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by Michael E. Porter and Mark R. Kramer

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Strategy & Society

The Link Between Competitive Advantage and Corporate Social Responsibility

The Idea in Brief

Many firms' corporate social responsibility (CSR) efforts are counterproductive, for two reasons: They pit business against society, when the two are actually interdependent. And they pressure companies to think of CSR in generic ways, instead of crafting social initiatives appropriate to their individual strategies.

CSR can be much more than just a cost, constraint, or charitable deed. Approached strategically, it generates opportunity, innovation, and competitive advantage for corporations—while solving pressing social problems.

How to practice strategic CSR? Porter and Kramer advise pioneering innovations in your offerings and operations that create distinctive value for your company *and* society. Take Toyota. The company's early response to public concern about auto emissions gave rise to the hybrid-engine Prius. The Prius has not only significantly reduced pollutants; it's given Toyota an enviable lead over rivals in hybrid technology.

The Idea in Practice

To practice strategic CSR:

1. Identify points of intersection between your company and society.

- In what ways does your organization affect society? For example, do you provide safe working conditions and reasonable wages? Do your operations create environmental hazards?
- How does society affect your competitiveness? For instance, do countries where you operate protect intellectual property? Supply enough talented workers? Encourage outside investors?

2. Select social issues to address. Given your company's and society's impact on each other, how might you address social needs in ways that create shared value—a meaningful benefit for society that also adds to your company's bottom line?

► Example:

By addressing the AIDS pandemic in Africa, a mining company such as Anglo American would not only improve the standard of living on that continent; it would also improve the productivity of the African labor force on which its success depends.

3. Mount a small number of initiatives that generate large and distinctive benefits for society *and* your company.

► Example:

To enter the Indian market, Nestlé needed to establish local sources of milk from a large, diversified base of small farmers. It received government permission to build a dairy in the district of Moga. But in Moga, farmers were impoverished, failed crops led to a high death rate in calves, and lack of refrigeration prevented farmers from shipping milk or keeping it fresh.

Nestlé built refrigerated dairies as milk collection points in each Moga town and sent its trucks to the dairies to collect the milk.

With the trucks went veterinarians, nutritionists, agronomists, and quality assurance experts. Farmers learned that milk quality hinged on adequate feed crop irrigation. With financing and technical assistance from Nestlé, farmers dug deep-bore wells. The consequent improved irrigation reduced calves' death rate 75%, increased milk production 50-fold, and allowed Nestlé to pay higher prices to farmers than those set by the government.

With steady revenues, farmers could now obtain credit. Moga's standard of living improved: More homes had electricity and telephones; more towns established primary, secondary, and high schools; and Moga had five times the number of doctors as neighboring regions. Meanwhile, Nestlé gained a stable supply of high-quality commodities—without having to pay middlemen—and saw demand for its products increase in India.

Strategy & Society

The Link Between Competitive Advantage and Corporate Social Responsibility

by Michael E. Porter and Mark R. Kramer

Governments, activists, and the media have become adept at holding companies to account for the social consequences of their activities. Myriad organizations rank companies on the performance of their corporate social responsibility (CSR), and, despite sometimes questionable methodologies, these rankings attract considerable publicity. As a result, CSR has emerged as an inescapable priority for business leaders in every country.

Many companies have already done much to improve the social and environmental consequences of their activities, yet these efforts have not been nearly as productive as they could be—for two reasons. First, they pit business against society, when clearly the two are interdependent. Second, they pressure companies to think of corporate social responsibility in generic ways instead of in the way most appropriate to each firm's strategy.

The fact is, the prevailing approaches to CSR are so fragmented and so disconnected from business and strategy as to obscure many of the greatest opportunities for companies to benefit

society. If, instead, corporations were to analyze their prospects for social responsibility using the same frameworks that guide their core business choices, they would discover that CSR can be much more than a cost, a constraint, or a charitable deed—it can be a source of opportunity, innovation, and competitive advantage.

In this article, we propose a new way to look at the relationship between business and society that does not treat corporate success and social welfare as a zero-sum game. We introduce a framework companies can use to identify all of the effects, both positive and negative, they have on society; determine which ones to address; and suggest effective ways to do so. When looked at strategically, corporate social responsibility can become a source of tremendous social progress, as the business applies its considerable resources, expertise, and insights to activities that benefit society.

The Emergence of Corporate Social Responsibility

Heightened corporate attention to CSR has

not been entirely voluntary. Many companies awoke to it only after being surprised by public responses to issues they had not previously thought were part of their business responsibilities. Nike, for example, faced an extensive consumer boycott after the *New York Times* and other media outlets reported abusive labor practices at some of its Indonesian suppliers in the early 1990s. Shell Oil's decision to sink the *Brent Spar*, an obsolete oil rig, in the North Sea led to Greenpeace protests in 1995 and to international headlines. Pharmaceutical companies discovered that they were expected to respond to the AIDS pandemic in Africa even though it was far removed from their primary product lines and markets. Fast-food and packaged food companies are now being held responsible for obesity and poor nutrition.

Activist organizations of all kinds, both on the right and the left, have grown much more aggressive and effective in bringing public pressure to bear on corporations. Activists may target the most visible or successful companies merely to draw attention to an issue, even if those corporations actually have had little impact on the problem at hand. Nestlé, for example, the world's largest purveyor of bottled water, has become a major target in the global debate about access to fresh water, despite the fact that Nestlé's bottled water sales consume just 0.0008% of the world's fresh water supply. The inefficiency of agricultural irrigation, which uses 70% of the world's supply annually, is a far more pressing issue, but it offers no equally convenient multinational corporation to target.

Debates about CSR have moved all the way into corporate boardrooms. In 2005, 360 different CSR-related shareholder resolutions were filed on issues ranging from labor conditions to global warming. Government regulation increasingly mandates social responsibility reporting. Pending legislation in the UK, for example, would require every publicly listed company to disclose ethical, social, and environmental risks in its annual report. These pressures clearly demonstrate the extent to which external stakeholders are seeking to hold companies accountable for social issues and highlight the potentially large financial risks for any firm whose conduct is deemed unacceptable.

While businesses have awakened to these risks, they are much less clear on what to do

about them. In fact, the most common corporate response has been neither strategic nor operational but cosmetic: public relations and media campaigns, the centerpieces of which are often glossy CSR reports that showcase companies' social and environmental good deeds. Of the 250 largest multinational corporations, 64% published CSR reports in 2005, either within their annual report or, for most, in separate sustainability reports—supporting a new cottage industry of report writers.

Such publications rarely offer a coherent framework for CSR activities, let alone a strategic one. Instead, they aggregate anecdotes about uncoordinated initiatives to demonstrate a company's social sensitivity. What these reports leave out is often as telling as what they include. Reductions in pollution, waste, carbon emissions, or energy use, for example, may be documented for specific divisions or regions but not for the company as a whole. Philanthropic initiatives are typically described in terms of dollars or volunteer hours spent but almost never in terms of impact. Forward-looking commitments to reach explicit performance targets are even rarer.

This proliferation of CSR reports has been paralleled by growth in CSR ratings and rankings. While rigorous and reliable ratings might constructively influence corporate behavior, the existing cacophony of self-appointed scorekeepers does little more than add to the confusion. (See the sidebar "The Ratings Game.")

In an effort to move beyond this confusion, corporate leaders have turned for advice to a growing collection of increasingly sophisticated nonprofit organizations, consulting firms, and academic experts. A rich literature on CSR has emerged, though what practical guidance it offers corporate leaders is often unclear. Examining the primary schools of thought about CSR is an essential starting point in understanding why a new approach is needed to integrating social considerations more effectively into core business operations and strategy.

Four Prevailing Justifications for CSR

Broadly speaking, proponents of CSR have used four arguments to make their case: moral obligation, sustainability, license to operate, and reputation. The moral appeal—arguing that companies have a duty to be good citizens and to "do the right thing"—is prominent in

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the goal of Business for Social Responsibility, the leading nonprofit CSR business association in the United States. It asks that its members “achieve commercial success in ways that honor ethical values and respect people, communities, and the natural environment.” Sustainability emphasizes environmental and community stewardship. An excellent definition was developed in the 1980s by Norwegian Prime Minister Gro Harlem Brundtland and used by the World Business Council for Sustainable Development: “Meeting the needs of the present without compromising the ability of future generations to meet their own needs.” The notion of license to operate derives from the fact that every company needs tacit or explicit permission from governments, communities, and numerous other stakeholders to do business. Finally, reputation is used by many companies to justify CSR initiatives on the grounds that they will improve a com-

pany’s image, strengthen its brand, enliven morale, and even raise the value of its stock. These justifications have advanced thinking in the field, but none offers sufficient guidance for the difficult choices corporate leaders must make. Consider the practical limitations of each approach.

The CSR field remains strongly imbued with a moral imperative. In some areas, such as honesty in filing financial statements and operating within the law, moral considerations are easy to understand and apply. It is the nature of moral obligations to be absolute mandates, however, while most corporate social choices involve balancing competing values, interests, and costs. Google’s recent entry into China, for example, has created an irreconcilable conflict between its U.S. customers’ abhorrence of censorship and the legal constraints imposed by the Chinese government. The moral calculus needed to weigh one social benefit against another, or against its financial costs, has yet to be developed. Moral principles do not tell a pharmaceutical company how to allocate its revenues among subsidizing care for the indigent today, developing cures for the future, and providing dividends to its investors.

The principle of sustainability appeals to enlightened self-interest, often invoking the so-called triple bottom line of economic, social, and environmental performance. In other words, companies should operate in ways that secure long-term economic performance by avoiding short-term behavior that is socially detrimental or environmentally wasteful. The principle works best for issues that coincide with a company’s economic or regulatory interests. DuPont, for example, has saved over \$2 billion from reductions in energy use since 1990. Changes to the materials McDonald’s uses to wrap its food have reduced its solid waste by 30%. These were smart business decisions entirely apart from their environmental benefits. In other areas, however, the notion of sustainability can become so vague as to be meaningless. Transparency may be said to be more “sustainable” than corruption. Good employment practices are more “sustainable” than sweatshops. Philanthropy may contribute to the “sustainability” of a society. However true these assertions are, they offer little basis for balancing long-term objectives against the short-term costs they incur. The sustainability school raises questions about these trade-offs

The Ratings Game

Measuring and publicizing social performance is a potentially powerful way to influence corporate behavior—assuming that the ratings are consistently measured and accurately reflect corporate social impact. Unfortunately, neither condition holds true in the current profusion of CSR checklists.

The criteria used in the rankings vary widely. The Dow Jones Sustainability Index, for example, includes aspects of economic performance in its evaluation. It weights customer service almost 50% more heavily than corporate citizenship. The equally prominent FTSE4Good Index, by contrast, contains no measures of economic performance or customer service at all. Even when criteria happen to be the same, they are invariably weighted differently in the final scoring.

Beyond the choice of criteria and their weightings lies the even more perplexing question of how to judge whether the criteria have been met. Most media, nonprofits, and investment advisory organizations have too few resources to audit a universe of complicated global corporate

activities. As a result, they tend to use measures for which data are readily and inexpensively available, even though they may not be good proxies for the social or environmental effects they are intended to reflect. The Dow Jones Sustainability Index, for example, uses the size of a company’s board as a measure of community involvement, even though size and involvement may be entirely unrelated.¹

Finally, even if the measures chosen accurately reflect social impact, the data are frequently unreliable. Most ratings rely on surveys whose response rates are statistically insignificant, as well as on self-reported company data that have not been verified externally. Companies with the most to hide are the least likely to respond. The result is a jumble of largely meaningless rankings, allowing almost any company to boast that it meets some measure of social responsibility—and most do.

1. For a fuller discussion of the problem of CSR ratings, see Aaron Chatterji and David Levine, “Breaking Down the Wall of Codes: Evaluating Non-Financial Performance Measurement,” *California Management Review*, Winter 2006.

Mapping Social Opportunities

The interdependence of a company and society can be analyzed with the same tools used to analyze competitive position and develop strategy. In this way, the firm can focus its particular CSR activities to best effect. Rather than merely acting on well-intentioned impulses or reacting to outside pressure, the organization can set an affirmative CSR agenda that produces maximum social benefit as well as gains for the business.

These two tools should be used in different ways. When a company uses the value chain to chart all the social consequences of its activities, it has, in effect, created an inventory of problems and

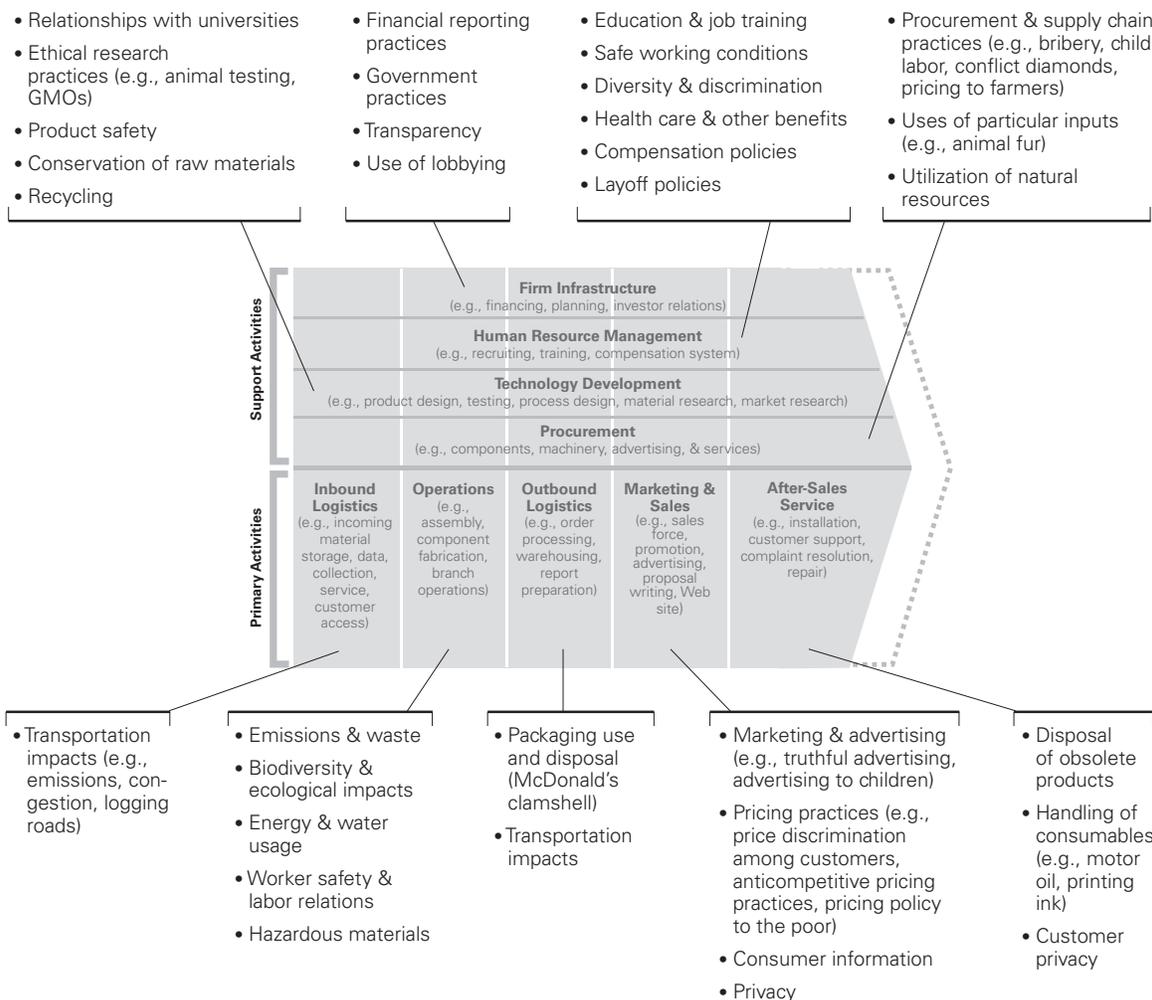
opportunities—mostly operational issues—that need to be investigated, prioritized, and addressed. In general, companies should attempt to clear away as many negative value-chain social impacts as possible. Some company activities will prove to offer opportunities for social and strategic distinction.

In addressing competitive context, companies cannot take on every area in the diamond. Therefore, the task is to identify those areas of social context with the greatest strategic value. A company should carefully choose from this menu one or a few social initiatives that will have the greatest shared

value: benefit for both society and its own competitiveness.

Looking Inside Out: Mapping the Social Impact of the Value Chain

The *value chain* depicts all the activities a company engages in while doing business. It can be used as a framework to identify the positive and negative social impact of those activities. These “inside-out” linkages may range from hiring and layoff policies to greenhouse gas emissions, as the partial list of examples illustrated here demonstrates.



Source: Michael E. Porter, *Competitive Advantage: Creating and Sustaining Superior Performance*, 1985

without offering a framework to answer them. Managers without a strategic understanding of CSR are prone to postpone these costs, which can lead to far greater costs when the company is later judged to have violated its social obligation.

The license-to-operate approach, by contrast, is far more pragmatic. It offers a concrete way for a business to identify social issues that matter to its stakeholders and make decisions about them. This approach also fosters constructive dialogue with regulators, the local citizenry, and activists—one reason, perhaps, that it is especially prevalent among companies that depend on government consent, such

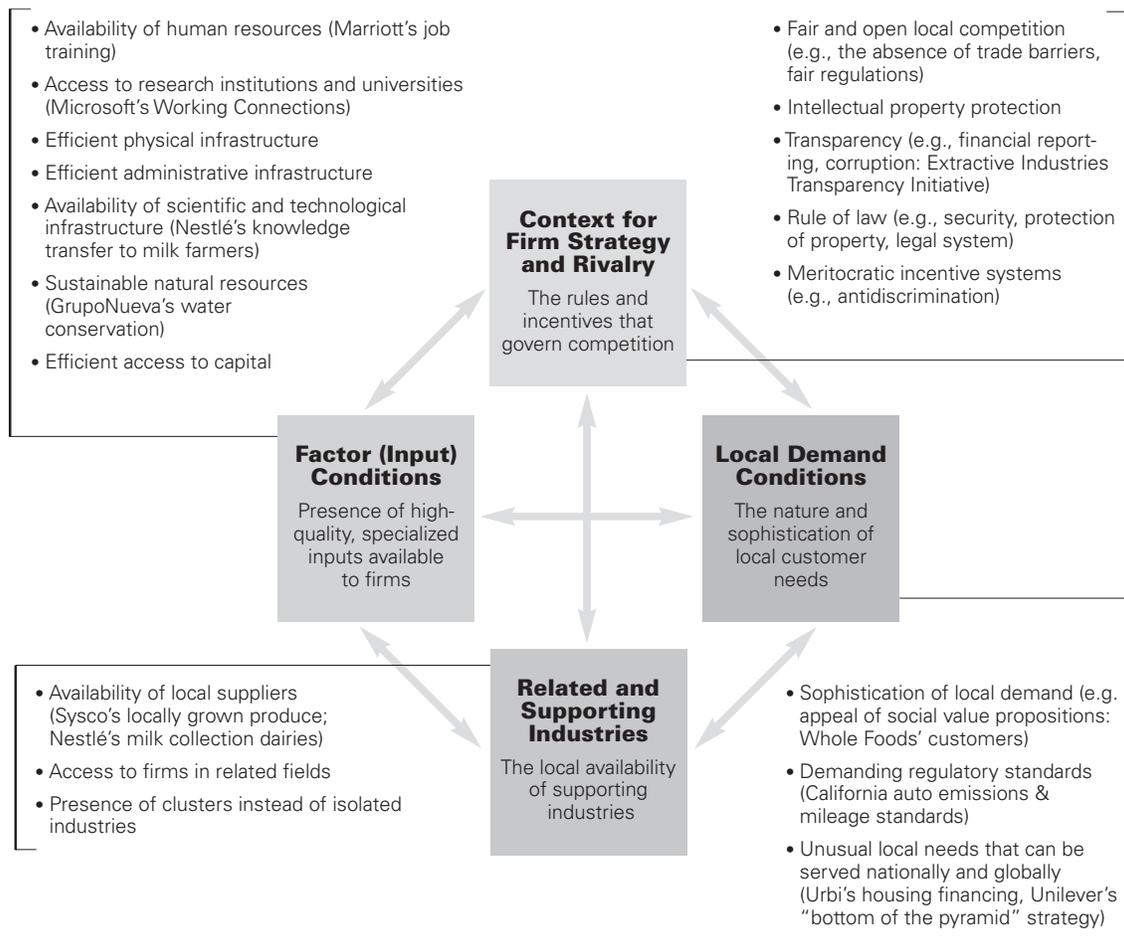
as those in mining and other highly regulated and extractive industries. That is also why the approach is common at companies that rely on the forbearance of their neighbors, such as those, like chemical manufacturing, whose operations are noxious or environmentally hazardous. By seeking to satisfy stakeholders, however, companies cede primary control of their CSR agendas to outsiders. Stakeholders' views are obviously important, but these groups can never fully understand a corporation's capabilities, competitive positioning, or the trade-offs it must make. Nor does the vehemence of a stakeholder group necessarily signify the importance of an issue—either to the company

Looking Outside In: Social Influences on Competitiveness

In addition to understanding the social ramifications of the value chain, effective CSR requires an understanding of the social di-

mensions of the company's competitive context—the “outside-in” linkages that affect its ability to improve productivity and execute strategy. These can be understood using the *diamond framework*, which shows

how the conditions at a company's locations (such as transportation infrastructure and honestly enforced regulatory policy) affect its ability to compete.



Source: Michael E. Porter, *The Competitive Advantage of Nations*, 1990

The prevailing approaches to CSR are so disconnected from business as to obscure many of the greatest opportunities for companies to benefit society.

or to the world. A firm that views CSR as a way to placate pressure groups often finds that its approach devolves into a series of short-term defensive reactions—a never-ending public relations palliative with minimal value to society and no strategic benefit for the business.

Finally, the reputation argument seeks that strategic benefit but rarely finds it. Concerns about reputation, like license to operate, focus on satisfying external audiences. In consumer-oriented companies, it often leads to high-profile cause-related marketing campaigns. In stigmatized industries, such as chemicals and energy, a company may instead pursue social responsibility initiatives as a form of insurance, in the hope that its reputation for social consciousness will temper public criticism in the event of a crisis. This rationale once again risks confusing public relations with social and business results.

A few corporations, such as Ben & Jerry's, Newman's Own, Patagonia, and the Body Shop, have distinguished themselves through an extraordinary long-term commitment to social responsibility. But even for these companies, the social impact achieved, much less the business benefit, is hard to determine. Studies of the effect of a company's social reputation on consumer purchasing preferences or on stock market performance have been inconclusive at best. As for the concept of CSR as insurance, the connection between the good deeds and consumer attitudes is so indirect as to be impossible to measure. Having no way to quantify the benefits of these investments puts such CSR programs on shaky ground, liable to be dislodged by a change of management or a swing in the business cycle.

All four schools of thought share the same weakness: They focus on the tension between business and society rather than on their interdependence. Each creates a generic rationale that is not tied to the strategy and operations of any specific company or the places in which it operates. Consequently, none of them is sufficient to help a company identify, prioritize, and address the social issues that matter most or the ones on which it can make the biggest impact. The result is oftentimes a hodgepodge of uncoordinated CSR and philanthropic activities disconnected from the company's strategy that neither make any meaningful social impact nor strengthen the firm's long-term competitiveness. Internally, CSR practices and initi-

atives are often isolated from operating units—and even separated from corporate philanthropy. Externally, the company's social impact becomes diffused among numerous unrelated efforts, each responding to a different stakeholder group or corporate pressure point.

The consequence of this fragmentation is a tremendous lost opportunity. The power of corporations to create social benefit is dissipated, and so is the potential of companies to take actions that would support both their communities and their business goals.

Integrating Business and Society

To advance CSR, we must root it in a broad understanding of the interrelationship between a corporation and society while at the same time anchoring it in the strategies and activities of specific companies. To say broadly that business and society need each other might seem like a cliché, but it is also the basic truth that will pull companies out of the muddle that their current corporate-responsibility thinking has created.

Successful corporations need a healthy society. Education, health care, and equal opportunity are essential to a productive workforce. Safe products and working conditions not only attract customers but lower the internal costs of accidents. Efficient utilization of land, water, energy, and other natural resources makes business more productive. Good government, the rule of law, and property rights are essential for efficiency and innovation. Strong regulatory standards protect both consumers and competitive companies from exploitation. Ultimately, a healthy society creates expanding demand for business, as more human needs are met and aspirations grow. Any business that pursues its ends at the expense of the society in which it operates will find its success to be illusory and ultimately temporary.

At the same time, a healthy society needs successful companies. No social program can rival the business sector when it comes to creating the jobs, wealth, and innovation that improve standards of living and social conditions over time. If governments, NGOs, and other participants in civil society weaken the ability of business to operate productively, they may win battles but will lose the war, as corporate and regional competitiveness fade, wages stagnate, jobs disappear, and the wealth that pays taxes and supports nonprofit contributions evaporates.

Leaders in both business and civil society have focused too much on the friction between them and not enough on the points of intersection. The mutual dependence of corporations and society implies that both business decisions and social policies must follow the principle of *shared value*. That is, choices must benefit both sides. If either a business or a society pursues policies that benefit its interests at the expense of the other, it will find itself on a dangerous path. A temporary gain to one will undermine the long-term prosperity of both.¹

To put these broad principles into practice, a company must integrate a social perspective into the core frameworks it already uses to understand competition and guide its business strategy.

Identifying the points of intersection. The interdependence between a company and society takes two forms. First, a company impinges upon society through its operations in the normal course of business: These are *inside-out linkages*.

Virtually every activity in a company's value chain touches on the communities in which the firm operates, creating either positive or negative social consequences. (For an example of this process, see the exhibit "Looking Inside Out: Mapping the Social Impact of the Value Chain.") While companies are increasingly aware of the social impact of their activities (such as hiring practices, emissions, and waste disposal), these impacts can be more subtle and variable than many managers realize. For one thing, they depend on location. The same manufacturing operation will have very differ-

ent social consequences in China than in the United States.

A company's impact on society also changes over time, as social standards evolve and science progresses. Asbestos, now understood as a serious health risk, was thought to be safe in the early 1900s, given the scientific knowledge then available. Evidence of its risks gradually mounted for more than 50 years before any company was held liable for the harms it can cause. Many firms that failed to anticipate the consequences of this evolving body of research have been bankrupted by the results. No longer can companies be content to monitor only the obvious social impacts of today. Without a careful process for identifying evolving social effects of tomorrow, firms may risk their very survival.

Not only does corporate activity affect society, but external social conditions also influence corporations, for better and for worse. These are *outside-in linkages*.

Every company operates within a competitive context, which significantly affects its ability to carry out its strategy, especially in the long run. Social conditions form a key part of this context. Competitive context garners far less attention than value chain impacts but can have far greater strategic importance for both companies and societies. Ensuring the health of the competitive context benefits both the company and the community.

Competitive context can be divided into four broad areas: first, the quantity and quality of available business inputs—human resources, for example, or transportation infrastructure; second, the rules and incentives that govern

Prioritizing Social Issues

Generic Social Issues	Value Chain Social Impacts	Social Dimensions of Competitive Context
Social issues that are not significantly affected by a company's operations nor materially affect its long-term competitiveness.	Social issues that are significantly affected by a company's activities in the ordinary course of business.	Social issues in the external environment that significantly affect the underlying drivers of a company's competitiveness in the locations where it operates.

competition—such as policies that protect intellectual property, ensure transparency, safeguard against corruption, and encourage investment; third, the size and sophistication of local demand, influenced by such things as standards for product quality and safety, consumer rights, and fairness in government purchasing; fourth, the local availability of supporting industries, such as service providers and machinery producers. Any and all of these aspects of context can be opportunities for CSR initiatives. (See the exhibit “Looking Outside In: Social Influences on Competitiveness.”) The ability to recruit appropriate human resources, for example, may depend on a number of social factors that companies can influence, such as the local educational system, the availability of housing, the existence of discrimination (which limits the pool of workers), and the adequacy of the public health infrastructure.²

Choosing which social issues to address. No business can solve all of society’s problems or bear the cost of doing so. Instead, each company must select issues that intersect with its particular business. Other social agendas are best left to those companies in other industries, NGOs, or government institutions that are better positioned to address them. The essential test that should guide CSR is not whether a cause is worthy but whether it presents an opportunity to create shared value—that is, a meaningful benefit for society that is also valuable to the business.

Our framework suggests that the social issues affecting a company fall into three categories, which distinguish between the many worthy causes and the narrower set of social issues that are both important and strategic for the business.

Generic social issues may be important to society but are neither significantly affected by the company’s operations nor influence the company’s long-term competitiveness. *Value chain social impacts* are those that are significantly affected by the company’s activities in the ordinary course of business. *Social dimensions of competitive context* are factors in the external environment that significantly affect the underlying drivers of competitiveness in those places where the company operates. (See the exhibit “Prioritizing Social Issues.”)

Every company will need to sort social issues into these three categories for each of its business units and primary locations, then rank them in terms of potential impact. Into which category a given social issue falls will vary from business unit to business unit, industry to industry, and place to place.

Supporting a dance company may be a generic social issue for a utility like Southern California Edison but an important part of the competitive context for a corporation like American Express, which depends on the high-end entertainment, hospitality, and tourism cluster. Carbon emissions may be a generic social issue for a financial services firm like Bank of America, a negative value chain

Corporate Involvement in Society: A Strategic Approach

Generic Social Impacts	Value Chain Social Impacts	Social Dimensions of Competitive Context
Good citizenship	Mitigate harm from value chain activities	Strategic philanthropy that leverages capabilities to improve salient areas of competitive context
Responsive CSR	Transform value-chain activities to benefit society while reinforcing strategy	Strategic CSR

The vehemence of a stakeholder group does not necessarily signify the importance of an issue—either to the company or to the world.

impact for a transportation-based company like UPS, or both a value chain impact and a competitive context issue for a car manufacturer like Toyota. The AIDS pandemic in Africa may be a generic social issue for a U.S. retailer like Home Depot, a value chain impact for a pharmaceutical company like Glaxo-SmithKline, and a competitive context issue for a mining company like Anglo American that depends on local labor in Africa for its operations.

Even issues that apply widely in the economy, such as diversity in hiring or conservation of energy, can have greater significance for some industries than for others. Health care benefits, for example, will present fewer challenges for software development or biotechnology firms, where workforces tend to be small and well compensated, than for companies in a field like retailing, which is heavily dependent on large numbers of lower-wage workers.

Within an industry, a given social issue may cut differently for different companies, owing to differences in competitive positioning. In the auto industry, for example, Volvo has chosen to make safety a central element of its competitive positioning, while Toyota has built a competitive advantage from the environmental benefits of its hybrid technology. For an individual company, some issues will prove to be important for many of its business units and locations, offering opportunities for strategic corporatewide CSR initiatives.

Where a social issue is salient for many companies across multiple industries, it can often be addressed most effectively through cooperative models. The Extractive Industries Transparency Initiative, for example, includes 19 major oil, gas, and mining companies that have agreed to discourage corruption through full public disclosure and verification of all corporate payments to governments in the countries in which they operate. Collective action by all major corporations in these industries prevents corrupt governments from undermining social benefit by simply choosing not to deal with the firms that disclose their payments.

Creating a corporate social agenda. Categorizing and ranking social issues is just the means to an end, which is to create an explicit and affirmative corporate social agenda. A corporate social agenda looks beyond com-

munity expectations to opportunities to achieve social and economic benefits simultaneously. It moves from mitigating harm to finding ways to reinforce corporate strategy by advancing social conditions.

Such a social agenda must be responsive to stakeholders, but it cannot stop there. A substantial portion of corporate resources and attention must migrate to truly strategic CSR. (See the exhibit “Corporate Involvement in Society: A Strategic Approach.”) It is through strategic CSR that the company will make the most significant social impact and reap the greatest business benefits.

Responsive CSR. Responsive CSR comprises two elements: acting as a good corporate citizen, attuned to the evolving social concerns of stakeholders, and mitigating existing or anticipated adverse effects from business activities.

Good citizenship is a sine qua non of CSR, and companies need to do it well. Many worthy local organizations rely on corporate contributions, while employees derive justifiable pride from their company’s positive involvement in the community.

The best corporate citizenship initiatives involve far more than writing a check: They specify clear, measurable goals and track results over time. A good example is GE’s program to adopt underperforming public high schools near several of its major U.S. facilities. The company contributes between \$250,000 and \$1 million over a five-year period to each school and makes in-kind donations as well. GE managers and employees take an active role by working with school administrators to assess needs and mentor or tutor students. In an independent study of ten schools in the program between 1989 and 1999, nearly all showed significant improvement, while the graduation rate in four of the five worst-performing schools doubled from an average of 30% to 60%.

Effective corporate citizenship initiatives such as this one create goodwill and improve relations with local governments and other important constituencies. What’s more, GE’s employees feel great pride in their participation. Their effect is inherently limited, however. No matter how beneficial the program is, it remains incidental to the company’s business, and the direct effect on GE’s recruiting and retention is modest.

The second part of responsive CSR—

An affirmative corporate social agenda moves from mitigating harm to reinforcing corporate strategy through social progress.

mitigating the harm arising from a firm's value chain activities—is essentially an operational challenge. Because there are a myriad of possible value chain impacts for each business unit, many companies have adopted a checklist approach to CSR, using standardized sets of social and environmental risks. The Global Reporting Initiative, which is rapidly becoming a standard for CSR reporting, has enumerated a list of 141 CSR issues, supplemented by auxiliary lists for different industries.

These lists make for an excellent starting point, but companies need a more proactive and tailored internal process. Managers at each business unit can use the value chain as a tool to identify systematically the social impacts of the unit's activities in each location. Here operating management, which is closest to the work actually being done, is particularly helpful. Most challenging is to anticipate impacts that are not yet well recognized. Consider B&Q, an international chain of home supply centers based in England. The company has begun to analyze systematically tens of thousands of products in its hundreds of stores against a list of a dozen social issues—from climate change to working conditions at its suppliers' factories—to determine which products pose potential social responsibility risks and how the company might take action before any external pressure is brought to bear.

For most value chain impacts, there is no need to reinvent the wheel. The company should identify best practices for dealing with each one, with an eye toward how those practices are changing. Some companies will be more proactive and effective in mitigating the wide array of social problems that the value chain can create. These companies will gain an edge, but—just as for procurement and other operational improvements—any advantage is likely to be temporary.

Strategic CSR. For any company, strategy must go beyond best practices. It is about choosing a unique position—doing things differently from competitors in a way that lowers costs or better serves a particular set of customer needs. These principles apply to a company's relationship to society as readily as to its relationship to its customers and rivals.

Strategic CSR moves beyond good corporate citizenship and mitigating harmful value chain impacts to mount a small number of initiatives whose social and business benefits are large

and distinctive. Strategic CSR involves both inside-out and outside-in dimensions working in tandem. It is here that the opportunities for shared value truly lie.

Many opportunities to pioneer innovations to benefit both society and a company's own competitiveness can arise in the product offering and the value chain. Toyota's response to concerns over automobile emissions is an example. Toyota's Prius, the hybrid electric/gasoline vehicle, is the first in a series of innovative car models that have produced competitive advantage and environmental benefits. Hybrid engines emit as little as 10% of the harmful pollutants conventional vehicles produce while consuming only half as much gas. Voted 2004 Car of the Year by *Motor Trend* magazine, Prius has given Toyota a lead so substantial that Ford and other car companies are licensing the technology. Toyota has created a unique position with customers and is well on its way to establishing its technology as the world standard.

Urbi, a Mexican construction company, has prospered by building housing for disadvantaged buyers using novel financing vehicles such as flexible mortgage payments made through payroll deductions. Crédit Agricole, France's largest bank, has differentiated itself by offering specialized financial products related to the environment, such as financing packages for energy-saving home improvements and for audits to certify farms as organic.

Strategic CSR also unlocks shared value by investing in social aspects of context that strengthen company competitiveness. A symbiotic relationship develops: The success of the company and the success of the community become mutually reinforcing. Typically, the more closely tied a social issue is to the company's business, the greater the opportunity to leverage the firm's resources and capabilities, and benefit society.

Microsoft's Working Connections partnership with the American Association of Community Colleges (AACC) is a good example of a shared-value opportunity arising from investments in context. The shortage of information technology workers is a significant constraint on Microsoft's growth; currently, there are more than 450,000 unfilled IT positions in the United States alone. Community colleges, with an enrollment of 11.6 million students, representing 45% of all U.S. undergraduates, could be a major solution. Microsoft recognizes, how-

ever, that community colleges face special challenges: IT curricula are not standardized, technology used in classrooms is often outdated, and there are no systematic professional development programs to keep faculty up to date.

Microsoft's \$50 million five-year initiative was aimed at all three problems. In addition to contributing money and products, Microsoft sent employee volunteers to colleges to assess needs, contribute to curriculum development, and create faculty development institutes. Note that in this case, volunteers and assigned staff were able to use their core professional skills to address a social need, a far cry from typical volunteer programs. Microsoft has achieved results that have benefited many communities while having a direct—and potentially significant—impact on the company.

Integrating inside-out and outside-in practices. Pioneering value chain innovations and

addressing social constraints to competitiveness are each powerful tools for creating economic and social value. However, as our examples illustrate, the impact is even greater if they work together. Activities in the value chain can be performed in ways that reinforce improvements in the social dimensions of context. At the same time, investments in competitive context have the potential to reduce constraints on a company's value chain activities. Marriott, for example, provides 180 hours of paid classroom and on-the-job training to chronically unemployed job candidates. The company has combined this with support for local community service organizations, which identify, screen, and refer the candidates to Marriott. The net result is both a major benefit to communities and a reduction in Marriott's cost of recruiting entry-level employees. Ninety percent of those in the training pro-

Integrating Company Practice and Context: Nestlé's Milk District

Nestlé's approach to working with small farmers exemplifies the symbiotic relationship between social progress and competitive advantage. Ironically, while the company's reputation remains marred by a 30-year-old controversy surrounding sales of infant formula in Africa, the corporation's impact in developing countries has often been profoundly positive.

Consider the history of Nestlé's milk business in India. In 1962, the company wanted to enter the Indian market, and it received government permission to build a dairy in the northern district of Moga. Poverty in the region was severe; people were without electricity, transportation, telephones, or medical care. A farmer typically owned less than five acres of poorly irrigated and infertile soil. Many kept a single buffalo cow that produced just enough milk for their own consumption. Sixty percent of calves died newborn. Because farmers lacked refrigeration, transportation, or any way to test for quality, milk could not travel far and was frequently contaminated or diluted.

Nestlé came to Moga to build a business, not to engage in CSR. But Nestlé's value chain, derived from the company's origins in Switzerland, depended on establishing local sources of milk from a large, diversified base

of small farmers. Establishing that value chain in Moga required Nestlé to transform the competitive context in ways that created tremendous shared value for both the company and the region.

Nestlé built refrigerated dairies as collection points for milk in each town and sent its trucks out to the dairies to collect the milk. With the trucks went veterinarians, nutritionists, agronomists, and quality assurance experts. Medicines and nutritional supplements were provided for sick animals, and monthly training sessions were held for local farmers. Farmers learned that the milk quality depended on the cows' diet, which in turn depended on adequate feed crop irrigation. With financing and technical assistance from Nestlé, farmers began to dig previously unaffordable deep-bore wells. Improved irrigation not only fed cows but increased crop yields, producing surplus wheat and rice and raising the standard of living.

When Nestlé's milk factory first opened, only 180 local farmers supplied milk. Today, Nestlé buys milk from more than 75,000 farmers in the region, collecting it twice daily from more than 650 village dairies. The death rate of calves has dropped by 75%. Milk production has increased 50-fold. As the quality has improved, Nestlé has been able to pay higher

prices to farmers than those set by the government, and its steady biweekly payments have enabled farmers to obtain credit. Competing dairies and milk factories have opened, and an industry cluster is beginning to develop.

Today, Moga has a significantly higher standard of living than other regions in the vicinity. Ninety percent of the homes have electricity, and most have telephones; all villages have primary schools, and many have secondary schools. Moga has five times the number of doctors as neighboring regions. The increased purchasing power of local farmers has also greatly expanded the market for Nestlé's products, further supporting the firm's economic success.

Nestlé's commitment to working with small farmers is central to its strategy. It enables the company to obtain a stable supply of high-quality commodities without paying middlemen. The corporation's other core products—coffee and cocoa—are often grown by small farmers in developing countries under similar conditions. Nestlé's experience in setting up collection points, training farmers, and introducing better technology in Moga has been repeated in Brazil, Thailand, and a dozen other countries, including, most recently, China. In each case, as Nestlé has prospered, so has the community.

gram take jobs with Marriott. One year later, more than 65% are still in their jobs, a substantially higher retention rate than the norm.

When value chain practices and investments in competitive context are fully integrated, CSR becomes hard to distinguish from the day-to-day business of the company. Nestlé, for example, works directly with small farmers in developing countries to source the basic commodities, such as milk, coffee, and cocoa, on which much of its global business depends. (See the sidebar “Integrating Company Practice and Context: Nestlé’s Milk District.”) The company’s investment in local infrastructure and its transfer of world-class knowledge and technology over decades has produced enormous social benefits through improved health care, better education, and economic development, while giving Nestlé direct and reliable access to the commodities it needs to maintain a profitable global business. Nestlé’s distinctive strategy is inseparable from its social impact.

Creating a social dimension to the value proposition. At the heart of any strategy is a unique value proposition: a set of needs a company can meet for its chosen customers that others cannot. The most strategic CSR occurs when a company adds a social dimension to its value proposition, making social impact integral to the overall strategy.

Consider Whole Foods Market, whose value proposition is to sell organic, natural, and healthy food products to customers who are passionate about food and the environment. Social issues are fundamental to what makes Whole Foods unique in food retailing and to its ability to command premium prices. The company’s sourcing emphasizes purchases from local farmers through each store’s procurement process. Buyers screen out foods containing any of nearly 100 common ingredients that the company considers unhealthy or environmentally damaging. The same standards apply to products made internally. Whole Foods’ baked goods, for example, use only unbleached and unbromated flour.

Whole Foods’ commitment to natural and environmentally friendly operating practices extends well beyond sourcing. Stores are constructed using a minimum of virgin raw materials. Recently, the company purchased renewable wind energy credits equal to 100% of its electricity use in all of its stores and facilities, the only *Fortune* 500 company to offset its elec-

tricity consumption entirely. Spoiled produce and biodegradable waste are trucked to regional centers for composting. Whole Foods’ vehicles are being converted to run on biofuels. Even the cleaning products used in its stores are environmentally friendly. And through its philanthropy, the company has created the Animal Compassion Foundation to develop more natural and humane ways of raising farm animals. In short, nearly every aspect of the company’s value chain reinforces the social dimensions of its value proposition, distinguishing Whole Foods from its competitors.

Not every company can build its entire value proposition around social issues as Whole Foods does, but adding a social dimension to the value proposition offers a new frontier in competitive positioning. Government regulation, exposure to criticism and liability, and consumers’ attention to social issues are all persistently increasing. As a result, the number of industries and companies whose competitive advantage can involve social value propositions is constantly growing. Sysco, for example, the largest distributor of food products to restaurants and institutions in North America, has begun an initiative to preserve small, family-owned farms and offer locally grown produce to its customers as a source of competitive differentiation. Even large global multinationals—such as General Electric, with its “ecomagination” initiative that focuses on developing water purification technology and other “green” businesses, and Unilever, through its efforts to pioneer new products, packaging, and distribution systems to meet the needs of the poorest populations—have decided that major business opportunities lie in integrating business and society.

Organizing for CSR

Integrating business and social needs takes more than good intentions and strong leadership. It requires adjustments in organization, reporting relationships, and incentives. Few companies have engaged operating management in processes that identify and prioritize social issues based on their salience to business operations and their importance to the company’s competitive context. Even fewer have unified their philanthropy with the management of their CSR efforts, much less sought to embed a social dimension into their core value proposition. Doing these things requires a far

Typically the more closely tied a social issue is to a company’s business, the greater the opportunity to leverage the firm’s resources—and benefit society.

different approach to both CSR and philanthropy than the one prevalent today. Companies must shift from a fragmented, defensive posture to an integrated, affirmative approach. The focus must move away from an emphasis on image to an emphasis on substance.

The current preoccupation with measuring stakeholder satisfaction has it backwards. What needs to be measured is social impact. Operating managers must understand the importance of the outside-in influence of competitive context, while people with responsibility for CSR initiatives must have a granular understanding of every activity in the value chain. Value chain and competitive-context investments in CSR need to be incorporated into the performance measures of managers with P&L responsibility. These transformations require more than a broadening of job definition; they require overcoming a number of long-standing prejudices. Many operating managers have developed an ingrained us-versus-them mindset that responds defensively to the discussion of any social issue, just as many NGOs view askance the pursuit of social value for profit. These attitudes must change if companies want to leverage the social dimension of corporate strategy.

Strategy is always about making choices, and success in corporate social responsibility is no different. It is about choosing which social issues to focus on. The short-term performance pressures companies face rule out indiscriminate investments in social value creation. They suggest, instead, that creating shared value should be viewed like research and development, as a long-term investment in a company's future competitiveness. The billions of dollars already being spent on CSR and corporate philanthropy would generate far more benefit to both business and society if consistently invested using the principles we have outlined.

While responsive CSR depends on being a good corporate citizen and addressing every social harm the business creates, strategic CSR is far more selective. Companies are called on to address hundreds of social issues, but only a few represent opportunities to make a real difference to society or to confer a competitive advantage. Organizations that make the right choices and build focused, proactive, and integrated social initiatives in concert with their core strategies will increasingly distance themselves from the pack.

The Moral Purpose of Business

By providing jobs, investing capital, purchasing goods, and doing business every day, corporations have a profound and positive influence on society. The most important thing a corporation can do for society, and for any community, is contribute to a prosperous economy. Governments and NGOs often forget this basic truth. When developing countries distort rules and incentives for business, for example, they penalize productive companies. Such countries are doomed to poverty, low wages, and selling off their natural resources. Corporations have the know-how and resources to change this state of affairs, not only in the developing world but also in economically disadvantaged communities in advanced economies.

This cannot excuse businesses that seek short-term profits deceptively or shirk the social and environmental consequences of their actions. But CSR should not be only about what businesses have done that is wrong—important as that is. Nor should it be only about making philanthropic contributions to local charities, lending a hand in time of disaster, or providing relief to society's needy—worthy though these contributions may be. Efforts to find shared value in operating practices and in the social dimensions of competitive context have the potential not only to foster economic and social development but to change the way companies and society think about each other. NGOs, governments, and companies must stop thinking in terms of “corporate social responsibility” and start thinking in terms of “corporate social integration.”

Perceiving social responsibility as building shared value rather than as damage control or as a PR campaign will require dramatically different thinking in business. We are convinced, however, that CSR will become increasingly important to competitive success.

Corporations are not responsible for all the world's problems, nor do they have the resources to solve them all. Each company can identify the particular set of societal problems that it is best equipped to help resolve and from which it can gain the greatest competitive benefit. Addressing social issues by creating shared value will lead to self-sustaining solutions that do not depend on private or government subsidies. When a well-run business applies its vast resources,

expertise, and management talent to problems that it understands and in which it has a stake, it can have a greater impact on social good than any other institution or philanthropic organization.

1. An early discussion of the idea of CSR as an opportunity rather than a cost can be found in David Grayson and Adrian Hodges, *Corporate Social Opportunity* (Greenleaf, 2004).
2. For a more complete discussion of the importance of competitive context and the diamond model, see Michael E. Porter and Mark R. Kramer, "The Competitive Advan-

tage of Corporate Philanthropy," HBR December 2002. See also Michael Porter's book *The Competitive Advantage of Nations* (The Free Press, 1990) and his article "Locations, Clusters, and Company Strategy," in *The Oxford Handbook of Economic Geography*, edited by Gordon L. Clark, Maryann P. Feldman, and Meric S. Gertler (Oxford University Press, 2000).

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ARTICLE

[Disruptive Innovation for Social Change](#)

by Clayton M. Christensen, Heiner Baumann,
Rudy Ruggles, and Thomas M. Sadtler

Harvard Business Review

December 2006

Product no. R0612E

One of the best ways to gain competitive advantage while serving society is to identify and invest in disruptive innovations in the social sector. These innovations take the form of low-cost and simple—but useful—services for people whom traditional social sector organizations ignore. Consider MinuteClinics, located in stores such as CVS: nurse practitioners, armed with software-based protocols, provide fast, affordable walk-in diagnosis and treatment for common health problems. Less expensive for uninsured people than physician office visits—and convenient for the insured—MinuteClinics have a 99% customer satisfaction level.

Disruptive innovations that drive real social change crop up in other arenas besides health care—including education and economic development. For example, Apex Learning provides special online classes (for instance, in certain languages) to tens of thousands of U.S. high school students. This innovation enables school systems to offer good-enough courses at a fraction of what live courses cost and expands students' options. As education budgets are squeezed and online learning alternatives improve, organizations like Apex may well become the de facto educators for many subjects, particularly noncore classes.

And in economic development, Bangladesh's Grameen Bank makes small loans to latent entrepreneurs who otherwise have little or no access to capital. By the end of 2005, it had 4.6 million borrowers. Since its inception in 1976, it has lent over \$5.2 billion, with a 99% recovery rate. And it has generated a profit for its owners in every year but three.

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The Future of How We Consume Things

by Henry Chesbrough

We often look at innovation in terms of the new products and technologies that come to market. We don't often think about how we consume these new offerings. But that's what is far more important. Our lives are shaped by how we interact with the "things" or "stuff" we use every day, not the increased capability of some new gizmo.

Consider the lowly refrigerator. If you needed to buy one 20 years ago, you'd go to a retail store and look at the models it had in stock. You'd compare the features of the different models and select the least offensive. Later, if you had complaints or suggestions about your the product, you were shunted off to a customer support line that was often busy, or staffed by someone with little or no authority to act on your request. Once you bought it, you were basically stuck with it.

If you buy one today, online reviews abound. Comparison shopping sites force retailers to compete on price, warranty, and rebates. Through their websites, companies inform customers about their products and also involve customers directly in developing new products by soliciting new ideas and reviews. Social media lets companies attract fans to their products and obtain feedback about problems with current products so they can take immediate corrective action. All of these mechanisms combine together to make it much more likely that you will be satisfied by your fridge purchase than you would have been 20 years ago.

What's more exciting is how you will consume refrigerators in the near future. Will you even need to buy one? Perhaps manufacturers will lease you a fridge and charge a low monthly rate for managing your refrigeration needs. They might bundle energy costs in as part of the package and then help you find ways to reduce energy usage. They'll probably invite you to share clever ways to use refrigerators, or comment on their own ideas, and innovate even better offerings next time. We will increasingly consume products like refrigeration as services rather than as products. As a result, our consumption will be more accessible, more convenient, more affordable, and more personalized.

If this seems fanciful, just look around at the other things you consume on a regular basis. Do you rent movies on DVD from Blockbuster or view them on Netflix? Do you buy gifts from a store, or get gift reminders from Amazon to buy a book or a toy or a piece of jewelry, with recommendations based on your previous purchases? Do you purchase CDs at BestBuy, or do you buy online digital music tracks individually and create your own custom-made playlists? Do you shell out cash for a printer for your home office, or do you take advantage of Xerox or HP copier services by the page? Do you hire an accountant to prepare your taxes, or do you use an online service to prepare and file your

return? If you live in a city, do you own a car, or do you turn to ZipCar whenever you happen to need one?

The continuing changes in how we consume things is a good deal for us and for our suppliers. The suppliers will benefit from their ability to utilize their specialized knowledge to design better, faster, and more cost effective ways to deliver these services to us. We will benefit from greater flexibility (no upfront payment, for example), plus the comfort of only paying for what we use.

Henry Chesbrough is a professor at the Haas Business School, UC Berkeley, and the author of *Open Innovation: The New Imperative for Creating and Profiting from Technology* (Harvard Business Press). His new book is *Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era* (Jossey-Bass). Follow him at [@OpenInno](#) or at openinnovation.net.

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Bringing the Environment Down to Earth

by Forest L. Reinhardt



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Managers should make environmental investments for the same reason they make other investments: because they expect them to deliver positive returns or to reduce risks.

BRINGING THE ENVIRONMENT DOWN TO EARTH

BY FOREST L. REINHARDT

THE DEBATE ON BUSINESS AND THE ENVIRONMENT has been framed in simplistic yes-or-no terms: “Does it pay to be green?” Many business school academics and environmental leaders have answered yes. Yet businesspeople are skeptical—and rightly so, since they instinctively reject such all-or-nothing thinking in other contexts: Does it pay to build your next plant in Singapore? To increase your debt-to-equity ratio?

To sue your competitors for patent infringement? The answer, of course, is "It depends." And so it is with environmental questions: the right policy depends on the circumstances confronting the company and the strategy it has chosen.

Much of the writing about business and the environment ignores that basic point. The underlying assumption is that the earth is sick—and that therefore it *ought* to be profitable to find ways to help it return to good health. Promoting such causes and activities as recycling, solar energy, and small-scale agriculture should redound to business's benefit. But this is faulty reasoning. The truth is, environmental problems do not automatically create opportunities to make money. At the same time, the opposite stance—that it never pays for a company to invest in improving its environmental performance—is also incorrect.

That's why managers should look at environmental problems as business issues. They should make environmental investments for the same reasons they make other investments: because they expect them to deliver positive returns or to reduce risks. Managers need to go beyond the question "Does it pay to be green?" and ask instead "Under what circumstances do particular kinds of environmental investments deliver benefits to shareholders?"

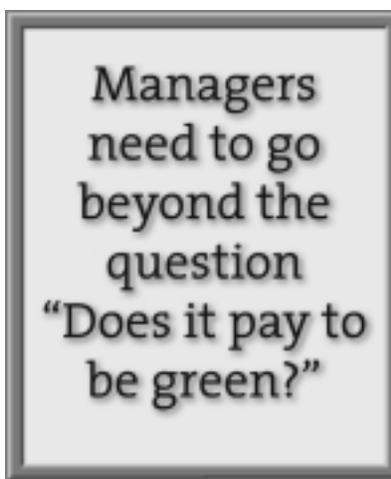
I have identified five approaches that companies can take to integrate the environment into their business thinking. Some companies can distance themselves from their competitors by differentiating products and commanding higher prices for them. Others may be able to "manage" their competitors by imposing a set of private regulations or by helping to shape the rules written by government officials. Still others may be able to cut costs and help the environment simultaneously. Almost all of them can learn to improve their management of risk and thus reduce the outlays associated with accidents, lawsuits, and boycotts. And some companies may even be able to make sys-

Forest L. Reinhardt is an associate professor at Harvard Business School in Boston. He is the author of *Down to Earth: Applying Business Principles to Environmental Management*, forthcoming from Harvard Business School Press in November 1999.

temic changes that will redefine competition in their markets.

The appeal of any of the five approaches will depend on the time horizon over which they are evaluated. As with other business problems, the environmental strategy that maximizes short-term cash flow is probably not the one that positions the company optimally for the long run. That's true of all business strategies in general, of course, but it especially applies to the environmental arena because benefits from environmental investments are often realized over long periods.

All of the approaches can help managers to bring the environment down to earth: to think systematically and realistically about the application of traditional business principles to environmental problems. They can enable some companies—those with the right industry structure, competitive position, and managerial skills—to deliver increased value to shareholders while making improvements in their environmental performance.



Managers
need to go
beyond the
question
"Does it pay to
be green?"

Differentiating Products

The idea behind environmental product differentiation is straightforward: companies create products or employ processes that offer greater environmental benefits or impose smaller environmental

costs than those of their competitors. Such efforts may raise the business's costs, but they may also enable it to command higher prices, to capture additional market share, or both.

Consider an example from the textile industry. When textile manufacturers dye cotton or rayon fabric, they immerse the material in a bath containing dyes dissolved in water and then add salt to push the dyes out of the solution and into the cloth. Ciba Specialty Chemicals, a Swiss manufacturer of textile dyes, has introduced dyes that fix more readily to the fabric and therefore require less salt.

The new dyes help Ciba's customers in three ways. First, they lower the outlays for salt: textile companies using Ciba's new dyes can reduce their costs for salt by up to 2% of revenues—a significant drop in an industry with razor-thin profit margins. Second, they reduce manufacturers' costs for water treatment. Used bathwater—full of salt and unfixed dye—must be treated before it is released into rivers or streams (even in low-income countries where environmental standards may be relatively lax).

BEWARE OF WHAT YOU KNOW

Treating environmental issues as business problems sounds straightforward, but it's not easy. The following assumptions, all of which are common in business thinking, make it difficult to reframe the issues.

Environmental problems are, first and foremost, matters of social responsibility. While considerations of social responsibility are important, executives who frame environmental problems solely in those terms may overlook the business opportunities and risks that come with such problems. Treating environmental issues like other business issues can lead to more creative problem solving as well as better bottom-line results.

Environmental questions are cause for pessimism. In most arenas, successful managers search for opportunity in adversity and find in complex problems a chance to separate their companies from competitors. So it's striking to hear how passive and pessimistic they sound when talking about environmental issues. They take that approach because they associate it not just with extra costs but also with a loss of control over their own operations. But, as the examples in this article show, it doesn't have to be that way.

Environmental management is a zero-sum game. For every winner in a zero-sum contest, there is a loser. Thus if the environment wins, the company loses, and vice versa. That view is prevalent in part because it fits with the widespread perception that environmental problems are political or moral issues. Elections and crusades are win-lose by definition and by design, but businesses don't ordinarily operate that way. Instead, they look for chances to benefit themselves and others simultaneously. Some environmental problems are inevitably win-lose, but it's a mistake to think that none of them can be recast.

Government and environmental groups are the company's adversaries. At times, that view is justified; some regulators and advocates are indeed hostile to business. But government and nonprofit organizations

will always play a role in environmental management—the only question is what kind of role. Sometimes it makes sense to circle the wagons against an external threat. But sometimes it makes sense for a company to ally itself with regulators or advocates against the competitors.

While managers must remain on guard against undue pessimism and passivity in dealing with environmental problems, they also need to beware of wishful or insular thinking that can intensify their environmental problems and cost their shareholders unnecessary money. These are some of the common pitfalls:

- *Letting business interests sway your opinion of scientific and economic analysis.* Managers shouldn't let the costs of solving an environmental problem affect their judgment of the scientific evidence that identifies the problem. Pulling the wool over your own eyes may convince you that you've averted disaster. In the long run, however, the fact that you can't see it doesn't mean you're hidden from danger.

- *Assuming that maintaining the status quo is an option.* It is common to use the status quo as a baseline—to look at the way things are today and to think about how you can change things on your own. But some change is likely to occur in any case, and managers need to be realistic about their ability to keep things as they are.

- *Avoiding dissenting opinion.* People find it comfortable to talk with those who share their views. Managers need to keep their minds open to the new perspectives and new facts that can come from regular conversations with government officials, environmentalists, and others outside their usual circle.

Those problems can all be overcome. If executives bring to environmental decision making the same kind of optimism, opportunism, analytic thinking, and openness that they instinctively bring to bear on other business problems, both their companies and the environment will benefit.

Less salt and less unfixed dye mean lower water-treatment costs. Third, the new dyes' higher fixation rates make quality control easier, thus lowering the costs of rework.

Ciba's dyes are the result of years of development in the laboratory. They are protected against imitation by patents and by the unpatentable but complicated chemistry that goes into making them. For those reasons, Ciba can charge more for its dyes and capture some of the value it is creating for customers.

If this sounds like any other story about industrial marketing—add value to your customers' activities and then capture some of that value yourself—it should. Lowering a customer's environmental costs adds value to its operations just as surely as a new machine that enhances labor productivity does.

Three conditions are required for success with environmental product differentiation, and Ciba's approach satisfies all three. First, the company has identified customers who are willing to pay more for an environmentally friendly product. Second, it

has been able to communicate its product's environmental benefits credibly. And third, it has been able to protect itself from imitators for long enough to profit on its investment.

If any of those three conditions break down, the product differentiation approach will not work. StarKist, the canned tuna subsidiary of H.J. Heinz, made this discovery when it decided to market dolphin-safe tuna.

Over the years, traditional techniques for catching tuna have caused the death of millions of dolphins. That's because the yellowfin tuna of the eastern tropical Pacific – the staple of tuna canners – often swim underneath schools of dolphin. A boat's crew would locate and chase a school of dolphins, drop a basketlike net under the school when the chase was over, and then haul in the tuna and the dolphins, often killing the dolphins in the process. Criticism of this practice, dating from the 1970s, intensified dramatically in 1989, when an environmental activist group released gruesome video footage of dolphins dying in the course of tuna-fishing operations.

In April 1990, StarKist announced that it would sell only tuna from the western Pacific, where tuna do not swim beneath dolphins. But the company ran into problems with all three conditions for success.

First, contrary to the company's survey findings that people would pay significantly more for dolphin-safe tuna, consumers proved unwilling to pay a premium for a cheap source of protein. It didn't help that western Pacific tuna was not yellowfin but skipjack, which people found inferior in taste.

Second, although StarKist made known its efforts to protect dolphins, it turned out that the fishing techniques practiced in the western Pacific were no environmental bargain. For each dolphin saved in the eastern Pacific, thousands of immature tuna and dozens of sharks, turtles, and other marine animals died in the western part of the ocean.

Finally, the company had no protection from imitators. Its main competitors, Bumble Bee and Chicken of the Sea, matched StarKist's move almost at once.

It would be easy to take from this story a universally gloomy message about the prospects for environmental product differentiation in consumer markets. Environmental quality, after all, is a pub-

lic good: everyone gets to enjoy it regardless of who pays for it. From the standpoint of economic self-interest, one might wonder why any individual would be willing to pay for a public good.

But that view is too narrow. People willingly pay for public goods all the time: sometimes in cash, when they contribute to charities, and often in time, when they give blood, clean up litter from parks and highways, or rinse their soda bottles for recycling. The trick for companies is to find the right public good – or to offer an imaginative bundle of public and private goods – that will appeal to a targeted market.

For example, sellers of "designer beef" – meat from cattle that have not been exposed to herbicides or hormones – offer consumers potential health benefits (a private good) in addition to a more environmentally friendly product (a public good). And Patagonia, a California maker of recreational clothing, has developed a loyal base of high-income cus-

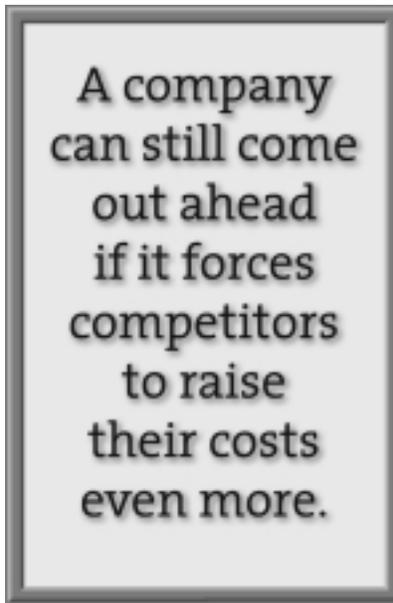
tomers partly because its brand identity includes a commitment to conservation. Patagonia and the beef marketers have not only cleared the willingness-to-pay hurdle but have also found ways to communicate credibly about their products and to protect themselves from imitators through branding.

Managing Your Competitors

Not all companies will be able to increase their profits through environmental product differentiation. But some may be able to derive environmental and business benefits by working to change the rules of the game so that the playing field tilts in their favor. A company may need to incur higher costs to respond to environmental pressure, but it can still come out ahead if it forces competitors to raise their costs even more.

How can that be done? By joining with similarly positioned companies within an industry to set private standards, or by convincing government to create regulations that favor your product.

The first approach has been particularly successful in the chemical industry. In 1984, after toxic gas escaped from the plant of a Union Carbide subsidiary in Bhopal, India, and killed more than 2,000 people, the industry's image was tarnished, and it



faced the threat of punitive government regulation. The industry recognized that it had to act—to forestall government regulations and improve its safety record without incurring unreasonable costs. As a result, the leading companies in the Chemical Manufacturers Association created an initiative called Responsible Care and developed a set of private regulations that the association's members adopted in 1988.

The U.S. companies that make up the CMA must comply with six management codes that cover such areas as pollution prevention, process safety, and emergency response. If they cannot show good-faith efforts to comply, their membership will be terminated. The initiative has enhanced the association's environmental reputation by producing results. Between 1988 and 1994, for example, U.S. chemical companies reduced their environmental releases of toxic materials by almost 50%. Although other industries were also achieving significant reductions during this period, the chemical industry's reductions were steeper than the national average.

Moreover, the big companies that organized Responsible Care have improved their competitive positions. They spend a lower percentage of their revenues to improve their safety record than smaller competitors in the CMA; similarly, they spend a lower percentage of revenues on the monitoring, reporting, and administrative costs of the regulations. Finally, because the association's big companies do a great deal of business abroad, they have been able to persuade the CMA's foreign counterparts to initiate their own private regulatory programs—even in developing countries where one might expect little enthusiasm for tough environmental policies.

The prerequisites for the success of private regulatory programs like Responsible Care are the same as those for government regulatory programs. The regulators must be able to set measurable performance standards, have access to information to verify compliance, and be in a position to enforce their rules. Private programs also need at least the tacit approval of government: if they are incompatible with other rules such as antitrust laws, the private regulations won't hold up. And private regulations must cover all relevant com-

petitors: it is no use for some companies to tie the hands of others if a third group has the potential to undercut them both.

The commodity chemicals business is better suited than most to private regulatory initiatives. Performance standards are comparatively easy to define because, for example, a perchloroethylene plant in Louisiana looks a lot like a perchloroethylene plant in New Jersey or Italy. Verifying compliance is not a problem either, because the companies constantly sell products to one another and thus can examine competitors' plants. Companies that violate the rules can be ousted from the association—even though it is illegal under antitrust law for the CMA to make compliance with Responsible Care a prerequisite for doing business with association members.

As an alternative to private regulation, companies that want to tie their competitors' hands can work with government regulators. Gasoline marketers in California followed this strategy when they helped design new state rules mandating reformulated gasoline to reduce air pollution.

Despite aggressive regulation in California in the 1970s and 1980s, many urban areas in the late

1980s were still not close to meeting national standards for smog, and regulators were threatening to require the use of methanol or ethanol fuels, or even to phase out gasoline-powered cars altogether. Rather than watch their markets erode, California gasoline refiners introduced reformulated gasolines containing a compound called methyl tertiary butyl ether (MTBE), and then gained regulatory mandates effectively requiring the use of these fuels.

The California gasoline refiners were in a strong position to use environmental regulation for strategic purposes. First, regulators were more than willing to act, given the state's ongoing smog problems. Second, the costs of the

regulations would be spread among all of California's automobile drivers, so the chance of organized opposition was slight. Third, competitors from other states would have an even more difficult time selling in the California market. Outsiders already faced steep barriers to entry: pipeline capacity to California was limited, and the costs of transporting gasoline from, say, Texas were high. California's rules for reformulated gasoline erected another barrier

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and increased the collective pricing power of the California refiners.

Although the overall strategy was sound, the reformulated-gasoline policies have not been as effective as hoped. MTBE reduces air pollution, but leaks of the chemical have polluted groundwater. MTBE was found in municipal drinking-water wells in Santa Monica in 1997; it subsequently appeared in groundwater supplies elsewhere in the state. As a result, continued regulatory approval for MTBE use is now in jeopardy. Using environmental regulation strategically, as this example demonstrates, has both benefits and risks.

The approach of forcing rivals to match one's own behavior is fundamentally different from that of environmental product differentiation. A manager thinking about the choice between the two approaches needs to ask, Am I better off if my competitors match my investment or if they don't? If a company's customers are willing to reward it for improved environmental performance, the company will want to forestall imitation by competitors. But if its customers cannot be induced to pay a premium for an environmentally preferable good, then it may want its competitors to have to match its behavior.

Saving Costs

A third approach to reconciling shareholder value with environmental management focuses not on competitors but on internal cost reductions. Some organizations are able to cut costs and improve environmental performance simultaneously.

For instance, as many travelers know, major hotel chains over the past decade have tried to follow this approach. These companies' tactics include reducing their solid-waste generation and cutting their water and energy use. Many hotels have replaced small bottles of shampoo and lotion with bulk dispensers, saving money and reducing waste. One company saved nearly \$37,000 per year after installing dispensers at a cost of \$91,000. Others use recycled packaging for amenities. Inter-Continental Hotels, for instance, reportedly saves \$300,000 per year in this way at its ten properties in the United States and Canada.

Industrial companies have cut costs and enhanced environmental performance at the same time by redesigning inflexible or wasteful routines. Consider Xerox's efforts. After nearly three decades of market dominance, the company found its traditional markets crowded in the late 1980s with well-

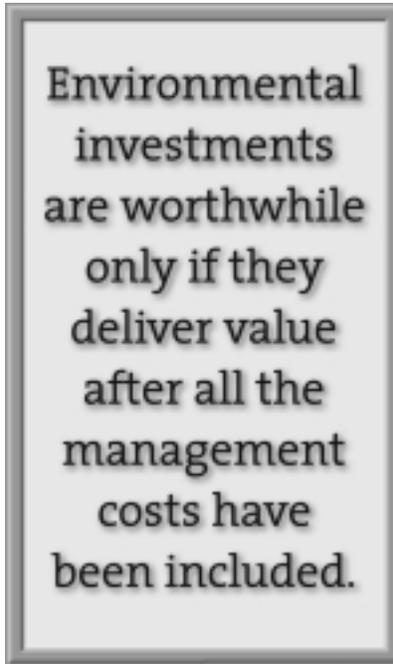
funded new entrants. Xerox's market share declined, and its margins eroded precipitously.

In 1990, the company's executives responded with a new management initiative—the Environmental Leadership Program—that eventually included waste reduction efforts, product “take-back” schemes, and design-for-environment initiatives. By the mid-1990s, Xerox's large manufacturing complex in Webster, New York, was sending only 2% of its hazardous waste to landfills. In the early 1990s, even before the program had a chance to bear much fruit, Xerox's executives were already labeling the program an unqualified success.

Xerox's story illustrates a common pattern: dramatic cost savings are often found when a company is under tremendous pressure. As long as Xerox was the unchallenged market leader, it could afford to be easygoing about cost savings—and it was. Yet when things got rough, it rose to the occasion with creative initiatives.

Observers of this pattern have wondered whether stringent environmental regulation could put the same kind of pressure on companies that competitive pressure does. They argue that “free” opportunities to improve environmental performance—in which the direct benefits to the company exceed the costs—are ubiquitous and that stricter regulatory requirements or changes in the tax code could force companies to uncover them. (For an example of such an argument, see “A Road Map for Natural Capitalism,” by Amory B. Lovins, L. Hunter Lovins, and Paul Hawken, HBR May–June 1999.) Others disagree. They point out that managers are paid to minimize costs and wonder how adding new regulatory constraints could possibly reduce costs. Economists call this dispute the “free lunch” debate. The underlying issue is the appropriate level of government regulation.

The free lunch advocates overstate their case. Even low-hanging fruit can only be gathered after an investment of management time, and that re-



source is hardly free. Investments in environmental improvement, like all other investments, are worthwhile only if they deliver value after all the management costs have been included.

Fortunately, though, companies can remain agnostic on the question of whether free opportunities to improve environmental performance are widespread. From a business point of view, even if such opportunities are rare, managers should look for them as long as the search doesn't cost much in terms of their time or other resources.

Managing Environmental Risk

For many businesspeople, environmental management means risk management. Their primary objective is to avoid the costs that are associated with an industrial accident, a consumer boycott, or an environmental lawsuit. Fortunately, effective management of the business risk stemming from environmental problems can itself be a source of competitive advantage.

Alberta-Pacific Forest Industries, a Canadian venture of Japanese companies, has discovered that the voluntary provision of environmental goods can cost-effectively reduce long-term business risk.

In 1993, the Japanese companies and their Canadian partners negotiated timber-harvesting rights on a vast tract of government-owned aspen and spruce forests in northern Alberta. The venture planned to build a conventional pulp mill that would use chlorine bleaching. It also planned to run the forests as they had always been run in western Canada, where, as one forestry manager put it, "There was never a plan for forest management, and 'forest planning' just meant 'fiber extraction.'"

But the project ran into a buzz saw of opposition from local farmers, aboriginal residents of northern Alberta, and environmental activists from around the world. Alberta-Pacific went back to the drawing board. It returned with plans for a mill that would keep pollution levels far lower than the government required; it also developed forest management policies that would substantially reduce traditional clear-cutting. In addition, it promised to hold regular public meetings, to communicate explicitly about the environmental impact of the company's operations, to carry out

collaborative research with biologists from outside the company, and to provide recreational access to the woods.

The costs of these changes were modest and, in return, Alberta-Pacific improved its community relations and achieved more stable long-term costs. The changes are an insurance policy against regulatory difficulties, sour community relations, business interruptions, and related cost shocks. The leaders of Alberta-Pacific have realized that their ability to operate is contingent on society's approval, that the formal property rights they possess are necessary but not sufficient for them to cut timber and run mills, and that environmental improvements can make sense as risk management devices.

If Alberta-Pacific had not heeded the concerns of local residents and environmentalists, it likely would have been prohibited from using the land at all. And the stakes were high—the costs of raw materials were on a level one might find in Indonesia or Brazil, but the political and exchange-rate risks were far lower. The venture's small initial investments in the environment allowed it to profit from use of the forest.

Indeed, any company can benefit from an audit of its environmental insurance policies and risk management systems.

Is the company buying the right policies? Is it retaining risk when the coverage is overpriced? Is it rewarding managers who reduce risk in their own operations or subsidizing risky behavior by failing to police it adequately?

Managers at Chevron are trying to answer those questions. They're analyzing the relative value of investing more in sprinkler systems, rapid response teams, maintenance, and other systems and activities that reduce environmental risk. They are also working to change employees' attitudes toward environmental and safety issues in order

to reduce the risk of accidents. Chevron has found that environmental risk can be managed more effectively both by applying more rigorous quantitative analysis and by increasing its emphasis on training and cultural change programs.

It is not easy to prove that investments in environmental risk management are bearing fruit. And the potential for overinvestment is a concern. But just as it is for more traditional business risks, some investment in environmental risk management is



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INTEGRATING RISK MANAGEMENT

Thinking about environmental improvement as a risk management strategy, as managers at Alberta-Pacific and Chevron do, leads to the question, Should companies try to manage environmental risk in the same ways they manage other business risks?

In many companies, environmental risk is handled by the department that deals with environmental, health, and safety issues, while the management of currency and other financial risk is centralized under the treasurer or the financial officers. Those different parts of the organization usually take widely varying approaches to risk management and may even be ignorant of each other's activities.

There are legitimate reasons for managing environmental risk differently from other risks. Environmental risk is exceedingly difficult to assess quantitatively: no one can really know the probability of an accident occurring at a particular factory. By contrast, it's easier, say, to assess the probability that the dollar will move up or down against the yen—and market instruments exist that allow companies to hedge against such a risk.

Although it makes sense to manage environmental risk differently from other business risks, companies commonly make a serious mistake in the process: they rely too heavily on command-and-control mechanisms—in the form of procedural manuals and rules—to govern line managers' behavior. That approach impedes flexibility and fails to tap the expertise of individual line managers—the same problems that arise when government imposes command-and-control regulations.

Some reliance on command-and-control policies is probably necessary, but there are other ways to ensure effective risk management, and the wise risk manager uses a variety of approaches. A manager's environmental performance can be made a factor in determining incentive pay. Similarly, it can be considered in regular performance reviews and in the promotion

process. And as information about environmental risks and their effects on a company's financials improves, it will become increasingly possible to handle environmental risk like other risks within the organization. For example, companies often buy insurance against environmental liability at the corporate level but don't charge operating managers for their unit's portion of the premiums. If they did, the managers' incentives would be better aligned with those of the company.

But even the steps outlined here will not change the inherently muddy nature of investments in environmental risk management. You can never be sure, even long after the fact, that investments designed to prevent an accident or a lawsuit were the right ones. That's why even sensible investments in risk management are extremely vulnerable to cost-cutting pressure. At the same time, the inability to determine measurable results can lead to overspending on risk reduction as well as to empire building in the environmental office.

To avoid such problems, senior managers need to ensure that those responsible for environmental risk are clear about the potential benefits of their investments. Managers whose responsibilities include environmental risk should be pushed to articulate why the level and type of investments they have chosen are appropriate. Furthermore, they need to communicate with those responsible for other sorts of business risk so that the approaches are consistent. That doesn't mean the approaches should be identical. Until managers have the same information about environmental risk as they have about currency risk, it won't make sense to manage the two in the same way—and that day is a long way off. But environmental risk management should not be shoved off to one side of the organizational chart and managed as a special case. Integrating it into the company's overall risk management approaches will yield better decisions over the long run.

prudent. (For a comparison of environmental and traditional risk management, see the insert "Integrating Risk Management.")

Redefining Markets

Some companies are following several approaches at once. In the process, they are rewriting the competitive rules in their markets.

As we've seen, Xerox has been a leader in searching for cost reductions. More dramatically, it has

also attempted to redefine its business model. Rather than simply selling office equipment, it retains responsibility for the equipment's disposal, and it takes back products from customers when they are superseded by new technology. The machines are then disassembled, remanufactured to incorporate new technology, and resold at the same price as new machines. This practice enables Xerox to reduce its overall costs and also to make life difficult for competitors who lack similar capabilities. Customers benefit, too, because they no longer

have to worry about the disposal of cumbersome machinery.

Rethinking traditional notions about property rights, as Xerox has done, is a useful way of discovering corporate opportunities to redefine markets based on environmental challenges. Instead of transferring all rights and responsibilities of ownership to their customers, Xerox and other manufacturers are retaining the obligation of disposal in return for control of the product at the end of its useful life.

Because of that initiative, Xerox reportedly saved \$50 million in 1990, its first year. A drop in raw-materials purchases was the most significant component of the cost savings—fewer natural resources were used to make new machines. By 1995, Xerox estimated that it was saving more than several hundred million dollars annually by taking back used machines. Other manufacturers of electronic equipment such as Kodak, IBM, Canon, and Hewlett-Packard have undertaken similar initiatives.

Companies like Xerox that combine innovations in property rights and advances in technology may be able to create very strong competitive positions. Monsanto, DuPont, Novartis, and others are using this approach to redefine the agriculture industry. Instead of making traditional insecticides for crop pests, the companies transfer genetic material from naturally occurring bacteria to seeds so that the plants themselves become inedible to insects. These new seeds are highly profitable; they avoid the financial and environmental costs of making, transporting, and applying insecticides. But the path has not been free of rocks: environmental groups and consumers, especially in Europe, have protested the sale of genetically engineered products in their markets.

Like Xerox, Monsanto also redefined the property rights that go with its product. In order to recover its investment in seed technology, Monsanto needs repeat customers every year. But farmers commonly engage in a practice known as “brown bagging”—they save seeds left over from one year’s crop to plant the following year. In return for the right to use the new type of seeds, Monsanto requires farmers to stop brown bagging and to submit to inspections to ensure compliance.

The ambitious strategies that Monsanto and Xerox are following have attracted a great deal of attention. But such strategies can entail significant market, regulatory, and scientific risks; they’re not for every company—or even for every industry. The companies that appear to be succeeding are leaders in industries that face intensifying environmental pressure. Those companies have the research capa-

bilities to develop new ways of delivering valuable services to their customers, the staying power to impose their vision of the future on their markets, and the resources to manage the inevitable risks. Moreover, by creating an appealing vision of a more profitable and environmentally responsible future, they may be better able to attract and retain the managers, scientists, and engineers who will enable them to build on their initial success.

Beyond All-or-Nothing

All-or-nothing arguments have dominated thinking about business and the environment. But it doesn’t have to be that way. Consider how ideas about product quality have changed. At first, conventional wisdom held that improvements in quality had to be purchased at a cost of extra dollars and management attention. Then assertions were made that “quality is free”: new savings would always pay for investments in improved quality. Now companies have arrived at a more nuanced view. They recognize that improving quality can sometimes lead to cost reductions, but they acknowledge that the right strategy depends on the company and its customers’ requirements. It is time for business thinking on the environment to reach a similar middle ground.

As we’ve seen, environmental problems are best analyzed as business problems. Whether companies are attempting to differentiate their products, tie their competitors’ hands, reduce internal costs, manage risk, or even reinvent their industry, the basic tasks do not change when the word “environmental” is included in the proposition.

Does all this mean that questions of social responsibility can be safely ignored? Not at all—but they’re only one part of the equation. Companies aren’t in business to solve the world’s problems, nor should they be. After all, they have shareholders who want to see a return on their investments. That’s why managers need to bring the environment back into the fold of business problems and determine when it *really* pays to be green.

Not all companies can profit from concern about the environment. Others will be able to do so by following one—and in some cases more than one—of the approaches described here. At any rate, a systematic look at environmental management opportunities is worth the time. Imaginative and capable managers who look at the environment as a business issue will find that the universe of possibilities is greater than they ever realized. 

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HOW I DID IT...

The CEO of Duke Energy on Learning To Work with Green Activists

The Idea: **When James Rogers became CEO at then-ailing PSI (now Duke Energy), he was determined to listen to all its stakeholders. But environmentalists posed a particular challenge: The green movement had long viewed the energy industry with skepticism.** *by James E. Rogers*

How I Did It...



James E. Rogers is the chairman, president, and CEO of Duke Energy.

The CEO of Duke Energy On Learning to Work with Green Activists



by James E. Rogers

THE IDEA

When James Rogers became CEO at then-ailing PSI (now Duke Energy), he was determined to listen to all its stakeholders. But environmentalists posed a particular challenge: The green movement had long viewed the energy industry with skepticism.

“How can you advocate for a low-carbon future when your company is among the largest emitters of carbon dioxide in the United States?”

I’m asked this question a lot. It reminds me of a time about two decades ago, when I was 42 and in my second year as a CEO, trying to lead a utility back from the brink of bankruptcy. The effects of acid rain from burning coal had become clear. Much of our industry denied the facts and resisted any regulation of sulfur dioxide emissions. My company took a different path.

I believe that a price on carbon is inevitable, and utilities that take a long-term view will be part of the solution. Smart public

policy can serve the interests of both business and society. It pays to be collaborative and build a consensus. But that isn’t easy.

100 Days of Listening

I wasn’t sure I had what it took to be a CEO when, in 1988, I interviewed for the job of leading Public Service Indiana, which had just written down a \$2.7 billion loss on a half-constructed nuclear plant. PSI generated most of its electricity by burning coal in a number of aging plants in America’s heartland.

At the time, I didn’t consider myself an environmentalist. I was a lawyer with a background in energy, and I was looking

Rogers in 1988, shortly after becoming Public Service Indiana's CEO.



Beginning with “100 days of listening” gave me time to learn the business and the personal dynamics.

for something with greater challenges and more responsibility. PSI, once a highly regarded utility with deep local ties, had plenty of challenges: Its finances were in disarray, morale was damaged, and leadership had lost the confidence of regulators, shareholders, and customers.

I spent a week preparing for my job interview with PSI's board of directors and developed a plan I called “100 days of listening.” The idea was to meet with the company's many stakeholders before taking action. That would help me to identify the issues, set priorities, figure out whom I could trust, and start repairing and rebuilding relationships. The other candidates had far more industry and leadership experience, but none of them came prepared with a plan. I was given the job.

All the members of my management team were much older than I was, and all of them advised me not to meet with any environmentalists. It was an emotional time for PSI's veteran executives; their largest construction project had just been killed by the very groups I was planning to talk to. Internal opposition to my proposal was so strong that I considered changing course. But that felt like a cop-out: I had proposed a plan, and now I needed to execute it. Plus I was curious about the environmentalists' point of view, and I believed in the power of collaboration to address tough problems. I decided to follow my instincts.

My management team was not pleased. Some of its members thought I was naive. Had PSI not been on the verge of bankruptcy, its dividend suspended and emergency rates in effect, I might have faced

a mutiny during my second week on the job. On a Saturday morning I drove 100 miles south to the Ohio River Valley, where our abandoned nuclear plant was located. There I sat down for coffee in a diner with leaders from the environmental groups that had blocked the plant. I started by telling them I was new to the job and wanted to better understand their point of view. Soon enough they were talking straight about their perspectives, as midwesterners tend to do.

I learned that their opposition was based on three beliefs: Nuclear energy was too costly, waste disposal was unmanageable, and the additional 2,360 megawatts of baseload generation capacity wasn't needed. I disagreed with some of their positions, but I listened. The nuclear power they opposed would have replaced old coal plants with serious carbon dioxide emissions, but that issue hadn't yet surfaced. Today some of them are rethinking their stance on alternative sources of power as they confront climate change.

Stake in the Ground

I tried to create a collaborative environment internally as well as externally. I strongly believed that we needed a culture respectful of divergent views, in which problems could be identified early and unconventional solutions could be found.

The 100 days gave me time to learn the business and the personal dynamics. Then I prioritized my tasks. Near the top of my list was one that had arisen in a meeting with a state senator who chaired the environmental committee: PSI needed to inte-

grate environmental risks into its decision making. Failure to do so had nearly caused the company to break down. Prior management hadn't seen the risks from environmental opposition as legitimate until it was too late.

I proposed that we study the corporate environmental charters of other utilities and then create one for PSI. To my surprise, we found not one utility with a board-adopted public statement about environmental considerations in its decision making. We decided to write a charter by convening our diverse stakeholders: customers, investors, state government officials, consumer advocates, employees, and environmentalists. Some members of my team worried that dialogue would further empower groups that opposed us and would evolve into a negotiation. They were right—but that was part of the reason for doing it. We wanted a charter that established enough common ground that we would never again waste billions of dollars on half-constructing a plant.

We held meetings with about two dozen leaders from different stakeholder groups. Each meeting began with an acknowledgment of our objective: to provide clean, affordable, and reliable electricity to our 575,000 customers 24 hours a day, 365 days a year. Everyone agreed with this mission, but environmentalists focused on “clean,” consumer advocates stressed “affordable,” and factory owners put a premium on “reliable.” Nevertheless, the framework gave everyone in the room insight into the practical trade-offs involved in providing universal access to electricity. Using that

framework, we negotiated a 10-point corporate charter. (See the sidebar “What Rogers Learned on His ‘Listening Tour.’”)

Our board ratified the charter in 1990. We printed it in our annual report, and I hung a copy above my desk. We had planted a stake. Now we needed to follow our words with actions.

The First Cap and Trade

Acid rain became more prominent in the public debate in 1989, after the findings of a 10-year federal government study on the effects of sulfur dioxide emissions were released. I spent two months consulting various experts on the issue, and met with members of Congress in Washington. I concluded that legislation to curb SO₂ emissions was inevitable. The practical questions were: What would that legislation look like? What impact would it have on customers in Indiana and the 22 other states that generated more than 50% of their electricity from coal?

President George H.W. Bush soon began championing an innovative market-based solution called cap and trade. Instead of the Environmental Protection Agency’s traditional command-and-control approach, Bush—in collaboration with the Environmental Defense Fund and other groups—proposed a declining cap on SO₂ emissions. The cap would be combined with an emissions-trading mechanism and a declining allocation of free allowances to spur innovation and create a market for new low-cost solutions.

Cap and trade was a smart and creative compromise. It departed from uniform regulations that failed to consider the generating portfolios and geography of individual utilities. It generously allocated allowances to utilities in coal-dependent states in the early years and provided incentives to open low-sulfur coal mines. Most important, it enabled utilities to modernize their plants and meet aggressive emissions targets without sending electricity prices skyrocketing.

I assumed that my industry peers took a similar view of this idea. However, most

executives at the 1989 annual meeting of our trade association, the Edison Electric Institute, were opposed to government action. The CEOs of the largest utilities took the hardest line. They disputed the science. They argued that the health hazards hadn’t been proved and that the technology to reduce emissions was too expensive. Most of them were dismissive when I spoke up to ask, “Isn’t there a way we can support this to our benefit? The technology is evolving, and it seems like we could do this.”

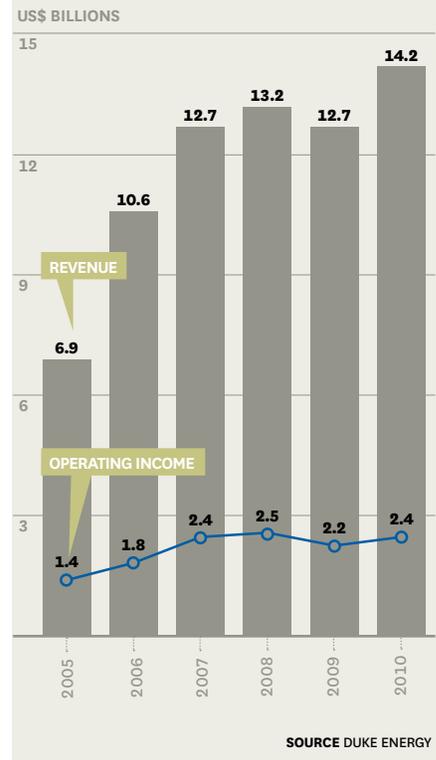
These power brokers saw PSI as a small player without influence and me as a young guy not yet aware of how the industry worked. But my belief deepened that some form of cap and trade would come about and that our stakeholders would benefit if we took a stand in front of the issue. After all, as a regulated utility, we earned a return on all our capital expenditures, including those for environmental compliance.

In the spring of 1990 I testified before Congress in support of market-based cap and trade. Some of my industry peers were upset by my action, but others began to acknowledge that the world was changing, and having a seat at the table could be helpful. It was certainly helpful for PSI. The Clean Air Act Amendments established cap and trade that year, and PSI and other coal-dependent utilities were allocated a relatively high number of allowances, which gave us time to make a deliberate and sustainable transition to cleaner generation.

The results spoke for themselves. From 1990 to 1993 our market capitalization increased by more than 65%, from \$900 million to \$1.5 billion. Significantly, this increase in shareholder value did not come at the expense of our customers. In fact, we lowered our real price of electricity in Indiana from 6.2 cents to 5.87 cents per kilowatt hour. Our rates were among the most affordable in the country. By 1995 we had also reduced our SO₂ emissions by 30%.

Our ties to local communities strengthened as PSI developed more of a national reputation. That helped us grow and attract new talent to the company. In 1994 we merged with Cincinnati Gas & Electric,

Duke Energy’s Revenues & Income



effectively doubling our size and extending our service territory into Ohio and Kentucky. Among my first actions as CEO of Cinergy—the new company—was to create an updated environmental charter, which was adopted at the first meeting of the board.

Fast-forward a decade to the issue of global climate change. Here, too, we were early advocates for action. As we investigated the science connecting carbon emissions to the rise of the earth’s temperature, I remembered the days of the acid rain debates. I heard similar voices of resistance and denial among my peers at industry meetings. But this time we were a major player in the room. In 2006 Cinergy merged with Duke Energy, headquartered in Charlotte, North Carolina, and I was named chairman, president, and CEO.

The Tide of a Low-Carbon Future

“There is a tide in the affairs of men,” Shakespeare wrote. After a deeper investigation into climate change, it became clear to me that the science was sound: Burning fossil fuels contributes to global warming. As an

What Rogers Learned on His “Listening Tour”

PSI’s 1990 Environmental Charter

1 INCORPORATE environmental considerations into our planning process.

2 CONSIDER AND COMPARE the environmental consequences of choosing certain suppliers and contractors when purchasing supplies or services.

3 MAINTAIN AND ENHANCE internal procedures for handling environmental emergencies and meeting other environmental requirements; periodically conduct formal reviews and report results to the board of directors.

4 EDUCATE all employees on the importance of their corporate conduct in protecting our environment as well as their own health and safety.

5 MAKE environmental responsibility and innovation a guideline for measuring employee performance.

6 MAKE available to employees, customers, and the community all relevant information on emissions, waste products, and PSI Energy activities which may affect their health and safety.

7 SEEK AND IMPLEMENT cost-effective technologies and practices to minimize emissions, and reduce or safely dispose of waste products in our operations.

8 PURSUE methods to prevent pollution and conserve raw materials, including recycling waste and promoting the efficient use of energy by our customers through cost-effective means.

9 PROMOTE sound environmental practices within our industry, including the sharing of experiences with others and the continued support of research and development in environmental improvement.

10 DEVELOP AND MAINTAIN open and constructive relationships with environmental groups, regulatory agencies, public officials, business and residential customers, employees, and concerned citizens.

industry, we needed to figure out how to operate in a carbon-constrained world. As a company, we needed to understand the issue, stay ahead of it, and help shape a sustainable solution. And, just as when I was the new CEO of PSI, we needed to build a diverse coalition of stakeholders who could collaborate, negotiate, and proactively face the challenge.

In July 2006, thanks in large part to the leadership of General Electric and the World Resources Institute, a first-of-its-kind coalition of 22 companies (16 of them on the *Fortune* 500) and five leading environmental organizations created the U.S. Climate Action Partnership. The purpose of USCAP was to urge the federal government to enact strong legislation to reduce greenhouse gas emissions. As soon as USCAP was launched, critics tried to discredit it. A few people even called on me to resign as chairman of the Edison Electric Institute.

Those reactions weren’t surprising. We knew we were taking a risk, and we had anticipated resistance. A key moment occurred at an EEI board meeting in January 2007, shortly before USCAP issued its first public call to action. I proposed that we go around the room and let each CEO express his or her views. Some of those from small and midsize utilities spoke forcefully about our need as an industry to deal with the realities of carbon emissions. Surprisingly, no one openly disagreed. Even the most skeptical CEOs acknowledged that if we didn’t have a seat at the table, we would be on the menu. We left that important meeting with an industry consensus: The way we produced and consumed electricity was not sustainable, and we needed a set of principles to guide our support for legislation establishing a price on carbon.

Cap and Trade, the Sequel?

Over the past four years USCAP and EEI have advocated for a comprehensive cap and trade policy for carbon. They have helped give the business community a voice in the discussion about how to responsibly transition to a low-carbon future. Recently, however, our efforts have suf-

We have been living on borrowed time in the U.S. electricity markets.

ferred a setback owing to political gridlock and misunderstandings. This is unfortunate, because the longer we wait as a nation, the more difficult it will be for the U.S. to remain competitive in the new energy economy. We need bipartisan solutions, because regulatory uncertainty complicates business decision making. This is especially true for utilities, whose investment decisions are based on time horizons of 20 to 60 years.

Regardless of what happens in Washington, the fact is that we have been living on borrowed time in the U.S. electricity markets. The real price of electricity remained flat for more than five decades in much of the country, largely because we didn’t replace our aging power plants. Many of them were built in the 1950s, 1960s, and 1970s; as they are retired and replaced, the price of electricity will increase substantially.

Absent a constructive national energy policy, we must continue to innovate and integrate new technology that will help us generate cleaner, more sustainable electricity. Once again, we find ourselves collaborating with groups that some may consider controversial. For example, we’ve formed partnerships with a number of leading energy companies in China to share best practices and learn from the Chinese as they bring new energy technologies to scale. My bet is that technology developed from unique collaborations will bring us to a low-carbon future faster than national or worldwide policy can. But we still need smart government action. We still need a road map, for the sake of business, society, and the environment.

So when I’m on the road these days speaking about our vision, and I’m asked that question: “How can you advocate for a low-carbon future...?” my answer begins with four words: “How can we not?” ♡

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