

The objective of this report is to describe how managers use time when making decisions — specifically, how they resolve trade-offs between expected outcomes in the present and the future. We have tried to avoid making judgments about such decisions. Different situations dictate different decisions, and we rely on existing literature to define which situations call for shorter- or longer-term thinking. Rather than declare decisions good or bad, the executive report focuses on analyzing how well a particular decision fits a given situation.

# chapter 2

## the details: what we know about long-term thinking

Based on our extensive review of the research, we identify:

- Effects of long- and short-term thinking on organizational outcomes
- Pressures facilitating and limiting long-term thinking
- Influences of organizational processes on today's decisions about the future

Prior literature has identified numerous effects, pressures and processes related to long-term thinking. In Chapter 2, we report the main findings from the key papers identified through the systematic literature review. Figure 2.1 provides a graphical overview of the structure of these findings.

The chapter is organized around these three topics, which correspond to the research questions addressed in this report. We present the topics in the following order:

1. Effects of long- and short-term thinking on organizational outcomes
2. Pressures facilitating and limiting long-term thinking
3. Influences of organizational processes on today's decisions about the future

In each main section, we use subheadings to highlight the key concepts, followed by a description of the arguments in existing scholarly work. At the end of each main section, we address some of the remaining questions for future research.

Figure 2.1

### **PRESSURES, PROCESSES AND EFFECTS OF LONG-TERM THINKING**



## 2.1 Effects of Long- and Short-Term Thinking on Organizational Outcomes

### PREVAILING ARGUMENTS

Timing matters (Albert, 2013). Doing the right thing at the right time for the right reason makes a lot of sense — but managers know such responses are much easier said than done. How do we know when the time is right for any particular action? The answer depends greatly on specific circumstances, making it difficult for scholars to offer insights about what works in general. Our review of the literature suggests that it has been easier to gather evidence on why timing might cause many managers to get things wrong. *This section identifies what's known about effects of long and short-term thinking on outcomes, and some of the challenges of making those assessments.*

#### Short-Termism

Experts believe that short-termism — an over-valuing of short-run outcomes compared with long-run outcomes — redistributes wealth instead of creating it, and thus diverts resources from economic growth (Gross & Lewis, 2007). Authors have argued that, compared with long-termism, corporate short-termism leads to worse eventual outcomes for businesses themselves (Lin-Hi & Blumberg, 2012) and for the economic, environmental and social systems in which they operate. In fairness, however, we have not yet seen robust evidence that

reliably speaks to the validity of this claim. The logic of the claim is compelling — and would provide a clearer call to action if managers could confidently connect their actions to inevitable long-term consequences. However, people can often reasonably disagree about the expected outcomes of events that will take many years to unfold. At the time of highly visible long-term investments such as corporate acquisitions or multi-year sports contracts, it is normal for some analysts to forecast positive returns, while other analysts criticize the transaction as overpriced. The adage “only time will tell” may sound maddeningly indecisive, but it is often an accurate conclusion. Even after time passes, it is challenging to examine long-term performance outcomes through “a fair test” because of intervening actions and changes that will also influence performance outcomes. Adding to the challenge, managers need to adapt to temporal shocks to align their strategies with environmental conditions (Perez-Nordtvedt, Khavul, Harrison, & McGee, 2014).

#### Rush to Judgment

Relatedly, advocates for initiatives that lack immediate returns often stress the importance of not rushing to judge outcomes. Corporate entrepreneurship, for example, becomes undervalued if early returns are overemphasized by decision-makers (Zahra & Covin, 1995). This argument has merit, but with the caveat that it can be difficult to distinguish the sensible desire to perform evaluations at the right time from an irresponsible attempt to avoid judgment entirely. Simply deferring the evaluation adds little value.



**Instead, organizations should develop the criteria for assessing an initiative, including interim indicators that progress is advancing favourably and, ideally, pre-established opportunities to curtail an investment if evidence mounts that it is not producing reasonable outcomes.**

### **Industry and Firm Considerations**

Adding to the difficulty of developing general rules for effective timing, any fair evaluation of outcomes needs to account for industry differences. For example, because of the variance in time associated with product or Five years may represent a short time horizon in some industries (e.g. oil drilling) but a long horizon in another (e.g. microprocessors) because of the variance in time associated with product or asset life cycles (Friedman & Segev, 1976). These differences also carry over into scholarly work. Whereas accountants draw a universal line at one year, separating expenses from investments that are capitalized, other experts have used two years as a rule of thumb for separating the short and long terms (Jackson & Petraki, 2011); and still others have used a five-year window (Barringer & Bluedorn, 1999). Our approach aims to allow for context-specific adaptation, and we therefore do not impose a rigid definition for the length of the “short term” or “long term.” The varying operating needs of a particular industry suggest that time horizon is a relative concept rather than an absolute one. Short-term thinking in oil drilling, for example, may entail managerial attention to affecting outcomes over the next several years rather than looking decades ahead to avoid new problems (Beale & Fernando, 2009). In contrast, in the fashion industry, looking more than one season ahead may be considered long-term thinking.

Even within an industry context, organizations retain considerable latitude for determining their own horizon. In line with strategic thinking, some firms may choose to pursue shorter or longer horizons and would expect to attain the benefits or suffer the costs associated with such a strategic choice. For example, compared with smaller firms, larger firms tend to have longer planning horizons (Dahlmann, Brammer, & Millington, 2008) because they are less agile (Friedman & Segev, 1976). On a related point, studies have found that firms sometimes accelerate the timing of new product launches because of competitive pressure, but these external pressures have little effect on the quality of such products, and firms can suffer from rushing a low-quality product to market in an effort to keep pace with their peers (Souza et al., 2004). Moreover, scholars found no evidence for their expectation that firms focusing on reliability — rather than corporate entrepreneurship — would have longer planning horizons (Barringer & Bluedorn, 1999).

### **Firm and National Competitiveness**

In a prominent analysis of short-termism, Hayes and Abernathy (1980) argued that American competitiveness was falling behind Japan and Europe because of a reluctance to compete on technology over the long run, specifically with an eye toward offering superior products. Subsequent events reveal such criticism to be prescient when applied to automobile manufacturing, one of America’s most prominent industries at the time, which suffered a slow and painful demise from cutting corners, which then allowed overseas rivals to develop reputations for making superior-quality cars. Yet the larger point about a refusal to compete on technology hardly applies to American business as a whole.



Since Hayes and Abernathy's analysis, America's economic growth has been fuelled primarily by leading the world in the development of new technology — just in the emerging computing sector rather than the traditional manufacturing one. It is easy to fall for one of the big perils of long-term analysis: assuming a static environment. We are fascinated by predictions — whether about sports, politics or business — because we know the future will be different but we don't know specifically how. Hayes and Abernathy's warning to Detroit was prescient, but hardly foretold problems in Silicon Valley.

#### FUTURE RESEARCH DIRECTIONS

Scholars and industry experts share a prevailing belief that short-termism has negative performance consequences, at least in the long term. Yet, managers regularly make choices focused on the short term, no doubt due to the short-term benefits they are able to realize. A primary challenge is to design studies that provide insight into how managers can develop more accurate and quantitative forecasts of both long- and short-term outcomes in advance of their key business decisions. To better understand the validity of common beliefs about short-termism, academics need to move beyond lab experiments and anecdotal evidence and instead find systematic, large-scale evidence.

The lack of such evidence derives primarily from the difficulty of measuring long-term outcomes and linking them to specific investment choices. Going forward, we believe scholars can break down the problem into smaller, more analyzable issues to obtain more convincing empirical support. For example, do specific companies with longer horizons achieve demonstrably better performance than otherwise comparable firms with shorter horizons? Can the J-shaped performance consequences of long-term investments (i.e. negative returns for several years followed by very high returns in subsequent years) be tracked in quasi-experimental settings and compared to the steadier, lower-upside returns of short-term alternatives? Do practices related to long-term orientation — such as stakeholder management, corporate shareholder responsibility or environmental conservation — achieve the J-shaped returns expected from long-term decisions? In time, we expect robust empirical research to provide evidence demonstrating the negative consequences of short-term thinking in real world settings.

## 2.2 Pressures Facilitating and Limiting Long-term Thinking

### PREVAILING ARGUMENTS

Many experts have identified broad institutional conditions that promote either long-term thinking or short-termism. The effects of national culture and family ownership are regularly examined by scholars (e.g. (Hofstede, 1980)). In addition to these durable elements, conditions can also change over time. For example, in the 1980s, the additional intensity in the market for corporate control — e.g. proxy fights and other attempts by so-called activist shareholders to obtain legal control over or otherwise disproportionately influence the corporate strategy of a company — was considered a trigger for managers to become short-termist (Gaddis, 1997).

Facilitating conditions also emerge at the firm level of analysis. Something as esoteric as the firm's choice of discount rate can significantly shape perception of the firm's future opportunities (Wilkes & Samuels, 1991). Researchers have found that U.S. managers assume significantly higher hurdle rates than managers in Europe or Asia because they believe they have a shorter horizon to demonstrate performance (Poterba & Summers, 1995). Similarly, others have argued that an individual's investment principles and time horizon will influence their valuation or price targets for various assets (Wellum, 2007). Although this argument was made in the context of stock investing, it seems plausible that individual attitudes influence a manager's resource allocations, as

suggested by findings that executives with a distant-future time perspective are both more likely to engage in long-range behaviour (Das & Teng, 2001) and are better suited for long-run planning (Das, 1987). *This section reviews some of the most important institutional and firm level conditions.*

### Slack

Multiple studies have shown that slack matters: firms decrease their long-term investments when times are tight (Matejka, Merchant, & Van der Stede, 2009) and increase them when substantial cash is already available (Souder & Shaver, 2010), perhaps due to strong recent performance (Souder & Bromiley, 2012). Similarly, high levels of debt — or leverage — have also been shown to reduce long-term spending on R&D (Desyllas & Hughes, 2010). At one level, these findings seem to confirm intuitive conclusions. The timing of undertaking long-term investments is often discretionary, meaning they are rarely under immediate pressure to begin and are easier to cut or delay when belts need to be tightened. The risk is that the organization can slip into a negative spiral, never performing well enough to build up sufficient slack to fund long-term investments, which in turn inhibits the opportunities to achieve high performance in the future.

At another level, however, this rich-get-richer logic runs counter to the prevailing opinion that family businesses and non-profits, both of which tend to face stricter resource constraints than publicly traded companies, have an easier time adopting a long-term orientation. Both claims can be valid, because one compares the ebb and flow of investments within firms while the other compares the level of long-term orientation across

different firms, but the example illustrates that the complexity of the problem suggests a need for decision-making based on carefully parsed evidence rather than seat-of-the-pants judgments.

### **Cultural Differences**

Much of the writing about short-termism focuses on conditions in the U.S. and, to a lesser extent, Canada and the U.K. Not coincidentally, all three countries appear toward the low end of the national culture scale for long-term orientation (Hofstede, 1980); their short-term orientations are reflected in attitudes and behaviours that become obvious by looking across firm strategies within international industries such as the automotive industry (Tay, 2007). The belief that the prevailing U.S. style of management places excessive weight on the short term has persisted for at least four decades (Dean, 1974). Some scholars have argued that the desire to manage for the long term is universal across cultures, but, in practice, some countries experience more external short-term pressure (e.g. from investors) (Demirag & Doi, 2007). Many authors have expressed concern about the negative effects of short-termism for the overall global competitiveness of businesses from these countries (Gross & Lewis, 2007; Hayes & Abernathy, 1980; Porter, 1992).

Interestingly, such cultural differences appear to affect certain investment types more than others. For example, one study found higher R&D spending but lower capital expenditures in more individualistic cultures such as the U.S. (Shao et al., 2013). Another study argues that organizations based in Western Europe have better balance between measures of short- and long-

term performance (return on assets, or ROA, vs. R&D intensity) than their counterparts in either the U.S. or Japan (Peterson, Dibrell, & Pett, 2002). This study differs from others in arguing that Japanese firms do not have demonstrably longer horizons than U.S. firms, although this finding may have resulted from this work's unique approach to measurement. Scholars have also begun to analyze how temporal orientation might vary within countries, with recent research examining this issue in China (Kwon, 2012).

### **Managerial Hierarchy and Tenure**

Authors have noted that different levels of managers appropriately differ in their time horizons, creating the potential for misalignment and conflict (Floyd & Lane, 2000). Strategic renewal has a particularly long horizon, and senior leadership accordingly focuses on this issue. Upper echelons scholarship also tells us that the horizon of individual leaders might also change in predictable ways at different points of tenure (Hambrick & Fukutomi, 1991). Most authors assume the CEO's horizon will be short at the beginning of tenure, when quick successes can reinforce confidence in the new CEO, and again as the CEO nears retirement age and may have reduced ongoing interest in the firm's long-term success. In between these times, a longer horizon should be feasible (Matta & Beamish, 2008).

Note that counterarguments exist for both rationales; it is also plausible that a newly appointed CEO will have a long horizon, based on the premise that low short-term results are more tolerable than another change in leadership. Likewise, toward the end of tenure, a CEO might plausibly be more focused on an enduring legacy

than maximizing a short-term bonus. One recent study found no evidence of changing horizons over CEO tenure, but did find that levels of CEO stock ownership significantly changed managerial behaviour (McClelland, Barker, & Oh, 2012). Experts have suggested both that strong succession plans can mitigate the effects of CEO tenure and that CEO contracts should be explicit about expectations for long-term sustainability instead of “harvesting” behaviours (Gross & Lewis, 2007) aimed at extracting as much cash as possible during a managed decline of a business.

More generally, Barton and colleagues (1992) observed that organizational hierarchy exacerbates short-termism by increasing pressure down the chain of command.



**In firms with many hierarchical levels, divisional managers are often evaluated in terms of short-term profit centres rather than being allowed to develop engines of future growth.**

### **Family Businesses**

In contrast to corporations with widely dispersed ownership, family businesses are thought to produce relatively long horizons because the family influence reduces the susceptibility to investor pressures for short-term results or income smoothing (Kappes & Schmid, 2013; Prencipe, Bar-Yosef, Mazzola, & Pozza, 2011) while promoting a multi-generational time horizon (Chua, Chrisman, & Bergiel, 2009; Wennberg, Wiklund, Hellerstedt, & Nordqvist, 2011; Zellweger, 2007). Long-term orientation also correlates with a stewardship culture that permeates many family businesses (Eddleston, Kellermans, & Zellweger, 2012), facilitates a focus on the welfare of customers and

employees (Cater & Justis, 2009) and encourages richer, sustainable knowledge structures (Patel & Fiet, 2011). Evidence from Japan shows that family firms may prosper in the long run for having a greater willingness to make long-term investments when weak economic conditions cause firms with public shareholders to pull back (Asaba, 2013).

Yet even this argument has its limits. Some long-term activities, such as R&D investments, conflict with the other socio-emotional goals of many family-influenced businesses, as well as their resource constraints, and are therefore less likely to be pursued (Chrisman & Patel, 2012; Munoz-Bullon & Sanchez-Bueno, 2011). One study of family firms found a positive correlation between long-term orientation and innovativeness, proactiveness and autonomy, but also found that a long-term orientation led to decreased levels of risk-taking and competitive aggressiveness (Lumpkin, Brigham, & Moss, 2010). In this situation, a stewardship orientation would dictate a long-term investment in innovation, but may be overpowered by attitudes focused on reducing risk to maintain the longevity of family ownership, thereby limiting innovative risk-taking.

### **Categories of Investors**

Other investor types fit between family businesses and widely-dispersed ownership structures. In firms with higher percentages of ownership by dedicated institutional investors, scholars have found correlations with longer-term managerial thinking, including greater attention to corporate social performance (Neubaum & Zahra, 2006). Conversely, a higher percentage of ownership by more transient investors has been found



to reinforce a short-term focus (Connelly, Tihanyi, Certo, & Hitt, 2010). For example, Bushee (1998) found that the more of a firm's equity was held by investors with high trading frequency, the more willing its managers became to cut R&D to offset a decline in earnings.

Neubaum and Zahra (2006) suggest that **managers should try to attract active long-term owners, but organizations often have little control over their mix of owners.**

Scholars had assumed that ownership by pension funds was conducive to longer-term thinking (Tihanyi, Johnson, Hoskisson, & Hitt, 2003). Recently, however, practitioners have noted that pension funds' horizon has become notably short, perhaps due to their own need for immediate returns to retain assets from flowing to higher-performing rivals (Christensen & van Bever, 2014; Millon, 2013). Open-ended mutual funds have been identified as especially focused on short-term results, because they need to be prepared for retail owners to withdraw funds at any time (Rappaport, 2005).

Because institutional owners have become more prominent over the past few decades, a shift in their motivations and horizons has major implications. Moreover, in institutional ownership, investment decisions are made by intermediary managers, rather than by actual shareholders. Extending the separation between firms and their investors makes it more difficult for investors' interest in longer-term performance to be understood by managers. Instead, managers are most likely to view what they hear about the short-term interests of intermediaries as the primary concerns of their owners (Curran & Chapple, 2011).

Traditionally, scholars have modelled a firm's shareholders as a collective group with a single interest in maximizing stock price, but newer literature increasingly acknowledges that different investor types have different goals. Family owners might be a common source of "patient capital" but they are not the only source — like Warren Buffett's Berkshire Hathaway, some individual investors, pension funds and hedge funds seek to hold long-term positions in companies with strong management and future potential. Given that most firms will also include owners who are day traders or otherwise view investing as gambling more than creating, "[e]fforts to satisfy one group will conflict with the demands of the other. Because no policy can maximize returns for all shareholders, the only viable approach is to manage the company to maximize the value of its enterprise in the long run. It's the job of managers and academics alike to develop the tools to support this endeavor" (Christensen & van Bever, 2014: 68). With so many masters to serve, focusing on the "long-term interests of the corporate entity" offers the best way for board members to perform their responsibilities (Gross & Lewis, 2007: 2).

### Consumers

Just as literature oriented toward accounting or finance attributes short-termism to impatient capital providers, marketing research calls attention to the short-term orientation of customers. For example, observing a long queue for service causes some customers to become impatient and leave. As a result, firms sometimes try to hide the length of the queue from customers' sight (think of airport security lines, where you might observe a short queue to have your credentials checked and then

enter another room — with a very long queue — where you are screened by metal detectors). Plambeck and Wang (2013) developed a model of customer behaviour when facing a long queue — with the added condition that the service was needed but undesirable (such as a visit to the emergency room). Their results showed that hiding the queue from customers' sight maximized overall benefits — because more people who needed emergency room treatment stayed in line. However they also found that a different strategy could generate more profits for the providing organization because some of the customers who leave out of impatience will never return to demand potentially costly additional customer service (note that their estimate of greater profit assumes that these impatient customers would not avoid using this organization in the future).

Prevailing wisdom suggests that seller outcomes decline as customers become more aware of differences in the timing of service. Another model challenges this notion, however, and argues that such behaviour helps customers sort themselves in ways that allow the seller to optimize pricing (Su, 2007). Specifically, under the prevailing wisdom, sellers will be forced to cut prices when customers cannot be segmented according to their willingness to trade off time and price cuts. This study outlined alternative scenarios in which sellers have the greater ability to raise prices and earn profits by meeting the timing needs of different customers in different ways.

Marketing literature also describes a symbiotic relationship over the long term between customer service and product quality (Mei-Liang & Kuang-Jung, 2010). **By treating customers as inherently important, rather than merely useful for completing a current transaction, organizations can develop both the trust that encourages customers to speak up about desired product improvements and the patience to wait for the organization to provide those improvements.** Emerging research also finds that “in stable environments, new products are introduced faster in firms headed by CEOs with high past focus, high present focus and low future,” but dynamic environments change this effect such that “new products are introduced faster in firms headed by CEOs with low past focus, high present focus, and high future focus” (Nadkarni & Chen, forthcoming: Abstract).



### Partnership Relations

Another stream of literature addresses the attributes that facilitate successful long-term supplier relations or other partnerships between different organizations. **Trust and sacrifice have been established as crucial to obtaining the mutual benefits that allow these relationships to endure** (Lopez-Navarro et al., 2011). Larger organizations often have leverage over smaller suppliers, but should recognize that exercising this leverage (e.g. by demanding lower prices) diminishes the smaller firm's long-term commitment to the relationship (Chung, 2012). Obviously there is little immediate cost to the larger firm, but if changes in the relative leverage





favor the smaller firm over time, the larger firm may have little opportunity to undo the damage at a time when it is becoming increasingly vulnerable to the loss of the supplier. Distinguishing among different types of partnerships, Das and Teng (2002) observed that the need for reciprocity, social sanctions, and a cooperative between-partner culture is greater when partners expect the relationship to endure (as in R&D consortia), as opposed to having a shorter-duration, transactional nature (as in product bundling or joint bidding).

Beyond the partnership context, we suspect that the benefits of trust and sacrifice in supplier and alliance arrangements also extend to building healthy long-term relationships with customers, employees and perhaps even capital providers. This conjecture is consistent with a long history in the operations literature of describing short-termism as a threat to manufacturing quality (Deming, 1986).

Fostering a long-term orientation can have benefits in areas other than deciding on which investments to make for the future, including the ability to reduce opportunistic exploitation by partners in the supply chain (Das & Rahman, 2010; Lui & Ngo, 2012). That said, the literature also highlights the high cost of achieving and maintaining a long-term orientation. **More generally, research finds that firms prefer to create alliances with other firms that have a similar temporal orientation (Das, 2006), so there is value in matching one firm's horizon to that of its most desirable alliance partners.** Alliances tend to move toward becoming full-fledged acquisitions when the partners exhibit long-term orientations, and toward dissolution when a short-term orientation dominates (Das & Teng, 2000).



## FUTURE RESEARCH DIRECTIONS

Scholars have identified a long list of concepts that promote longer or shorter horizons within firms: slack, cultural differences, hierarchy and tenure, family businesses, investor categories, corporate governance, consumer marketing and partnership arrangements. These concepts span a wide range of firm activities, and for many of them, prior research has found supporting evidence of their link to horizons.

Nearly all of this research presumes that the connection to longer horizons implies better performance outcomes. Intuitively, we share this belief. But for the reasons discussed above, only scant empirical evidence supports this presumption. Granted, we have not found contrary evidence. As scholars improve their ability to test the connection between horizon and performance, it will become easier to model the full causal chain from these concepts to longer horizons to better performance. Such evidence will help quantify the benefits available to managers who do a better job incorporating long-term thinking into their decisions.

## 2.3 How Organizational Processes Influence Today's Decisions about the Future

### PREVAILING ARGUMENTS

Considerable research has addressed the ways that firms can develop internal processes to support longer-term thinking. These findings are often linked to one of the specific drivers of long-term thinking identified in the previous section of this chapter. We believe it is appropriate to be cautious about assuming that this research also applies to other drivers, but as long as that caution is remembered, it is also reasonable to start from the premise that these processes could be valuable to a wider range of drivers than have already been studied. This section describes the core processes within firms that affect time horizons.

#### Individual Managerial Preferences

The tone of an organization is set from the top. Both the choice of performance measures and the establishment of priorities come from senior management (Krehmeyer & Orsagh, 2006). Research shows that executives with a more distant time perspective are better at long-run planning (Das, 1987), and short-termism in a centralized corporate office can easily be transmitted into operating divisions (Barton et al., 1992). **In addition, research shows that strong performance follows from a diversity of individuals' time horizons (Miller & Le Breton-Miller, 2007), not just a long-term orientation, and managing a portfolio with multiple individual time**



horizons requires complex cognitive structures among an organization's senior leadership team (Judge & Spitzfaden, 1995). **Those who have longer future temporal depth (how far out they consider "the future" to be) and temporal flexibility in their work context are more adept at handling challenges associated with managing a multi-temporal portfolio** (Bluedorn & Martin, 2008).



#### Horizon for Strategic Planning

Prior research assigns a critical role to horizon in a range of planning models that firms use to make decisions. Our review found studies dedicated to optimizing models for forecasting (Federgruen & Tzur, 1995), new product introduction (Souza et al., 2004), R&D investment (Hopp, 1987; Perrakis & Sahin, 1976), technology adoption (Kleindorfer, Neboian, Roset, & Spinler, 2012), capacity utilization (Plambeck & Wang, 2013), capital replacement (Sethi & Chand, 1979) and pricing (Su, 2007). This work indicates a firm's assumptions about horizon play a critical role in its strategic planning.

Friedman and Segev (1976) listed a wide range of criteria that seemed to be associated with a firm's time horizon for strategic planning, including:

- the present value of the expected discount rate;
- the organization's size, growth rate and idiosyncratic goals;
- the validity attached to future forecasts;
- the desired payback period and lead time between planning and actualization;
- the product life cycle and
- the costs and time involved in planning.

Given that most of these criteria are generally compared to “rules of thumb,” Friedman and Segev (1976) suggested combining these criteria into a model of firm planning horizons. However, they did not develop this model, nor, to our knowledge, have any other scholars in the time since their work was published.

Perhaps the reason no such model has been developed stems from the difficulty of answering the question, “How long is the long term?” (Brier, 2005; Lees & Malone, 2011). Another difficult question is “What stakeholders need to be considered?” This question comes together with the question about the length of the long term in an analysis that highlights the need to place value on the well-being of future generations when considering the economics of sustainability (Guest, 2010). Even though this conclusion seems inarguable, it is difficult to implement in practice. Each generation must weigh its own consumption against unclear and difficult-to-quantify estimates of future generations’ needs — a challenging task to say the least.

Of course, ignoring the needs of future generations is not a viable approach to the challenge. As this entire report describes, there are huge and obvious problems with consuming excessively in the present at the expense of the future. The trick is to strike the right balance — a challenge greatly exacerbated by the inherent uncertainty of the future. We have a good sense of what comfort or utility we gain or lose in the present, but we can only speculate what it gains or costs future generations, particularly since each generation has markedly different values (Howe & Strauss, 2007). Consequently, much room exists for different people to

have different expectations — a point formalized by one author who contends that companies should choose their own purpose, which need not be the exclusively financial premise of the so-called shareholder dominance model from neoclassical economics (Binney, 1991). Note that by this logic, however, a given company would be justified in choosing a purely financial purpose.

### Family Management

Earlier in this chapter, we synthesized literature that argues family businesses generally have longer horizons. Some of this literature goes further, by identifying the facilitating characteristics believed to occur more commonly in family businesses: **persistence in a mission beyond financial returns, attention to employees, close connection to external stakeholders and the courage to resist short-term pressures (Miller & Le Breton-Miller, 2007). These authors suggest that non-family businesses can learn to lengthen managerial time perspectives by treating these discretionary behaviours observed in family businesses as a partial template for changing their own culture.**



Within family firms, one study finds that “task conflict” can offset the shorter horizons of long-tenured CEOs (Ensley, 2006). Task conflict describes scenarios where managers are willing to vigorously debate the merits of alternatives rather than fall into complacency or groupthink. This practice has been shown to have positive effects on several organization-level outcomes, in direct contrast to relationship conflict, where the erosion of interpersonal trust almost always generates negative effects.



**Being willing to debate all the merits of various alternatives, rather than going along with an initial recommendation, clearly has potential to produce a more holistic sense of future opportunities and threats, and consequently improve decision-making.**

Family firms conceivably have more trouble engaging in these challenging discussions because of other family dynamics, which justifies the focus of Ensley's study, but we are not aware of any reasons why his findings would not also pertain to non-family businesses.

Experts have also emphasized the need for family businesses to adopt a multi-temporal strategy — not a strictly long-term approach. Short-term challenges matter, too; and **behaviours including time-layered projects, product portfolios, competency focus, continual resource building, flat organizational structure and consistent family ownership can all facilitate the ability to give sufficient attention to both long and short term concerns** (Le Breton-Miller & Miller, 2011).



### Portfolio Approach

Beyond the family setting, others have argued that long-term needs gain attention in the budget process, and short-term needs are emphasized in financial markets, while medium-term needs are neglected the most (Moore, 2007). Firms often pursue a portfolio of projects with deliberate intent to have a balance short- and long-term payoffs, although little consensus has emerged about the best ways to strike this balance (National Academy of Engineering, 1992). The Boston Consulting Group (BCG) growth-share matrix (details available here [https://www.bcgperspectives.com/content/articles/corporate\\_strategy\\_portfolio\\_management\\_strategic\\_planning\\_growth\\_share\\_matrix\\_bcg\\_classics\\_revisited/](https://www.bcgperspectives.com/content/articles/corporate_strategy_portfolio_management_strategic_planning_growth_share_matrix_bcg_classics_revisited/))

can be interpreted as a planning tool that advocates using the cash generated by mature business units to fund additional developing-market investments that have uncertain potential to achieve high growth in the future. Writing in McKinsey Quarterly, Davis (2005) recommended the development of processes allowing managers to focus on an organization's health (i.e. long-term viability) and its performance, adding:

*“Companies with a long-term-value orientation are always relentless about setting short-term-performance commitments and delivering on them. But such companies also define what they are doing to ensure their health and how they will measure their efforts to do so. Reckitt Benckiser, the leading household-cleaning-products business, emphasizes innovation as the key to its long-term strategy and specifically measures the proportion of sales coming from new products.”*

The portfolio approach also has implications for human resource management. **Given that different situations call for different temporal skills or orientations, leaders need to match individuals to jobs that call for their existing temporal skills, or else use leadership training to hone individuals' temporal skills to become increasingly suited to the needs of their position** (Thoms & Greenberger, 1995). We elaborate on such training in the next section. Extrapolating this point to the entire firm, boards of directors are well-advised to hire CEOs and other executive who possess the future orientations they desire for the firm (Das & Teng, 2001).



### Managing Human Capital

We have mentioned the different temporal orientations of individuals and the significant role that leaders play in setting a long-term focus in an organization (Barton et al., 1992). Given that individuals generally struggle with long-term decision-making, long-run planning may be best suited for executives who innately have a distant-future time perspective (Das, 1987). Furthermore, **a shared mental picture between managers and employees about the interconnections between short- and long-term initiatives helps employees connect their work to longer-term management goals** (Riis, 2002).



In addition to incorporating assessments of individual temporal orientation into the hiring process, scholars have argued in favour of training programs to raise temporal imagination and depth (Standifer & Bluedorn, 2006). An added benefit of selecting or training leaders to have temporal flexibility is a reduction in personal stress (Bluedorn & Martin, 2008), thereby offering the potential for a double win — an increased likelihood of effective decisions and improved retention of less-stressed executives. **Organizations have successfully engaged in training and workshops, such as backcasting, that help leaders focus on truly long-term goals** (Carlsson-Kanyama, Dreborg, Moll, & Padovan, 2008).



### Takeover Protections and Employment Contracts

Increased corporate takeover protections have been shown to facilitate greater attention to the community and natural environment, which in turn improves long-term performance (Kacperczyk, 2009). This evidence fits with the idea that managers adopt short- time horizons out of concerns that shareholders will remove them

if short-term performance falls below expectations. Extending the principle, longer-term employment contracts might also provide managers with a feeling of greater job security that counteracts the pressure to overemphasize immediate outcomes. However, corporate governance experts often criticize both of these practices — increased takeover protections and increased managerial job security — as protecting managerial interests at the expense of shareholders.

**Certainly making these changes without finding other ways to emphasize long-term thinking runs the risk of repeating the experience of stock options, where the theorized benefits never materialized.**



### FUTURE RESEARCH DIRECTIONS

As in the prior subsection, we found plenty of theories explaining what processes should facilitate long-term thinking. Some of them have received supporting evidence, albeit in narrowly focused tests. When properly controlled empirical tests can be enacted, scholars have found support for theorized relationships. But these tests are typically separate from the issue that we have come to recognize as being more central: shifting managers' attention to long-term thinking amid the multitude of pressing issues encompassed in any decision.

In other words, research has shown some processes that work — but not how to adopt those processes in the real-life context of business decisions. The executive report takes a first step at applying these lessons about long-term thinking, while also accounting for the contextual considerations and constraints that managers routinely consider.

## 2.4 Summary

Prior literature explains the wide range of pressures managers face when making resource allocation decisions involving intertemporal trade-offs.

Organizations in turn vary with regard to the processes they develop for managing the implementation of these decisions. Taken together, a common belief and limited empirical evidence support the idea that organizations that make better long-term decisions and implement better processes to support those decisions will also perform at a higher level than firms that do poorly in these areas.

In summarizing the existing literature, we find it useful to consider how the business world has changed over the two decades since Porter (1992) coordinated an extensive effort to study ideas for improving long-term thinking with an eye toward competitiveness. That initiative recommended several structural and institutional changes, which include:

- removing restrictions on share ownership,
- lowering tax barriers on private ownership,
- creating incentives for holding long-term investments,
- eliminating restrictions on joint ownership of debt and equity,
- reducing subsidies for real estate investment,
- modifying accounting rules around R&D and intangibles,
- extending public disclosure,
- allowing broader disclosure of insider information,
- loosening restrictions on institutional board membership,

- encouraging board membership of other stakeholders,
- codifying long-term shareholder value (as opposed to stock price) as the corporate fiduciary responsibility,
- extending tax preferences to stock options with restrictions on selling and
- providing investment incentives for R&D and training.

In the two decades since Porter's report, some of his suggestions have been at least partially implemented. However, as illustrated in Figure 1.1, the ongoing series of reports noting pervasive short-termism suggests little progress has been made. Given the partial implementation of most suggestions, it is impossible to make an objective judgment about their effectiveness. Upon reflection, it may have been unrealistic to expect anything more than partial implementation of recommendations that focus primarily on regulatory and institutional changes. Not only do regulations and institutions change slowly as a rule but they also receive substantial influence from those who benefit from the status quo. Long-term benefits are inherently uncertain. In our view, corporate managers are in a better position to enact change on their own, seeking the benefits of long-term thinking for their own firms rather than either waiting for regulators or institutions to make it easy for them or enforcing competitors to become more long-term oriented as well. Our Executive Report therefore offers recommendations targeted toward managers who have the will to change focus on the processes and culture that would enable long-term thinking to be applied by their own organizations.

Other experts have also offered prescriptions to curb short-termism that go beyond the initiatives described above. Many of these suggestions have been made in recent years, making it premature to observe how — or even if — they have been implemented in practice. Nevertheless, we see value in including a list of these ideas, without engaging in further analysis of them:

- Share with employees a “manufacturing vision” for a portfolio of activities with different horizons (Riis, 2002).
- Build a culture of trust to nurture a faster pace of decision-making that emphasizes flexibility and adaptability (Rioli-Saltzman & Luthans, 2001).
- Avoid using planning processes to create rigid projections of the future, but instead “expect the unexpected” (Anderson & Atkins, 2002).
- Develop strategic plans with sound long-term objectives (Gross & Lewis, 2007).
- Make the business case for sustainable investment and advocate for it by building strategic internal coalitions and industry networks (Juravle & Lewis, 2009).
- Create strategies that combine “constancy of purpose” and flexibility (National Academy of Engineering, 1992).
- Put a positive framing on long-term decisions (Lumpkin & Brigham, 2011).
- Avoid imposing “endgame” pressure on management decisions (Patel & Fiet, 2011).
- Encourage governments to invest in improving the efficiency and timeliness of patents and licensing, as well as infrastructure (National Academy of Engineering, 1992).
- Be more transparent, particularly with qualitative information, in explaining long-term decision-making to stakeholders imposing short-term pressures (Reich, 2009).
- Start with a bottom-up approach to select projects, emphasizing experts and stakeholder approaches ahead of cost-benefit analysis (Hubacek & Mauerhofer, 2008).



# chapter 3

## the big picture: synthesis of emerging themes

The research points to key conclusions that can inspire future research and support manager actions. This chapter review those insights.

In Chapter 3, we shift our emphasis from reporting the findings of specific studies, and turn toward drawing general conclusions from the studies reviewed. We explore the following major themes that result from our synthesis:

- Both the short run and the long run matter
- Managers, like most people, live in the moment
- The investors made us do it
- We manage what we measure — but measuring the future is challenging
- Stock options haven't worked

The insights that follow are not typically the focus of any single study of long-term thinking. They emerge from a broad reading of this literature and its systematic organization. We anticipate that these themes will provide a useful starting point for developing methods and tools that managers can use to better understand and improve their decision-making related to long-term thinking.

## 3.1 Both the Short Run and the Long Run Matter

Amid a considerable body of literature extolling the importance of long-term thinking, the authors who remind us not to ignore the importance of the short run stand out (Le Breton-Miller & Miller, 2011). Neuroscience scholars have found that people use one region of the brain to engage in future planning, while a different region of the brain activates survivalist instincts to address immediate concerns (McClure, Laibson, Loewenstein, & Cohen, 2004). Clever advertisers exploit this principle adroitly: when selling protective products, the messaging heightens our fears about immediate survival, but when selling speculative opportunities, the messaging raises our hopes about the future.

This insight about individuals' cerebral responses has valuable implications for organization-level decision-making. Although zero-sum trade-offs sometimes occur between the short and long terms, organizations, like individuals, must manage both. Short-term investments are not inherently bad — they offer greater flexibility, lower upfront costs and less downside if something unrelated to timing goes wrong — but an overreliance on short-term investments can cause organizations to miss out on the benefits offered by long-term alternatives — higher average returns, reduced need to replace equipment and greater upside. It is not obvious that firms should aim for “equal balance” between the short and long runs — only that tipping too far in one direction can have negative consequences (see Figure 3.1). More specifically, plans for long-term

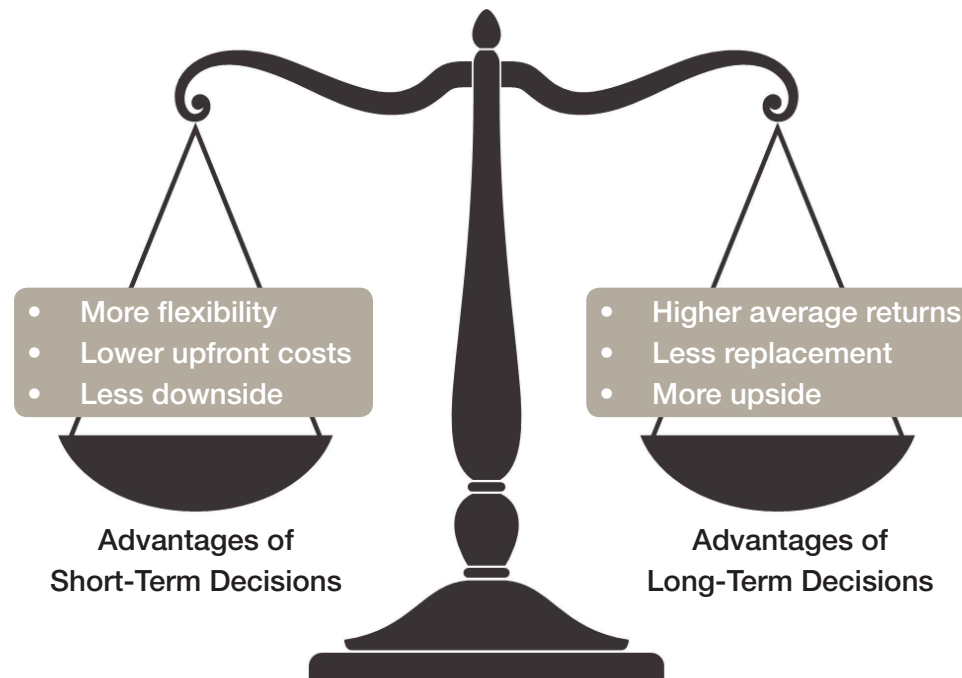
sustainability only matter if we survive in the short run (Gray & Whittaker, 2003), while the world has little use for organizations that can merely survive the short run without any thought of creating a future in which we will want to live.

Situational considerations help define whether it makes sense for decision-makers to lean one way or the other. Certain situations call for short-term thinking. For example, everyday investors with cash flow needs, such as college-aged children or impending retirement, face conditions that justify a shorter-term perspective (Curran & Chapple, 2011). Pension funds that provide current income to retirees may also have legitimate

interests in a short-term emphasis (Millon, 2013; Suto & Toshino, 2005). Moreover, investment strategies that include “shorting” can help protect against inflated asset prices in bubbles (Battalio & Schultz, 2006). Short-term pressures sometimes have positive by-products, such as forcing businesses to become more disciplined about managing their working capital (Newman, 2010). External venture capitalists have been criticized for imposing specific, limited time horizons on operating companies. However, the associated benefits from increased managerial focus on key decisions should be considered relative to the likelihood that decisions can be deferred unproductively in corporations that do not face similar external pressure (Chesbrough, 2000).

Figure 3.1

### ADVANTAGES OF SHORT- AND LONG-TERM DECISIONS



Whether an action embodies long-term thinking can often be ambiguous. For example, consider Facebook's 2014 acquisition of WhatsApp. Analysts criticized the \$19 billion purchase, claiming that Facebook was short-sightedly paying a huge premium for a shortcut to provide a service to customers (Pett, 2014). CEO Mark Zuckerberg simultaneously claimed to be taking a long-term perspective that his critics lacked, with the expectation that in the long run, the price would be viewed as a bargain (Whitehouse, 2014). Time will tell which side is correct — but in the immediate aftermath of the acquisition announcement, each claims that the other has a short-term focus and lacks a long-term perspective.

The ambiguity over short- vs. long-term benefits can also apply to the firms being acquired. In another \$19 billion deal, Cadbury was sold to Kraft in 2010. But this acquisition was hostile — Cadbury management believed it could create more value in the long run as an independent entity and cited the increase in hedge fund ownership, from 6 per cent to 31 per cent over four months, as an example of control achieved by investors who cared only about the short-term gains resulting from the premium price Kraft offered (Lees & Malone, 2011). For its part, Kraft presumably expected to earn future value from Cadbury that will exceed the purchase price, and could claim that Cadbury management's opposition to the deal stemmed from their own (short-term) desire to work independently instead of merging into a larger operation.

Long-term investments are often equated with taking risks (Matta & Beamish, 2008), as in the case of product launches, R&D, acquisitions and other opportunities that offer a wide range of outcomes that will take time to be observed. But risk and horizon are not synonymous (Das & Teng, 2001; Souder & Shaver, 2010); some scholars have associated long horizons with lower firm risk or volatility (Gray & Cannella, 1997). However, others have distinguished between strategies focused on perseverance (which carry low risk) and higher-risk strategies designed around outpacing competitors in innovation, both of which have long-term payoffs (Zellweger, 2007). Activities can also have long-term payoffs but reduce risk, such as investments in employee training or environmental sustainability. Just as some literature forgets that long-horizon investments are not necessarily risky, some advocates for long-term thinking seem focused on low-risk examples without recognizing that their advice can also be used to justify risky behaviours motivated by long-term aspirations.

## 3.2 Managers, Like Most People, Live in the Moment

Although ignoring the short term can be a mistake, the preponderance of evidence suggests that activities with long-term benefits are neglected much more often than activities with short-term benefits. Prior literature offers a host of reasons to explain why managers might lean toward short-term results to the detriment of longer-term outcomes. If an organization performs poorly, it might cease operations, and the manager is out of a job (Fama & Jensen, 1983). Alternatively, the organization may survive, but choose to replace the manager because of the poor performance (Millon, 2013). Even if the manager remains employed, better short-term performance can produce bigger bonuses (Devers, McNamara, Wiseman, & Aarfelt, 2008), promotions and new job opportunities in other organizations (Narayanan, 1985; Rajgopal, Shevlin, & Zamora, 2006).

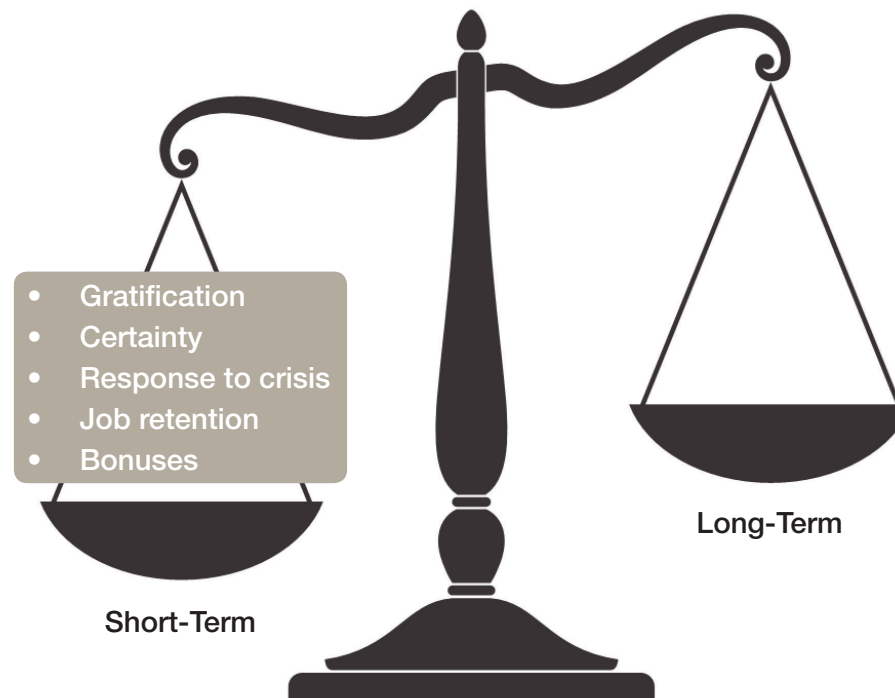
Meanwhile, the longer-term benefits of future-oriented investments will not be realized for many years — possibly not until after the manager has moved on or retired. Furthermore, managers are typically more comfortable making decisions based on effects that have already been seen, even though much of the organization's value will derive from outcomes from uncertain future sales (Rappaport, 2005).

Humans experience an innate tension between short-term and long-term orientations. When presented with intertemporal trade-offs in experimental settings, people resolve them not based on “average rational” calculations but, in large part, dependent on whether they are in survival or planning mode. Several experimental findings have revealed seemingly irrational short-term biases (Benzion, Rapoport, & Yagil, 1989; Mannix & Loewenstein, 1994), but others show that people often accept or even prefer deferred future payoffs if they perceive the potential for unusually high returns (Miller & Shapira, 2004). Modest returns on waiting — such as those provided by bank interest — are insufficient to shake our interest in gaining short-term benefits or preventing short-term losses (Dasgupta & Maskin, 2005). This reasoning implies, however, that we are willing to accept short-term losses if the long-term potential for gain is uncertain but substantial — a gambler's mentality. Venture capital and angel investing represent real-life examples of this principle.

Figure 3.2 illustrates some of the most common pressures on managers to emphasize the short term at the expense of the long term.

Figure 3.2

### MANY PRESSURES TIP MANAGERS TOWARD THE SHORT TERM



For all these reasons, agency theory assumes that a firm's managers have shorter horizons than its shareholders (Chrisman & Patel, 2012; Kappes & Schmid, 2013; Thanassoulis, 2013). At the same time, scholars of stewardship theory argue that this assumption ignores the professional obligation of managers to operate an organization for its long-term viability, and not just for immediate performance results

(Eddleston et al., 2012; Prencipe et al., 2011; Wellum, 2007). This argument takes on added importance because many experts perceive that short-term behaviours by business organizations produce negative consequences not only for firms themselves but also for the broader economic, environmental and social systems in which they operate (Curran & Chapple, 2011).

*“Many managers yearn to focus on the long term but don’t think it’s an option. Because investors’ median holding period for shares is now about 10 months, executives feel pressure to maximize short-term returns.”*

Christensen and van Bever (2014: 68)

### 3.3 The Investors Made Us Do It

While we identified a clear set of reasons why shareholders would have longer horizons than managers, both scholars and managers have increasingly questioned this presumption (Ignatius, 2014; Rappaport, 2005). For example, Millon (2013: 911) begins with the opposite premise: “Many corporate managers cater to the preference of institutional shareholders for short-term stock price performance, even though this is widely understood to threaten the sustainability of American business.” Consistent with this idea, closer interaction with investors appears to promote short-termism among managers (Marginson & McAulay, 2008). Evidence suggests that U.K. managers face more short-term pressure than their Japanese counterparts (Demirag & Doi, 2007). Short-term-oriented investors who are skilled (or lucky) in their timing can generate benefits for themselves at the expense of long-term damage to the companies in which they invest or the overall system (Curran & Chapple, 2011).

Perhaps the most compelling evidence that short-term pressure from investors has negative performance consequences beyond the short term comes from the managers themselves. A survey of chief financial officers (CFOs) revealed that nearly 80 per cent had rejected projects expected to produce positive net present value (NPV) in the long run because the projects would lower the firms’ quarterly earnings (Graham, Harvey, & Rajgopal, 2005). These data imply that even though senior managers put the blame on investors for encouraging them to be short-sighted, the managers themselves implicitly admit to lacking the courage to

push back against these investors and demonstrate that some long-term investments have positive NPV. While investors should safeguard against the possibility that managers have rosy NPV projections for their pet projects (Tay, 2007), this healthy skepticism can become self-defeating if investors forget that the capacity to create future value is critical for supporting high stock valuations — whether investors seek to hold or quickly sell the stock. CFOs should expect to have these tough conversations with investors, and yet a majority of them have admitted that, at least some of the time, they simply reject good projects instead. Like NPV, cost-benefit analyses (CBA) inhibit long-term action among managers by assuming that everything can be quantified into a price to facilitate efficient decision-making. This assumption in CBA is invalid on longer-horizon projects that are difficult to quantify (Hubacek & Mauerhofer, 2008).

#### **Trading Frequency**

Considerable attention has therefore been paid to identifying the typical horizons of different types of investors. For obvious reasons, day traders have very short horizons (Kueppers, Sandford, & Thompson, 2009). Investors who plan to hold a stock for only a brief time will base their decisions on bets about the perceptions of other investors rather than on the long-term fundamentals of a particular company (Rappaport, 2005). Whereas classic economic theory assumes shareholders take a long-term interest in the companies they own, a majority of shares in today’s market are held by hedge funds, sovereign wealth funds, private equity funds and others with short-term objectives (Lees & Malone, 2011) — and look to sell shares at the first sign of trouble instead of supplying capital for managers to fix problems and create value.



The general consensus holds that institutional ownership tends to promote longer-term behaviour among managers (Connelly et al., 2010; Neubaum & Zahra, 2006). Even among institutional investors, however, scholars have observed a range of temporal orientations (Suto & Toshino, 2005). For example, pension funds have more patient investors and, compared with unrestricted mutual funds, are associated with longer-term behaviour among managers (Tihanyi et al., 2003). Likewise, individual investors also vary with respect to their temporal goals and approach to investing. Analytical or angel investors may have the long-term tolerance needed for nurturing entrepreneurial success (Sorheim & Landstrom, 2001), while evidence suggests that when investors with short-term goals seek to invest their capital, they tend to self-select firms with similar short-term orientations (Brochet, Serafeim, & Loumioti, 2012).

### Earnings Guidance

The practice of providing earnings guidance has been heavily criticized (Gross & Lewis, 2007; Krehmeyer & Orsagh, 2006; Kueppers et al., 2009; McCarthy, 2004; Rappaport, 2005) based on fears that it causes increased focus on short-term results. Although some notable companies have stopped providing these informal advance estimates to equity analysts prior to the release of official quarterly results, earnings guidance remains common as a way to reduce stock volatility and ensure reasonable expectations from analysts (Kueppers et al., 2009). McKinsey & Company has found that sell-side analysts, mutual funds, pension funds and within-firm constituencies were most demanding in expecting earnings guidance (Krehmeyer

& Orsagh, 2006). **If firms continue to provide guidance (to balance out short-term biases), they can invest time in educating stock analysts about their metrics for assessing the organization's long-term health as well as the likely effects on the next quarter's earnings — but these conversations must be truly substantive, not just perfunctory platitudes about being committed to achieving shareholder value eventually** (Davis, 2005). Other firms that decide to fight short-termism by eliminating earnings guidance can mitigate sharp drops in their stock price by following a long series of steps to implement and communicate this change (Kueppers et al., 2009).

Some of the studies in this review called for the practice of earnings guidance to end or to become far less frequent (Gross & Lewis, 2007; Krehmeyer & Orsagh, 2006; Kueppers et al., 2009; Rappaport, 2005). In the time since these studies were written, earnings guidance has indeed been reduced — but to our knowledge, the concerns about short-termism have not abated. We agree that earnings guidance indulges short-sightedness but see no reason to believe that earnings guidance causes it. As a result, it seems predictable that eliminating earnings guidance would not curtail short-termism, but instead simply shift the ways in which such short-termism is expressed. Rather than advocating for delegitimizing the practice — which may reduce valuable transparency between owners and firms — **we suggest enhancing earnings guidance by requiring that all such guidance not only predict profits for the next quarter or year but also provide a robust analysis of a firm's investments that are expected to produce value in more than five years** (c.f., Porter, 1992).



By avoiding the obsession with quarterly earnings, some firms with no shareholders— or at least none from public capital markets — have found it easier to take a long-term perspective (Newman, 2010). Mutual insurance companies have claimed the same advantage (for example, see <http://www.northwesternmutual.com/news-room/122775>) because policyholders are both customers and owners. The long-term motivation was also mentioned by some firms that converted from public to private status over the past decade (such as Dell: <http://www.marketwatch.com/story/do-companies-do-better-after-going-private-2013-07-05>); although, in fairness, some of these firms also invoked their frustration with the additional reporting requirements of Sarbanes-Oxley. On the other hand, status as a private organization has its downsides — often including inadequate capital to pursue long-term growth (Fama & Jensen, 1983). Even non-profit organizations describe constraints on their ability to have long time horizons (Letts, Ryan, & Grossman, 1997).

Meanwhile, publicly traded firms generally have access to greater resources but a shorter leash for investing those resources in future-oriented projects. One might think a management team that is fully committed to overcoming its human tendencies to the short terms and adopting a long-term perspective could implement this approach. Whereas shareholders are dispersed and disorganized, the senior management team typically works closely together and executes major decisions in concert. **Rather than blaming investors, firm leaders can assume that their firms will attract the types of investors that value their approach, and scare off the earnings-obsessed investors by clearly communicating a long temporal orientation in public statements and internal memos** (Brochet et al., 2012).



### Historical perspective

Recent reports have noted how technology-driven reductions in trading transaction costs have facilitated more frequent trading activity and correspondingly shorter holding periods for stock (Curran & Chapple, 2011; Gross & Lewis, 2007; Kueppers et al., 2009) — but in fairness, experts have long claimed that short-termism is worsening. The following quote captures the spirit of more than a dozen reports from the last decade, and yet it appeared in a 1980 article: “we believe that during the past two decades American managers have increasingly relied on principles which prize analytical detachment and methodological elegance over insight, based on experience, into the subtleties and complexities of strategic decisions. As a result, maximum short-term financial returns have become the overriding criteria for many companies” (Hayes & Abernathy, 1980: 70). Perhaps the erosion of long-term perspective occurs in an ongoing downward spiral (Krehmeyer & Orsagh, 2006), but it is also possible that each generation takes note of how its own new technology contributes to perpetuating one of the oldest stories in the book. Either way, benefits remain to be achieved from stopping the cycle — and taking steps to reverse it.

*“A company’s value depends on its long-term ability to generate cash to fund value-creating growth and pay dividends to its shareholders. Even so, investment managers commonly base their stock selections on short-term earnings and portfolio tracking error rather than discounted cash flow (DCF) — the standard for valuing financial assets in well-functioning capital markets. Financial analysts fixate on quarterly earnings at the expense of fundamental research. Corporate executives, in turn, point to the behavior of the investment community to rationalize their own obsession with earnings. “Short-termism” is the disease; earnings and tracking error are the carriers.”*

Rappaport (2005: 65)

### 3.4 We Manage What We Measure — But Measuring the Future is Challenging

It seems like a chicken-and-egg question to ask whether short-termism starts with managers or investors. Many have observed that the available metrics to assess performance tend to reinforce a short-term emphasis and discourage a long-term perspective (Bansal & DesJardine, 2014). This tendency can be exacerbated by peer comparisons — among both asset managers and companies — that introduce the potential for “herd mentality” to limit the willingness to experiment with new behaviours, including long-horizon investments or environmental and social initiatives (Curran & Chapple, 2011).

To the extent that existing metrics attempt to address long-term implications at all, they blend historical data with expectations about the future into a single measure (Rappaport, 2005). Depreciation rules illustrate this process perfectly. When you purchase a new asset, you know exactly what you have already paid for it. Because its use will extend for more than one year, accountants sensibly amortize this cost over the expected life of the asset (Souder & Bromiley, 2012). Does anyone know exactly how long the asset will actually last? No, but making an informed estimate will more accurately reflect the cost of production than making no attempt to amortize.

Depending on what factors are emphasized in a particular metric, future expectations will receive different weights. As a rule, corporate managers have interpreted their fiduciary responsibilities strictly in terms of ratios of returns to financial capital (Curran & Chapple, 2011), particularly when their compensation is based on current-year accounting returns rather than multi-year performance (Gray & Cannella, 1997). This emphasis implicitly prioritizes cost-cutting initiatives over growth opportunities because short-term savings can be quantified in ratios of returns but 10-year sales projections are speculative (Christensen & van Bever, 2014). For investors who take their role as monitors of management seriously, it is much easier to understand financial ratios than the operating decisions that will lead to long-term sustainability of firms and their environments (Curran & Chapple, 2011; Rappaport, 2005). The difficulty for industry outsiders to understand operating data helps to explain the need for earnings guidance in the first place (Kueppers et al., 2009). Moreover, opportunities abound for firms to manage earnings with accounting tricks and hard-to-detect underinvestment (Rappaport, 2005).



**Another approach is to de-emphasize commonly used firm performance metrics and place greater weight on other factors that are more discrete to manage and have positive long-term effects. One study identified five of these factors: cost leadership, a durable supply chain, a motivated and skilled workforce, attracting and retaining customers, and the ability to innovate** (Lees & Malone, 2011).

However, evidence reminds us that the use of non-financial performance evaluations is rarely seamless. Family firms tend to weight these metrics more heavily as part of their longer-term orientation, but the metrics' subjectivity, complexity and potential for bias lead to additional challenges in evaluating the performance of management (Chua et al., 2009). Moreover, it takes tremendous managerial ability to optimize all five factors listed above simultaneously. Realistically, even managers who recognize the importance of all five factors face difficult decisions about the prioritization of each when trade-offs arise.

## 3.5 Stock Options Haven't Worked

Let's be honest. People have been struggling to manage trade-offs between the short and long terms for ages — with little success. Time after time, the long term is sacrificed in favour of the short term. Starting in the 1970s, support grew for the idea that managers' short-termism was the problem, and the solution was to get them to think more like owners (Jensen & Murphy, 1990), which could be achieved by granting stock options as a long-term incentive (Sakawa, Moriyama, & Watanabel, 2012).

It was a solution with no apparent cost. Managers were happy to collect additional compensation tied to stock prices, while investors assumed that because options paid off only if the stock price rose, they had nothing to lose. Nobody opposed the experiment — and both managers and investors appear to have profited from it. Soaring levels of compensation went to senior managers, while investors succeeded at having managers pay greater attention to the stock price.

But experts now realize that stock options have been mischaracterized as a long-term incentive. They promote long-term thinking only under limited circumstances and often encourage short-term thinking instead. Practitioner reports regularly describe stock options as contributing to the short-term pressure of managers (Gross & Lewis, 2007; Newman, 2010), even though proxy statements continue to list options as long-term incentives. Academic research supports the

evolving treatment of options more as an incentive for short-term behaviour; three different studies in highly regarded academic journals have found consistent and compelling evidence that long-term investing declines and short-term investing rises once stock options become exercisable (usually one to four years into their 10-year terms) (Devers, Wiseman, & Holmes, 2007; Souder & Bromiley, 2012; Souder & Shaver, 2010), especially if the options are in-the-money (i.e. exercising them would yield an immediate profit). Similarly, accelerated option vesting has been linked to managerial short-termism (Ladika & Sautner, 2014). Compensation practices tend to follow industry norms, and the higher compensation typically paid at the larger firms in an industry also appears to produce greater short-termism among those firms (Thanassoulis, 2013).

Hindsight suggests stock options have fallen short of the goal to provide meaningful long-term incentives to managers (Rappaport, 2005). Unfortunately, abandoning stock options will not solve the problem. Their popularity arose in large part because of the lack of other ways to counteract the short-term pressures that inevitably consume managerial attention. Aligning managerial compensation with long-term business objectives remains an elusive goal (Newman, 2010). Experts continue to call for greater alignment between compensation and long-term performance (Gross & Lewis, 2007; Krehmeyer & Orsagh, 2006) and transparency in explaining how executives are paid (Curran & Chapple, 2011; Rappaport, 2005), but considerable data are already shared in proxy statements, including the amount of incentive payments and their rationale. Critics of executive compensation

tend to be members of academic, media or non-profit organizations, whereas investors' tacit acceptance of current practices suggests their reasonable satisfaction with them. Such investor support is consistent with the idea that investors share or impose a short-term perspective with managers.



**Rather than abandoning stock options, we could work to improve them. Whereas vesting and exercisability of options have typically occurred together, they could be divorced. Unvested options do not yet belong to managers if they leave the company, and lengthening the vesting periods could be demoralizing. By making exercisability conditions distinct and significantly longer, the manager would own the option but would give up the opportunity to cash out after just a few years. Another possibility is to use indexed options that compare a firm's stock price with that of its industry peers (Rappaport, 2005). Few companies used this method in the past because indexed options received less favourable tax treatment than ordinary options. However, the 2006 requirement to expense the cost of ordinary stock options in the U.S. has narrowed the gap.**

Other ways of promoting long-term thinking have also shown, at best, partial success. Board compensation committees often intend to monitor and reward a balance between short- and long-term indicators of success, but at least in Japan, scholars have found that the annual cycle of board work counteracts the intention to adopt a multi-year perspective (Sakawa et al., 2012). **U.S.-based research shows that when board members focus on long-term performance, managers are discouraged from engaging in short-term behaviours — but board members can be**



**easily enticed by short-term rewards of their own, and thus lack the requisite long-term orientation** (Arthurs, Hoskisson, Busenitz, & Johnson, 2008). Even advocates of board vigilance to long-term priorities acknowledge that directors have little ability to eliminate short-termism on their own (Gross & Lewis, 2007).

Another popular suggestion is that institutional asset managers become more active at monitoring executive compensation (Krehmeyer & Orsagh, 2006) by having a greater presence on boards (Porter, 1992). We conclude that this suggestion is overly idealistic. The relationship between asset managers and corporate managers is not inherently adversarial. Conceivably, asset managers have no opposition to high earnings for corporate managers if the firm's stock price increases at a level that yields high portfolio returns. Moreover, the asset managers may wish to cultivate positive relations with corporate managers to ensure the free flow of information relevant to their decision to hold or sell the stock. Finally, in an environment where so many shares are already held by investors with short horizons, it is unclear whether we would get the intended or the reverse effect from asking asset managers to take on the task of monitoring executive compensation.

At the same time, **scholars have identified additional reasons to encourage more active participation by owners — i.e. to take bigger shares of ownership and hold them longer.** Coyne and Witter (2002) claimed that investors who behave as fundamental analysts (such as Warren Buffet) have greater interest in long-term growth projections than immediate results. Consistent with this idea, Connelly et al. (2010) found that dedicated institutional owners support more strategic actions by firms, while transient owners favour tactical actions.



## 3.6 Summary

We have shown how many authors have advocated for longer-term thinking. This advocacy reflects the belief, with ample justification, that managers tend to favour the short term over the long term. At the same time, short-term needs are important too — and it is possible to go overboard and forget this. Previous authors have made all of these same points. So why does short-termist thinking persist?

In our judgment, the advice to have a longer-term perspective has been so one-sided that managers have had little choice but to tune it out. Suppose nutritional experts advised people to eat only vegetables and never eat dessert! People would tune out this message entirely, finding it unrealistic. Accordingly, nutritional experts recommend an appropriate balance — not an “equal” balance — between vegetables and dessert. Many people still ignore the recommendation and overeat desserts. But not everyone. Others hear the message and recognize the benefits of eating more vegetables and less dessert, without feeling like they must give up desserts entirely.



**Recognizing that the short term matters too, and defining the conditions under which it might matter even more than the long term, will help managers to accept that there are other conditions in which they can benefit from having a longer-term approach.**



# chapter 4

## discussion and conclusion

Long-term thinking has been advocated and studied for millennia. But some issues remain unresolved. We identify three areas where investigation is needed.

*“The key to long-term success — even survival — in business is what it has always been: to invest, to innovate, to lead, to create value where none existed before. Such determination, such striving to excel, requires leaders — not just controllers — market analysts, and portfolio managers. In our preoccupation with the braking systems and exterior trim, we may have neglected the drive trains of our corporations.”*

Hayes and Abernathy (1980: 77)

Managers routinely face difficulty in considering the future impact of today’s decisions. Aware of this challenge, scholars have addressed the issue from a variety of perspectives. To satisfy the scientific demands of an academic audience, scholars must have great depth to their work. In achieving this depth, however, scholars transform the problem from the way managers see it — involving the many criteria necessary to make a single decision — into a scientifically tractable form that examines a single criterion that may apply to many decisions. Put differently, scholars have divided something that managers perceive as a broad and far-reaching challenge into very narrow pieces that can be analyzed with academic rigour.

This systematic review has summarized what has been learned from each of these pieces. We realize that for managers, this summary is not entirely satisfying. It is as if someone has described the pieces of a jigsaw puzzle in great detail without conveying the overall picture that appears on the box. Connections between some individual pieces can be described, but so many pieces are missing that the overall picture remains unclear despite the careful attention given to studying those pieces. By itself, the systematic review reports what scholars have found, but cannot provide managers with much guidance about how to use that work to improve their own firms’ long-term decision-making. As a result, new material is needed that translates the academic findings into a form that pertains to long-term thinking as managers experience its challenges.

Such translation helps answer the questions posed in Chapter 1, but departs from the traditional definition of a “review.” We have therefore taken a two-pronged approach to concluding this report. First, we have created a standalone executive report to accompany this systematic review. The executive report summarizes the findings reported here and translates them into a big-picture view of long-term thinking, rooted in discussion of sustainability. To make this meaningful to managers, the executive report draw connections grounded in general management knowledge and expertise but not covered directly in the systematic review. Conducting the review was instrumental in helping us generate this picture, but we also incorporate judgment that goes beyond anything that has been established in peer-reviewed or high-level practitioner publications. We create analytical tools that managers can use to diagnose their organization’s situation and improve its processes toward better decisions, but the creation of these tools requires an interpretation that goes beyond what existing research has already shown. The executive report can be accessed here <http://nbs.net/knowledge/strategy/long-term-thinking/executive-report/>.

Second, we complete this chapter by identifying some issues that remain open for scholars to address — that is, some of the missing pieces of the puzzle that could be filled in by future research. In this discussion, we are less interested in creating tools to help managers, and more interested in guiding scholars toward researchable questions that would address the most important sources of ambiguity in existing literature. We proceed with a brief discussion of three questions that are fundamental to this stream of research, and yet have eluded straightforward answers to date.

*Exactly what comprises long-term thinking?* Many different business activities have been motivated by a belief in their long-term payoffs. Most of these activities, though, have both long and short-term versions. For example, R&D sometimes involves multi-year product development, and in other cases captures an incremental improvement to save money right away. Training can lead to significant downstream benefits for both an employee's personal development and organizational performance, but if done poorly, it can be perceived negatively by employees and management alike as wasting people's time. Even when deciding on capital expenditures, managers can often choose between more or less durable versions of the same equipment.

Scholars very rarely observe managers as they choose between short- and long-term alternatives. Instead, they typically infer such behaviour from archival records. Many of these inferences involve massive simplifications, such as using R&D spending as an indicator of a firm's long-term orientation. Even when such inferences are reasonably accurate, the inability to observe the actual decision process leaves a big missing piece of the overall puzzle. Realistically, scholars are unlikely to overcome this problem in the near future due to limitations on both sides. Organizations are generally unwilling to share granular details of their strategy-making process with external observers, while scholars can rarely afford to wait out the decade of observations it might take to make the exercise valuable.

Furthermore, the same research team would need to observe multiple organizations over multiple years to obtain data with high validity. The potential value of such research is self-evident, but realistically, it would take an improbable combination of events to become feasible.

*Does long-term thinking matter?* Everyone can think of examples of short-sightedness — when a focus on immediate wants led to sacrifices that seemed suboptimal in the future. This perspective implies an intuitive sense that long-term thinking is better than short-term thinking. However, many examples of short-sightedness were revealed in hindsight. We have fewer examples of deliberately self-defeating decisions, and when they exist, they can often be explained by other, non-temporal attributes of poor decision-making.

Moreover, we also have read plenty of examples in which decision-makers were overly concerned about the long run. These examples go beyond what we summarized in Chapter 3 regarding the benefits of both long- and short-term thinking, and illustrate instances of managers so focused on a long-term outcome that they ignored a salient urgent threat. **Long-term choices are not necessarily better than short-term choices; the desirable aim is for managers to analyze the alternatives without bias, and determine the more appropriate path for a given situation.** Subjectively, we believe that many managers are trying to follow this process much of the time — but evaluating alternatives without bias clearly falls in the category of “easier said than done.”



Objectively, this view suggests several paths for continued research. Do biases regularly distort such decisions? If so, are these biases consistent across managers, or do they primarily result from individual differences? Are some of the biases correlated with other positive attributes that partly or fully offset the performance implications? Rushing into decisions can be a mistake, but so can indecision. Calculating the performance benefits associated with long-term thinking can be difficult for this reason, and multiple further studies are needed to develop rigorous insights on this issue.

*How long is the long term?* The academic research on the management of organizations has carefully avoided declaring the “long term” to equal any particular number of years, and we share this cautionary approach. Long periods in one industry could be considered short in others. At the same time, this lack of a definable time period inhibits knowledge accumulation across studies by limiting the ability to compare and combine findings. If terms can mean different things in different studies, conclusions may seem consistent when they are not or, alternatively, conclusions may sound contradictory when they are merely ill-suited for comparison.

Relatedly, the ambiguous length of the long term poses particularly difficulty for evaluating the performance outcomes of many decisions made with an eye toward the long term. Managerial defenders of a long-term project that has not proven fruitful can often invoke the terminology of “long-term thinking” to argue that the project merely has not borne fruit yet. How long is it reasonable to wait for outcomes? Does the length of the reasonable wait change when the sunk costs have already been incurred, as described in the literature on escalating commitment? Separating fact from fiction is difficult when all parties use the same language to justify their positions.

## CONCLUSION

Long-term thinking is hard. Uncertainty is a given, and differences in expectations must be expected. Intuition suggests long-term thinking is also valuable, although we have acknowledged a lack of concrete proof for this point. Some important questions have been answered, while many others remain open for additional investigation. Based on the approach described in Chapter 1, we organized the findings from prior literature as summarized in Chapter 2. Then we identified the five emerging themes described in Chapter 3.

Few rigorous analytical tools are found in the academic research, but we believe that managers eagerly seek the development of such tools to help them understand and improve how they use long-term thinking in their jobs. We share this desirable goal and found the systematic review useful for generating interpretations from the literature that translate into useful analytical tools. Given their more speculative nature, however, these tools belong in the executive report rather than the systematic review.

Our approach has explicitly emphasized literature about long-term thinking as it pertains to the management of business organizations. Despite that restriction, we identified more than 150 relevant publications. The volume of relevant literature from related fields is vast, and we deliberately including only a small sample of it in our report. It may seem frustrating that the critical questions identified are so difficult to analyze in an academically rigorous way, but we see reason to conclude on a more uplifting note. Long-term thinking has been considered critical for generations, but in academic research both in and out of the management field, the topic has attracted increasing attention in recent years. With many scholars looking at the problem from many angles, there is an increased chance for the kind of breakthroughs that can be more easily translated to the managerial domain.

# appendices

The appendices detail:

- Review methodology
- Search terms
- Publications reviewed

# Appendix 1: Methodological Details

## 1. BACKGROUND AND OBJECTIVES

The Network for Business Sustainability (NBS) called for proposals to review and synthesize research and practice regarding the incorporation of long-term impacts into today's decisions (see the NBS Call for Proposals for the full rationale). Our research team was commissioned for this project, on the basis of a proposal to address three sub-questions:

1. What are the contributors to, and consequences of, short-term decision-making in organizations?
2. When are the consequences of short-term decision-making at odds with sustainability?
3. What are the decision-making processes that incorporate both the short term and long term?

## 2. STUDY INCLUSION/EXCLUSION CRITERIA

### a. Types of Context/Settings

- NBS and our research team both focus primarily on decisions made by organizations, and the protocol for this project reflects that emphasis.
  - We performed a systematic and exhaustive review of existing work that addresses future thinking in organizational settings (including the financial costs of short-termism).
  - Many organizational decisions involve individual behaviour (by customers or employees) and reflect societal norms and constraints. Our review selectively incorporated research about individuals, societies and government policies

or regulations that has high salience to understanding future thinking in organizations. It is our aim to complement prior NBS reviews that intersect with the topic, such as the Arvai et al. systematic review on individual decision-making for sustainability.

- However, it is beyond the scope of the project to exhaustively review all literature on future thinking among individuals or in societies.
- Both qualitative and quantitative studies were included in the review. We reviewed only documents produced in English.
- Publications from any time period were eligible for the systematic review, but we did not try to identify literature that predated the time span of standard databases for business literature.

### b. Definitions of Key Terms

- For this project, we use a broad definition of organizations to include both for-profit and non-profit enterprises of any size.
- We do not attach a specific amount of time to the terms long term or short term. The meaning of these terms often depends on the organization or industry context. In any context, short-term thinking refers to decisions that are motivated by expedient considerations and overlook or ignore the potential future implications (for example, emphasizing quarterly profits over business sustainability). Long-term thinking does not necessarily imply different decisions, but makes future implications an explicit decision criterion.
- Consistent with the NBS mission, this project synthesizes research about future thinking such that implications for business sustainability can be identified.



### c. Types of Literature Reviewed

- **Academic journals focused on organization-level research in the field of management:** consistent with the emphasis on organizations described above, our systematic review covered leading peer-reviewed journals that primarily publish research on organization-level issues in the field of management. Our initial search included all management journals with organization-level focus, across a wide range of journal reputations. As described below, journal reputation was subsequently considered when weighting the overall importance of each article.
- **Related academic publications:** from the systematic review of research about future thinking in organizations, we identified salient supporting literature from related fields such as accounting, finance, marketing, operations, behavioural economics, behavioural psychology and neurobiology. Only when such publications demonstrated organization-level impact were they included in the systematic review. Typically, the selected articles had been cited by multiple papers identified by the review of organization-focused journals. By including the most salient research from other fields on a more selective basis, we enriched the depth and application of our synthesis without allowing the project's scope to lose focus and become unwieldy.
- **Practitioner journals:** leading publications that address organization-level issues for business executives were also included in the review. Familiar examples include California Management Journal, Harvard Business Review, McKinsey Quarterly and Sloan Business Review.
- **Full-length books:** books that are primarily about future thinking or long-run implications in

organizational settings were included in the review. However, it was beyond the scope of this project to include books that consider long-run implications in passing or fail to address organization-level issues in a meaningful way.

- **Government, Industry and NGO reports:** additional practitioner material comes from reports produced by government, NGOs and businesses (e.g. consulting firms). Government and NGO reports are widely available to the public, and we identified numerous reports from relevant agencies and NGOs. Due to the proprietary nature of many industry reports, we settled for an opportunistic rather than systematic review of these materials.

## 3. SEARCH STRATEGY

### a. Search Keywords

Based on our prior research in this field, we identified several search terms that were directly relevant to this project. Phrases needed to appear in their entirety to qualify for the systematic review, as indicated by the quotation marks around each search phrase. An article was deemed relevant for the project if it contained any of the following terms:

1. "long-term orientation"
2. "temporal orientation"
3. "short-termism"
4. "temporal myopia"
5. "long-short problem"
6. "futuraity"
7. "horizon"
8. "long-term sustainability"
9. "hyperbolic discounting"
10. "time orientation"

11. “temporal depth”
12. “future perspective”
13. “long-term perspective”
14. “short-term perspective”
15. “present focus”

#### **b. Databases Searched**

To explore the *academic* literature we searched a range of relevant bibliographic databases:

Business Source Premier (with supplemental checks of JSTOR and ProQuest to help verify that all highly salient articles were identified)

- Worldwide business research abstracts
- Dissertations & Theses A&I: Business

Web of Science/Knowledge

- Social sciences citation index (SSCI)
- Conference Proceedings Citation Index-Social Science & Humanities (CPCI-SSH)

We selected these databases because they emphasize publications about business organizations, while also offering sufficient breadth to cover other relevant social science research. Conference proceedings are included to ensure that the study analyzes both recently completed research and research in progress.

Preliminary search results were shared with NBS staff and the project’s academic advisor for their review, with the aim to identify further potentially relevant studies that the search strategy may have inadvertently excluded. This approach allowed for the inclusion of relevant unpublished literature that has come to the attention of project stakeholders.

For relevant *practitioner* literature, our search relied heavily on Google, and we consulted with NBS staff to identify consultancies, agencies and NGOs that have produced relevant material. By engaging with interested practitioners throughout this project, we were able to receive feedback that helped identify further potentially relevant sources.

#### **4. SIFTING PROCEDURE**

To identify the most salient studies from all retrieved references that include the search keywords, we systematically followed the questions listed below:

##### **a. Does the research address organization-level decision-making in a management journal?**

- If yes → proceed to question 4b
- If no → proceed to question 4c
- If unclear → consult with another member of the research team

##### **b. Is the research primarily focused on incorporating long-term impacts in today’s decision-making?**

- If yes → include in systematic review
- If no → proceed to question 4d
- If unclear → consult with another member of the research team

##### **c. Does a significant portion of the research address one or more of the keywords?**

- If yes → proceed to question 4d
- If no → exclude from systematic review
- If unclear → consult with a second member of the research team

**d. Are the keywords used only in passing?**

- If yes → exclude from systematic review
- If no → proceed to question 4e
- If unclear → consult with another member of the research team

**e. Does the research have implications that can be drawn for organization-level decision-making?**

- If yes → include in systematic review
- If no → exclude from systematic review
- If unclear → consult with another member of the research team

We divided this task across the research team and achieved high inter-rater reliability for three reasons. First, we deliberately kept the keyword list focused, and a relatively high percentage of the articles that include these terms proved salient to the study. Second, all three members of the research team already possessed high familiarity with the organization-level literature on short- and long-term thinking. Third, the members of the research team have previously worked together, which facilitated commonality in interpreting the relevance of articles identified in the search. If any member of the research team had doubts about the inclusion of a paper, he or she consulted with other team members to determine whether it should be included for further analysis.

## 5. DATA COLLECTION

One member of the research team extracted relevant data from each article using a customized form. To ensure broad familiarity of team members with the material before the synthesizing phase of the project, a

second team member reviewed all of the data extraction and, if necessary, requested additional details from the first team member.

The customized form included:

1. Full article citation — including title, author and publication date,
2. Peer-reviewed vs. non-peer-reviewed designation,
3. Practitioner vs. academic study,
4. Level of analysis (organization, individual, group, industry, country, etc.),
5. Study context (industry, geography, time frame, number of observations, etc.),
6. Theoretical framing,
7. Research design,
8. Methodological quality,
9. Observed results and
10. Implications for long-term decision-making in organizations.

## 6. QUALITY ASSESSMENT STRATEGY

As part of the systematic review, we developed ratings for the quality of each study — i.e. the weight or importance it would be given in the overall synthesis.

Critical elements included:

- The quality of the pre-publication peer review (as indicated by the reputation of the publishing journal),
- The study type (case, qualitative, cross-sectional, longitudinal, quasi-experimental, etc.),
- The robustness of study design (internal and external validity, adequacy of sample, econometric methods, etc.) and
- The homogeneity of results across studies.

## Appendix 2: Search Term Definitions

**Temporal orientation** was described by Das (1987: 203) as a “future time perspective” that captures variation across individuals “in terms of the relative cognitive dominance of the near versus distant future.” He concluded that managers could influence firm performance outcomes through “specific time horizons for different strategic planning areas.” More specifically, “[a]n individual’s general view of the nature of future time could potentially constrain choices about such time-related factors as planning cycles or planning horizons.” Although grounded in individual psychology, temporal orientation has clear applicability to organizations (Marginson & McAulay, 2008). For example, Souder and Bromiley (2012) explained why temporal orientation would fluctuate within organizations over time in response to changing environmental stimuli. **Time orientation** has a synonymous definition.

**Long-term (or short-term) orientation** adds a directional modifier to temporal orientation, and the two terms overlap without being synonymous. Temporal orientation is considered to be one of five cultural dimensions that vary across nations, with long-term orientation relatively high in China and low in the U.S. (Hofstede, 1993). The usage of this term tends to be prescriptive rather than descriptive. In family firms, Lumpkin and Brigham (2011) argue that a temporal orientation is a dominant logic that combines futurity, continuity and perseverance.

**Long -term (or short-term) perspective** addresses a similar idea, but can be applied to a specific decision. In contrast, a long-term (or short-term) orientation implies a more general approach to decision-making that permeates a wide range of decisions.

**Future perspective** has been used interchangeably in prior literature, but with less explicit directionality. Although our report follows most of the literature in referring primarily to the short term vs. long term, it is valuable to recognize that some authors have appropriately mentioned a third time frame — the medium term — as well (Moore, 2007). Each of the three temporal terms has been described as follows:

*“In the past, American managers earned worldwide respect for their carefully planned yet highly aggressive action across three different time frames:*

- *Short term — using existing assets as efficiently as possible.*
- *Medium term — replacing labor and other scarce resources with capital equipment*
- *Long term — developing new products and processes that open new markets or restructure old ones.*

*The first of these time frames demand toughness, determination, and attention to detail; the second, capital and the willingness to take sizable financial risks; the third, imagination and a certain amount of technological daring.”*

Hayes and Abernathy (1980: 68)

**Long-term sustainability** refers to the goal of ensuring that actions taken for today's benefit do not come with hidden future costs that threaten a decision-maker or the surrounding environment. In a business setting, sustainability is broader than just corporate social responsibility and extends beyond the natural environment, involving intertemporal trade-offs across multiple decisions and performance criteria (Bansal & DesJardine, 2014).

**Short-termism** also overlaps with temporal orientation without being synonymous, adding a modifier in the opposite direction from long-term orientation. This term reflects an intertemporal choice that “involves situations where corporate stakeholders (e.g. investors, managers, board members, auditors, employees, etc.) show a preference for strategies that add less value but have an earlier payoff relative to strategies that would add more value but have a later payoff” (Jackson & Petraki, 2011: 9–10). The usage of this term tends to be pejorative, and was analyzed extensively by Lavery (1996). Concerns about short-termism appear frequently in both scholarly journals (Bansal & DesJardine, 2014; Barton et al., 1992; Gaddis, 1997; Lin-Hi & Blumberg, 2012; Wellum, 2007) and the popular press (Begley, 2009; Brown, 2007; Dumaine, 2012). Many authors claim that short-termism is most common and severe in U.S. publicly traded firms. Equivalent terms include **present focus** (Cojuharenco, Patient, & Bashshur, 2011) and **temporal myopia** (Levinthal & March, 1993; Meulbroek, Mitchell, Mulherin, Netter, & Poulsen, 1990; Miller, 2002).

Conceptually, we follow the primary usage of the term, in which decision-makers realize they are foregoing good long-term opportunities and behave in “demonstrably suboptimal” ways (Jackson & Petraki,

2011: 11). The essence of the problem comes from knowing better, but acting with a short-term mindset anyway. Some experts have blamed short-termism “for some of the worst excesses of the global financial crisis and an excess of ‘public bads’ as green economists see environmental damage and other negative externalities to society that aren’t represented in financial statements” (Lees & Malone, 2011: 1). In fairness, though we must acknowledge that in rarer cases the term is invoked to describe behaviour that only appears suboptimal with the benefit of hindsight. Economists have modelled short-termism as an example of discounted utility (Jackson & Petraki, 2011).

**Hyperbolic discounting** has been used in behavioural economics research as a way of modelling short-termism in an otherwise rational decision-making framework. It captures a common behaviour among individuals: immediate gratification. The “hyperbolic” modifier reflects how individuals value receiving something today or tomorrow much more than they value receiving the same thing in a month.

**Futurity** was described by Miller and Friesen (1984) as the length of time considered within a strategic planning process. For example, one firm might write a five-year plan, a 10-year plan, a 20-year plan and a 50-year plan. This firm has greater futurity than another firm that writes only a five-year plan. On the other hand, planning and doing are not the same. A firm that considers implications over a long time span may also heavily discount future returns. Nothing impedes the firm with a 50-year plan from having a short temporal orientation. Futurity has been associated with creativity of choices, particularly with regard to so-called “big, hairy, audacious goals” (Ford, 2002).

**Temporal horizon**, or payoff horizon, can be defined as “the amount of time until the expected returns of an investment will exceed its costs” (Souder & Shaver, 2010: 1316). This definition refers to the expected time frame associated with actions taken by firms. It applies primarily to investment decisions and does not refer to cognition directly, although presumably an organization’s horizon will be influenced by its broader temporal orientation. Horizon favours specificity over the generality of temporal orientation, and can be seen as a subset of it.

**Temporal depth** refers to the distance into the past or future that an individual considers when making decisions; studies of entrepreneurs have found that, together with perceived temporal flexibility, longer temporal depth helps reduce entrepreneurs’ life stress (Bluedorn & Martin, 2008).

Jack Welch (2005) describes the **long-short problem** as a vexing leadership challenge. It refers to the difficulty of achieving both long- and short-term goals, especially because actions that would improve the metrics for one of these goals would often hurt the metrics for the other goal.

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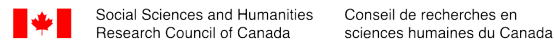
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