growing number of companies are engaging with sustainability issues, driven by a greater awareness of environmental and social problems and a changing set of institutions and social expectations about the role of business in society. Specifically, there is an emerging public sentiment that businesses should engage in the production of public goods and the mitigation of negative externalities. As a result, businesses have been asked to provide solutions to problems in the areas of education, poverty, climate change, corruption, and social inequality. With this public sentiment reflected in consumer choices and employment preferences—as well as increasingly codified in laws, regulations, and business practices, such as the mandated disclosure of nonfinancial information and supply chain transparency requirements—there are increasing economic incentives for companies to improve their nonfinancial or environmental, social, and governance (ESG) performance.

At the same time, however, many corporate executives suggest that investor short-termism represents a critical barrier to businesses’ development and execution of their long-term strategies. A 2012 survey of representatives from corporations, NGOs, academia, and government conducted by GlobeScan and SustainAbility reported that some 88% of the experts polled see pressure for short-term financial results as a barrier to businesses becoming more sustainable. While this could well be true, the point of this article is to move our thinking away from the idea that a company’s investor base is exogenously determined, and thus not subject to influence or control by management. Our aim is to suggest that a company’s leaders have the ability to influence who buys their shares and, if necessary, change their base of shareholders. Many companies actively shape their customer or employee base, and we believe the same can be done with investors.

In making our argument, we use the case of a biopharmaceutical company called Shire PLC to show how a company’s investor base is likely to change over time when management makes sustainability issues a major strategic focus of the organization and reports its performance in an integrated way. Though one should resist the temptation to draw general conclusions from a single case, we see this article as providing a useful complement to broad-based, statistically meaningful studies that analyze a large number of companies over time with the aim of establishing a causal link between a company’s actions and its investor base. In contrast to such large-sample studies, the analysis in this article is designed to provide more insight into what companies are doing internally and the kind of policies and practices that are likely to lead to an investor base with a longer-term orientation.

The Value Creation Process
Shire PLC is a specialty biopharmaceutical company whose products consist of treatments for neurological and other rare diseases, gastrointestinal disorders, and internal medicine generally, with attention hyperactivity disorder (ADHD) as one of its main treatment areas. The company was founded in 1986 and is headquartered in Dublin, Ireland. Its products are sold in over 50 countries, with a primary focus in North America and Europe. The company’s strategic priorities are to drive the performance of its existing products while building its product pipeline through research and business development. The company had revenues of $4.9 billion in 2013 and a market capitalization of $31.9 billion as of May 2014.

Shire’s value creation process is presented graphically in Figure 1. In designing, producing, and distributing its products and services, Shire uses a variety of kinds of resources. These resources can be classified as natural capital, such as water and minerals; human capital, which consists of the skills and capabilities of individuals; and financial capital, which includes the funds raised from investors as well as the reinvestment of funds obtained from operations. In addition to providing its products and services, Shire uses these resources to develop its capabilities. Such capabilities can be classified as physical capital, such as factory equipment; intellectual capital, which consists mainly of employee knowledge and experience and their use in improving corporate products and processes; and social capital, which derives from a mutually beneficial relationship between the firm and society that effectively secures the firm’s license to operate. While aiming to make the best possible use of such capabilities, Shire sells products and services in exchange for financial compensation.

In the process of creating products and services, Shire also generates positive and negative externalities. Positive externalities arise when Shire’s actions generate marginal “social” benefits above and beyond the private benefits to the firm and
sustainability, or integrated reports designed to communicate the company’s strategy and success in meeting ESG criteria.

**Investors and Integrated Reporting**

As investors increasingly recognize the importance of strategies designed to limit negative externalities and their effects on a company’s different forms of capital, interest in ESG information and sustainability performance has grown.¹ Within the broader pool of investors, it is investors with longer time horizons that pay more attention to ESG information and are more supportive of corporate efforts to improve ESG performance. This has been made clear both by the identity of the signatories of the Principles for Responsible Investment and by the types of investors that file shareholder resolutions or engage with companies on sustainability issues. Since these investors are likely to hold the shares for longer periods of time, they are more likely to be rewarded according to how well their portfolio firms manage the value creation process. Consistent with this argument, a recent study (by one of us) of more than 1,000 U.S. companies found that those companies that practice integrated reporting, and thus can be seen as communicating the value creation process seen in Figure 1, tend to attract longer-term investors after initiating such reporting practices.²

In sum, longer-term investors are being attracted in increasing numbers to companies that have implemented a robust strategy to integrate sustainability efforts inside the company, and that credibly communicate these efforts. But how can investors reliably distinguish companies that are really integrating sustainability issues in their strategy from those that are engaging in cheap talk?

Integrated reporting, although by no means a complete solution, can provide investors with considerable help when

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trying to make such distinctions. The mission of integrated reporting is not only to provide guidance to companies' intent on communicating their integrated thinking, but also to encourage companies to develop integrated thinking in the first place. But what do we mean by integrated thinking? We will define it here as the systematic management of all the forms of corporate capital shown in Figure 1 with the goal of delivering sustainable profitability.

Reporting a company’s strategy, external environment, performance, and prospects in an integrated way has the potential to showcase management’s commitment to operating in a sustainable and responsible way. But effective integrated reporting requires the commitment of a company’s top management as well as well-coordinated efforts to diffuse integrated thinking across the entire organization; both elements are essential to the successful integration of sustainability in the business model of the company. And along with top management support and a commitment to diffusing sustainability concerns throughout the firm, there are two other important conditions for effective integrated reporting: an understanding of the materiality of the different sustainability issues, and a commitment to stakeholder engagement and responsiveness.

In the section that follows, we describe each of these four key contributors to effective integrated reporting using Shire PLC as a case in point. In so doing, we discuss organizational processes and other distinctive features of Shire that we believe represent best practices for creating a more sustainable organization that is likely to attract long-term investors. But first, let’s look at what happened to Shire’s investor base following its adoption of integrated thinking and reporting.

Changes in Shire’s Investor Base

Wharton School professor Brian Bushee has developed a method for classifying institutional investors that, using just two variables—the number of stocks in an investor’s portfolio and its average holding period for a stock—assigns investors into one of three groups: (1) “transients”—those holding lots of stocks with high turnover and short holding periods; (2) “quasi-indexers”—those holding lots of stocks with little turnover and long holding periods; and (3) “dedicated holders”—those holding relatively few stocks for long periods of time. We applied our own version of this classification scheme to Shire's investor base and to the institutional shareholders of eight of Shire's competitors in the pharmaceutical sector. Specifically, for Shire and its competitors, we calculated the difference between the percentage of shares held by dedicated holders and by transients for each year from 2006 through 2011.

As can be seen in Figure 2, in the case of Shire the relative holdings of dedicated holders—although outnumbered almost four to one by transients in 2006—increased steadily during the six-year period of our study. And by the end of 2011, Shire’s dedicated holders actually outnumbered its transients, which is highly unusual for a public company. Investment managers that are well known for the integration of ESG considerations in the investment process, such as Domini Social Investments, the Norges Bank Investment Management, Scottish Widows, and Aviva Investors, held significant positions in Shire’s stock. By contrast, the institutional shareholders of Shire’s competitors, while less dominated by short-term momentum types than Shire’s investors in 2006, actually became more short-term oriented over time.

How do we explain this contrast in patterns? One likely cause of Shire's short-term oriented investor base in 2006 was a sustained period of growth and outperformance leading up to that point that may well have attracted a large number of momentum traders. To be sure, this growth and outperformance continued after 2006; but it was also around this time that the company increased its emphasis on integrated thinking while also initiating and then expanding its integrated reporting practices (although without identifying its reports as “integrated”). During this same period, moreover, Shire made none of the changes that previous studies have associated with changes in a company’s investor base; it did not change any major governance provisions or consistently increase its dividend payouts, and the liquidity of its shares remained largely unchanged. At the same time, the company continued to outperform its competitors over this time period, which by itself would lead one to expect an increase rather than a drop in short-term investor ownership (since past studies have found recent one-year or multiple-year stock return outperformance to be positively correlated with transient investors who are frequently momentum traders). In fact, from 2006 through the end of 2011, the stock price of Shire had appreciated approximately 200% while an index of competitors appreciated by just over 10% over the same time period.

Thus, the attraction of longer-term holders appears to reflect at least partly changes in the company’s strategy and reporting practices that we now describe in more detail.

Top Leadership Commitment

When creating the first Shire Corporate Responsibility (CR) report in 2003, Shire established a CR committee that was classification data, http://acct.wharton.upenn.edu/faculty/bushee/liclass.html.

5. Competitors with comparative sales to Shire were selected, with average sales ranging from 500 million to 7 billion between 2005 and 2012. The competitors included Allergan Inc., Dr. Reddy’s Laboratories, Endo Health Solution Inc, Forest Laboratories, Hospira Inc, Medicis Pharmaceuticals, Mylan Inc, and Par Pharmaceutical. Five additional companies met the sales criteria but were left out of the analysis due to lack of investor data. These companies included Actavis PLC, Eisai, Perrigo, Valeant Pharmaceuticals, and Warner Chilcott PLC.


headed by the CFO Angus Russell, who in 2007 would become Shire’s CEO. From the beginning, Russell understood the importance of CR to the business. As he wrote in the company’s 2007 CSR report,  

_**when I first took on this role CR was still seen by many as little more than corporate philanthropy – nice to have but pretty irrelevant to what business was really about. There were plenty of cynics who saw the whole thing as little more than a PR exercise. That was one reason why we spent so much of the first year of the CR Committee deciding what we wanted to achieve: what did CR mean for Shire? How could we do it in such a way that we added value to the business, and capture the special spirit of this special company?**_

The appointment of the CFO as the head of the CR committee was a strong signal of Shire’s commitment to operating in a responsible way for two reasons. First, past research has shown that top leadership commitment is an important condition for the integration of sustainability issues with the core of the business.  

_It is usually the commitment of the CEO that drives sustainability to be a force for change inside the organization. In the absence of such commitment, sustainability usually remains peripheral and unlikely to change the organization in any significant way._

Second, CFOs are typically the senior executives that are the least supportive of a firm’s integrated thinking and reporting.  

_And so making the CFO “own” the success or failure of the process was a strong bonding mechanism._

Leadership commitment was also reflected in Shire’s compensation philosophy. Studies have found that one of the defining characteristics of sustainable organizations is the linking of executive incentives to sustainability metrics.  

_Public statements made by corporate executives about the importance of sustainability are prevalent today. But in many cases, they are viewed as cheap talk and unlikely to convince investors. On the other hand, linking compensation to sustainability metrics is a credible commitment to and a strong signal of what the organization values and strives to achieve._

Beginning in 2006, Shire tied executive compensation to both financial and non-financial accomplishments. Shire’s strategic objectives were set using a balanced scorecard approach. As stated in the company’s 2006 annual report,

_Objectives are also set at the functional, market and therapeutic area levels and are aligned with the Group-wide strategic objectives. The Group therefore takes a fully integrated approach to strategic management. Key performance indicators (KPIs) are used to measure achievement of the objectives. Strategic objectives are categorized into fields—“financial,” “products and markets,” “people and capabilities” and “operational excellence.”_

In 2007, the products/market category was renamed “Customers,” with product related goals moved to the “Operational effectiveness” metric.  

_In 2008, a revised scorecard included the following weightings:_

**1. Financial targets (40% of Weighting)**

1.1. one-year revenue growth  
1.2. net sales and contribution of each Business  
1.3. management of expense ratios  

**2. Customers (15% of Weighting)**

2.1. improve customer care and customer service levels  

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10. Shire, 2006 Annual Report  
3. People and capabilities (15% of Weighting)
   3.1. employee retention
   3.2. programs to support leadership and career development for high-potential talent
4. Operational effectiveness (30% of Weighting)
   4.1. successful product filings, approvals and launches
   4.2. determination of strategies for therapeutic areas
   4.3. strategies for investment in Group infrastructure”

Another key element of leadership commitment is continuity. When senior leadership changes, integrated thinking could be a victim of the change. Effective succession planning is essential for ensuring continuity in a company’s leadership commitment to integrated thinking. The institutionalization of leadership commitment in Shire was evident in 2007, when the CFO and head of the CR committee Angus Emmens succeeded Matthew Emmens as the CEO. In the company’s 2007 CSR report, Russell confirmed his commitment to Shire’s sustainable practices:

“I’m now handing over the day-to-day chairmanship of the committee to our General Counsel Tatjana May, but I don’t see that as diminishing my personal interest in CR—in fact I see my new role as CEO as a new way to give added leadership momentum to these issues. Unlike many CEOs of comparable sized companies, I can apply the practical experience of the last five years to my new role, and the further embedding of responsible, sustainable business practices will be one of my priorities going forward. I’m particularly keen to get our Board more involved—there’s no lack of willingness on their part, but we need to find ways to do this effectively and, as CEO, together with Tatjana, it will be much easier for me to harness their enthusiasm.”

Diffusion of Shire’s Integrated Thinking

A few years later, Shire recognized the importance of diffusing the firm’s sustainability goals throughout the organization. In 2008, Shire changed the name of the report from Corporate Responsibility to just “Responsibility,” with a focus on further instilling responsibility initiatives into the organization. Shire adopted a new motto, “To be as brave as the people we help,” and began to increase responsibility reporting in their annual report. This rebranding also came with a new corporate culture whose spirit and thrust were projected using the acronym “BRAVE,” which is short for “bold, resilient, accountable, visionary, and ethical.” The motto to “be as brave as the people we help” was meant to ensure that Shire employees’ interests and energies were aligned with pursuing the same goals as the company’s customers, thereby maintaining the corporate focus on the patients and physicians who use Shire’s treatments. The reformulation of corporate responsibility to just responsibility in 2008 was also intended to underscore the personal accountability of each employee, empowering individuals and diffusing the company’s sustainability efforts across all functions and geographic locations.

To be sure, even companies that are considered sustainability leaders still struggle to achieve this outcome. Even when commitment to integrated thinking is relatively high among senior management, commitment from lower level employees, especially those located further from the company’s headquarters, tends to be lower. This discrepancy represents a major barrier for companies that try to maintain and strengthen all their different forms of capital.

To reinforce the attempt to diffuse accountability across the organization, in a 2010 “Responsibility Highlights” report, CEO Angus Russell stated:

“For us, it can be said in just one word: Responsibility. We want everyone in Shire to feel a powerful sense of ownership of what Responsibility means and not just encouraged but fully accountable for putting those principles into action in their day-to-day work. It’s not about having a central committee that comes up with a program; it’s about aligning everything we do—from R&D to acquisitions—behind the same set of beliefs.”

This cultural initiative was meant to provide guidance and motivation not only for high- and mid-level managers, but to penetrate deep within the business and reach, ideally, every employee at Shire. Responsibility was meant to be part of the day-to-day work, and not some corporate department that was disconnected from the business units. Tatjana May, the head of the CR committee, emphasized the need for a different frame of thinking rather than top down CR initiatives:

“I don’t think we need more initiatives or more campaigns—you can gain a certain amount from that, but the real change comes when people start to think and act differently without needing to be constantly reminded, or without even realizing that what they’re doing is ‘CR’.”

14. Bold: We have the courage to lead the way Resilient: We are agile and adaptable to meet the changing needs of our stakeholders Accountable: We deliver on our promises to all of our stakeholders Visionary: We fearlessly innovate to address unmet patient need Ethical: We do the right thing, in the right way. Shire, Responsibility Policy 2014, http://www.shire.com/shireplc/dlibrary/documents/ResponsibilityPolicy2014.pdf
18. Shire, 2009 Responsibility Highlights
What’s more, a new organizational structure was needed to accommodate the new strategy. In 2009, Shire organized its Responsibility platform into 13 focus areas, each directly related to the company’s day-to-day operations. And the company’s 2009 Annual Report included, for the first time, the presentation and discussion of non-financial KPIs. The first of the KPIs cited was a measure of the degree of employee’s engagement and commitment to Shire’s goals that was based on a “Shire@work” employee survey. The second of the KPIs evaluated Shire’s “best-in-class” ratings in target therapeutic areas and products. In 2011, this initial set of KPIs was expanded to reflect the growing geographic diversity of Shire’s business. These included identifying global leadership capabilities and achieving a diversity of experience and capabilities among employees.

Materiality
Because corporate resources are of course limited, companies must choose which issues are most material when defining their strategies and reporting. Shire recognized early on the concept of materiality, and was one of the first companies to understand that the materiality of sustainability issues varies systematically by industry. In the company’s 2005 CR report, CEO Matthew Emmens began by noting the minimal environmental effects Shire had compared to other industries and companies:

*Instead of reporting on the basis of workplace, marketplace, community and environment, this year’s report will focus on the issues that are particularly important to us as a specialist pharmaceutical company. This approach allows us to concentrate on the areas that are most relevant to our sector and where we as a company make the greatest impact—and take more account of the questions that our stakeholders most regularly put to us. So while Shire takes its environmental performance seriously, our impact here is minimal compared with that of an oil business or a pharmaceutical company with substantial manufacturing operations and we’ve therefore not made environment a primary focus of this report.*

By choosing to stress the importance of materiality in the report, the company shifted its emphasis away from the environment and toward other areas more relevant to the pharmaceutical sector and to the company’s stakeholders.

Shire’s early CR reports focused most heavily on the company’s products. In the 2005 CR report, for example, Emmens states,

*The more important issues for us to address relate directly to the nature of pharmaceutical products, their safety and responsible marketing. These are the aspects of our business that we care most about on a day-to-day basis—the key issues that we have to manage both from a commercial and a CR perspective. Likewise our stakeholders have a right to know what we are doing about these issues and how well we are performing on them, whether that’s our employees, our investors, or the healthcare professionals and patients that we serve.*

And a growing number of companies have recently begun to place increased emphasis on other issues, using stakeholder engagement as the tool to achieve it. As we can see from the example of Shire, building the company’s sustainability strategy and reporting around stakeholder expectations helped the firm identify the most material issues and to make progress on those issues.

Another critical strategic challenge and goal for the company was accelerating the drug approval processes—and in this the firm’s efforts were remarkably successful. In 2010, Shire accelerated the process of getting both U.S. and EU approval for its Gaucher therapy, so that the drug now known as VPRIV™ (velaglucerase alfa) was able to launch some 18 months ahead of schedule. And during roughly the same period, in consultation with regulatory agencies, Shire expanded the pre-approval access programs for VPRIV in over 20 countries. Some programs—like the one in the U.S.—provided the drug for free. The company stated that “Making this happen clearly brought additional costs in financial terms and put significant pressure on our internal teams, but we are very proud that we were able to step up and do the right thing.”

Yet another important challenge for Shire concerned its supply chain. Recognizing the changing nature of sustainability in the pharmaceutical sector, and the need to expand the company’s strategy and reporting efforts, the company wrote in its 2008 Annual Report,

*For example, it is clear to us that the sustainability agenda in our own industry is evolving from one focused on the direct impacts of operational activities, like drug safety and animal welfare, to a much wider remit covering the whole value chain, as well as an even broader range of social issues including healthcare systems, patent rights, and access to medicines. We see this new focus on sustainability as an evolution of what we’re already doing, even if it might lead to some fairly revolutionary thinking in one or two areas. We want to know if there are changes we should be making in the way we operate, or new approaches we should consider that other companies are benefiting from. We also need to think about how we measure what we do more effectively, and set realistic and appropriate targets. This will be an important project for 2009.*

By 2010, the company had established an ethical...
procurement process, the development of which involved a reassessment of the company’s entire supply chain through questionnaires sent to its top suppliers. The company used these results to develop a risk ranking of suppliers and an audit program. In 2011, that program consisted of seven supplier HSE/labor audits and led to the hosting of a conference with 80 key suppliers.

Shire’s Integrated Reporting
As part of our study, we also assessed Shire’s reporting practices and disclosure relative to its competitors’ over time. To that end, we collected data from Bloomberg and the Sustainability Accounting Standards Board (SASB), which produces industry-specific reporting standards for sustainability information that is deemed to be material for investors. We coded each issue identified by SASB as material for pharmaceutical firms and mapped each issue to a Bloomberg data field. Then we calculated whether Shire disclosed a metric as well as the percentage of competitors that also disclosed. The findings of our analysis are summarized in Figure 3, which shows disclosure outcomes for seven sustainability issues that are classified under the themes Human Capital, Leadership and Governance, and Environment—as well as a composite overall score.

Two patterns emerge from this analysis. One is that Shire has been more transparent than its competitors in disclosing certain of its policies and practices. For example, since the early 2000s, the company has consistently provided more information about its policies with respect to recruitment, development, and attraction of talent, corruption and bribery, and energy, water, and waste management. The second is that Shire has more recently increased its transparency relative to its competitors in a number of other important areas. For example, in 2009 and 2010, Shire started disclosing information more about its employee health and safety programs as well as its manufacturing and supply chain quality management initiatives.

It is worth noting, moreover, that the increase in Shire’s disclosure of such information roughly coincided with the evolution of its investor base towards more long-term shareholders. As we noted earlier, this finding is offered not as definitive evidence that increased disclosure has by itself attracted a more long-term investor base, but it is surely consistent with this possibility.

Stakeholder Engagement and Responsiveness
Engaging stakeholders is necessary to understand their needs and expectations. Companies that seek to communicate and interact with a wider range of stakeholders as part of developing integrated thinking will also develop a more holistic picture of stakeholder needs and expectations, and so be in a better position to respond if these needs and expectations change. Both Shire’s resolution of its supply chain issues and its dialogue and interaction with regulators on drug approval are good illustrations of effective engagement with stakeholders.

Moreover, when a company can credibly commit to and create a relationship of mutual cooperation and trust with its stakeholders, it is likely to experience reduced transaction and team production costs. Shire has a long record of responsiveness to emerging concerns from different stakeholders. In 2007, for example, with increasing pressure on the pharmaceutical industry to provide more information about their clinical trials, Shire created a dedicated website that publishes information on Shire-sponsored clinical trials that could be used by patients as well as doctors. In the same year, when Shire voluntarily withdrew Daytrana, a patch used to treat ADHD, it devoted a substantial portion of its CR report to discussing the withdrawal, along with lessons the company learned about customer service. As stated in the report,

During September 2007 Shire announced a voluntary market withdrawal of a limited quantity of DAYTRANA (methylphenidate transdermal system) patches following feedback from caregivers and patients who had experienced difficulty in removing the release liner. Like any similar experience it taught us a lot about what we do well, and where we can do better. Most of the feedback we received was from caregivers and patients, and most of them appreciated our efforts to minimize the impact of the withdrawal. Wholesaler customers also had other, unrelated concerns about how we handled their inquiries. Nonetheless the message we received was loud and clear: Shire Specialty Pharmaceuticals needed to continue to improve its customer care. This has prompted a thorough re-think, from the strategic (do we have the right model for such a fast-moving business?), to the practical (how many phone numbers do we use, and do they need to be rationalized?).

Shire’s rapid growth had left the company with a cluster of call centers for different parts of the business, each with different technology systems and limited knowledge sharing between the groups. This led to a disparate and uncoordinated network for responding to customers. Shire began the process of consolidating feedback and complaints from customers about their products, which included working with an outside company to improve management of their call centers. The outcome of these efforts was the establishment, in July 2007,

As the CEO Angus Russell said about the company in its 2011 annual report,

We’re focused on all our stakeholders—patients, physicians, policymakers, payors, investors, and employees. In 2011, we spent time in the company of patients, their families, their communities. We talked to physicians about the frustrations they face as they seek to treat symptoms and make diagnoses. We talked to policymakers around the world and we talked to payors about how they measure and reward value. We talked, we listened, and we responded to the benefit of all of our stakeholders—systematically advancing our pipeline.\footnote{Shire, 2011 Annual Report, \url{http://www.shire.com/shireplc/uploads/report/Shire_AnnualReport2011.pdf}}

### The Future

One of the main lessons from Shire’s story is that companies that believe their investor base to be an impediment to their future success need not take the status quo as given. As we have tried to show with the case of Shire, companies have the means and the power to reshape their investor base. A large group of signatories now claim to follow the Principles for Responsible Investment, bringing with them a vast pool of money. Although we do not know the percentage that actually follow the principles, this group represents a good first step towards attracting investors that are supportive of a firm’s efforts to develop integrated thinking.

One of the most promising ways of attracting such investors is integrated reporting, which provides companies with a means of credibly communicating the commitment of its top leadership to diffuse integrated thinking across the organization and build strong relationships with important external stakeholders. And to the extent we can judge from the case of Shire, both a commitment to integrated thinking and the adoption of integrated reporting can help companies attract the longer-term investors that can in turn strengthen management’s confidence to carry out its strategy.

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