INTRODUCTION

Signals from a New World

NEW YORK, NEW YORK. At 9:00 p.m. on October 29, 2012, an explosion rocked the Lower East Side of Manhattan. An electric substation belonging to New York utility Consolidated Edison (ConEd) had gone up in flames after the rising seas from Hurricane Sandy flooded the building. A large portion of the world's most recognizable skyline went dark for four days, including ConEd's headquarters. In just a few weeks, ConEd lost \$2 billion of market cap (one-eighth of the company's value).\footnote{1}

ConEd estimated that it would spend \$550 million after the storm, only a fraction of the \$6 billion (at least) lost by other businesses in the region. New York State would ask for \$42 billion in aid to repair housing, infrastructure, and transit systems.² The human toll of the superstorm was hard to grasp—nearly 200 people in the United States and Caribbean were killed, and tens of thousands lost their homes.

While no single weather event can be definitively connected to climate change, it's now clear that a hotter planet means more intense heat waves, windier hurricanes, and bigger floods—with ever-increasing economic impacts.³

Is your business ready for the coming storm?

PLAINVIEW, TEXAS. In February 2013, a beef processing plant that had been running for decades shut down, eliminating 2,300 jobs—10 percent of the town's population—and \$55 million in payroll. It was one of many ripples from the never-ending drought that the *New York Times* reported "has dried up pastures and increased the costs of hay and feed, forcing some ranchers to sell off their herds to reduce expenses." There just isn't enough water in the region to keep the cattle industry thriving.

The drought gripping Texas has cost the state's businesses billions of dollars, and water availability has become a critical issue for industry. The president of the Texas Association of Business says that "not having an adequate water supply will harm us in terms of bringing jobs to Texas and is doing so now, already ... If we don't address these issues, the message is—don't go to Texas." 5

Texas is not alone. As most resources—water, cotton, wheat, iron, oil, and many more—get harder to find or more expensive, the cost of doing business everywhere rises.

Is your company prepared for resource crunches?

DHAKA, BANGLADESH. On April 23, 2013, an apparel factory in the capital city of Bangladesh collapsed, killing more than 1,100 people. This unthinkable tragedy came just six months after a deadly fire raged through the nearby Tazreen Fashions facility, causing more than 100 deaths.⁶ The loss is unfathomable, but if we learn nothing from these disasters, then people have died in vain.

Outside of all the ramifications around safety in manufacturing, companies should heed one lesson: any operation, anywhere in your supply chain, no matter how remote, is now your responsibility. The Dhaka factories made clothing for some of the world's best-known brands, names that were *immediately* splashed on

front-page articles around the world. There is nothing exclusively local in a deeply connected, transparent world.

Some companies acted fast on these tragedies. Big brands like H&M, Zara, Primark, Tesco, and Abercrombie & Fitch signed on to a plan to help pay for factory safety improvements in Bangladesh. The Walt Disney Company ended apparel production in Bangladesh after the Tazreen tragedy.7 Walmart, which only found out after the fire that Tazreen was a subcontractor to its suppliers, demanded information from all its partners about which firms they contract with. Clearly, better data about who supplies you makes it easier to send higher safety and environmental standards rippling up the chain. Transparency and openness are the new norm.

Are you ready to own everything that's going on in your supply chain?

An old friend of mine, a cardiologist, recently told me something that got me thinking. Even today, with all the information about heart health out there, at least 40 percent of first heart attacks are fatal. Mehmet Oz, the well-known cardiothoracic surgeon with his own TV show, has said that these first attack victims die "because they don't know their risk factors or recognize the warning signs."8 So while some attacks come with no warning, for most, there were clues—family history or lifestyle choices like smoking and obesity.

With this sobering statistic in mind, I was reading the fitness magazine Men's Health, and a regular feature, the "Belly Off" story, caught my eye. This heartwarming tale always focuses on someone losing a lot of weight, usually 100 pounds or more. The profile starts with "The Wake-Up Call," a moment in the man's life that scared him—maybe he couldn't

run around with his child, or a doctor told him he would likely die young. These men experienced what I call a "Big-Pivot" moment. At these critical junctures, the signs are clear, we know we need to change our lives substantially—quit smoking, eat a lot less, exercise much more—and the stakes are life and death.

Nobody can avoid all risks, but the earlier we act on the signals we get, the better. Waiting until *after* a heart attack to change your personal health strategy is tremendously risky—what if you don't survive?

When the pivot call comes, it can seem daunting, but it's also an amazing opportunity. Eating better, exercising, meditating—whatever path to health you choose—makes your life better and more enjoyable in both the short and the long run.

The same is true for our businesses, our economies, our society, and our species. Our Big-Pivot moment has arrived. We're receiving plenty of wake-up calls to improve how we operate and make our businesses more profitable and longer lasting. The signals are loud and clear ... and getting more frequent.

Can you hear them?

A Fast-Changing World of Risk and Opportunity

We live in an extreme world now. Our natural resources are under unprecedented pressure as a billion more people enter the global middle class, demanding more of everything. Radical transparency is opening up operations and supply chains to public scrutiny. And most tangibly, extreme weather is breaking records all over the planet, affecting millions of people and costing the private sector dearly.

In 2011, historic floods in Thailand greatly disrupted supply chains for hard drives and cars around the world. In January 2013, extreme temperatures forced Australia's meteorologists to add two new colors to weather maps to handle temperatures now ranging up to 129 degrees Fahrenheit (54 degrees Celsius).9 And in November 2013, after the devastation wrought in the Philippines by Typhoon Haiyan—the most powerful storm ever recorded, with gusts over 200 miles per hour—some climatologists suggested adding a "Category 6" to the top end of the storm scale.¹⁰ The frequency of these extreme weather events is increasing: as New York's governor Andrew Cuomo said after Hurricane Sandy, "We've had two 100-year storms in three years."11

More people are sensing this extremity in their everyday lives and acknowledging that the world is changing profoundly. Last year, Dan Akerson, then the CEO of GM, talked about his company's past climate-change denial, saying "it's kind of hard to refute it ... and it's pretty hard not to be convinced that something is going on in the world."12 Akerson acted on this new conviction and signed GM onto a proclimate policy advocacy group, joining a growing list of committed companies like Autodesk, eBay, Intel, Levi Strauss, Nestlé, Nike, Starbucks, Swiss Re, Timberland, and Unilever.

For those who have not yet felt such a change of heart, they may become more convinced by what they feel in their wallets. At the macroeconomic level, natural disasters cost the United States over \$100 billion in 2012 alone.¹³ As CNN reported recently, "nearly one third of the world's economic output will come from countries facing 'high' to 'extreme' risks from the impacts of climate change within 12 years." That's \$44 trillion of global economy at risk by 2025.14

These macro global numbers are sobering, but it's businesses and individuals that are feeling the economic pressures from a hotter world with fewer, more expensive resources. The price of cotton rose 300 percent over one recent 18-month period.¹⁵ Food prices have skyrocketed globally, creating a new hunger crisis and deeply impacting both economies and corporate bottom lines.

Coca-Cola took an \$800 million hit to earnings from rising corn prices (besides water, liquid corn is the main ingredient in soda). Morningstar analysts calculated that feeding chickens would cost Tyson Foods \$700 million more per year, an amount roughly equal to the meat producer's annual net income. It's not a rounding error; it's the difference between profit and loss.

No country, city, or business can ignore this new reality of extreme weather and expensive resources. Political leaders and CEOs who avoid acknowledging and dealing proactively with it are looking increasingly foolish and irresponsible. And they're not acting in the best interests of their citizens or shareholders.

The vast challenges of this fundamentally changed world can be broken down into three mega challenges that we now must face: (1) climate change, (2) resource constraints and rising commodity prices, and (3) technology-driven demands for more transparency. These three mega forces are what I'm calling "hotter, scarcer, and more open." Consider the first two forces as nonnegotiable system conditions, which we have to manage for our own survival and prosperity. The third pressure, a profound new level of openness, is more like an enforcer or multiplier, which allows everyone to see (and judge) how companies and countries are handling the first two.

The three mega challenges working in concert are dramatically changing "business as usual" and even what we'd consider "life as usual." Because they're growing stronger every day, executives must quickly figure out how to navigate these pressures.

The fundamental biophysical, technological, and economic realities hitting us create deeply dangerous pitfalls for all organizations, but also vast canyons of opportunity for those who understand and skillfully ride these shifts. Each mega challenge comes with a built-in complementary mega opportunity: (1) the fight against climate change is one driver of the rise of the clean economy (currently about a \$250 billion-per-year global investment), (2) resource constraints are happening because of the rise of a new middle class demanding a higher standard of living and more products and services, and (3) connectedness and transparency are also tools of open innovation, driving new ideas and creativity.¹⁷

Unfortunately, today's organizations are not up to the task of managing and profiting from shifts this large. Even putting aside nature's extremes, the business world has been struggling to manage constant, disruptive change. The big threats to business that students learn about in business school are still going strong: new entrants with disruptive business models, increasingly complex supply chains, growing requirements from fickle customers, and new demands from millennial workers who want meaningful work. As John Kotter, a renowned professor from Harvard Business School, wrote recently, "We can't keep up with the pace of change, let alone get ahead of it. The stakes—financial, social, environmental, and political—are rising. The hierarchical structures and organizational processes we have used for decades to run and improve our enterprises are no longer up to the task of winning in this faster-moving world."18

Whether you take a purely fiscal view of these challenges or look through a human-focused lens, one thing is clear: we've passed the economic tipping point. A weakening of the pillars of our planetary infrastructure—a stable climate, clean air and water, healthy biodiversity, and abundant resources—is costing

business real money. It's not some futuristic scenario and model to debate, but reality now, and it threatens our ability to sustain an expanding global economy.

We need a new approach to prepare for, avoid, manage, and even profit from the challenges we're facing. We need to build organizations that help bring about the necessary changes in our economic system, but from within. These new companies will be more resilient, robust, and able to thrive in fast-changing times. They will be what Nassim Taleb, an author and an expert on uncertainty calls "antifragile." But to get there, companies must shift how they operate in fundamental ways, starting with a deep change in perspective.

The Big Pivot

We can't pretend there are two sides to every issue. Of course, details of how the mega challenges will play out are hazy, but they are happening, full stop. If you don't believe—or you're not at least willing to consider—that climate change and resource constraints are very serious problems, then this may not be the book for you ... just yet. If you don't see that these challenges also create enormous opportunities as we try to figure out how to support what will be 9 billion people, all getting richer and freer and demanding more of everything, then you may not be ready for these ideas today.

This book is for those who know (or are starting to sense) that the pressures we face are so large and intertwined, and the time growing so short, that addressing them aggressively represents the only logical path forward for humanity and for every government, community, business, and individual.

In short, if you believe that these pressures are real, then what has until now been called green business, or sustainability, cannot be a side department or a niche conversation in commerce. Instead, we must *pivot*—sometimes painfully, always purposefully—so that solving the world's biggest challenges profitably becomes the core pursuit of business.

We're now testing the limits of all the natural systems that support our economy and society. Thus, we need to establish a new paradigm for how companies operate. This book is an attempt to answer a fundamental question: If this hotter, scarcer, more transparent, and unpredictable world is the new normal, then how must companies act to ensure a prosperous future for all, including themselves?

Asking whether it makes business sense to tackle the mega challenges is no longer the relevant question. Instead, we must ask ourselves some new core questions, such as, "What do we need to do to manage our businesses effectively in light of these challenges?" Then, and only then, do we figure out how to profit massively from the journey. Profits will still drive much of corporate action—an unprofitable model won't survive—but ultimately it's ludicrous to prioritize short-term profit at the cost of our very survival.

We need a major shift in perspective to see that we can deal with the challenges profitably. It's a both-and argument, not the usual false either-or hurdle that's placed in front of advocates for change. Organizations can no longer afford to address massive issues like energy, climate, water, and global development and poverty only when every initiative on the table meets some predetermined, somewhat arbitrary hurdle rate. We have to flip these priorities on their head.

That's the Big Pivot ... and it's nonnegotiable.

Big-Pivot strategy represents a major shift in consciousness for the private sector, but it's not entirely radical. In fact, this kind of thinking is highly conservative, with a major dose of self-interest. We need to conserve the planet's capacity to support us for our own good.

So consider this second core question: If we start from an assumption that we must solve massive challenges to ensure our survival, and then we work back from there to find profitable models, what would a company look like? (This is, critically, distinct from how we operate now, where we start with profit maximization first and then get to environmental and social issues when we decide it's "affordable.")

The companies of the near-future will do many things differently to bring about, operate successfully within, and profit from a new reality. Successful leaders are already starting to pursue a new agenda and set of principles, including the following:

- Fighting the short-term focus that distracts business from creating value. Leaders need a much deeper concept than just earnings (which is one particular, warped and narrow view of business success). Executives will worry a great deal more about customers and communities than about stock analysts. Unilever, for example, no longer provides quarterly guidance to Wall Street, greatly reducing its time spent "talking up" the stock and, instead, freeing up management attention to focus on products and customers.
- Basing company goals on science and the targets we all
 must hit. Organizations must set big goals—like a drastic
 reduction in carbon emissions globally (perhaps by using
 only renewable energy) or operating within local wateravailability limits—based on what science is telling us.

Companies can no longer simply follow a bottom-up exercise to discover what they think they can do. Ford is just one example of a company setting its product development goals on the basis of global climate science.

- Systematically asking heretical questions. Executives and employees at all levels need to challenge everything, from processes to the way we innovate (openly, not in private) to business models to capitalism itself. A few leaders, such as home improvement retailer Kingfisher in the United Kingdom, are exploring whether they can, through their operations, improve the environment, going beyond the goal of just zero impact and making their enterprises regenerative.
- Helping to craft and promote governmental policies. Smart, proactive regulations can really move the needle on the mega issues and level the playing field. Instead of fighting all regulations, companies like Nike and Starbucks are calling on government to pass aggressive carbon legislation.
- Collaborating with unexpected partners. Companies must take a more strategic view on how different stakeholders can help make them successful, including seeing employees, customers, and maybe even the fiercest competitors as partners and cocreators. If Coca-Cola and PepsiCo can share the burden of finding new, lower-emitting technologies for keeping drinks cold, anyone can work together.
- · Using new tools to put numbers on benefits that are hard to value. Putting a number on intangibles—those things that create value but we don't measure well—can

help companies make smarter investment decisions. Companies ranging from Johnson & Johnson and IKEA to Diversey and 3M are finding ways to modify their return on investment (ROI) calculations to drive investments in efficiency and renewable energy. And estimating the value that nature provides a business—as Puma and Dow have done—can help companies better understand, for example, our dependency on clean water or on having an atmosphere to dump carbon into. These exercises will help companies prepare for the day when these so-called externalities quickly become internal costs (or benefits).

 Setting out to build resilient and regenerative (not just profitable) businesses. A resilient organization can handle deep change and is decoupled from resource use and reliance on the physical capacity of the world. Nestlé and Unilever, among others, are attempting to grow while holding their environmental impacts flat—and they're succeeding.

At its core, the Big Pivot mind-set is about prioritizing environmental and social challenges and opportunities and treating them as central to business success or failure, not as philanthropy or niche issues. This means funding and supporting these initiatives like the high priorities they are.

The mind-set also means understanding not just value chains, but systems, and looking to nature for successful business and operational models (usually ones that are circular, where resources are valued highly and don't go to waste). A food company, for example, will need to consider how what many are calling the "nexus" of food, energy, water, and security interact in each growing region and what those connections mean for the business.

None of these principles or approaches is necessarily easy, but they are required for success and thus will certainly be more profitable than doing nothing. At a macropractical level, on a planet that's under more stress than it can take, no business can profit. Or as a tech executive put it to me memorably, "Nobody will care what operating system they have if they can't eat."

This is an important point to remember and one that often gets lost in a discussion about tackling big environmental and social challenges: none of the core strategies or principles of the Big Pivot are really about "saving the planet." Our Earth will be fine with or without us. As comedian George Carlin once said, "The planet isn't going anywhere. We are! ... The planet'll shake us off like a bad case of fleas."20

No, this is about humans—all 7 billion of us and counting and our ability to survive and thrive.

What's in It for You?

Of course, survival itself is a good payback. But more seriously, if we can redefine what good management and strategy look like in a hotter, scarcer, more open world, we will clearly reduce some large-scale risks to our businesses and society (Scientific American recently reported that floods alone could cost the world's cities \$1 trillion annually by 2050).²¹

And there's another significant upside. The case for meeting these massive changes head-on has a hard-nosed, number-crunching, good-for-business logic behind it. It's not pie-in-the-sky or naive; it's the most realistic solution.

Creating a healthier, cleaner, more stable, and more equitable and just world—with business using its enormous resources and skills to lead the charge—will drive the global economy forward.

In fact, some brave leaders among the large public companies of the world are already well on their way, and we'll visit many of them in this book. They're realizing that this pursuit represents a multi-trillion-dollar opportunity to reconceive how we design, manufacture, and deliver buildings, transportation, energy, and much more.

In the words of billionaire entrepreneur Sir Richard Branson, tackling climate change is "one of the greatest wealth-generating opportunities of our generation." How can this be? It's important to remember that the problems we face, no matter how large, are just constraints on a system. And constraints propel innovation, new thinking, and new business models, which make a lot of money for the fast movers.

My goal then is to establish what companies need to do, not just to survive in a world with so many new challenges and constraints, but to thrive. How will we as a society create a system that provides for those 9 billion people, in ways that use drastically less stuff, produce no carbon, preserve water for everyone's use, and result in no waste or toxicity, all while paying people fairly for their work?

The private sector can and will provide many of the answers. The companies (or communities, cities, or countries) likely to come out on top by making the Big Pivot will be more flexible, resilient, and better able to weather whatever storms the economy and planet throw at us.

Map of the Book

Let me be clear up front. This book is meant to be short, not comprehensive. I fully realize that each one of the 10 core strategies I'm proposing could fill a book. My goal, however, is to provide something appropriate to the urgency of the task at

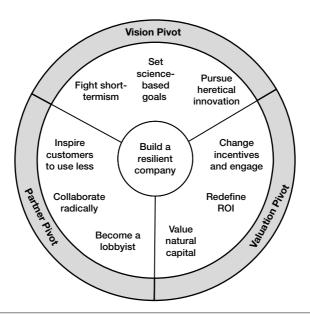
hand—something that gives managers a game plan and a set of priorities for strategizing and operating differently in a fundamentally changed world.

Part 1 begins with four chapters that set the stage with an overview of the mega challenges (hotter, scarcer, more open) and a quick look at both the hurdles in our way and the new mind-set we'll need to conquer them. This section of the book describes what we're facing and starts to paint a picture of how business will need to operate.

Part 2 dives into the ten radically practical strategies, broken into a few pivot categories that comprise the Big Pivot (figure I-1). I start with the Vision Pivot, the chapters that help companies

The Big Pivot strategies

FIGURE I-1



take a longer, broader view, establishing core operating principles through three key strategies: chapter 5, "Fight Short-Termism," offers options for battling the relentless pressure for immediate performance coming from Wall Street and other investors. Chapter 6, "Set Big, Science-Based Goals," makes the case that for the largest challenges, reality dictates that we work outside in from the problem we must solve, not bottom up from what we think we can easily do. Chapter 7, "Pursue Heretical Innovation," explores the kinds of questions we need to ask to move beyond incremental change.

The next three chapters, part of the *Valuation Pivot*, get more tactical, looking closely at what we value in business. Chapter 8, "Change the Incentives," looks at culture and the different ways we motivate employees and executives. In chapter 9, "Redefine ROI to Make Better Strategic Decisions," I describe how one of our core management tools is broken and applied unequally, and I ask the question, "What's the ROI of a Super Bowl ad?" Chapter 10, "Put a Number on the Value of Natural Capital," explores how companies can value what nature provides.

Then I turn to the *Partner Pivot*, focusing on changing the way companies deal with three big external stakeholders. Chapter 11, "Become a Lobbyist," recognizes the impossibility of solving our mega challenges without changing some of the government's rules of the game and asks companies to stop obstructing or get off the sidelines. In chapter 12, "Collaborate Radically," I describe how companies can work with everyone in their value chain, and even their fiercest competitors. Chapter 13, "Inspire Customers to Care and to Use Less," treads carefully on sacred "more is better" grounds by exploring how companies can profit from asking customers to actually buy less.

The final two chapters round up the *Big Pivot*. In chapter 14, "Build a Resilient, Antifragile Company," I explore the tenth,

overarching strategy. A result of the other nine strategies, it also requires a set of distinct actions in its own right. The chapter offers some key principles from the emerging study of resilience and describes how some systems can come back stronger after being knocked down. In the conclusion, "Envisioning a Big-Pivot World," I attempt to paint a picture of what companies and the world will look like after we make the Big Pivot.

There is truly no time to lose, so let's get started.