

CAPITALISM AT THE CROSSROADS

THIRD EDITION

**NEXT GENERATION BUSINESS STRATEGIES
FOR A POST-CRISIS WORLD**



STUART L. HART

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“The third edition of *Capitalism at the Crossroads* arrives at a pivotal moment—it follows the world’s most serious financial crisis since the Great Depression. As we address the recession’s dire consequences and rebound from the brink of economic collapse, Stuart Hart proposes a sustainable, socially responsible model of capitalism and compels us to seize the opportunities afforded by a fresh start.”

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“Stuart Hart was there at the beginning. Years ago when the term ‘sustainability’ had not yet reached the business schools, Stuart Hart stood as a beacon glowing in the umbrage. It is clear commerce is the engine of change, design the first signal of human intention, and global capitalism is at the crossroads. Stuart Hart is there again; this time lighting up the intersection.”

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“Professor Hart is on the leading edge of making sustainability an understandable and useful framework for building business value. This book brings together much of his insights developed over the past decade. Through case studies and practical advice, he argues powerfully that unlimited opportunities for profitable business growth will flow to those companies that bring innovative technology and solutions to bear on some of the world’s most intractable social and environmental problems.”

—Chad Holliday, Former Chairman and CEO, DuPont

“Stuart Hart has written a book full of big insights painted with bold strokes. He may make you mad. He will certainly make you think.”

—Jonathan Lash, President, The World Resources Institute

“A must-read for every CEO—and every MBA.”

—John Elkington, Chairman, SustainAbility

“This book provides us with a vast array of innovative and practical ideas to accelerate the transformation to global sustainability and the role businesses and corporations will have to play therein. Stuart Hart manages to contribute in an essential way to the growing intellectual capital that addresses this topic. But, beyond that, the book will also prove to be a pioneer in the literature on corporate strategy by adding this new dimension to the current thinking.”

—Jan Oosterveld, Professor, IESE Business School, Barcelona, Spain
Member, Group Management Committee (Ret.), Royal Philips Electronics

“Stuart L. Hart makes a very important contribution to the understanding of how enterprise can help save the world’s environment. Crucial reading.”

—Hernando de Soto, President of The Institute for Liberty and Democracy
and author, *The Mystery of Capital*

“Stuart Hart’s insights into the business sense of sustainability come through compellingly in *Capitalism at the Crossroads*. Any businessperson interested in the long view will find resonance with his wise reasoning.”

—Ray Anderson, Founder and Chairman, Interface, Inc.

“The people of the world are in desperate need of new ideas if global industrial development is ever to result in something other than the rich getting richer and the poor getting poorer, with nature (and potentially all of us) suffering the collateral damage. Few have contributed more to meeting this need over the past decade than Stuart Hart by helping to illuminate the potential role for business and new thinking in business strategy in the journey ahead. *Capitalism at the Crossroads* challenges, provokes, and no doubt will stimulate many debates—which is exactly what is needed.”

—Peter Senge, Massachusetts Institute of Technology,
Chairperson of the Society for Organizational Learning, and author,
The Fifth Discipline: The Art and Practice of The Learning Organization

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STUART L. HART

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To all the children, yet unborn.

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About the Author

Stuart L. Hart is one of the world's top authorities on the implications of sustainable development and environment for business strategy. He is currently the Samuel C. Johnson Chair in Sustainable Global Enterprise and Professor of Management at Cornell's Johnson Graduate School of Management. He also serves as Distinguished Fellow at the William Davidson Institute (University of Michigan) and President of Enterprise for a Sustainable World.

Previously, he taught strategic management and founded both the Center for Sustainable Enterprise (CSE) at the University of North Carolina's Kenan-Flagler Business School and the Corporate Environmental Management Program (now the Erb Institute Dual Master's Program) at the University of Michigan. His consulting clients range from DuPont and SC Johnson to Unilever and General Electric. He is an internationally recognized speaker and has delivered hundreds of keynote addresses on the topic of sustainable business around the world.

He wrote the seminal article "Beyond Greening: Strategies for a Sustainable World," which won the McKinsey Award for Best Article in *Harvard Business Review* in 1997, and helped launch the movement for corporate sustainability. With C.K. Prahalad, Hart also wrote the path-breaking 2002 article "The Fortune at the Bottom of the Pyramid," which provided the first articulation of how business could profitably serve the needs of the four billion poor in the developing world. He invites his readers to email him at slh55@cornell.edu and to visit his website at www.stuartlhart.com.

Acknowledgments

This book pulls together and extends work I have been doing in the area of sustainability and business over the past 20 years, but it has actually been 40 years in the making. Indeed, there is no doubt that this work was influenced, shaped, and determined to a large extent by my prior experiences in college, graduate school, and the real world. I owe a great debt, therefore, to a number of people—mentors, professors, benefactors, colleagues, associates, and students—as well as friends and family.

As an undergraduate student at the University of Rochester, I would have never embarked on the path of environmental studies and management were it not for the inspiration of professors Larry Lundgren and Christian Kling. These two professors were the ones who awakened my interest and stirred my passion for this domain and set me on a course that has continued to this day. I am living proof that college professors really do have an enormously important, shaping influence on their students. To them I owe a huge debt of gratitude.

At Yale, during my time at the School of Forestry and Environmental Studies, I am very thankful to have had the honor to work with the late Professor Joe Miller, as well as Professors Lloyd Irland and Garth Voight. These three in particular helped to shape my interest and deepen my knowledge in environmental policy and management. They also enabled me to develop a much broader intellectual grasp of the history of the environmental movement and how it fit into the larger pattern of societal evolution toward greater inclusiveness.¹

My first encounter with the “real world” (in the form of an actual job) came at the Institute on Man and Science in upstate New York in the late 1970s. As a research associate in economic and environmental studies, I worked with Dr. Gordon Enk—my first boss. This job resulted in a professional and personal relationship that continues to this day. In fact, if I had to name the one person who has had the biggest impact on me, it would have to be Gordon Enk. With his background and deep commitment both to the environment and to the economic system (Gordon holds a Ph.D. from Yale in natural resource economics), he was the first person to show me that we need not accept trade-offs when it comes to societal and economic performance. Gordon was also way ahead of his time when it came to stakeholder involvement in strategic decision making. Under his guidance, we embarked on a series of projects that sought to involve diverse voices in important social and strategic decisions. We wrote about learning from these experiences in a range of publications that stand the test of time to this day.²

Since that time in the late 1970s, Gordon and I have continued to work together: He served on my dissertation committee at Michigan;³ I served as a consultant to him during his years as an executive at International Paper Company. More recently, he has been an active participant in the advisory boards for the Corporate Environmental Management Program at the University of Michigan, the Center for Sustainable Enterprise at UNC, and now the Center for Sustainable Global Enterprise at Cornell. He is also a key figure in the development of my new nonprofit organization, Enterprise for a Sustainable World. In reading the pages of this manuscript, Gordon will no doubt see the shaping effect he has had on my point of view. He should take satisfaction in knowing that he has taught me well.

During my time in the doctoral program at the University of Michigan, I was mentored and influenced by several key faculty members. Professors Pete Andrews (now at UNC), Rachel Kaplan, Jim Crowfoot, Kan Chen, Paul Nowak, and (the late) Bill Drake were of particular influence and importance. Rachel Kaplan deserves special mention for her encouragement and support of my dissertation work. After completing my doctoral work in 1983, I was appointed post-doctoral fellow and research scientist at the Institute for Social

Research in Ann Arbor. During this time, I worked closely with Dr. Mark Berg, Dr. Don Michael, and professors Donald Pelz and Nate Kaplan. This was also the time that I met and established life-long personal and professional relationships with two other highly influential people: Professor Dan Denison (now at IMD in Switzerland) and Professor Jac Geurts (at Tilburg University in the Netherlands). They had an enormous influence on my intellectual development, especially when it came to combining interests in strategy and organizational change with a concern for social impact and environmental management. I continue to work with both of them to this day.⁴

My career as a professor of strategic management began in the mid-1980s at the University of Michigan Business School. There, I was greatly helped by relationships with professors Jane Dutton, Bob Quinn, and Noel Tichy. Professor Jim Walsh has also been a particularly helpful and special friend, confidant, and advisor over the years. Without him, it would have been much more difficult to work up the courage to take the career risks that I have taken. Most recently, my work with Bob Kennedy, Director of the Davidson Institute at Michigan, and Professor Michael Gordon has been especially productive.

However, there is one faculty mentor, in particular, who deserves special mention: the late Professor C.K. Prahalad. By the late 1980s, I was becoming frustrated with my career: I was increasingly spending time on research and teaching that did not reflect my real interests or passions. My performance in both research and teaching was, as a result, mediocre. Where most senior faculty advised me to forget about my background and interest in environment and sustainable development, C.K. was one of the few supportive voices. I still remember how he urged me to pursue my passion and leverage my unique background in this area. Were it not for C.K., I never would have made the conscious decision (which I did in 1990) to devote the rest of my professional career to the connections between business and sustainability. C.K.'s unique perspective on strategy as innovation has also had a huge impact on how I have formulated my ideas about sustainable enterprise. For this, and much more, I owe C.K. a huge debt of gratitude. He will be sorely missed.

Other early contributors who had important influence on my thinking included Paul Hawken, particularly his work *The Ecology of*

Commerce; Ed Freeman, with his important book *Strategic Management: A Stakeholder View*; John Elkington, with his concept of the “triple bottom line,” first published in *Cannibals With Forks*, and professors Dick Vietor and Forest Reinhardt at the Harvard Business School, who produced most of the early teaching cases on environmental management and business in the early 1990s.

Two other faculty members also deserve special mention for inspiring me to pursue this path: Professor Paul Shrivastava, now at Concordia University, and Professor Tom Gladwin, now at the University of Michigan.⁵ In my view, Paul and Tom were the academic pioneers in this area. They were both working this space before most others in business schools even gave it a second look. Like C.K. Prahalad, Paul and Tom provided both the example and encouragement that led me to take the bold step of dedicating my professional life to this topic. It was the best decision I ever made, and I am tremendously thankful to both of them.

Were it not for two other people, it would have never been possible to successfully develop the Corporate Environmental Management Program (CEMP) at Michigan, a dual-degree program between two previously disconnected entities (now the Erb Institute’s Dual Masters Program). Garry Brewer, who came to Michigan from Yale as the Dean of the School of Natural Resources and Environment in 1990, and Joe White, who became the new Dean of the Business School at the same time. Garry Brewer, in particular, was instrumental in forging the relationship between the two schools and helping to secure the early support for the program. Without the commitment of Garry and Joe, the CEMP Program would have never happened. Both also helped me to better understand the challenges and opportunities in attempting to bring these two worlds together.

At the University of North Carolina, I am indebted to professors Hugh O’Neill, Rich Bettis, and Ben Rosen, and, later, Dean Robert Sullivan for giving me the opportunity to develop the Center for Sustainable Enterprise. However, it was really Professor Anne York who deserves the most credit for attracting me to UNC in the first place. It was her passion, vision, and persistence that helped to make it a reality. With regard to the center itself, however, my professional and personal relationship with Professor Jim Johnson has been especially

fruitful. In his role as faculty codirector of the center with me, Jim has taught me a great deal about the social aspects of sustainability, particularly those relating to minorities and the economically disadvantaged. I also owe Jim a debt of thanks for helping to create the title for this book: For several years, the two of us discussed (but never completed) an article together entitled (tentatively) “Capitalism at the Crossroads.” For Jim’s unswerving support as both a friend and a close colleague, I am very grateful.

As with the creation of CEMP at Michigan, the Center for Sustainable Enterprise at UNC would have never been possible if it were not for the visionary support of two people: Professor Jack Kasarda (Director of the Kenan Institute for Private Enterprise) and Professor Bill Glaze (former Director of the Carolina Environmental Program). Both showed the willingness to financially support the fledgling concept for a new Center before anyone else at either the business school or the university would pay any attention. Without them, the body of new work generated over the past decade would not have been possible—nor would the establishment of an MBA concentration at Kenan-Flagler Business School that, by the early 2000s, attracted nearly one-third of the admitted students each year to the school. For this accomplishment, I should also thank Jim Dean, now the Dean of the School but who was Dean of the MBA program during the creation of the concentration.

For the opportunity at Cornell, I am indebted to several people: Dean Robert Swieringa; Senior Associate Dean Joe Thomas; and professors Alan McAdams, Norm Scott, Bob Libby, Beta Mannix, and Bob Frank, to name but a few. Over the past two years, Cornell President David Skorton has also become an important supporter; he was instrumental in helping us launch the Cornell Global Forum on Sustainable Enterprise in 2009. The opportunity to work with Cornell Trustee Kevin McGovern and the start-up team at The Water Initiative (TWI) over these past two years has also been an invaluable experience. However, the ultimate acknowledgment must be made to the late Sam Johnson, Chairman Emeritus of S. C. Johnson & Son, Inc. It was Sam and the Johnson family who had the vision to endow both the S. C. Johnson Chair in Sustainable Global Enterprise and the new Center for Sustainable Global Enterprise. Other pioneering benefactors also deserve recognition: Dr. Hans Zulliger, Swiss scientist and

businessperson, for endowing the Chair in Sustainable Enterprise at UNC; and Fred Erb and the Max McGraw Foundation for endowing the Erb Institute for Global Sustainable Enterprise and the Max McGraw Chair, respectively, at Michigan. It is important to recognize the crucial contribution that such gifts make to the legitimacy and institutionalization of this work at major universities and business schools.

There are also a number of people from the corporate and not-for-profit sector who deserve recognition for both their support and influence over the years. Paul Tebo at DuPont, in particular, deserves special recognition. Like Gordon Enk, Paul and DuPont have been involved with the initiatives at Michigan, UNC, and now Cornell. DuPont has also financially supported the initiatives at all three institutions. Dawn Rittenhouse, John Lott, John Hodgson, Eduardo Wanick, and Tony Arnold, all of DuPont, have also been key supporters of our work, as has former CEO Chad Holliday. Matt Arnold, originally of the Management Institute for Environment and Business (MEB) and later the World Resources Institute (WRI), has been enormously influential over the years. We began together on this adventure in the early 1990s, as he was forming MEB and I was developing the CEMP Program at Michigan. Matt has since gone on to found a practice in Sustainable Finance at PWC.

Like DuPont, WRI has been a long-term partner for more than a decade, with people like Jonathan Lash, Rick Bunch, Jennifer Layke, Rob Day, Meghan Chapple, Al Hammond, and Liz Cook providing key support. Dow Chemical Company, in general, and Dave Buzzelli and Scott Noesen, in particular, also deserve special mention. Dow was among the early supporters of the CEMP Program at Michigan and has since endowed a chair jointly between the Business School and the School of Natural Resources and Environment. Jane Pratt and Jed Schilling of the World Bank and (later) the Mountain Institute have also been key long-term collaborators and partners. Both have been indispensable champions of the content area and the programs over the years.

For their business leadership and program involvement, I am also indebted to Lee Schilling and Mac Bridger, then senior executives at Tandus Group (Collins & Aikman Floorcoverings), as well as Sam Moore of Burlington Chemical Company, Dan Vermeer from Coca

Cola (now at Duke University), and Debbie Zemke, then at Ford. Jim Sheats, Barbara Waugh, and Gary Herman from Hewlett-Packard also deserve acknowledgment, as do Greg Allgood, Chuck Gagel, Keith Zook, and George Carpenter at Procter & Gamble. Over the past five years, Fisk Johnson, Scott Johnson, and Jane Hutterly, all of SC Johnson, deserve special mention as key supporters and collaborators in moving the sustainable global enterprise agenda forward—both at Cornell and within the company.

While this list of acknowledgments has grown long, I would be terribly remiss if I did not directly recognize the crucial contributions of coauthors and colleagues in influencing and shaping both my thought and, in some instances, the actual words written in this book. Although the conceptual foundation for this book was clearly laid in several single-authored articles during the 1990s, later collaborations were of critical importance.⁶ I would like to recognize Professor C.K. Prahalad (University of Michigan Business School) for his important influence in our joint work that developed the original idea of the bottom of the pyramid as a business opportunity.⁷ This work can be found in parts of Chapters 5, 6, and 8. Professor Clayton Christensen (Harvard Business School) also deserves special note. He and I have coauthored two articles that join his theory of disruptive innovation with my work on sustainable development and the base of the pyramid.⁸ This joint work can be found in Chapter 5. I have also worked closely with Professor Sanjay Sharma (now Dean of the Molson School of Business at Concordia University) in recent years. Our joint work on engaging fringe stakeholders and radical transactiveness can be found in the pages of Chapter 7.⁹

Two former doctoral students at the University of North Carolina have also been important colleagues and collaborators over the past ten years. I have known Mark Milstein for over 15 years, beginning at Michigan, where he was a student in the CEMP Program. Since he began as a doctoral student at UNC, he and I have coauthored three articles.¹⁰ Our joint work on creative destruction and sustainability can be found in the pages of Chapters 2 and 4; portions of Chapter 3 are also directly attributable to our collaboration on creating sustainable value. I am proud to say that our work together continues—Mark is currently Director of the Center for Sustainable Global Enterprise at Cornell. Collaboration with Ted London, given his

extensive international experience, has also been extremely valuable. Joint work with Ted during his doctoral student days at North Carolina examining emerging market strategies for the base of the pyramid business entry can be found in parts of Chapters 6 and 8.¹¹ Ted, who is now a Senior Fellow at the Davidson Institute at Michigan, heading up their program on the Base of the Pyramid, has already made several important written contributions to this emerging field. Ted and I are also in the final stages of editing a new book on the Base of the Pyramid, to be published by Prentice Hall later this year.

Two current doctoral students at Cornell also deserve special mention: Erik Simanis and Duncan Duke. My collaboration with Erik began in Chapel Hill where he worked with me to help launch the Base of the Pyramid Protocol project. Erik led the field teams for both the SC Johnson and DuPont/Solae BoP Protocol Projects and has led the development of the BoP field cocreation process. Since then, he and I have written three pieces together, and he has had a significant influence on my thinking over the past few years.¹² The mark of his work, which brings anthropology and action research into the business strategy field, can be found in parts of Chapters 7, 8, and 9. In fact, significant portions of Chapter 9 are adapted from our recent article in *Sloan Management Review*. Duncan Duke has also become a key contributor to the development of the BoP Protocol process. Duncan led the field team in the cocreation process for The Water Initiative (TWI), which is described in Chapter 9. Along with Erik, Duncan and I have written an additional piece together, which has greatly influenced my thinking.¹³

All four of these current and former students made tremendous contributions to both the Center for Sustainable Enterprise at UNC and most recently the Center for Sustainable Global Enterprise at Cornell: Mark Milstein served as research director for the center at UNC and, with Monica Touesnard, essentially ran the Center before joining me at Cornell in 2005. Erik Simanis helped me to conceive the original idea for the Base of the Pyramid Learning Laboratory at UNC in 2000 as a recently minted MBA, prior to starting the doctoral program. And Ted London served with great effectiveness as the Director of the BoP Learning Lab from 2001–2004 and has been a close collaborator in our international work in Asia, Africa, and Latin

America. Duncan Duke has been especially important in developing the BoP protocol work at Cornell. Look for these four to make important independent contributions in the near future.

My participation as a core faculty member in the Sustainable Enterprise Academy (SEA) has also provided a wonderful venue for trying out new ideas—and learning in the process. In this regard, I would like to recognize and thank my faculty colleagues in SEA, particularly Brian Kelly, David Wheeler, Bryan Smith, John Ehrenfeld, David Bell, and Nigel Roome, for their honest feedback and support in helping me develop and present my ideas in such a way to achieve maximum impact.

Finally, I would like to acknowledge the patience, support, and editorial skills of my publisher, Prentice Hall—in particular, my editor, Jim Boyd (fellow University of Rochester classmate); developmental editor, Elisa Adams; project editors, Kristy Hart and Anne Goebel; copy editors, Krista Hansing and Chrissy White; and Wharton representative Professor Paul Kleindorfer. The book has been vastly improved as a direct result of their skilled eyes—and pens. My colleagues Gordon Enk, Jac Geurts, Ted London, Erik Simanis, Paul Tebo, Bob Frank, Alan McAdams, and Mark Milstein also provided invaluable feedback on the many drafts of the manuscript. My long-time colleagues Jac Geurts and Gordon Enk were especially helpful in commenting on the revisions for the third edition. Charlie Hargroves of the Natural Edge Project also provided valuable feedback during the revision process. Thanks also to Peter Knight for facilitating the Preface by Al Gore.

Clearly, the writing of a book like this “takes a village,” as Hillary Clinton would say. While I have done my best to recognize as many of the important contributors to my professional life as space allows, there are many more who could have been included. For my friends and colleagues in this group, please forgive me! However, no acknowledgment would be complete without recognizing my parents, Lloyd and Katherine Hart, for their support of my education, and, I’m sure what seemed to be aimless wanderings, for the better part of a decade during the 1970s and 80s. I’m just sorry that my father did not live to see this book finally come to fruition. I’d also like to recognize my brother, Paul, who set the example for me in pursuing the academic route long before I ever imagined doing doctoral work.

Finally, my wife Patricia has been nothing short of an inspiration over the years. She has been the ultimate enabler of my work for over 35 years. Without her love and support, none of this would have been possible. She is also a very talented editor and confidante. I shudder to think how much time she has spent reading and commenting on my work. My older daughter Jaren also deserves special recognition. For the past two years, she has worked with me as part of both Enterprise for a Sustainable World and The Water Initiative (TWI). In the process, she has made important material contributions to this third edition, both as an editor and research assistant. Much of the updating of cases was done by her, and she helped to write the section on TWI in Chapter 9. It has been an honor to work with her over these past two years, and I look forward to continuing the collaboration in the future.

I dedicate this book to my two daughters, Jaren and Jane, in the hopes that it is of some use to them in navigating the troubled waters ahead. For better or worse, it will be their generation that will ultimately have to ensure our transition toward a sustainable world. I wish them both Godspeed and hope it is not too late.

Stuart L. Hart
Ithaca, New York
April 2010

Notes

1. See, for example, Stuart Hart, "The Environmental Movement: Fulfillment of the Renaissance Prophecy?" *Natural Resources Journal* 20 (1980): 501–522.
2. A few of these publications include the following: Gordon Enk and Stuart Hart, "An Eight-Step Approach to Strategic Problem Solving," *Human Systems Management*, 5 (1985): 245–258; Stuart Hart, Mark Boroush, Gordon Enk, and William Hornick, "Managing Complexity Through Consensus Mapping: Technology for the Structuring of Group Decisions," *Academy of Management Review*, 10 (1985): 587–600; Stuart Hart, Gordon Enk, and William Hornick, (eds.), *Improving Impact Assessment* (Boulder, CO: Westview Press, 1984); and Stuart Hart and Gordon Enk, *Green Goals and Greenbacks* (Boulder: Westview Press, 1980).
3. Stuart Hart, *Strategic Problem Solving in Turbulent Environments* (Ann Arbor, MI: University of Michigan, 1983).

4. A couple of sample publications include Jac Geurts, Stuart Hart, and Nate Caplan, "Decision Techniques and Social Research: A Contingency Framework for Problem Solving," *Human Systems Management*, 5 (1985): 333–347; and Daniel Denison and Stuart Hart, *Revival in the Rust Belt* (Ann Arbor, MI: Institute for Social Research, 1987).
5. Some of my earliest published work in the area was done with Paul Shrivastava. See, for example, his (and Stuart Hart's) Greening Organizations, *Academy of Management Best Paper Proceedings*, 52 (1992): 185–189.
6. Two of my most important single-authored articles were "A Natural Resource-Based View of the Firm," *Academy of Management Review*, 20 (1995): 986–1014; and "Beyond Greening: Strategies for a Sustainable World," *Harvard Business Review* (January–February 1997): 66–76.
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9. Stuart Hart and Sanjay Sharma, "Engaging Fringe Stakeholders for Competitive Imagination," *Academy of Management Executive*, 18(1) (2004): 7–18.
10. Stuart Hart and Mark Milstein, "Global Sustainability and the Creative Destruction of Industries," *Sloan Management Review*, 41(1) (1999): 23–33; "Creating Sustainable Value," *Academy of Management Executive*, 17(2) (2003): 56–69; and "In Search of Sustainable Enterprise: The Case of GE's Ecomagination Initiative," *Value*, 1(1) (2006): 36–43.
11. Ted London and Stuart Hart, "Reinventing Strategies for Emerging Markets: Beyond the Transnational Model," *Journal of International Business Studies*, 35 (2004): 350–370; and Stuart Hart and Ted London, "Developing Native Capability: What Multinational Corporations Can Learn from the Base of the Pyramid," *Stanford Social Innovation Review*, Summer (2005): 28–33.
12. Erik Simanis and Stuart Hart, "Expanding the Possibilities at the Base of the Pyramid," *Innovations*, Winter (2006): 43–51; Erik Simanis and Stuart Hart, "The Base of the Pyramid Protocol: Toward Next Generation BoP Strategy," *Cornell Center for Sustainable Global Enterprise*, 2008; and Erik Simanis and Stuart Hart, "Innovation from the Inside Out," *Sloan Management Review*, Summer (2009): 77–86.
13. Erik Simanis, Duncan Duke, and Stuart Hart, "The Base of the Pyramid Protocol: Beyond 'Basic Needs' Business Strategies," *Innovations*, Winter (2008): 57–83.

Preface:
Al Gore, Former Vice President
of the United States

The global context for business continues to change at an unprecedented rate, and Stuart Hart has effectively captured important insights into the nature of this contextual shift in this third edition of *Capitalism at the Crossroads*. I agree. In fact, my partners and I at Generation Investment Management believe that sustainability will be a key driver of global economic change over the next 50 years. And we think companies face an unprecedented opportunity to create shareholder value by helping to chart the way forward, and by contributing to sustainable development.

Now, more than ever, factors beyond the scope of economist John Maynard Keynes' "national accounts" (the backbone of today's gross domestic product) are directly affecting a company's ability to generate revenues, manage risks, and sustain competitive advantage. While our current system is precise in its ability to account for capital goods, it is imprecise in its ability to account for natural, social, and human capital. Natural resources, for example, are still—in some ways—assumed to be limitless. This, in part, explains why our current model of economic development is hardwired to externalize as many costs as possible, therefore imposing environmental and social costs on society at large.

The interests of shareholders, both public and private, over time, will be best served by companies that maximize their financial performance by strategically managing their economic, social, environmental, and ethical performance. This is increasingly true as we confront the limits of our ecological system and its ability to hold up under current patterns of use. "License to operate" can no longer be taken for granted by business when challenges such as the climate crisis, HIV/AIDS, and other pandemics, water scarcity, and poverty reach a point where civil society and consumers demand a response from business and government. Leading companies understand this

and are already moving ahead of legislators and regulators and, in so doing, securing competitive advantage.

The global climate crisis is the perfect example of a challenge that pushes our companies and our policymakers beyond their traditional comfort zone. The risks and opportunities presented by global warming are clearly material to the long-term health of our economic system. Companies that are part of the climate change solution will be able to enhance revenues, attract the best talent, and develop brand benefits—all of which will translate into optimized shareholder value over the long run. Today, action on the climate crisis makes sense not only for reputation and risk management, but for revenue generation and competitive positioning. Investors and companies that fully integrate climate considerations into their strategies, cultures, and operations will be best positioned to create shareholder value.

Business, as Hart points out, is a powerful agent of change and is well equipped to forge the way to a more sustainable future in conjunction with government and a strong civil society. However, he points out the inherent short- and long-term tensions within companies, which still have to balance forward-looking sustainability initiatives with legacy investments and old (and often unsustainable) habits.

There are, of course, limits to the ability of traditional business to deal with sustainability challenges by themselves. Now, more than ever, our societies need new models to address systemic, long-term challenges like the climate crisis, poverty, pandemics, water scarcity, and demographic shifts. This will involve more business and government innovation, social entrepreneurship, public-private partnerships, and more effective civil society participation.

The age of sustainability has arrived, but now we must drive it fully through our economic system. To do so, markets will have to continue to evolve to take into account the full environmental and social externalities of business in order to enable the efficient allocation of capital to its highest and best use. The regulated carbon markets in Europe, worth \$25 billion in 2006, are a good example of how capitalism can powerfully address environmental challenges when a price signal exists—in this case, the price of a ton of carbon dioxide.

Only as markets improve their ability to price externalities, will we see capital allocated more effectively to sustainable development. This shift will require nothing less than a complete change in mindset—one that views our planet as a long-term investment, rather than a business in liquidation.

Al Gore

Cofounder and Chairman, Generation Investment Management, and
Former Vice President of the United States

Foreword:

Fisk Johnson, Chairman and CEO, S. C. Johnson & Son, Inc.

The release of the third edition of Stuart L. Hart's book underscores a time when it is becoming increasingly crucial that business leaders grasp their roles and responsibilities in building a sustainable future. Hart's book gives voice to an inescapable reality: that the corporate sector can be the catalyst for a truly sustainable force of global development for all on the planet.

As the chairman and CEO of a consumer products company with global operations, I see every day the value that business can bring. I see that its products can improve the health and safety of people around the world. I see that its jobs enable parents to support their children and allow children to achieve dreams not even imagined by their parents.

I also recognize that business has provided fuel for those who oppose globalization. But despite what some see as the inevitable stain of "progress," I know there are many business leaders who share my belief that you cannot purely pursue greater profitability every quarter and have that be an acceptable mission statement. Or that improving the lives of workers in one country while degrading the environment in another is an acceptable demonstration of civic responsibility. Short-term quarterly profits cannot trump long-term sustainability.

As the author makes clear in *Capitalism at the Crossroads*, there is no inherent conflict between making the world a better place and achieving economic prosperity for all. Maintaining a principled commitment to global sustainability is not a soft approach to business—it is, in fact, the only pragmatic approach for long-term growth.

Capitalism at the Crossroads presents a scenario in which business can generate growth and satisfy social and environmental stakeholders. By focusing on the four billion people currently at the "Base of the Pyramid," Hart contends that companies can reap incredible

growth while sowing tremendous improvement in people's lives and at the same time preserving the other species that live on this planet.

The early stages of our company's own work at the Base of the Pyramid gives further credence to Hart's argument. As Hart describes, in testing the Base of the Pyramid Protocol and developing more holistic relationships in Nairobi, Kenya, we have cocreated a mutually valuable business model. Moving beyond charity to create a sustainable business partnership in the slums of Kenya where many businesses may never venture is not without challenges. While too premature to call this project a success, we remain committed to building a viable business at the Base of the Pyramid.

Business driving sustainability is not a new concept to me. The seed was planted and then cultivated throughout a lifetime of conversations with my father, Samuel C. Johnson. He shared stories about my grandfather, who traveled to Brazil in the 1930s in search of a sustainable source of wax for our products. He described his own 1975 decision to voluntarily and unilaterally ban CFCs from our products despite fervent opposition from colleagues and competitors alike.

My father's pioneering social and environmental efforts led to his selection as an original member of the President's Council on Sustainable Development and as a founding member of the World Business Council on Sustainable Development. He led our family company, SC Johnson, to new heights of corporate environmental and social achievement.

Perhaps most important, my father ensured that the dialogue on sustainability would continue. In 2000, he endowed the Samuel C. Johnson Chair in Sustainable Global Enterprise, and it is this Chair that Hart now so ably and deservedly occupies. He also endowed the new Center for Sustainable Global Enterprise of the Johnson School at Cornell University. By doing so, he was fulfilling a vital obligation that Hart sets forth for business in this book: being optimistic about the future and the opportunities inherent in the global challenges we face.

I share that optimism. That is why in 2001 our company unilaterally developed the Greenlist environmental classification system to institutionalize the selection of environmentally preferred raw materials and packaging components, far exceeding government

regulation and driving our business with better products. It is why in 2003 we launched programs to attack the menace of malaria in sub-Saharan Africa and the misery of asthma among Hispanic children in Miami, and we are working to significantly expand these programs. It is why in 2004 we joined with Conservation International's Carbon Conservation Program to help save one of the world's most critically threatened hotspots of biodiversity. It is why we have a comprehensive program to reduce greenhouse gas emissions and have implemented innovative systems like cogeneration to fuel our largest global manufacturing facility with natural gas and waste methane from a public landfill. This program has reduced emissions for our top global factories by 42 percent from our 2000 baseline year.

Although Hart calls for "drastic changes" to "avert catastrophe," optimism underlies all the arguments in *Capitalism at the Crossroads*, and the author presents us with a call to optimistic action. He asks us to involve the full range of stakeholders in crafting solutions to the issues of sustainability. He demands that we embrace a new business paradigm built not on incremental change, but on creative destruction and reinvention. He challenges us to base our policies and businesses on the unassailable truth that shareholder value can be created while solving social and environmental problems.

Some might say linking "global business" and "sustainable development" is an oxymoron, but they would be sorely mistaken. All of us are tied together: the radical environmentalist and the corporate CEO, the Sudanese refugee and the British socialite, the U.S. factory worker and the Argentine farmer. We all share a stake in the future of our global environment and economy. That is the undeniable truth of *Capitalism at the Crossroads*: We are all fundamentally linked, dependent on the same finite resources and driven by the same hopes for ourselves and our children.

I steadfastly believe there is honor and value in business. In *Capitalism at the Crossroads*, Stuart Hart demands that we embrace that truth. I'm convinced this may well be the best opportunity global businesses have to ensure their long-term sustainability. And I am tremendously optimistic about the future.

Dr. H. Fisk Johnson
Chairman and CEO
S. C. Johnson & Son, Inc.

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From Obligation to Opportunity

This book takes the contrarian's view that business—more than either government or civil society—is uniquely equipped at this point in history to lead us toward a sustainable world in the years ahead. I argue that corporations are the only entities in the world today with the technology, resources, capacity, and global reach required. Properly focused, the profit motive can accelerate (not inhibit) the transformation toward global sustainability, with nonprofits, governments, and multilateral agencies all playing crucial roles as collaborators and watchdogs. The book is written with a practical focus and should be of direct use to executives, entrepreneurs, and technologists, as well as business school faculty and students. The contents are equally appropriate, however, for those from the nonprofit world, the public sector, and society at large, especially those interested—and inclined—to collaborate with the private sector.

The book carries an optimistic message. Despite the gathering storm of environmental degradation, poverty, financial crisis, and terrorism, it envisions a central and expanding role for commerce in fostering global sustainability. It foresees massive opportunities for companies both to make money and to make the world a better place, particularly among the four billion poor at the base of the economic pyramid. This book is the result of an intellectual journey that began for me nearly four decades ago. My own personal evolution is reflected in its structure and flow. Allow me to explain.

Having grown up in western New York in the 1950s and '60s, I have memories of family vacations spent at destinations like Niagara Falls. Although the Falls themselves were indeed magnificent, equally memorable for a 10-year-old was the soot from nearby factories that accumulated on the porch furniture, requiring that we cleaned the furniture daily, lest we ruin our clothes. The accompanying stench was also something to experience. I still remember asking why, in a place of such natural beauty and splendor, did it have to be so polluted? The answer, accepted wisdom in those days, was that this was "the smell of money." If we were going to have economic prosperity, then we would have to put up with some minor inconveniences, such as soot, stench, rivers that catch fire, and mountains of waste. It was the cost of progress. I remember being singularly unsatisfied by this response.

Fast-forward to 1974. As a freshly minted college graduate headed to Yale for graduate work in the School of Forestry and Environmental Studies, I was convinced that corporations were the "enemy" and that the only way to deal effectively with environmental problems was to "make them pay" through regulation—to internalize their externalities, in the jargon of economics. This was probably a correct perception at that point in history: Large corporations, by and large, had been unresponsive to environmental issues, and it appeared that the only way to deal with the problem was to force them to clean up the messes they were making. The Environmental Protection Agency and scores of other regulatory agencies were created precisely for this purpose. A mountain of command-and-control regulation was passed during the decade of the 1970s, aimed at forcing companies to mitigate their negative impacts.

Regulators and citizen activists, buoyed by their newfound power, increased the pressure on companies through fines, penalties, campaigns, and consent decrees. The courts became clogged with lawsuits aimed at halting projects that were deemed unacceptable due to

their environmental or social impacts. Economists of the “environmental” variety wrote books about externalities and the public policies that would be required for them to be “internalized” most efficiently by companies.¹ In the process, companies became convinced that social and environmental issues were necessarily costly problems, usually involving lawyers and litigation. For better or worse, the message was that environmental and social issues were “responsibilities” that companies were required to deal with—and it was going to be expensive.

The Great Trade-Off Illusion

There can be no question that command-and-control regulation was of enormous importance; it required, perhaps for the first time, that business address directly its negative societal impacts. Since the time of the industrial revolution, enterprises had relied upon the extraction of cheap raw materials, exploitation of factory labor, and production of mass quantities of waste and pollution (think of those “dark, satanic mills”). Indeed, pollution was assumed to be part of the industrialization process. When economists conceived the concept of externalities, in other words, it seemed virtually impossible that firms could behave in any other manner. For the better part of 200 years, industrial firms engaged in what might be described as “take, make, waste” as an organizing paradigm.² Command-and-control regulation seemed a necessary and appropriate counter to the prevailing industrial mindset.

Paradoxically, this mindset also resulted in what I call the “Great Trade-Off Illusion”—the belief that firms must sacrifice financial performance to meet societal obligations.³ A massive wall of environmental and social regulation has been spawned over the past 30 years, most of which has been written in a way that makes the Great Trade-Off Illusion a self-fulfilling prophecy. Just track the thickness (and

lack of flexibility) of the Code of Federal Regulations in the United States for confirmation.⁴ Too often, command-and-control regulations prescribed specific treatment technologies without regard to their efficiency or cost-effectiveness.

A generation of businesspeople was shaped by this framing of the situation. Not surprisingly, the managers and executives who rose to prominence during the postwar years were predisposed to think of environmental and social issues as negatives for business. A socially minded executive or company might “give back” to the community through philanthropy or volunteering, but such concerns would certainly never be part of the company’s core activities! The social responsibility of business was to maximize profits, as Milton Friedman advocated, and it seemed clear that social or environmental concerns could only serve to reduce them.⁵

Even today, this mindset lingers. Try the following thought experiment: Imagine that you are a general manager in a business or company of your choosing. Your assistant calls saying that the environment, health, and safety (EHS) manager and the public affairs director are in your outer office, and they say the matter is urgent. What is your first reaction? If you are honest with yourself, you will have to admit that the first thoughts that come to mind are something like: problem, crisis, spill, incident, accident, boycott, protest, lawsuit, fine, or jail time. Your first instinct was probably to head for the back door of your office to escape.

But now try a second thought experiment: Your assistant calls saying that the heads of marketing and new product development are in your outer office, and they are anxious to meet with you. Now, what is your first reaction? What thoughts or issues come to mind? In all likelihood, your mind probably flashes to images like: breakthrough, opportunity, blockbuster, innovation, or growth. Your first instinct is to run to the front door of the office to let them in.⁶

The Great Trade-Off Illusion trained a generation of corporate, business, and facility-level managers to assume that societal concerns could only be drags on their business. As a consequence, their attitude tended to be reactive—they would do only the bare minimum necessary to avoid legal sanction. Unfortunately, when lawmakers and activists unfamiliar with operations or market dynamics write the rules for compliance, it is a virtual certainty that the rules will not integrate well with company strategy or operations. Taking a reactive posture thus doomed companies to a decade or more of onerous regulations that treated the symptoms rather than the underlying problems. These regulations targeted specific wastes, emissions, pollutants, and exposure levels through command-and-control-style rules that forced companies to deal with problems “at the end of the pipe” rather than addressing them as part of their core strategy or operations. Unfortunately, pollution-control devices can never improve efficiency or produce revenue; they can only add cost.

The Greening Revolution

The decade of the 1980s brought with it a growing sense of unease with command-and-control regulation. Despite enormous expenditures, it was not at all clear that the end-of-the-pipe approach to pollution control and regulation was working.⁷ Alternatives such as market-based incentives and tradable emission permits demonstrated that pollution levels could be reduced in a dramatically more efficient and cost-effective manner. In Europe, a more collaborative and goal-oriented approach to regulation was the norm; the focus was on actual environmental and social improvement rather than the specification of particular treatment technologies or pollution control devices.

I, too, was undergoing a transformation of sorts. In 1986, I joined the faculty at the University of Michigan Business School, having completed my doctoral work in strategy and planning in 1983. My transition from a regulatory to a business strategy orientation reflected my own growing disenchantment with the command-and-control approach to dealing with environmental and societal problems. Rather than simply trying to halt polluting projects or mitigate damage, I became increasingly interested in understanding why such seemingly bad projects were being proposed in the first place.

This change proved fortuitous: By the late 1980s, there was a growing receptivity to environmental and social issues within companies—and business schools. As luck would have it, this openness developed through innovation in another arena: quality management. As you might recall, in the late 1970s and early 1980s, Japanese companies were literally overrunning their American and European competitors with higher-quality and lower-cost goods. From steel makers to automobile firms, to consumer electronics manufacturers, companies were scrambling to match the Japanese quality advantage. Because of widespread plant closures and downsizing, there was palpable concern that the West would lose to “Japan, Inc.”⁸

After three glorious postwar decades of high-volume, standardized mass production with quality inspected in (after the fact) rather than built in (as part of the design and production process), Western companies were being out-competed by a new and better way. Instead of countering with their own unique strategies, American and European companies became obsessed with learning and copying the ways of Japanese quality management.⁹ Among other things, they built the capacity for “continuous improvement” (*kaizen*) into the management system by empowering workers to improve their work processes rather than blindly following prescribed procedures. Managers’ mindsets changed from a fixation on centralized control and a “results” orientation (detecting defects and fixing them) to a preoccupation on decentralization and a “process” orientation (improving the

management system so that employees could prevent quality problems from occurring in the first place).¹⁰

Shattering the Trade-Off Myth

The confluence of the quality and environmental movements was a marriage made in heaven: By the late 1980s, it had become clear that preventing pollution and other negative impacts was usually a much cheaper and more effective approach than trying to clean up the mess after it had already been made. The emergence of market-based incentives such as tradable emission permits made prevention even more appealing. Furthermore, the discipline of quality management could be easily expanded to incorporate social and environmental issues. In the early 1990s, this confluence produced a flurry of so-called environmental management system (EMS) approaches and “total quality environmental management” protocols, culminating in the advent of the International Standards Organization (ISO) 14001, the environmental equivalent of ISO 9000 for quality.

Community advisory panels and stakeholder dialogue intended to involve affected parties in company affairs instead of doing battle in court proved to be a much more effective way to maintain legitimacy and the “right to operate.” Indeed, in designing its self-regulation program called Responsible Care, the chemical industry enshrined the principles of pollution prevention and community engagement as part of its product stewardship process. In short, the quality revolution taught us that *muda* (waste) was the enemy of good management. Pollution and litigation were the ultimate forms of *muda*.

As social and environmental issues became more deeply embedded in the ongoing operations of enterprises, managers began to see that corporate and societal performance need not be separated. Whereas companies previously sought to first make money through

their business operations and then give back to society through philanthropy, now these two agendas could be merged. What had been a virtual firewall separating business from philanthropy was now transforming into a host of new and creative approaches to combining the two through corporate partnerships with nongovernmental organizations, strategic philanthropy, and other forms of social innovation.¹¹

Furthermore, in certain situations, preventing pollution through process or product redesign could actually save money, reduce risk, and even improve products for the firm. An extensive body of research began to document the situations and contexts in which pollution prevention and product stewardship resulted in superior financial performance.¹² Not surprisingly, parlaying environmental and social performance into improved business performance required a set of supporting or complementary capabilities, such as employee empowerment, quality management, cross-functional cooperation, and stakeholder engagement. This meant that the greening revolution had not only succeeded in elevating the significance of social and environmental issues, but it also had converted them from expensive problems into strategic opportunities for certain firms with the necessary skills, capabilities, and leadership vision.¹³

Breaking Free of Command-and-Control

Accompanying the greening revolution in the corporate sector was the emergence of a new philosophy in regulation and public policy that recognized the limitations (and expense) of conventional regulation and the end-of-the-pipe mentality. In response, a slew of new voluntary initiatives were introduced that recognized the power of information disclosure and transparency.¹⁴ The pioneering initiative was the Toxic Release Inventory (TRI) in the U.S. Passed in 1988 as a rider on the Superfund Reauthorization (the law establishing strict liability for toxic waste sites), the TRI received relatively little

attention in its early days. This seemingly innocuous provision required only that manufacturers disclose their use, storage, transport, and disposal of more than 300 toxic chemicals (all of which were perfectly legal at the time). Much to everyone's surprise, this data, maintained by the U.S. Environmental Protection Agency, became an important new source of information for activist groups, the media, and third-party analysts to track corporate environmental performance. Top 10 lists of corporate polluters became *de rigueur*.

The TRI also provided, for the first time, a metric for corporate and facility managers to track their own firms' performance and benchmark it against competitors. What gets measured gets done. Ten years later, toxic emissions in the United States had been reduced by more than 60 percent, even though the U.S. economy boomed during the 1990s. Indeed, many companies actually saved tens of millions of dollars in the process of reducing or eliminating their toxic emissions.¹⁵ We could argue that the TRI was one of the most important and effective pieces of social legislation ever passed. And it required nary a lawsuit, court battle, or inspector to make it happen. Since then, many developing countries have adopted a similar philosophy of transparency and information disclosure as the basis for their environmental policies, given that these can be implemented at a fraction of the cost of command-and-control regulations.

Equally important was the advent of "extended producer responsibility" laws, primarily in Europe.¹⁶ Quite simply, these laws stipulate that manufacturers are responsible for the products they create all the way to the end of their useful lives. Beginning with regulations on packaging waste in Germany in the late 1980s, these laws now extend to several industrial sectors, including automobiles, consumer electronics, and computers. Requiring that producers take back their products after they have reached the end of their lives has obvious effects on the way companies go about designing products in the first place. This simple requirement has fomented a revolution in product

stewardship and “green design” protocols, using life-cycle management as its core principle. Rather than focusing only on the phase of the product’s life cycle that the company controls (manufacture or assembly), product stewardship means designing products to take account of their entire life cycle, from the sourcing of raw materials and energy from the Earth to the reuse, remanufacture, or return of the materials to the Earth. Rather than thinking linearly, in terms of “cradle to grave,” increasingly, designers think cyclically, in terms of “cradle to cradle.”¹⁷

In the process, companies have discovered that life-cycle design principles can yield competitively superior products. During the early 1990s, for example, Xerox pioneered take-back, remanufacturing and design-for-environment strategies in the photocopier business and reaped significant competitive benefits. Given the company’s extensive field presence for servicing commercial copiers, it was relatively easy to take back used machines, refurbish parts and components, and produce a line of remanufactured machines. However, it was not until the mid-1990s that Xerox actually began to *design* copiers with an eye toward taking them back. This program, dubbed Asset Recycle Management, was founded on the notion that by reusing assets as many times as possible (recall that most Xerox commercial copiers were leased, not owned by customers), the company would not only reduce its environmental footprint, but also lower its costs and increase its return on assets. It set the goal of producing “waste-free products from waste-free factories.”¹⁸ By the late 1990s, Xerox was saving close to \$500 million per year through this program, a figure approaching 2.5 percent of company sales. In fact, it can be argued that, given Xerox’s failure to shift its strategy toward printers (considering documents were increasingly being stored electronically and printed rather than duplicated), the Asset Recycle Management Program kept the company afloat for much of the 1990s.

As the green revolution progressed, leading companies began to shift their energy and attention more toward proactive strategies that

reduced waste, emissions, and impacts while simultaneously reducing costs and risks. Paying real money for raw materials and inputs only to dump substantial amounts of these into the environment in the form of waste made little economic sense. In fact, Dow Chemical estimated in the early 1990s that reactive efforts such as regulatory compliance, cleanup, and remediation result in returns in the range of -60 percent while proactive initiatives typically produce positive returns in excess of 20 percent.¹⁹ The problem was that most corporate activity (perhaps as much as 90 percent) was still of the reactive variety. The challenge was to transform the portfolio so that more was of the proactive sort. Ultimately, the goal is to get out of the regulatory compliance business entirely.

It was becoming clear that under the right circumstances, firms could actually improve their own competitive position by creating societal value. They could, for example, lower costs by internalizing externalities through pollution prevention. Furthermore, through product stewardship, it was sometimes possible to supply public goods and achieve superior performance. Witness Volvo's new radiator that actually cleans the air as it cools the engine or BP's climate-change policy that reduces its greenhouse gas emissions while reducing its costs. We should emphasize, however, the caveat "under the right circumstances:" Only through creativity, imagination, and the persistent development of particular skills and capabilities can firms simultaneously optimize financial, social, and environmental performance.

By the early 1990s, the greening revolution had led to the creation of a new dual-degree program at the University of Michigan involving both the Business School and the School of Natural Resources and Environment: the Corporate Environmental Management Program (CEMP), now the Erb Institute's dual masters program. Integrating pollution prevention and product stewardship into the management curriculum was the backbone for this program. As the founding director of CEMP, I had completed a virtual turnabout:

It was now clear to me that the corporate sector itself was the key leverage point for achieving substantial and lasting change in societal performance and that financial performance need not suffer in the process. I could finally put aside the demons from the past associated with “the smell of money.” I came to realize instead that pollution was the smell of waste and poor management.

Beyond Greening

Yet this personal reconciliation was by no means the end of the road. The corporate “greening” initiatives of the late 1980s and early 1990s—pollution prevention and product stewardship—were important first steps. They shattered the myth that business should treat societal issues as expensive obligations. Instead, seen through the prism of quality and stakeholder management, these issues could become important opportunities for the company to improve its societal and operating performance simultaneously. A growing body of research pointed to the potential for enhanced financial performance through well-executed pollution prevention and product stewardship strategies. Pioneers such as 3M, Dow, and Dupont realized significant cost reductions and enhanced reputations as a result of their activities. The World Business Council for Sustainable Development, with its mantra of “eco-efficiency,” helped to erase the false dichotomy between business and environmental performance.

However, greening alone fell well short of what was possible—and needed: Incremental improvements to current product systems and production processes only slowed the rate of environmental damage. Sustainability means inventing a new form of “natural capitalism.”²⁰ As University of Virginia architect Bill McDonough points out, greening is akin to heading in the wrong direction, but at a slower rate of speed—being less bad. Sustainability, however, means actually turning around and heading in the right direction—being

more good. It is, as McDonough and his colleague Michael Braungart point out, the difference between being eco-efficient and being eco-effective.²¹

Furthermore, most corporations continued to serve the needs of the wealthy exclusively while exploiting the developing world primarily for its abundant resources and cheap labor pool. A sustainable form of global enterprise would instead seek to create corporate and competitive strategies that simultaneously deliver economic, social, and environmental benefits for the entire world.²² By the mid-1990s, it was clear that the corporate agenda was much bigger than just greening—and that the business opportunity was much more substantial as well. This was the key message of my 1997 McKinsey award-winning article in the *Harvard Business Review*, “Beyond Greening: Strategies for a Sustainable World.” It was also my primary motivation for moving to the University of North Carolina at Chapel Hill in 1998 to become the founding director of the Center for Sustainable Enterprise at the Kenan-Flagler Business School.

Corporations were being challenged to move beyond greening, first by pursuing new technologies that had the potential to be inherently clean (renewable energy, biomaterials, wireless IT), and second by reaching out to bring the benefits of capitalism to the entire human community of 6.7 billion people (rather than just the one billion at the top of the economic pyramid). In recognition of this challenge, my colleagues at UNC and I launched in 2000 The Base of the Pyramid Learning Laboratory, a consortium of large corporations, new ventures, and nongovernmental organizations (NGOs) all focused on how best to serve the needs of the four billion people at the base of the economic pyramid (BoP) in a way that is culturally appropriate, environmentally sustainable, and economically profitable.

By moving beyond greening, companies hope not only to address mounting social and environmental concerns, but also to build the foundation for innovation and growth in the coming decades. In so doing, they would outperform their competitors in today's businesses

and, even more importantly, outrun them to tomorrow's technologies and markets. In short, sustainable global enterprises would create competitively superior strategies that simultaneously move us more rapidly toward a sustainable world.

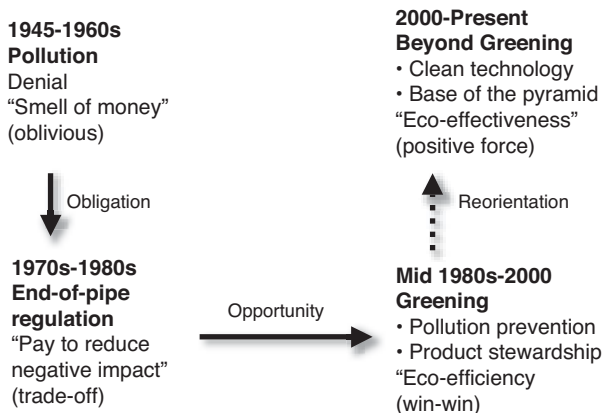
In fact, over the past decade, there has been an explosion of clean technology investment—a veritable “revolution.”²³ Venture capitalists have pumped in excess of \$20 billion into clean tech companies since 2005. The Obama administration has pledged more than \$100 billion for clean technologies, and China plans to invest \$200 billion.²⁴ There are now literally thousands of new “clean tech” startups flush with investment capital, particularly in the strategically significant arenas of biofuels, renewable energy, and biomaterials.

Alongside the “clean tech” revolution, commercial strategies for serving the bottom (or base) of the income pyramid have also emerged over the past decade. Dozens of global corporations and hundreds of smaller social enterprises around the world have now initiated or deepened commercial experiments to serve the four billion poor who have been largely bypassed by economic globalization to date. These early initiatives may hold the keys to a new, more inclusive form of capitalism.²⁵

Exhibit 1.1 summarizes the evolutionary path that corporations have followed over the past 50 years. Crossing the chasm from seeing societal performance as a trade-off or obligation (the left side of the figure) to a possible win-win opportunity (the lower-right side) was the major breakthrough of the 1980s. By 2000, many large corporations had internalized the capabilities and disciplines associated with greening, although some still had a long way to go. As a result, the competitive front migrated to the “beyond greening” domain (the upper-right portion).

Exhibit 1.1

The Long and Winding Road



Rather than seeking incremental improvements to what already exists, moving beyond greening often means pursuing innovations that may make obsolete what currently constitutes the company’s core business—it is an inherently disruptive act. Thus, given its focus on new technologies and markets, the “beyond greening” space is blessed with much greater opportunities, but also fraught with bigger risks. One case in particular—Monsanto’s controversial entry into genetically modified seeds—illustrates the potential opportunities and pitfalls of pursuing such strategies.²⁶

Raging Against the Machine

In the mid-1990s, new CEO Robert Shapiro sought to revolutionize Monsanto. Through the power of his vision, he hoped to convert the firm from a chemicals manufacturer to a life-sciences company focused on “Food, Health, and Hope.” Consistent with this vision, Shapiro spun off several strategic business units (SBUs) associated with the organization’s chemicals business heritage, retaining only those closely tied to its life sciences focus. Simultaneously, he took the company on an acquisition binge, aggressively buying up biotech and

seed companies, and accumulating huge debt in the process. The more focused—and leveraged—company then set out on a rapid growth strategy to make agricultural biotechnology a practical reality.

Shapiro also articulated how Monsanto's genetically engineered seeds gave the firm an advantage in the drive toward sustainability because they could increase farmers' yields, reduce pesticide use, and help to deliver nutrients to the world's chronically undernourished poor. In the space of a few years, Monsanto convinced farmers to plant nearly 60 million acres in the U.S. in genetically modified crops. In 1997, Shapiro also launched a new Sustainable Development Sector, empowering dozens of internal champions to identify and grow the new businesses of the future that would address global social and environmental concerns in an economically profitable manner. Between 1995 and 1997, Monsanto's stock price soared amid rosy projections of blockbuster products and rapidly expanding markets for agricultural biotechnology.

As a result of these developments, Monsanto was thrust into the public eye in a way that few companies had ever been in the past. Shapiro's portrayal of biotechnology's role in the future of agriculture generated unprecedented levels of public attention and scrutiny. This scrutiny resulted in problems for Monsanto as critics cast bright lights on incidents in which company actions did not match the spirit of Shapiro's vision.

For example, when Monsanto attempted to launch its genetically modified seeds in Europe, it met intense resistance from organic farmers and environmentalists, despite the fact that all the necessary regulatory approvals had been secured. Some Monsanto managers hired private investigators to ensure that customers (farmers) were not illegally saving Monsanto's genetically modified seed for replanting the following year. These actions and others alienated many who called into question Monsanto's true dedication to sustainable development and environmental stewardship. Shapiro's vision, in other words, did not always align with the actions taken by people in the company.

Other stakeholder groups included the millions of small farmers in developing countries such as India. These farmers protested against Monsanto in the streets, fearing that the company would enforce patents on essential grains and make them pay international prices for the seed they planted. Moreover, the farmers were concerned that Monsanto's patent ownership (via acquisition) of the "terminator" gene (seed-sterilization technology) would not allow them to practice the age-old tradition of propagating seeds from their own crops.

Regrettably, Monsanto did not enable these voices to reach business decision makers. The firm consulted with its immediate customers (large-scale farmers), regulators, and consumer groups in the United States. Despite efforts by the company's Sustainable Development Sector to access other voices, the business decision makers did not consider consumer groups in Europe or small farmers in developing countries to be legitimate or persuasive, even if their claims seemed urgent.

Instead of becoming a more open, innovative culture, the firm became more defensive and had to back away publicly from several of its biotechnology initiatives under pressure from growing protest. Indeed, in October 1999, Monsanto publicly apologized for its behavior: "Our confidence in this technology (genetic engineering) and our enthusiasm for it has, I think, been widely seen, and understandably so, as condescension and indeed arrogance."²⁷ External support for the firm's strategy had eroded, and in late 1999, the company followed through on merger talks with pharmaceutical maker Pharmacia & Upjohn. This move effectively ended the Shapiro era of sustainability-driven corporate strategy at Monsanto.

Smart Mobs Versus Smart Globalization

How do we account for the rapid rise—and even more precipitous fall—of a major corporation such as Monsanto, which had done nothing wrong according to society's legal and regulatory institutions

and had, in fact, transformed its business model to add value to its customers while reducing environmental impact?²⁸ Certainly, the emergent nature of biotechnology had something to do with the problems that Monsanto experienced. Indeed, an accelerating pace of technological change appears to be generating ever-faster cycles of creative destruction.²⁹

Yet there is even something more fundamental at work here. The power of governments has eroded in the wake of globalization and the growth of transnational corporations with global supply chains that span several continents. NGOs and civil society groups have stepped into the breach, assuming the role of monitor and, in some cases, enforcer of social and environmental standards.³⁰ Today, for example, there are more than 50,000 international NGOs, compared to fewer than 20,000 only a decade ago.³¹

At the same time, the spread of the Internet and other information technologies has enabled not only these groups, but also millions of individuals, to communicate with each other in ways that were unimaginable even a decade ago.³² Indeed, Internet-connected coalitions of NGOs and individuals—smart mobs—are now making it impossible for governments, corporations, or any large institution to operate in secrecy.³³ The varied claims of these smart mobs have created a dynamically complex business environment in which organizations find it difficult to determine what knowledge is relevant for managing strategic change; just ask senior managers at Shell, Nike, the World Trade Organization, or the World Economic Forum.

As might be expected, the past decade has been a combination of good news and bad news for Monsanto. In 2000, it merged with Pharmacia and Upjohn and was incorporated as a subsidiary called “Monsanto Ag Company.” Later that year, its name was changed to “Monsanto Company” when a Separation Agreement transferred the operations, assets, and liabilities from Pharmacia to the subsidiary. But name and legal changes haven’t deterred the company’s critics.

Abroad, the company has been under fire in India (where a number of farmer suicides have been linked to Monsanto's high Bt cotton seed price), in South Africa (where farmers have experienced reduced maize yields due to variations in pollination), and in Europe (where labeling laws were passed in 2004 to appease anxiety over the possible risks of GM foods).

At home, legal battles haven't helped the company's image: Since the late 1990's, Monsanto has filed some 140 lawsuits against U.S. farmers for claims of seed patent infringement.³⁴ However, despite this continued public scrutiny, the company *has* created economic value with its GMOs. In 2009, it sold \$7.3 billion in GMO products (versus competitor DuPont's \$4 billion) and has seen sales increase at an annualized 18% rate over the past five years. And as a testament to its economic success, Monsanto was named *Forbes'* Company of the Year for 2009.³⁵ The question is: Has Monsanto really found its groove, or is it just a matter of time until the next stakeholder swarm takes the company down again?

As the Monsanto case illustrates, most companies still tend to focus management attention only on known, powerful, or "salient" stakeholders—those who can directly impact the firm.³⁶ Even recent efforts at "radical transparency," the complete and truthful disclosure of an organization's plans and activities, appear inadequate because they entail reporting only what has already been decided or, in fact, accomplished. Yet in a world of smart mobs, firms cannot manage stakeholders. Instead, swarms of stakeholders self-organize on the Internet in chaotic and unpredictable ways.

Groups at the "fringe" of a firm's stakeholder network can acquire an important voice in such swarms. To avoid the wrath of the smart mob, it has now become essential to proactively seek out the voices from the fringe that had previously been ignored. To survive and compete for the future, firms must harness these voices to identify creative new business models and opportunities. The tyranny of the

smart mob can yield to a new form of what might be called “smart globalization:” growth via disruptive business models that address the social and environmental concerns of fringe stakeholders.³⁷

Becoming Indigenous

The Monsanto experience holds an important lesson: If corporate sustainability strategies are narrowly construed, they will fall seriously short. It is not enough to develop revolutionary technology with the potential to leapfrog currently unsustainable methods. Antiglobalization demonstrators have made it apparent that if corporate expansion is seen to endanger local autonomy, it will encounter vigorous resistance. Multinationals seeking new growth strategies to satisfy shareholders increasingly hear concerns from many quarters about consumer monoculture, labor rights, and cultural hegemony. As long as multinational corporations persist in being outsiders—alien to both the cultures and the ecosystems within which they do business—it will be difficult for them to realize their full commercial, let alone social, potential.

Today corporations are being challenged to rethink global strategies in which one-size-fits-all products are produced for the global market using world-scale production facilities and supply chains. Even so-called locally responsive strategies are often little more than pre-existing corporate solutions tailored to “fit” local markets: Technologies are frequently transferred from the corporate lab and applied in unfamiliar cultural and environmental settings; unmet needs in new markets are identified through demographic (secondary) data. The result is stillborn products and inappropriate business models that fail to effectively address real needs. As GE CEO Jeff Immelt recently noted, existing large corporations will be pre-empted by more nimble local players from the developing world unless they learn how to innovate from the ground up—what he calls “reverse innovation.”³⁸

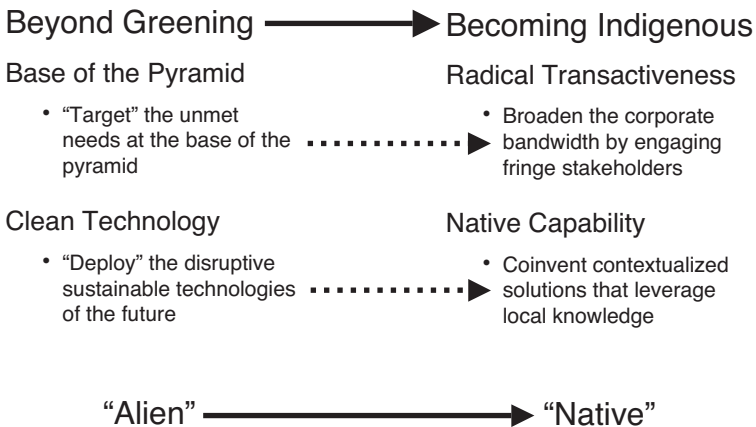
Indeed, in response to the failure of traditional development assistance and large corporations' inability to effectively address the needs of the poor, "social entrepreneurship" has burst onto the scene.³⁹ Rather than innovating from within existing institutions, this new breed of change agent seeks to launch new enterprises that address directly the problems of poverty, inequity, and unsustainability. Led by organizations such as Ashoka and Grameen Bank, there are now thousands of such fledgling enterprises around the world, each seeking to develop the new strategies and business models needed to catalyze social change.

The past decade has also seen the emergence of a new brand of financier—the "patient capitalist." Patient capitalists are not aid agencies or large corporations, but rather groups of investors and intermediaries focused on supporting small, high-impact entrepreneurs on the ground. This emerging sector includes groups such as the Acumen Fund, E+Co, Root Capital, Grassroots Business Fund, Intellicap, Microvest, New Ventures, and Technoserve. Taken together with the rapidly growing social investing, clean tech investing, and microfinance sectors, we are witnessing the birth of an entirely new industry—*impact investing*. Indeed, at the 2009 Clinton Global Initiative, the Global Impact Investing Network (GIIN) was announced as a vehicle for accelerating the development of this new financial sector.

Clearly then, the next challenge for large corporations will be learning how to become "indigenous" to the places in which they operate (see Exhibit 1.2). Doing so will require that they first widen the corporate bandwidth by admitting voices that have, up to now, been excluded; this means becoming radically *transactive* rather than just radically transparent. It will also entail the development of new "native" capabilities that enable a company to develop fully contextualized solutions to real problems in ways that respect local culture and natural diversity. When combined with multinational corporation's (MNC) ability to provide technical resources, investment, and global

learning, native capability can enable companies to become truly embedded in the local context. It was with this realization that I embarked on a new professional challenge in 2003, having accepted the Samuel C. Johnson Chair in Sustainable Global Enterprise at Cornell University's Johnson School of Management. Our initiative at Cornell has spawned a new effort, the Base of the Pyramid Protocol, which seeks to develop a practical approach for becoming indigenous.

Exhibit 1.2 **Indigenous Enterprise:** **The Next Sustainability Challenge**



Unilever's Indian subsidiary, Hindustan Lever Limited (recently changed to Hindustan Unilever Limited), provides an interesting glimpse of the development of native capabilities in its efforts to pioneer new markets among the rural poor.⁴⁰ Hindustan Lever Limited (HLL) requires all employees in India to spend six weeks living in rural villages, actively seeks local consumer insights and preferences as it develops new products, and sources raw materials almost exclusively from local producers. The company also created an R&D center in rural India focused specifically on technology and product development to serve the needs of the poor. HLL uses a wide variety

of local partners to distribute its products and also supports the efforts of these partners to build local capabilities. In addition, HLL provides opportunities and training to local entrepreneurs and actively experiments with new types of distribution, such as selling via local product demonstrations and village street theaters.

By developing local understanding, building local capacity, and encouraging a creative and flexible market development process, HLL has been able to generate substantial revenue and profits from operating in low-income markets. Today more than half of HLL's revenue comes from customers at the base of the economic pyramid. Using the approach to product development, marketing, and distribution pioneered in rural India, Unilever has also been able to leverage a rapidly growing and profitable business focused on low-income markets in other parts of the developing world. Not surprisingly, Unilever has encountered challenges and bumps in the road in its journey to reach the base of the pyramid; these are discussed in later chapters. Importantly, however, through its strategy, the company has created tens of thousands of jobs, improved hygiene and quality of life for millions, and become a partner in development with the poor themselves.

The Road Ahead

To summarize, the greening initiatives of the late 1980s and early 1990s were revolutionary, if insufficient, steps: They repositioned social and environmental issues as profit-making opportunities rather than profit-spending obligations. More recent “beyond greening” strategies are even more significant: They hold the potential to reorient corporate portfolios around inherently clean technologies and create a more inclusive form of global capitalism that embraces the four billion poor at the base of the economic pyramid. If narrowly construed, however, such strategies still position MNCs as outsiders, alien to both the cultures and the ecosystems within which

they do business. The challenge is for multinationals to move beyond “alien” strategies imposed from the outside to become truly indigenous to the places in which they operate. To do so will require companies to widen their corporate bandwidths and develop entirely new “native” capabilities that emphasize deep dialogue and local codevelopment. A more inclusive commerce thus requires innovation not just in technology, but also in business models, business processes, and mental frames.

Indeed, over the past ten years, “Clean Technology” and “Base of the Pyramid” strategies have exploded onto the scene, and social entrepreneurship has emerged as a new force for innovation. Each strategy provides important pieces to the sustainable enterprise puzzle: The former contributes “next generation” technologies with dramatically lower environmental impacts, and the latter creates innovative new ways to reach and include all of humanity in the capitalist dream. Yet each also comes with its own baggage and blind spots. Therefore, a crucial next step is to converge these strategies into what I call the “Green Leap.” Such a strategic convergence recognizes that clean technologies are almost always “disruptive” in character. (That is, they threaten incumbents in current served markets at the top of the pyramid.) As a result, the base of the pyramid might be the best place to focus initial commercialization attention. At the same time, the Green Leap approach also recognizes that successful strategies must be cocreated with communities and local partners so as to ensure cultural embeddedness, rather than imposing technological solutions from the top down.⁴¹

Given the urgency of both the need and opportunity described here, Cornell’s Center for Sustainable Global Enterprise launched the Cornell Global Forum on Sustainable Enterprise—an initiative to accelerate the rate of change toward this Great Convergence in the world. Indeed, nearly 100 of the world’s leading practitioners on the forefront of the “Green Leap” participated as delegates to

explore entrepreneurial strategies for the growth and scaling of ventures in the “convergence zone.” The inaugural Global Forum was held in New York City, June 1–3, 2009, and the plan is to build this initiative into a growing global social network and an ongoing business movement.

Thus, as we enter the second decade of the new millennium, capitalism truly does stand at a crossroads. The old strategies of the industrial age are no longer viable. The time is now for the birth of a new, more inclusive form of commerce, one that lifts the entire human family while at the same time replenishing and restoring nature. The path to a sustainable world, however, will be anything but smooth. It will be a bumpy ride strewn with the remains of companies that variously dragged their feet, made promises they could not keep, bet on the wrong technology, collaborated with the wrong partners, and separated their social and business agendas. Only those companies with the right combination of vision, strategy, structure, capability, and audacity will succeed in what could be the most important transition period in the history of capitalism.

Overview of the Book

This chapter has provided a guided tour of the argument contained in this book. The book itself is divided into three parts. Part One, “Mapping the Terrain,” provides the background and context for the chapters that follow; it describes the global situation and establishes the business case for pursuing strategies that aim to solve social and environmental problems. It also outlines the challenges and opportunities that remain to be addressed, particularly those that involve the development of new, more sustainable technologies and the needs of the four billion people who have been largely bypassed thus far by globalization. Part Two, “Beyond Greening,” then develops the logic and

content of these “beyond greening” strategies in more depth. Finally, in Part Three, “Becoming Indigenous,” I suggest how corporations might begin to move beyond even these strategies for sustainability by learning to become more embedded in the local context. Learning to become indigenous, I argue, is the next strategic challenge on the road to building a sustainable global enterprise.

Chapter 2, “Worlds in Collision,” places the global challenges associated with sustainability in the larger context. It seeks to cut through the complexity by providing a readily digestible framework for thinking about the current global situation, characterizing it as the collision of three economies or worlds—the money economy, the traditional economy, and nature’s economy. Ultimately, the challenge is to develop a sustainable global economy: an economy that the planet is capable of supporting indefinitely, while simultaneously providing for the entire human community in a way that respects cultural, religious, and ethnic diversity. This chapter seeks to put this challenge into perspective and offers some thoughts about appropriate roles for companies.

Chapter 3, “The Sustainable Value Portfolio,” closes out the first section of the book by developing a detailed framework for connecting the agendas of sustainability and value creation. Just as companies must succeed on many fronts in order to create shareholder value, so, too, must they master economic, social, and environmental challenges to achieve sustainability. These challenges affect virtually every aspect of a firm’s strategy. There need not be a trade-off between stakeholder satisfaction and value creation. The chapter makes clear that although the biggest opportunity for the future lies in moving beyond greening, most companies still focus virtually all their attention on greening or (worse) mere compliance.

Part Two of this book develops the strategies that move beyond greening in greater depth. Chapter 4, “Clean Technology and Creative Destruction,” articulates the strategic logic for pursuing leapfrog strategies to clean technology in ways that open exciting new

growth markets but also often make the firms' existing technologies and products obsolete. The chapter also shows how the lens of whole-systems thinking can help to prioritize investment in the new technologies and capabilities that will be important to the future competitiveness of the enterprise.

Chapter 5, "Innovation from the Bottom-Up," demonstrates why the four billion people at the base of the world economic pyramid represent the most attractive early market for many of the most exciting new clean technologies. Because most such technologies are disruptive and will, therefore, be resisted by established markets, the vast underserved populations in shantytowns and rural villages offer the most promising places to incubate and grow the technologies of tomorrow. In the process, they also provide platforms for new growth industries that hold the potential to revolutionize markets at the top of the pyramid—and move us much more rapidly toward a sustainable world.

Chapter 6, "Raising the Base of the Pyramid," articulates some basic principles for successfully tapping into these emerging markets and shows how effective strategies will generate not only corporate growth and profits, but also local jobs, livelihoods, and solutions to social and environmental problems. By removing the constraints imposed on the poor, increasing their earning power, and creating new potential in poor communities, companies can identify and pursue previously invisible opportunities. To be successful in these new markets, therefore, companies must seek to actually *raise* the BoP through their commercial models, making the measurement and tracking of "triple bottom line" impacts increasingly important.

Finally, Part Three of this book critically evaluates early "beyond greening" experiences and offers some prescriptions for how to move toward a more indigenous and embedded form of commerce. Chapter 7, "Broadening the Corporate Bandwidth," first describes how the existing conceptions of "development" and "modernization" reflect a Western cultural bias and a preoccupation with simply raising income and GDP per capita. Together, these shortcomings significantly hinder

efforts to imagine and build communities and markets at the base of the pyramid. To successfully serve the needs of the entire human community, therefore, corporations must broaden their bandwidth and expand their conception of the global economy to include the myriad other forms of economic activity beyond the formal economy. Radical transactiveness is the tool proposed to enable companies to hear the true voices of those who have been marginalized or ignored by globalization.

Chapter 8, “Developing Native Capability,” then shows how to avoid the trap of simply “selling to the poor.” Development at the base of the economic pyramid does not follow traditional patterns found in the developed world. Indeed, the chapter shows that success in this space means engaging in deep dialogue, coinventing solutions, starting small, building trust, and developing an ecosystem of local partners on the ground. To be successful, therefore, companies must consciously develop “next generation” skills needed to create mutual value in the BoP. Native capability thus enables global firms to move beyond the existing multinational model, with its emphasis on global supply chains, world scale, and centrally developed—and often alien—solutions.

Chapter 9, “Re-Embedding Innovation Strategy,” builds on the previous chapter by first demonstrating why, at this point in history, it is so important that capitalism become reintegrated into society. Many BoP strategies that appear on the surface to be embedded can actually remain disconnected unless explicit attention is paid to the *process* by which they are created in the first place. The chapter thus focuses on a specific business process methodology for becoming embedded—the Base of the Pyramid Protocol. Through an analysis of selected applications of this approach over the past five years, the chapter lays out the key challenges to and important lessons for cocreating sustainable, locally embedded enterprises that also have the potential to scale.

The final chapter suggests how to go about actually “Building the Sustainable Global Enterprise.” Most of the book focuses on *what*

companies might do to pursue the sustainability path—the strategies, practices, and capabilities that are required. What is less clear is *how* to pursue this path, particularly within the context of large, incumbent, multinational corporations. This chapter therefore closes with some thoughts on what it will take for leaders and change agents to make this happen in the real world of budgets, bosses, quarterly earnings reports, discounted cash flow analysis, and the discipline of the investor community. Specifically, this chapter lays out a framework for building the organizational infrastructure for sustainability.

Notes

1. For example, Allen Kneese and Charles Schultze, *Pollution, Prices, and Public Policy* (Washington, D.C.: Brookings, 1975); and Robert Dorfman and Nancy Dorfman, *Economics of the Environment* (New York: W.W. Norton, 1972).
2. Ray Anderson, *Mid-Course Correction* (White River Junction, VT: Chelsea Green, 1998).
3. It is not my intention here to suggest that trade-offs do not exist between corporate economic and societal performance. Clearly, in some situations, command-and-control regulation is the only viable solution. In others, however, it is possible to internalize externalities or even supply public goods in a way that facilitates economic performance. The problem has been blind adherence to the belief that such “win-win” situations are generally not possible.
4. Again, my intention here is not to suggest that command-and-control regulation does not serve an important purpose. For laggards and criminals, there is no option. However, for those firms seeking to move beyond compliance, such regulation can sometimes limit degrees of freedom and slow the rate of innovation.
5. Milton Friedman, “The Social Responsibility of Business Is to Increase Its Profits,” *The New York Times Magazine*, 13 September (1970): 32–33, 122–126.
6. My thanks to Paul Tebo at DuPont for this wonderful illustration.
7. Indeed, the Reagan administration in the United States was bent on reforming—or, better yet eliminating—these regulations.
8. Clyde Prestowitz, *Trading Places* (New York: Basic Books, 1988); Barry Bluestone and Bennett Harrison, *The Deindustrialization of America* (New York: Basic Books, 1982); and Ira Magaziner and Robert Reich, *Minding America’s Business* (New York: Vintage Books, 1982).
9. Ironically, quality management was an American invention in the first place, but it was rejected in the 1950s by U.S. companies who were making too much money through high-volume, standardized mass production. Proponents such as Deming and Crosby found willing adopters, however, in the struggling companies of post-war Japan.

10. See, for example, Masaki Imai, *Kaizen: The Key to Japan's Competitive Success* (New York: Random House, 1986).
11. Excellent examples include Bill Shore, *The Cathedral Within* (New York: Random House, 1999); and Mark Albion, *Making a Life, Making a Living* (New York: Warner Books, 2000).
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13. For an excellent and in-depth treatment of greening as business opportunity and strategy, see Forest Reinhardt, *Down to Earth* (Cambridge, MA: Harvard Business School Press, 2000).
14. A. Marcus, D. Geffen, and K. Sexton, *Reinventing Environmental Regulation: Lessons from Project XL* (Washington, D.C.: Resources for the Future/Johns Hopkins University Press, 2002).
15. Andy King and Michael Lenox, "Exploring the Locus of Profitable Pollution Reduction," *Management Science*, 47(2) (2002): 289–299.
16. See Nigel Roome and Michael Hinnells, "Environmental Factors in the Management of New Product Development," *Business Strategy and the Environment*, 2(1) (1993): 12–27; and Ulrich Steger, "Managerial Issues in Closing the Loop," *Business Strategy and the Environment*, 5(4) (1996): 252–268.
17. William McDonough and Michael Braungart, *Cradle to Cradle* (New York: North Point Press, 2002).
18. Fiona Murray and Richard Vietor, *Xerox: Design for Environment*, (Boston: Harvard Business School Publishing, 1993).
19. Personal communication with Dave Buzzelli, Dow Chemical Company, 1996.
20. Paul Hawken, Amory Lovins, and Hunter Lovins, *Natural Capitalism* (New York: Little, Brown, and Company, 1999).
21. William McDonough and Michael Braungart, *Cradle to Cradle*.
22. This is referred to as the "triple bottom line." See John Elkington, *Cannibals with Forks* (Gabriola Island, B.C.: New Society Publishing, 1998).
23. Ron Pernick and Clint Wilder, *The Clean Tech Revolution* (New York: Collins, 2007).

24. Mark Johnson and Josh Suskewicz, "How to Jump-Start the Clean Tech Economy," *Harvard Business Review*, November 2009: 53–60.
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26. Erik Simanis and Stuart Hart, *Monsanto Company (A) and (B): Quest for Sustainability* (Washington, D.C.: World Resources Institute, 2000).
27. Robert Shapiro, *Address to Greenpeace's Annual Conference*, 1999.
28. This section is excerpted from Stuart Hart and Sanjay Sharma, "Engaging Fringe Stakeholders for Competitive Imagination," *Academy of Management Executive*, 18(1) (2004): 7–18.
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