25th Anniversary Edition

2008

STATE OF THE WORLD

Innovations for a Sustainable Economy

THE WORLDWATCH INSTITUTE

CHAPTER 13

Investing for Sustainability

Bill Baue

At a United Nations summit on corporate responsibility in July 2007, Goldman Sachs released a report that breathed yet more life into the maturing body of sustainable investing. The venerable investment bank had been nurturing growth in this field over the past several years: in 2004 it released its first sustainable investing report, in 2005 it issued a company-wide environmental policy, and in 2006 it invested $1.5 billion in clean energy. At first glance, it may have disappointed sustainable investing advocates to see Goldman analysts saying that it was too early to correlate sustainability performance directly to financial performance.[1]

Of course, this coy assertion assumed that such a link—considered the Holy Grail by some advocates of sustainable investing—unquestionably exists. In the meantime, until empirical evidence could prove a direct connection between sustainability and financial performance, Goldman integrated sustainability factors into its traditional financial analysis. The report found that sustainability leaders outperformed the general stock market by 25 percent over the previous two years and outperformed their same-sector peers by almost 75 percent over the same period.[2]

Such numbers turn heads. And more important, they draw ever more money into sustainable investing, as it has come to be known—increasing the amount of capital pegged to environmental, social, and governance performance. (See Box 13–1 for a definition of sustainable investing.) These commitments are increasingly of interest to a broad range of investors—from individual shareholders and businesses engaged in project finance to venture capitalists and nonprofits promoting microfinance. (See Table 13–1.) Together, these investors control significant assets that can steer societies toward

Bill Baue writes on socially responsibility investing for SocialFunds.com and on corporate social responsibility for CSRwire.com. He co-hosts and co-produces the nationally syndicated Corporate Watchdog Radio show and podcast and teaches at the Marlboro Sustainability MBA program in Vermont.

Box 13–1. Definition and Scope of Investing for Sustainability

"Investing for sustainability" is an umbrella term used in this chapter for all the various forms of investment that promote sustainability in one way or another. The term "sustainable investing" applies to the most prominent subset of investment practices that promote sustainability: socially responsible investing and mainstream investing that integrates environmental, social, and governance factors into investment decisions. The lion's share of project finance for major infrastructure projects such as dams and mines now operates according to the Equator Principles, which integrates sustainability factors.

Other investment practices that promote sustainability fall outside the definition of "sustainable investing" as it is currently developing, however. "Green" investing, or support for environmentally beneficial companies and projects, is all the rage in private equity and venture capital, though these investments rarely take the full range of sustainability considerations into account. And microfinance is growing rapidly, but it focuses primarily on social factors, with less emphasis on environmental sustainability.

sustainable development.

Indeed, building sustainable economies will necessarily have investment at its core. Currently, modern industrial economies rely on pillaging the past at the expense of the future, burning through solar energy that has fermented for millennia forming fossil fuels that release eons worth of carbon dioxide that turns the atmosphere into a veritable pressure cooker. Changing course requires applying strong leverage from many different directions—especially investment. The scientific consensus, for example, is that carbon dioxide emissions need to be reduced 50–80 percent by 2050 in order to avert catastrophic climate change—essentially requiring a complete overhaul of carbon-intensive economies and lifestyles. (See Chapter 6.) Because investment decisions help shape an economy's infrastructure decades into the future, investor engagement is essential in turning economies away from conventional paths and toward a sustainable one.[3]

Luckily, sustainability and investing share a common horizon: both focus on the future. Sustainability considers how to meet people's needs today as well as in the future.

Table 13–1. The World of Sustainability Investments

Sector	Description	Contribution to Sustainability
Socially responsible investment (SRI)	Values-based investment opportunities, shareowner advocacy, and community investing	A large share of SRI focuses on environmental and social sustainability; some investments, however, focus on values unrelated to sustainability
Project finance	Funding for major infrastructure or extractive projects such as dams or mines	More than 85 percent of project finance capacity globally falls under the Equator Principles, which factor in social and environmental sustainability
Private equity and venture capital	Speculative financing for promising innovative startups	Attention increasingly focused on green energy and other green products
Microfinance	Very small loans, as little as $50, that help small-scale artisans and craftspeople develop markets for their wares	Largely focused on income generation and poverty alleviation

Investing is essentially a form of delayed consumption that uses current capital to generate future financial support—particularly after retiring from active income earning. Traditional investment strategies in current use support business practices without regard to social or environmental impacts, arguably defeating the purpose of saving, as they contribute to the destruction of the future. Sustainable investing necessitates deep consideration of social and environmental implications, always assessing and measuring whether business practices can sustain social equity and ecological balance while maintaining profitability.[4]

Viewed through this lens, sustainability and investing can reinforce each other. A shift in worldview toward sustainability investments is already well under way, but its continued growth cannot be taken for granted. The challenge is to structure investment options so that outcomes promote both sustainability and strong returns.

Socially Responsible Investing

Some four decades ago, the foundations of sustainable investing were established with the advent of modern socially responsible investing, or SRI, which broke new ground by marrying social and environmental considerations with traditional financial considerations. SRI has since grown by encompassing three elements—shareowner activism, screening, and community investing—all of which now inform sustainable investing.

Modern shareowner activism—where stockholders engage with companies on environmental, social, and governance issues through direct dialogue, campaigns, and nonbinding shareowner resolutions that appear on the corporate proxy and go to vote at annual meetings—dates back to the late 1960s. Since then, shareowner activism has evolved into a widespread practice, as described in the next section.[5]

The 1971 launch of the Pax World Balanced Fund introduced the second SRI pillar—screening out companies in so-called sin sectors, such as weapons, tobacco, alcohol, and so on. Since the late 1990s, some strands of SRI have been building on this ethical, values-based foundation by adding financial value-seeking approaches typified by so-called positive screens that give priority to companies with best practices in corporate social responsibility. Similarly, "best-in-class" screens reward the best social and environmental performers across all sectors—even those typically avoided by SRI, such as oil. According to this strategy, it is best to encourage better sustainability practices in all companies. More recently, value-enhancing SRI has emerged, arguing that strong environmental, social, and governance management acts as a proxy for strong business management.[6]

In 1973, Chicago-based ShoreBank pioneered community investing, which accepts below-market financial returns in exchange for social returns by supporting community development projects such as low-income housing, minority- and women-owned businesses, and microfinance. However, it wasn't until some two decades later that SRI mutual funds began supporting community investing, when the Calvert Social Investment Fund integrated the practice into its portfolio in 1990.[7]

SRI has moved from a niche practice to the mainstream, with about $1 of every $10 invested in the United States using at least one of the three pillars of social investing, according to the Social Investment Forum. In 2005, $2.29 trillion (9.4 percent) of the $24.4 trillion in total assets under management tracked in Nelson Information's *Directory of Investment Managers* was involved in SRI—up from $2.16 trillion in 2003.[8]

Although SRI growth has been rapid over the past decade, national monitoring bodies measure different attributes of this investment, making growth rates difficult to compare. Still, in Australia SRI funds under management grew 36-fold between 2000 and 2006. In the United States, they grew more than threefold between 1995 and 2005. Canadian SRI increased nearly eightfold between 2004 and 2006. And in Europe, these funds went up by some 36 percent between 2003 and 2006.[9]

Globally, SRI assets stand at about $4 trillion (see Table 13–2), with U.S. growth plateauing somewhat while funds continue to grow more robustly elsewhere around the world. To place this in context, however, the global management consulting firm McKinsey & Company estimates global capital markets at $136 trillion and projects this will reach $228 trillion by 2010. So formal SRI represents a mere 3 percent or so of global capital markets.[10]

Now SRI is shifting terminology, with some leaders in the field advocating for a semantic—and arguably a structural—change, to "sustainable investing." The move seeks to simultaneously broaden and narrow the scope of the practice using this term. It encompasses SRI or mainstream investments seeking social and environmental sustainability, but it excludes values-based investment strategies that simply involve ethical considerations (such as Catholic screens of companies that produce drugs that induce abortion) that traditionally fall under the SRI umbrella but that do not promote progress toward sustainability.

Table 13–2. Socially Responsible Investments, by Region, Mid-2000s

Country or Region	Socially Responsible Investments	Year of Data
	(billion dollars)	
United States	2,290.0	2005
Europe	1,224.0	2005
Canada	439.0	2006
Australia and New Zealand	7.0	2005
Japan	2.6	2007

Source: See endnote 10.

Spearheading this movement is Pax World CEO Joe Keefe, who believes that sustainable investing has the potential to be a transformative strategy that revolutionizes investing itself—"at a time when market capitalism must of necessity undergo a sustainability revolution equal in significance to the industrial revolution that ushered in the modern period."[11]

Keefe believes sustainability advances a new conception of wealth, with the potential to offer a solution to the crisis in capitalism by aligning financial outcomes with environmental, social, and governance outcomes—"not with 'values,' mind you, but with outcomes," he notes. Achieving sustainability requires companies and markets to shift their behavior and necessitates that wealth-creation strategies live up to the term "sustainable" by eliminating the byproducts that too often flow from market capitalism currently—poverty, injustice, and environmental degradation.[12]

Adoption of the term "sustainable investing" as defined by Keefe represents a mainstreaming for SRI, as it blends the core SRI focus on sustainability outcomes with the mainstream focus on financial outcomes. What is interesting is that the mainstream investment community is converging on the same destination, but from the other direction—integrating sustainability considerations into a traditional focus on financial factors. It is a measure of SRI's success that its methods are now embraced by the very people who previously scoffed at it.

Mainstream asset managers, such as Citi and Neuberger Berman, who buy stocks to fill mutual funds and other portfolios, started practicing SRI long ago to fill a niche demand. Now mainstream investment banks, which sell stocks (a much more lucrative business stream than managing funds) are embracing sustainability, with investment analysts integrating environmental, social, and governance factors into their research.

Now it is standard for mainstream analysts from such firms as Citi, UBS, and Merrill Lynch to incorporate sustainability factors into their research.

This trend dates back to 2003, when the U.N. Environment Programme's Finance Initiative commissioned investment analyst reports from mainstream financial institutions assessing the "materiality" of sustainability issues—in other words, whether they affect stock prices significantly enough to trigger a fiduciary responsibility for investors to take them into account. The result was 11 reports by such venerable firms as Deutsche Bank, Goldman Sachs, HSBC, and UBS—essentially creating a glut of research on the intersection between financial and sustainability issues to fill the dearth that had existed until then. The reports also covered a wide spectrum of sustainability issues, from corporate governance to emissions trading.[13]

In October 2004 this movement received another boost from the Enhanced Analytics Initiative, a global consortium of institutional investors set up by the Universities Superannuation Scheme (one of the largest U.K. pension funds), Generation Investment Management (chaired by Al Gore, the first firm to integrate sustainability analysis directly into financial analysis), and others. Members of the initiative offer 5-percent brokerage commissions to the best research on so-called extra-financial (environmental, social, and governance) factors. The chance to earn real money motivated some financial analysts to become quick studies of environmentalism and humanitarianism.[14]

Now it is standard for mainstream analysts from such firms as Citi, Lehman Brothers, UBS, Piper Jaffrey, and Merrill Lynch to incorporate sustainability factors into their research. JPMorgan has even established a dedicated Web page for its climate change-related research. The Goldman Sachs report released at the July 2007 U.N. corporate responsibility summit exemplifies the strategy of assessing sustainability performance not in isolation but in conjunction with financial metrics.[15]

Many in the SRI community—including Michael Kramer, managing partner and director of social research at Natural Investment Services—consider the mainstream embrace of sustainability a mixed blessing. While Kramer acknowledges that the Goldman Sachs report and others like it are part of the solution due to their influence over the mainstream corporate community, he laments that they advance "such broad interpretations of sustainability now that it renders the concept nearly meaningless." When a major oil company invests modestly in renewable energy while its business model still hinges on fossil fuels, is this really sustainable?[16]

Yet modest support by a giant may do more to advance sustainability than a small renewable energy company with a deeper commitment to sustainability. In practice, in any case, this is not necessarily an either/or equation, as both dynamics are happening simultaneously. In the end, the achievement of true sustainability will require a convergence of both bottom-up and top-down transformations, with investment playing a significant role in both.

One innovative way of moving toward truly sustainable investing from the bottom up is called "regenerative investing," a notion pioneered in 2003 by Michael Kramer. He calls the new investment style "regenerative" because it channels financial resources into projects that mimic the way nature operates within closed-loop systems that recycle matter and energy. Regenerative investing gives priority to far-sighted investments in areas such as clean energy, sustainable agriculture and forestry, recycling, and green real estate development. The strategy also looks for local investment that supports formal barter networks and currency systems, small business incubators, property leasing systems, and land trusts. At this early stage, regenerative investing strategies carry significant risk and so are only open to "qualified" investors with enough assets to buffer the risk.[17]

Shareowner Activism

Shareowner activism, a core strategy of SRI and sustainable investing, is as old as shareownership. The Dutch East India Company was the first enterprise ever to be listed on a stock exchange, in 1602. On January 24, 1609, it received history's first shareowner petition from Isaac Le Maire, the largest minority investor, who railed against the management as "absurd and impertinent" and "a kind of tyranny," according to Stephen Davis, Jon Lukomnik, and David Pitt-Watson in *The New Capitalists: How Citizen Investors are Reshaping the Corporate Agenda*. Dutch religious pacifists followed suit, buying shares in order to protest the company's "generous application of warfare, blockade, piracy, assassination, imprisonment, plunder, terror, slavery, bribery." So began civil society's use of stock ownership as leverage for advancing social justice.[18]

It took almost three-and-a-half centuries for social activists to start using shareownership again as a tool for promoting progressive change. In a 1947 court case, the Securities and Exchange Commission (SEC) confirmed the right of the infamous corporate governance gadflies John and Lewis Gilbert (and all shareowners) to file resolutions with companies, which the brothers had been doing since the 1920s without any legal standing. These rights languished largely unused until social and environmental activists adopted them in the late 1960s. Activist shareowners filed the first social and environmental resolutions in 1967 at Eastman Kodak, addressing racial discrimination against African American employees; in 1969 at Dow, addressing Agent Orange; and in 1971 at GM, addressing apartheid in South Africa.[19]

The year 1971 also saw the founding of the Interfaith Center on Corporate Responsibility (ICCR), which pioneered the modern practice of shareowner activism in the United States—namely, direct engagement with companies through dialogue or the filing of resolutions to advocate for improvements in environmental, social, and governance performance. Since then, ICCR has grown into a coalition of 275 faith-based institutional investors and SRI firms with over $110 billion in assets under management, and the practice it pioneered has brought about significant corporate change.[20]

It is difficult to substantiate the degree of influence shareowners have, however, for two reasons. First, they often work in concert with other activists, such as nongovernmental organizations (NGOs) and campaigners, as well as other intermediaries, making it impossible to attribute success solely to shareowner activists. And second, dialogue most often occurs outside the public eye.

Statistically speaking, the 2007 proxy season (when annual meetings take place, where shareowners present resolutions for all

investors in a company to vote on) demonstrated this clearly. According to Institutional Shareholder Services (ISS), which issues voting recommendations on resolutions for investor clients, shareowners filed a record number of proposals: 1,150. And in an indication that companies were making sufficient progress on issues to satisfy resolution filers, a record number were also withdrawn: more than 270. In other words, almost a quarter of all resolution filings prompted acceptable responses to the shareowners' concerns. And this does not even account for shareowner dialogues with companies that progress sufficiently for shareowners to refrain from filing in the first place.[21]

The previous proxy season (the most recent one with complete results) saw record levels of support for shareowner resolutions addressing social and environmental issues. Of the nearly 180 such resolutions that came to a vote through mid-2006, some 27 percent received over 15 percent support from voting shareowners, according to ISS. This almost doubles the percentage of resolutions surpassing the 15-percent threshold in the 2004 and 2005 proxy seasons, and it represents a record high in support since 1973, when this information first began to be tracked by ISS's Social Issues Service.[22]

Perhaps the best indication of the power and success of shareowner activism comes from companies themselves, many of which readily acknowledge the positive though challenging role that shareowners play in promoting the adoption and promotion of corporate sustainability. Indeed, a corporate sustainability executive who wished to remain anonymous has been quietly sending word out to shareowner activists urging them to file a resolution asking her company to produce a sustainability report, as this would provide the kind of pressure she cannot muster internally to get her CEO to approve such an effort.[23]

But shareowner activism as traditionally practiced in the United States is in great peril, as the Securities and Exchange Commission has issued two separate rulemaking proposals addressing shareowners' access to the proxy to file resolutions. Both float suggestions that could seriously curtail shareowners' rights. This is an instance where regulation could stifle the growth of sustainable investing. In response, the Social Investment Forum and ICCR launched a Web site encouraging investors to use the public comment period to oppose any rules that would shrink shareowner rights. The site generated almost 1,700 comments, which contributed to the more than 22,500 comments submitted, a record according to the SEC—all but a handful of which opposed both SEC proposals curtailing investor rights.[24]

Project Finance and the Equator Principles

Project finance—the funding of major infrastructure projects such as dams, oil wells and pipelines, and mines—is one of the most significant investment strategies driving a top-down integration of sustainability principles. Because these projects have such high-profile environmental and social impacts, they expose companies to community and NGO opposition—which has in turn driven corporations to pay more attention to social and environmental management in project finance.

For example, the Rainforest Action Network hounded Citi beginning in late 1999 over its financing of projects considered socially and environmentally destructive, such as the Three Gorges Dam in China. In January 2003, more than 100 NGOs signed the Collevecchio Declaration on Financial Institutions and Sustainability (named after the town in Italy where it was signed), which

called on banks to make six commitments, including "doing no harm," sustainability, accountability, and transparency.[25]

A half-year later, 10 financial institutions (including Citi) from seven countries launched their own series of commitments, the Equator Principles (EPs), a voluntary set of guidelines promoting social and environmental responsibility in project finance, particularly in emerging markets. The initiative exemplified a trend in corporate social responsibility toward voluntary action to supplant government regulation, and it showed great promise.[26]

NGOs pragmatically gave their stamp of approval to the principles while maintaining healthy skepticism of the degree of substantive progress that companies can make outside binding mandates. For example, socially and environmentally destructive projects can do an end-run around the Equator Principles by seeking funding from more lax financial institutions—notoriously, banks in China. (See Box 13–2.) By 2007, NGOs were starting to lose patience waiting for companies to deliver on their promises of comprehensive (instead of selective) sustainability. Yet companies defend the EPs, claiming they do have real bite.[27]

The member banks' external commitment to the Equator Principles on a voluntary basis makes them mandatory to implement internally, according to Pamela Flaherty, head of global community affairs at Citi. And when banks incorporate EP guidelines into contracts with clients, the voluntary nature disappears altogether, replaced by legal obligation.[28]

Ironically, financial institutions claim that client confidentiality precludes them from disclosing details on compliance to EP social and environmental covenants, frustrating NGOs who consider this an end-run around transparency and accountability. However, some commentators maintain that NGO scrutiny of the EPs, coordinated by the BankTrack consortium in Amsterdam, functions as de facto accountability, given the absence of enforceable mechanisms.[29]

The EPs—now with 54 signatory banks, representing over 85 percent of global private project finance capacity—were revised in July 2006 in conjunction with the updating of the social and environmental performance standards of the International Finance Corporation (IFC—the private finance arm of the World Bank) that provided the basis of the EPs. NGOs welcomed some of the revisions as improvements—for example, the lowering of thresholds of projects covered from $50 million to $10 million. But they lambasted the revised guidelines and the underlying IFC standards for retaining significant loopholes.[30]

Take, for example, the issue of the role of communities in approving projects that significantly affect them. NGOs support the right of affected communities to give or withhold their free, prior, informed consent, a concept enshrined in Article Six of the International Labour Organization's Convention 169 concerning indigenous and tribal peoples' rights. The World Bank infamously shifted this concept to free, prior, informed consultation in 2004, and both the IFC and the revised Equator Principles followed suit. Consent and consult may sound very similar, but there is a profound difference in meaning between the two words—a difference with significant human rights implications.[31]

The Greening of Private Equity, Venture Capital, and Hedge Funds

The year 2006 will likely be remembered for the "greening" of the high-stakes upper end of the investment chain—private equity, venture capital, and hedge funds. (See Box 13–3.)

Box 13–2. Importing Sustainability to China

Although China has huge negative social and environmental impacts through exporting, it has the opportunity to integrate sustainability into its burgeoning finance sector. But the task is as big as everything else about the country, and the banks are at least a decade behind their counterparts throughout the rest of the world in this endeavor. The first steps have been taken, however: in May 2006, Bank of China International Investment Managers launched the Sustainable Growth Equity Fund, the first SRI fund in the country.

Even more significant, Chinese banking regulatory authorities have issued notices to all banks in the country that their lending activity must assess borrowers' compliance with environmental laws. How comprehensively is this mandate being followed? The lack of transparency makes it difficult to tell. Only two banks—China Development Bank and the Export-Import Bank of China—have publicly disclosed their environmental financing standards. In addition, the China Construction Bank has issued a corporate social responsibility report.

The Peoples' Bank of China also recently developed a new credit database that includes borrowers' environmental compliance data, allowing Chinese banks to evaluate how well companies have followed environmental laws before offering loans. And finally, in February 2007 the Shanghai Division of the China Banking Regulatory Commission floated a guidance draft document on corporate social responsibility that addresses banks' "shareholders, employees, financial consumers, communities, and other stakeholders, and social development, and environmental protection," according to the Xinhua news agency. Such guidance would be a first in China.

"By adopting world-class environmental financing standards, Chinese banks can play an important role in advancing sustainability on a global level," said Johan Frijns, coordinator of BankTrack, an NGO consortium. "Otherwise, they threaten to drag down whatever progress that has been made in developing such standards for the international banking sector."

Unfortunately, market forces push down on the environmental and social performance of China's banks. The improving sustainability performance of the rest of the world's banks is leaving the socially and environmentally riskier projects to these newer entrants. China's banks are "bottom feeding on those things international banks are not touching," explains Jules Peck, global policy advisor at the World Wide Fund for Nature–UK, in *Ethical Corporation*. For example, a European firm seeking to build a dam in Ecuador that is denied funding due to environmental and social risks can seek (and often receive) capital from a Chinese bank.

International banks are not exactly innocent, however. "International banks have complained that the lack of environmental financing standards at Chinese peers is putting them at a competitive disadvantage," said Michelle Chan-Fishel of Friends of the Earth–US. "But banks like HSBC, RBS, Citigroup, Goldman Sachs, and Bank of America all own large shares in Chinese banks. They must take responsibility for ensuring that high environmental standards, which they all claim to have, are also adopted by their strategic business partners."

The issue of international investment support for Chinese companies operating irresponsibly extends beyond China's banks. The oil company PetroChina has come under intense fire from

The effective death of climate change denial helped drive green investment, as the frenzy to find solutions focused on development of "clean" energy—namely, renewable power sources such as solar, wind, and biofuels. The bonanza extended to clean technology (or cleantech), newly recognized as a distinct investment category encompassing a broad range of eco-friendly products and services—from alternative energy generation to wastewater treatment and more resource-efficient industrial processes.[32]

Market and regulatory forces are also amplifying environmentalists' concerns over

Box 13–2. continued

human rights activists as its parent, the China National Petroleum Corporation, provides significant oil revenues to the Khartoum regime in Sudan that supports the *Janjaweed* militia who are committing genocide, torture, and rape in Darfur. As with Chinese banks, PetroChina holds hefty investments from international investors.

Activists with the Save Darfur Coalition and Sudan Divestment Task Force targeted mutual fund giant Fidelity Investments and Warren Buffett's Berkshire Hathaway in high-profile campaigns urging them to divest their PetroChina holdings. In May 2007, Fidelity divested 91 percent of its U.S. depositary receipt holdings in PetroChina. It was unclear at the time, however, whether the company also divested its shares on the Hong Kong exchange—if not, it would have divested only 38 percent of its overall PetroChina holdings.

Berkshire Hathaway shareowners filed a resolution for vote at the May 2007 annual meeting calling on the company to divest from PetroChina. The "Oracle of Omaha" (as Buffett is known) contended that using his voice as an investor to promote change at PetroChina through divestment or moral suasion was "fruitless" (despite the fact that Berkshire held the largest stake of PetroChina), and more than 97 percent of shareowners voted against the resolution. However, Buffett later quietly divested more than a quarter of Berkshire's holdings in PetroChina—dumping 445 million shares worth over $1 billion between July and September 2007, according to Investors Against Genocide.

Source: See endnote 27.

Box 13–3. Hedge Funds Marry Ecology with Economics

Hedge funds—unregulated portfolios open only to accredited investors that use "sophisticated" strategies such as shorting (profiting from falling stock prices)—have caught the green bug, with the number of hedge funds in this category proliferating. According to Peter Fusaro, founder of Global Change Associates, there are over 600 environmental and energy hedge funds, 50 hedge funds trading emissions in the United States and Europe, and 13 pure green hedge funds.

In other words, there are enough green hedge funds to launch several "funds of funds"—as the name implies, hedge funds that hold a number of hedge funds. The first such meta-fund, the Kenmar Global ECO Fund, which seeks to marry ecology with economics, was launched in July 2007.

There is also enough interest in green hedge funds to get the attention of the world's largest hedge fund management firm. In September 2007, the Man Group announced it had raised almost $400 million in a climate change–related hedge fund. The China Methane Recovery fund will set up subsidiaries to extract methane, a potent greenhouse gas, from Chinese coal mines to generate electricity and also to trade for carbon credits.

Source: See endnote 32.

the viability of traditional energy investments such as coal, according to a July 2007 report from Citi. The report downgraded coal stocks from "buy" to "hold" recommendations due primarily to concerns over impending coal regulations seeking to curb the dirty fuel's contributions to global warming. "Prophesies of a new wave of coal-fired generation [in the United States] have vaporized," writes report author John Hill. "We expect anti-coal politics to intensify, with carbon constraints almost certain to pinch." So carbon regulation is driving investors toward sustainable investing strategies. (See Box 13–4.)[33]

When it comes to green venture capital and private equity investment—namely, large investments to seed startup or early-stage companies—the statistical picture that emerges depends on who is coming up with the numbers. There is a clear consensus on

Box 13–4. TXU Buyout Is History's Biggest—and Greenest

The greening of private equity/venture capital took a surreal turn in February 2007. The major private equity firms Kohlberg Kravis Roberts & Co. and Texas Pacific Group had teamed with Goldman Sachs to buy out TXU. The company had been under intense fire from environmentalists for fast-tracking plans (presumably to get them in place before potential federal carbon legislation kicked in) to build 11 coal plants that would annually dump 78 million tons of carbon dioxide into the atmosphere. SRI activists had filed three separate shareowner resolutions calling the plan into question.

The buyers called in two of the main NGOs campaigning against TXU, Environmental Defense and the Natural Resources Defense Council, to broker agreeable terms over two weeks of intense negotiation. "This will not only be the biggest leveraged buyout ever, it is the only buyout in history made contingent on the approval of environmental groups," said Jim Marston, director of the Energy Program in the Texas Office of Environmental Defense, who led the campaign against TXU and lobbied the buyers.

The $45-billion TXU deal, which also included Lehman Brothers, Citi, and Morgan Stanley as equity investors, committed the company to drop applications for 8 of the 11 coal plants, avoiding 56 million tons of annual carbon emissions. The plan also committed the company to:

- terminate its previous plans to expand coal operations in other states;
- endorse the United States Climate Action Partnership platform, including the call for a mandatory federal cap on carbon emissions;
- reduce the company's carbon emissions to 1990 levels by 2020;
- promote demand-side management programs to reduce energy consumption;
- double the company's expenditures on energy efficiency measures;
- double the company's purchases of wind power;
- honor TXU's agreement to reduce criteria pollutants in Texas by 20 percent (the pledge had been contingent upon approval of all 11 plants); and
- establish a Sustainable Energy Advisory Board on which Marston of Environmental Defense will serve.

Making good on its wind pledge, TXU announced in late July 2007 a partnership between its Luminant subsidiary and Shell WindEnergy to develop the world's largest wind farm—a 3,000-megawatt wind project in the Texas Panhandle—as well as other renewable energy projects. In April 2007, however, the *Wall Street Journal* reported that the company is also pursuing plans to build the biggest nuclear plant in the United States to make up for the eight canceled coal plants. Some environmentalists now view nuclear power as a climate solution, while others cite continuing concerns about this energy source.

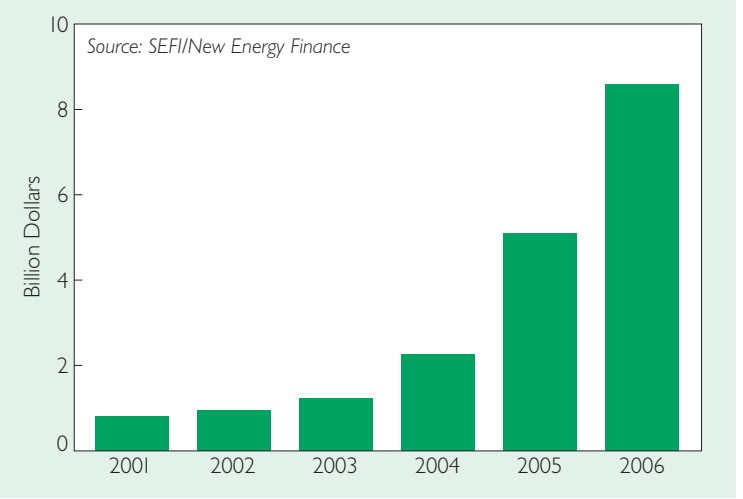
Source: See endnote 33.

one count, however: money is pouring into clean energy and cleantech.

According to a June 2007 U.N. report, global venture capital and private equity investment in sustainable energy totaled $8.6 billion in 2006, increasing 69 percent over $5.1 billion in 2005, with the number of deals increasing by 12 percent. (See Figure 13–1.) The three most active sectors were biofuels ($2.3 billion), solar ($1.4 billion), and wind ($1.3 billion).[34]

While these investments primarily address the environmental part of the sustainability equation, they sometimes attend to social issues as well. For example, while the majority of the money went into increasing manufacturing capacity (particularly in wind), some went to develop new technologies—such as 20 percent of biofuel investment, some of which supported research for second-generation biofuels, including cellulosic ethanol, that reduce the diversion of cropland

Figure 13–1. Venture Capital and Private Equity Investment, 2000–06



from food to fuel.[35]

Looking through the lens of cleantech, global venture capital investment increased by 78 percent in 2006 to $2.9 billion, catapulting cleantech into the spotlight as the third largest venture investment category, ahead of telecommunications and medical devices. High demand for global warming solutions such as renewable energy is driving a bull market for clean technology, according to Bob Epstein, co-founder of Environmental Entrepreneurs, who coauthored a study with Cleantech Network on the state of venture capital in cleantech. The report projects that venture capital investments in this sector will exceed $19 billion by 2010—a more than six-fold increase in just four years.[36]

Microfinance Goes Global

Thirty years after Muhammad Yunus lent 43 women from the village of Jobra, Bangladesh, the capital they needed to start small businesses that banks would not lend them—a mere $27, from his own pocket—he won the Nobel Peace Prize for pioneering microfinance. Yunus, a Chittagong University economics professor when he helped those women, recognized his small loan and the finance institution it led to as both a market opportunity to serve the unserved and an opportunity to alleviate poverty, promote social justice, and foster community. The Nobel Committee made an unprecedented move in linking finance to peace, validating anunderlying rationale of sustainability investments.[37]

"The one message that we are trying to promote all the time, is that poverty in the world is an artificial creation," Professor Yunus told the Nobel Committee upon learning he had won the Prize. "It doesn't belong to human civilization, and we can change that, we can make people come out of poverty and have the real state of affairs.…The only thing we have to do is to redesign our institutions and policies, and there will be no people who will be suffering from poverty. So I would hope that this award will make this message heard many times, and in a kind of forceful way, so that people start believing that we can create a poverty-free world."[38]

Microfinance broke ground on a number of levels—by empowering women in a patriarchal society, by creating community accountability through lending groups that "collateralized" loans, and by lending such tiny sums. To underwrite the increased technical support necessitated by microfinance

while keeping loans as affordable as possible, Grameen Bank (the microfinance institution Yunus founded) split the difference between the lower interest rates of standard commercial loans and the exorbitant rates of local loan sharks.

The success of microfinance opened it up to greater scrutiny and criticism, such as a 2001 *Wall Street Journal* article questioning claims of 95-percent repayment rates. Abraham George of the George Foundation hosts a Web site critical of microfinance, maintaining that it does not reach the poorest of the poor since it primarily focuses on those already running businesses.[39]

To what degree does sustainable investing actually contribute to the achievement of true sustainability?

Nimal Fernando, lead rural finance specialist for the Asian Development Bank, divided attitudes toward microfinance reaching the poorest of the poor into three camps. The first camp simply rejects the notion that microfinance can reach this group on a sustainable basis. The second camp optimistically advocates that such individuals can be reached not only on a sustainable basis but also on a large scale. The third camp recognizes that the potential for reaching this group on a sustainable, large-scale basis is limited but also advocates for the continued search for innovative approaches to expand outreach to the poorest.[40]

Fonkoze, the largest microfinance institution in Haiti, has aspired toward the second solution since recognizing that standard microfinance does not suffice for many of its clients who fall into the poorest of the poor category. It convened a summit on the issue in 2004, including representatives of the Bangladesh Rural Advancement Committee (BRAC). The summit resulted in Fonkoze adopting the BRAC model for providing microfinance to the extreme poor—the BRAC-Bangladesh program for the Ultra-Poor—by coupling close case supervision with five basic sets of services: enterprise development training, social development, health care, short-term living allowances, and the transfer of assets needed to start businesses.[41]

The success of microfinance has also attracted the richest of the rich. The month before Yunus won the Nobel Prize, Citi and TIAA-CREF (an academic pension giant) each committed $100 million to microfinance. Some people question whether this corrupts the microfinance field, while others heralded the infusion of big money. However, the flood of mainstream investment in microfinance has created a bottleneck straining the capacity of existing microfinance institutions to process the flows.[42]

It also raises the question of whether having industrial countries sink money into microfinance actually acts to siphon money from developing economies, as the interest ultimately ends up in the hands of the already-haves. Is this an acceptable price of making capital available to the poor? Or does it simply create a poverty trap in a world of finite resources and hence finite economics? Microfinance operates on the same principle as the existing capitalist economic structure of profit and debt. Can wealth disparity be solved using the very system that many would argue has created huge wealth disparity?

From a more practical perspective, microfinance seems a better alternative than the current options of entrenched poverty—at least it is a step in the right direction, and the hope is that it can help transform the economy into a more humane system.

Supporting microfinance has even opened up to everyday people. The Web site Kiva.org uses the Internet to connect individual lenders

who invest modest sums directly with borrowers, who can receive loans from a number of different lenders. While the loan may be cybernetic, its disbursement still requires infrastructure in the form of local microfinance institutions around the world.[43]

Finally, the social and environmental tenets of sustainability are starting to converge on microfinance, as evidenced by the success of Green Microfinance, whose mission is to promote environmentally sustainable microenterprise and microfinance. In March 2007, for example, Green Microfinance partnered with Fonkoze to study the feasibility of launching a solar energy initiative with Fonkoze clients. The greening of microfinance "represents a competitive advantage at the heart of social enterprise," according to David Satterthwaite, CEO of Prisma MicroFinance and editor of MicroCapital.org, a leading Web site on the subject.[44]

Current Obstacles to Investing in Sustainability

The astonishing maturation of sustainability investments in recent years raises a number of key questions. First, to what degree does sustainable investing actually contribute to the achievement of true sustainability? Take the examples of carbon offsetting and biofuels, which on first blush seem like positive investments for sustainability but which have led to significant debate over whether they actually undermine sustainable development.

Companies and individuals flocked to carbon offsetting, which allocates investment in renewable energy projects or tree planting in proportion to carbon emissions calculations. (See Chapter 7.) Supporters acknowledge the importance of radically reducing emissions first and only then injecting capital into carbon-offsetting projects that would not otherwise receive such infusions—a concept known as additionality. Critics liken offsets to medieval "indulgences," whereby consumer payments assuage people's guilt, thereby reducing their incentive to actually shift from carbon-generating habits. Instead of focusing on additionality, the focus should be on "subtractionality"—in other words, deducting carbon emission from personal, organizational, and broader economic equations.[45]

The biofuel debate injects social considerations into the mix. Biofuel supporters point to the carbon neutrality of the process—renewable biomass absorbs carbon during growth that is then emitted during burning. Opponents point out that the atmosphere does not care where the carbon comes from: a ton of carbon emitted from biofuel warms the planet just as much as a ton of carbon emitted from petroleum. Furthermore, diverting land from food to fuel crops will raise food prices and exacerbate world hunger, opponents argue. Debates such as these push any investments in sustainability to adopt sufficient degrees of sophistication to increase the likelihood of bringing about positive progress instead of fueling regression.[46]

A second key question is raised by the upward trajectory of sustainable investing: What obstacles stand in the way of maximizing the momentum? Unfortunately, significant structural impediments stand in the way. For example, in December 2005 U.K. Chancellor of the Exchequer Gordon Brown suddenly and unexpectedly killed the Operating and Financial Review, a March 2005 regulation requiring companies to disclose environmental, social, and governance information. Brown inexplicably cited "gold-plating" (blindly adopting European Union regulations), confounding members of the U.K. Department of Trade and Industry who had worked for years developing the regulation in-country through transparent consultation with business and the public.[47]

In the United States, the Corporate Sunshine Working Group (consisting of social investors, environmental organizations, unions, and public interest groups) has since 1998 been urging the SEC to enforce regulations requiring companies to disclose data on potentially material financial impacts from environmental and social risks, such as the estimated $10-billion liability Chevron faces if it loses a lawsuit in Ecuadorian courts over its subsidiary Texaco's dumping of toxic wastes into the Amazonian rainforest over two decades. The SEC's response: silence.[48]

Investors, activists, and government watchdogs alike served notice to the SEC that disclosure of environmental and social risks was not optional but mandatory.

Fed up, a coalition of state treasurers, pension funds, institutional investors, and environmental organizations confronted the SEC in September 2007 by filing a petition demanding that companies be required to disclose the financial risks associated with climate change. The coalition cited the scientific consensus and extensive business community action recognizing that the risks and opportunities associated with climate change are material to investment decisions and must be disclosed under existing law. They also noted that Exxon-Mobil, one of the most profitable and largest companies in the world operating in a sector intimately connected to climate change, mentioned the phenomenon only once in its 2006 filings.[49]

This petition followed closely on the heels of New York State Attorney General Andrew Cuomo's issuance of subpoenas to five energy companies to question whether they withheld information on the financial risks associated with plans to build coal-fired power plants. In short, investors, activists, and government watchdogs alike served notice to the SEC and the business community that disclosure of environmental and social risks was not optional but mandatory, as markets thrive only in the presence of complete and accurate information.[50]

Such regulatory and corporate hostility to mere disclosure on sustainability makes it difficult to maintain optimism that regulation will help foster sustainable investing. Those interested in this new approach to investment long ago abandoned hope that regulation would be a primary driver of progress, and instead have created their own mechanisms for fostering corporate disclosure of sustainability information—trusting that transparency will inspire companies to improve sustainability performance.

In late 2006, the Global Reporting Initiative (GRI) released G3, its third generation of sustainability reporting guidelines, which are evolving by default into the generally accepted accounting principles for disclosing environmental, social, and governance information. (See Chapter 2.) Currently, almost 2,500 of the nearly 15,000 sustainability reports logged on CorporateRegister.com comply with GRI guidelines, which were conceived in 1997 by Ceres, a coalition of environmental organizations and activist investors, and drafted with significant input from social investors.[51]

Similarly, more than 300 institutional investors representing over $41 trillion—almost a third of McKinsey's estimated $136 trillion in total global capital markets—have signed onto the fifth iteration of the Carbon Disclosure Project, which asks 2,400 of the world's largest companies to voluntarily report their carbon emissions and management processes. A majority of firms now recognize the financial and reputational benefits of improving their carbon performance—in other words, lowering their carbon emis-

sions. Four fifths of respondents recognize that climate change poses commercial risks or opportunities, and just over three quarters reported implementing greenhouse gas emissions reduction initiatives—compared with 48 percent in 2006.[52]

Of course, actual performance in reducing carbon emission trumps the importance of disclosure, both in sustainability and in financial terms. According to Innovest CEO Matthew Kiernan, leaders in carbon disclosure outperform their same-sector peers financially, but leaders in actual carbon emissions reductions perform even better. However, it is safe to say that the Carbon Disclosure Project plays a significant role in driving both disclosure and emissions reductions—and, presumably, corporate financial performance and hence the performance of sustainability investments.[53]

Complementing the Global Reporting Initiative and the Carbon Disclosure Project are the Principles for Responsible Investment sponsored by the United Nations. Launched in April 2006, some 20 mainstream institutional investors managing $2 trillion in assets announced their commitment to address environmental, social, and governance factors in their investment decisions. By April 2007, membership grew ninefold, to 183 signatories, and the assets under management quadrupled to $8 trillion.[54]

These initiatives demonstrate the significant muscle behind sustainable investing, marching forward in spite of regulatory roadblocks. The sea change in momentum swelling behind this over the past few years gives rise to optimism that the world is approaching a tipping point whereby all investing addresses sustainability factors, as a matter of course. However, the challenge of actually achieving sustainability—of getting the economy to respect ecological limits and human rights—remains well beyond the horizon. Time alone will tell how much sustainable investing contributes to saving the future.

Taylor, op. cit. note 21, pp. 47–61.

29. Negative impacts of explosion approach from Laurie Garrett, "Do No Harm: The Global Health Challenge," *Foreign Affairs,* January/February 2007, and from Celia W. Dugger, "CARE Turns Down Federal Funds for Food Aid," *New York Times*, 16 August 2007; Taylor-Ide and Taylor, op. cit. note 21; Hassan Zaman, "Microfinance in Bangladesh: Growth, Achievements, Lessons," in Narayan and Glinskaya, op. cit. note 17; Lídia Cabral, John Farrington, and Eva Ludi, *The Millennium Village Project—A New Approach to Ending Rural Poverty in Africa?* Natural Resource Perspectives 101 (London: Overseas Development Institute, August 2006).

30. Scott Guggenheim, World Bank, "Crises and Contradictions: Understanding the Origins of a Community Development Project in Indonesia," 2003, at siteresources.worldbank.org/INTINDONESIA.

31. Patrick Barron, Rachael Diprose, and Michael Woolcock, *Local Conflict and Community Development in Indonesia: Assessing the Impact of the Kecamatan Development Program* (Jakarta: World Bank, 2006).

32. World Bank, "Afghanistan's National Solidarity Program: Overview & Challenges," 2007, at web.worldbank.org, viewed 31 July 2007.

33. Samiullah Naseri, former National Solidarity Program community facilitator, discussion with author, 11 June 2007.

34. "Going to Scale: Nature Conservation in Tibet—Empowerment, Not Enforcement," in Taylor, Taylor, and Taylor-Ide, op. cit. note 21.

35. Ibid.; recovery of fauna populations in Robert J. Fleming, Dorji Tsering, and Liu Wulin, *Across the Tibetan Plateau: Ecosystems, Wildlife, and Conservation* (New York: W. W. Norton & Company, 2007)

36. For more on the global development architecture, see The Carter Center, *Development Cooperation Forum: Human Security and the Future of Development Cooperation* (Atlanta, GA: 2002); for trade policy, see Joseph E. Stiglitz, *Globalization and Its Discontents* (New York: W. W. Norton & Company, 2002); Kevin Watkins and Penny Fowler, *Rigged Rules and Double Standards: Trade, Globalization, and the Fight Against Poverty* (London: Oxfam International, 2002); Paul Collier, *The Bottom Billion* (New York: Oxford University Press, 2007).

37. For U.S. tied aid percentage, see data in the Center for Global Development, *2007 Commitment to Development Index* (Washington, DC: 2007); for reduction in value of tied aid, see Department for International Development, *Background Briefing: Untying Aid* (London: September 2001).

38. Deepa Narayan, *Measuring Empowerment: Cross Disciplinary Perspectives* (Washington, DC: World Bank, 2005).

39. Easterly, op. cit. note 7.

40. Collier, op. cit. note 36.

Chapter 13. Investing for Sustainability

1. Anthony Ling et al., *Introducing GS SUSTAIN* (New York: Goldman Sachs Global Investment Research, 22 June 2007); Anthony Ling et al., *Introducing the Goldman Sachs Energy Environmental and Social Index* (New York: Goldman Sachs Global Investment Research, 24 February 2004); Goldman Sachs, *Environmental Policy* (New York: November 2005); Goldman Sachs, *Goldman Sachs Environmental Policy: 2006 Year-End Report* (New York).

2. Ling et al., *Introducing GS SUSTAIN*, op. cit. note 1; Marjorie Kelly, "Holy Grail Found," *Business Ethics*, winter 2004.

3. Intergovernmental Panel on Climate Change, *Climate Change 2007: Mitigation of Climate Change* (New York: Cambridge University Press, 2007).

4. Thanks to David Myers of Lehigh University

for the definition of investing as delayed consumption; discussion with author, Green Mountain Summit on Investor Responsibility, Newport, RI, 19 July 2007.

5. Stacy A. Teicher, "A Quick History of Values-based Investing," *Christian Science Monitor,* 9 February 2004.

6. Peter Kinder, *"Socially Responsible Investing": An Evolving Concept in a Changing World* (Boston: KLD Research & Analytics, September 2005).

7. "Pax History," Pax World Web site, at pax world.com, viewed 24 September 2007; "Our Story—History," Shorebank Web site, at www.shorebankcorp.com, viewed 24 September 2007; Calvert Social Investment Foundation, *Calvert Community Investment Note Prospectus* (Bethesda, MD: 30 April 2007).

8. Social Investment Forum, *2005 Report on Socially Responsible Investing Trends in the United States* (Washington, DC: January 2006); Nelson Information, *Directory of Investment Managers* (Port Chester, NY: 2005).

9. Corporatemonitor, *Sustainable Responsible Investment in Australia–2006* (Evans Head, Australia: September 2006), p. 4; Social Investment Forum, *2005 Report on Socially Responsible Investing Trends in the United States: 10-Year Review* (Washington, DC: January 2006), p. v; Social Investment Organization, *Canadian Social Investment Review 2007* (Toronto, ON: March 2007), p. 5; Eurosif, *European SRI Study 2006* (Paris: 2006), p. 11.

10. McKinsey Global Institute, *Mapping the Global Capital Market 2006: Second Annual Report*, January 2006. Table 13–2 drawn from Web sites and annual reports of Social Investment Forum, Eurosif, Social Investment Organization, Corporatemonitor, and Cangen Biotechnologies.

11. Joe Keefe, "From Socially Responsible Investing to Sustainable Investing," *Green Money Journal*, summer 2007.

12. Ibid.

13. U.N. Environment Programme (UNEP) Finance Initiative, *The Materiality of Social, Environmental and Corporate Governance Issues to Equity Pricing: 11 Sector Studies by Brokerage House Analysts at the Request of the UNEP Finance Initiative Asset Management Working Group* (Geneva: June 2004).

14. William Baue, "Enhanced Analytics Initiative Offers Sell-Side Analysts Cash to Cover Intangibles," *SocialFunds.com*, 23 November 2004.

15. Bill Baue, "Citigroup, Lehman Brothers, and UBS Report on Climate Risks and Opportunities for Investing," *SocialFunds.com,* 27 February 2007; "Climate Change Investment Research," JPMorgan Web site, at www.jpmorgan.com/pages/jpmorgan; Ling et al., *Introducing GS SUSTAIN*, op. cit. note 1.

16. Michael Kramer, Natural Investment Services, e-mails to author, 12 and 13 July 2007.

17. Natural Investment Services, *Natural Investment News*, spring 2004; Michael Kramer, Natural Investment Services, e-mail to author, 14 July 2007.

18. Stephen Davis, Jon Lukomnik, and David Pitt-Watson, *The New Capitalists: How Citizen Investors are Reshaping the Corporate Agenda* (Boston: Harvard Business School Publishing, 2006), pp. 3, 175.

19. Stacy A. Teicher, "A Quick History of Values-based Investing," *Christian Science Monitor*, 9 February 2004.

20. Martine Costello, "One Stockholder's Mission," *CNN/Money*, 19 December 1997.

21. Anne Moore Odell, "Executives and the Environment: Looking Back at Proxy Season 2007," *SocialFunds.com*, 27 July 2007.

22. Edward Iwata, "Boardrooms Open Up to Investors' Input; More Companies Listening to

Their Concerns, Taking Action," *USA Today*, 7 September 2007.

23. Discussion with author.

24. Social Investment Forum, "SaveShareholderRights.org Reveals Investor Backlash Against Potential Curbing of Shareholder Rights," 19 September 2007, at www.socialinvest.org; Social Investment Forum, "Record 22,500 Investors Speak Out Against Potential SEC Curbs on Shareholder Resolutions, Role in Board Nominations," press release (Washington, DC: 10 October 2007).

25. Rainforest Action Network, *Dirty Money: Citi*, at ran.org; *Collevecchio Declaration on Financial Institutions and Sustainability*, January 2003, available at www.foe.org.

26. "FAQ," The Equator Principles, at www.equator-principles.com, viewed 24 September 2007.

27. William Baue, "The Equator Principles: Can They Deliver Social and Environmental Responsibility from Banks?" *Green@Work*, July/August 2003; Arvind Ganesan, *Is 2007 the End for Voluntary Standards?* (New York: Human Rights Watch and Business for Social Responsibility, December 2006); Cary Coglianese and Jennifer Nash, *Beyond Compliance: Business Decision Making and the US EPA's Performance Track Program* (Cambridge, MA: Regulatory Policy Program, Mossavar-Rhamani Center for Business and Government, Kennedy School of Government, Harvard University, 2006). Box 13–2 from the following: Bill Baue, "Bank of China International Investment Managers Launches First SRI Fund in China," *SocialFunds.com*, 6 June 2006; Michelle Chan-Fishel, *Time to Go Green: Environmental Responsibility in the Chinese Banking Sector* (Washington, DC: BankTrack and Friends of the Earth–US, May 2007); Michelle Chan-Fishel, discussion with author; Andrew Newton, "How the Other Half Lends," Special Report on Financial Sector Responsibility, *Ethical Corporation*, November 2006; Bill Baue, "Fidelity Divests Large Chunk of Sudan-Related Holdings," *SocialFunds.com*, 22 May 2007; Charles Piller, "Buffett Rebuffs Efforts to Rate Corporate Conduct," *Los Angeles Times*, 7 May 2007; Berkshire Hathaway, "Shareholder Proposal Regarding Berkshire's Investment in PetroChina," May 2007; Investors Against Genocide, "Berkshire Hathaway Sells Over $1 Billion of PetroChina Since July 11; Steady Series of Sales a Clear Indicator that Buffett is on Divestment Path," 20 September 2007.

28. Flaherty cited in Toby Webb and John Russell, "A Point of Principle," Special Report on Financial Sector Responsibility, *Ethical Corporation*, November 2006.

29. Andrew Newton, "A Convenient Truce," Special Report on Financial Sector Responsibility, *Ethical Corporation*, November 2006.

30. Number of banks from Equator Principles Web site, at www.equator-principles.com, viewed 24 September 2007; share of finance capacity from International Finance Corporation, "IFC Welcomes Adoption of Equator Principles by Banco Galicia," press release (Washington, DC: 29 March 2007); Bill Baue, "Revised Equator Principles Fall Short of International Best Practice for Project Finance," *SocialFunds.com*, 12 July 2006.

31. World Bank, *Striking a Better Balance—The World Bank Group and Extractive Industries: The Final Report of the Extractive Industries Review. World Bank Group Management Response* (Washington, DC: September 2004); Bill Baue, "Communities, Corporations, and the Difference Between Consent and Consult," *The CRO*, July 2007.

32. Box 13–3 from the following: Jim Kharouf, "Commentary," *Environmental Markets Newsletter*, 13 June 2007; Thomas Kostigen, "The Green in Hedge Funds Isn't All about Money," *MarketWatch*, 29 June 2007; William Hutchings, "Man Group Raises Green Hedge Fund, *eFinancialNews.com*, 3 September 2007.

33. John Hill and Graham Wark, *Coal: Missing the Window* (Citigroup Global Markets, 18 July 2007); Francesca Rheannon, "Jitters About Regulatory Outlook Rile Confidence in Coal Mining Stocks," *SocialFunds.com*, 12 August 2007. Box 13–4 from the following: Bill Baue, "TXU Share-

owners File Three Resolutions Questioning Wisdom of Pulverized Coal Plants," *SocialFunds.com*, 19 December 2006; Felicity Barringer and Andrew Ross Sorkin with Matthew L. Wald, "In Big Buyout, Utility to Limit New Coal Plants," *New York Times*, 25 February 2007; Jim Marston, "TXU Buyout Tied to Environmental Agreement," *Climate 411*, 27 February 2007; "TXU to Set New Direction As Private Company; Public Benefits Include Price Cuts, Price Protection, Investments in Alternative Energy and Stronger Environmental Policies," press release (Dallas: TXU, 26 February 2007); "TXU Plans to Build Biggest Nuclear Plants in US-WSJ," *Reuters*, 9 April 2007.

34. Data and Figure 13–1 from Chris Greenwood et al., *Global Trends in Sustainable Energy Investment 2007* (Nairobi: UNEP Sustainable Energy Finance Initiative and New Energy Finance, June 2007); Bill Baue and Sanford Lewis, "Will Nuclear Power Save Us from Global Warming?" *Corporate Watchdog Radio*, 6 September 2006; William Baue, "Nuclear Power: Still an Environmental Scourge or Now a Climate Change Mitigator?" *SocialFunds.com*, 9 June 2005.

35. Greenwood et al., op. cit. note 34.

36. James Stack et al., *Cleantech Venture Capital: How Public Policy Has Stimulated Private Investment* (San Francisco: CleanTech Venture Network and Environmental Entrepreneurs, May 2007).

37. Bill Baue, "Nobel Prize Links Microfinance to Peace," *SocialFunds.com*, 17 October 2006.

38. Adam Smith, Nobelprize.org, "Poverty in the World is an Artificial Creation," interview with Professor Muhammad Yunus, 13 October 2006.

39. Daniel Pearl and Michael M. Phillips, "Grameen Bank, Which Pioneered Loans for the Poor, Has Hit a Repayment Snag," *Wall Street Journal*, 27 November 2001; Vivek George, "Uncovering the Truth Behind Poverty—Is Microfinance the Answer to Poverty?" at www.abrahamgeorge.blogspot.com.

40. Nimal Fernando, "Microfinance Outreach to the Poorest: A Realistic Objective?" *Focal Point for Microfinance* (Asian Development Bank), March 2004.

41. William Baue, "Fonkoze Helps Transform Microfinance to Reach the Poorest of the Poor in Haiti," *SocialFunds.com*, 18 November 2005.

42. Bill Baue, "Microfinance Crosses Continental Divide with $100 Million Commitment from TIAA-CREF," 9 October 2006.

43. Nicholas Kristof, "You, Too, Can Be a Banker to the Poor," *New York Times*, 27 March 2007.

44. Satterthwaite quoted in "Quotes from the Field," Green Microfinance Web site, at www.greenmicrofinance.org, viewed 25 September 2007.

45. George Monbiot, "Selling Indulgences," *The Guardian* (London), 19 October 2006; Bill Baue, "Carbon Offsets: Modern-Day Indulgences to Assuage Carbon Guilt or Market Mechanism for Supporting Clean Energy," *Socialfunds.com*, 4 April 2007.

46. Bill Baue and Francesca Rheannon, "Biofuels—Pros and Cons," *Corporate Watchdog Radio*, 5 July 2007; Lester Brown, "Distillery Demand for Grain to Fuel Cars Vastly Understated; World May Be Facing Highest Grain Prices in History" (Washington, DC: Earth Policy Institute, January 2007); George Monbiot, "A Lethal Solution," *The Guardian* (London), 27 March 2007.

47. Cynthia A. Williams and John M. Conley, "Triumph or Tragedy? The Curious Path of Corporate Disclosure Reform in the U.K.," *William and Mary Environmental Law and Policy Review*, winter 2007, pp. 317–62.

48. William Baue, "Film Depicts Environmental and Social Reporting Disappearing in SEC Black Hole," *SocialFunds.com*, 7 January 2004; Frente de Defensa de la Amazonia, "Chevron Using Unethical Tactics to Avoid Judgment in $10 Billion Rainforest Trial; Series of Legal Setbacks in Ecuador Haunt Company; Charges of Fabricating Evidence," 8 August 2007; "FAQ," Corporate

Sunshine Working Group Web site, at www.corporatesunshine.org/faq.html, viewed 25 September 2007.

49. Ceres, "Major Investors, State Officials, Environmental Groups Petition SEC to Require Full Corporate Climate Risk Disclosure," press release (Washington, DC: 18 September 2007).

50. Felicity Barringer and Danny Hakim, "New York Subpoenas 5 Energy Companies," *New York Times*, 16 September 2007.

51. William Baue, "Lighthouse G3: Third Generation GRI Guidelines Shine a Beacon for Sustainability Reporters," *SocialFunds.com*, 30 September 2005; "2500 Comply with GRI Search of 15,008 CSR Reports for 'GRI Adherence' Yields 2,492 Reports," *CorporateRegister.com*, viewed 25 September 2007; Halina Szejnwald Brown, Martin de Jong, and Teodorina Lessidrenska, *The Rise of the Global Reporting Initiative (GRI) as a Case of Institutional Entrepreneurship*, Working Paper No. 36 (Cambridge, MA: Corporate Social Responsibility Initiative, Kennedy School of Government, Harvard University, May 2007).

52. "Carbon Disclosure Project and Wal-Mart Launch Climate Change Partnership; President Clinton to Speak at CDP Fifth Global Annual Forum Today; Latest Findings on Corporate Climate Data to be Announced," Carbon Disclosure Project, 24 September 2007; McKinsey Global Institute, op. cit. note 10.

53. Matthew Kiernan, Innovest, discussion with author, 30 August 2007.

54. Anne Moore Odell, "Principles for Responsible Investment Quadruples Assets in First Year," *SocialFunds.com*, 1 June 2007.

Chapter 14. New Approaches to Trade Governance

1. Luis Eduardo Derbez, Keynote Address, Emerging Powers in Global Governance Conference, Institut du Développement Durable et des Relations Internationales and International Institute for Sustainable Development (IISD), Paris, 5 July 2007.

2. Jagdish Bhagwati, Arvind Panagariya, and T. N. Srinivasan, *Lectures on International Trade*, 2nd ed. (Cambridge, MA: The MIT Press, 1998); Edward D. Mansfield and Brian M. Pollins, eds., *Economic Interdependence and International Conflict: New Perspectives on an Enduring Debate* (Ann Arbor: University of Michigan Press, 2003); Oli Brown et al., eds., *Trade, Aid, and Security : An Agenda for Peace and Development* (Sterling, VA: Earthscan, 2007); Robert O. Keohane and Joseph S. Nye, *Power and Interdependence*, 2nd ed. (Glenview, IL: Scott Foresman and Company, 1989). Box 14–1 draws on U.N. Economic and Social Commission for Asia and the Pacific, "What Is Good Governance?" at www.unescap.org, undated; see also Philippe Sands, *Lawless World* (London: Penguin Books, 2006), Chapter 1.

3. Sylvia Ostry, *The Post–Cold War Trading System: Who's on First?* A Century Foundation Book (Chicago: University of Chicago Press, 1997); Jagdish Bhagwati, *Free Trade Today* (Princeton, NJ: Princeton University Press, 2002).

4. Bhagwati, Panagariya, and Srinivasan, op. cit. note 2; Mansfield and Pollins, op. cit. note 2; Brown et al., op. cit. note 2; Keohane and Nye, op. cit. note 2.

5. Preamble to the General Agreement on Tariffs and Trade 1947 agreement, at www.wto.org/english; Gary P. Sampson, *The WTO and Sustainable Development* (Tokyo: United Nations University Press, 2005).

6. Quote cited in World Trade Organization (WTO), "Relevant WTO Provisions: Text of 1994 Decision," at www.wto.org.

7. WTO, *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations* (Cambridge, U.K.: Cambridge University Press, 1994).

8. Ambassador Nobutoshi Akao, Japanese negotiator in the Uruguay Round, discussion with