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Chaotics

The Business of Managing and Marketing in The Age of Turbulence

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PREFACE

When the U.S. financial meltdown struck in 2008, with the seeds laid much earlier, we were asked by our clients and friends, "How deep will it be? How long will it last?" They wanted to know if it would be a short-run recession, a deep recession, or even a great depression. When asked the same question in October 2008, Gary Becker, the Nobel Prize–winning economist, said, "Nobody knows. I certainly don't know." The message: Don't trust economists who say they know.

The fact is that we are entering a new age of turbulence, and moreover, heightened turbulence. In his book *The Age of Turbulence* (Penguin Press, 2007), Alan Greenspan describes his diverse experience as the Federal Reserve chairman and one of the most powerful men in the world. Greenspan had to deal with a great number of economic disturbances and shocks for which the only recourse was to muddle through and pray. He was confronted with major issues facing the United States, such as burgeoning trade deficits and retirement funding, as well as the proper role of government regulation.

The world is more interconnected and interdependent than ever before. Globalization and technology are the two main forces that helped create a new level of *interlocking fragility* in the world economy. Globalization means that producers in one country are increasingly importing resources from other countries and increasingly exporting their output to other countries. Technology—in the

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form of computers, the Internet, and mobile phones—enables information to course through the world at lightning speed. News of a breakthrough discovery, a corporate scandal, or the death of a major figure is heard around the world. The good news is lower costs, but the bad news is increased vulnerability. Outsourcing has always had its defenders and its critics. While global interdependence works in everyone's favor in good times, it rapidly spreads much pain and damage in bad times.

But what is turbulence? We know it when it occurs in nature: It creates havoc in the form of hurricanes, tornados, cyclones, or tsunamis. We experience turbulence in the air from time to time when a pilot asks us to fasten our seat belts. In all these cases, stability and predictability vanish; instead, we are buffeted, bounced, and jabbed by conflicting and relentless forces. And sometimes the turbulence will be so continuous as to plunge the whole economy into a downturn, a recession, or possibly a protracted depression.

Economic turbulence creates the same impact on us as turbulence in nature. One moment we hear that Miami has built more condominiums than buyers are buying. Speculators are carrying the cost and having a hard time meeting the payments. We hear of families who have purchased their homes on NINA—"No Income, No Assets"—loans. Now they can't make their mortgage payments and are facing foreclosures. Banks start realizing that they have deadbeat assets due to securitization and hesitate to make more loans to either customers or other banks. Consumers hear this news and switch from credit-based spending to saving, causing companies that sell automobiles, furniture, and other "postponables" to suffer declining sales. These companies, in turn, announce major layoffs that result in less available consumer purchasing power. Meanwhile, companies slow down their buying from other companies, creating hardship for their suppliers, who in turn, lay off their workers.

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Companies in these difficult times tend to make across-the-board cuts. They deeply reduce their new product development budgets and marketing budgets, both of which undercut their short-term recovery and long-term future. Consumers, workers, producers, bankers, investors, and other economic actors feel that they are living through an economic hurricane, a maelstrom that is unstoppable and relentless.

Hopefully, this turbulence is only short-lived. In the past, it has been. It has not been the normal state of an economy. Yes, economies often do return to "normal" conditions, but in this new era, turbulence at varying levels becomes an essential condition. A particular country may be racked by turbulence, as Iceland experienced in 2008 as its banks moved into bankruptcy. A particular industry—advertising, for example—may be racked by turbulence as companies move more of their money from thirty-second TV commercials into newer media such as websites, e-mails, blogs, and podcasts. Some markets may be turbulent, such as the housing market or the auto market. Finally, individual companies such as General Motors, Ford, and Chrysler may be buffeted by turbulence while others—Toyota or Honda, for example—may experience less of a plight.

The fact that an individual company can be living through conditions of turbulence, and if it lasts long enough, a recession, is underscored in Andy Grove's well-known book, *Only the Paranoid Survive* (Currency Doubleday, 1999). As the former CEO of Intel Corporation, Grove had to deal with all kinds of threats to Intel's preeminent position in the computer chip manufacturing business. It would take just one agile competitor to come out with a superior chip at a lower price to topple Intel. Grove had to live with uncertainty. Intel had to erect an early-warning system that would reveal signs of imminent trouble. It had to create different "what if" scenarios. And it had to preplan different responses to the different scenarios in case they occurred.

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Grove had to create a system that would insure against risk and respond to uncertainty. We have a name for such a system. We call it *chaotics.* All companies must live with risk (which is measurable) and uncertainty (which is unmeasurable). They must build an early-warning system, a scenario construction system, and a quick response system to manage and market during recessions and other turbulent conditions. But our finding is that most companies operate without a chaotics system. Their defenses are scattered and insufficient. Motorola doesn't have a chaotics system. General Motors doesn't have one; nor do countless others in the United States, Europe, Asia, and in markets all around the world.

Most companies operate on the assumption of a built-in self-restoring equilibrium. Economists built price theory with equilibrium in mind. If oversupply occurs, producers will cut their prices. Sales will increase, thus absorbing the oversupply. Conversely, if a shortage occurs, producers will raise their prices to a level that will balance demand and supply. Equilibrium will prevail.

We postulate that turbulence, and especially heightened turbulence, with its consequent chaos, risk, and uncertainty, is now the normal condition of industries, markets, and companies. Turbulence is the *new normality,* punctuated by periodic and intermittent spurts of prosperity and downturn—including extended downturns amounting to recession or even depression. And turbulence has two major effects. One is vulnerability, against which companies need defensive armor. The other is opportunity, which needs to be exploited. Bad times are bad for many and good for some. Opportunity occurs when a strong company can take away a competitor's business or even acquire a weakened competitor at a bargain price. Opportunity is present when your company doesn't cut critical costs, but all your competitors do.

If we are correct, companies need a chaotics system for dealing with uncertainty. We will outline such a system and illustrate it, with

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cases of companies that have been victimized by chaos resulting from turbulence and many companies that exploited chaos to their advantage. We are hopeful *Chaotics* will help you lead your company to maneuver, perform, and thrive in the new age we have now entered—The Age of Turbulence.

Philip Kotler
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Chaotics: The Business of Managing and Marketing in The Age of Turbulence
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INTRODUCTION

Meeting the New Challenges

WHAT IS THIS book about? Those who manage businesses have a certain view of the world and a certain set of practices for dealing with expected changes in the marketplace. Their view, in the simplest terms, is that times are either normal as a precursor to runaway growth and sustained prosperity, or weak as a precursor to dwindling demand and possibly recession. Businesses use a different playbook for dealing with each of these market conditions. In normal times, they compete with a mixture of offensive and defensive plays, but are not likely to win big. In runaway growth periods, they see new opportunities everywhere. They invest and

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spend freely to capture what they can. In recession times, businesses cut their costs and investment to ensure their survival.

This view of two underlying market conditions, and two playbooks to guide the firm, is, however, outmoded. There are market conditions beyond these two basic ones. And conditions can suddenly shift from one to another and yet another. One day there is a 9/11 terrorist attack; another day, a Katrina flood. One day there is a panic about mortgages and defections that lead to a collapse of the world's financial system. Big shocks happen more frequently today as a result of an increasingly interconnected global economy supporting giant flows of trade and information.

The shocks come in all shapes and sizes. In many parts of the world, across many industries, important things are happening that are only dimly perceived if at all, and certainly their implications are not measured. It could be two people in a garage building a new gadget called a personal computer. It could be a guy named Jeff Bezos starting an Internet business called "Amazon." Or another guy named Steve Jobs building an iPhone. It could be a guy who envisions high yield bonds or another who develops the idea of securitizing mortgages. Had the computer industry, the book industry, the music industry, or the financial industry noticed these visionaries, they would have acted earlier to protect their turf or grab new opportunities.

Business leaders need a new view of the world and a new framework for dealing with it. According to this new view, change is occurring all the time. It can come quickly from any corner of the world and affect any company with a major impact. This is the view to which Peter Drucker first called our attention in his book *The Age of Discontinuity*.[1] This is the view that Andy Grove articulated in *Only the Paranoid Survive*.[2] This is the view that former U.S. Treasury head Alan Greenspan articulated in *The Age of Turbulence*.[3] This is the view that Clayton Christensen wrote in his *Business Innovation and Disruptive Technology*.[4]

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It is our view as well that there is much more risk and uncertainty in business affairs today than ever before coming from disruptive innovations and big unexpected shocks. Business leaders have always lived with some risk and uncertainty, taking out insurance wherever possible to blunt the damage. But today, the speed of change and the magnitude of shocks are greater than ever. This is not what was normal in the past. This is the new normality. It goes beyond disruptive innovation to include major shocks.

And how are business leaders to deal with it? Because they must manage during times of greater turbulence, they need a system to make better decisions. They need a management framework and system to deal with chaos. They need a *Chaotics Management System.*

It seems everywhere in the world where we encounter business and government leaders, virtually everyone senses that *this time is different,* even if they cannot articulate precisely what makes it different. But as you'll see in Chapter 1, we often find an immediate acknowledgment and agreement when we explain to these leaders that they've entered into a *new normality,* one in which the days of the two cycles—one up and one down—are over for the foreseeable future. These leaders sense that we've entered an era of ongoing, continuous turbulence and heightened chaos. This realization is often accompanied by a sense of relief that they can now articulate what they've been sensing, coupled with dread that the traditional up cycle may not kick in to let the good times roll again—at least not like it did in the past.

It is for this reason that we wrote *Chaotics.*

In Chapter 1 we will identify the many factors creating this heightened turbulence demanding that business leaders need to reinvent their thinking to adopt new strategic behaviors to minimize their vulnerabilities and exploit their opportunities in the new normality.

In Chapter 2 we will explain why mistakes made by business leaders in past down cycles that, while they were not necessarily

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helpful to their businesses, in this new era they will be not only harmful but fatal to a business if it fails to adjust.

In Chapter 3, we will introduce the Chaotics Management System, which provides a roadmap for business leaders to transition their organizations, including adding new critical internal processes, to function successfully and better understand and deal with the events unfolding around them. By providing guidance in the development of early warning systems to detect turbulence in the environment, and constructing yet-foreseen scenarios and strategies, *Chaotics* will offer new and robust organizational muscle to handle the heightened levels of turbulence and chaos with decisiveness and speed.

In Chapter 4, we will describe new strategic behaviors necessary for each key management function in the organization to improve its short-term performance without jeopardizing its medium- and long-term performance.

In Chapter 5 we will provide a comprehensive roadmap to show how companies can sharpen and strengthen their marketing and sales strategies in turbulent times even when there's pressure to cut budgets in these areas, and to lay the groundwork for a stronger and longer future with a bigger and more loyal customer base.

And finally in Chapter 6, we will outline what business leaders can do to properly balance short-term with medium- and long-term demands of their businesses to preserve and build successful companies to live and thrive for many years into the future.

We are confident that *Chaotics* will provide business leaders the critical new insights, new perspectives, and a new system—including a set of new strategic behaviors and tools—to successfully navigate the unpredictable and uncertain waters in this new era, The Age of Turbulence.

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CHAPTER ONE

The World Has Entered a New Economic Stage

From Normality to Turbulence

Prosperity is a great teacher; adversity a greater.
—William Hazlitt (1778–1830)

THE WORLD HAS entered a new economic stage. National economies are intimately linked and interdependent. Commerce is conducted with information flows moving at the speed of light over the Internet and mobile phones. This new stage confers wonderful benefits in bringing down costs and speeding up the production and delivery of goods and services. But it also comes with a dark side, one that substantially raises the level of risk and uncertainty facing producers and consumers. An event or change in the circumstances of one country—whether a bank failure, a stock market or real estate crash, a political assassination, or a currency default—can spread to

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many other countries and create massive turbulence, spinning the whole system toward completely unforeseen outcomes.

Deliveries don't arrive in time, banks stop making loans and start demanding repayment, employers lay off workers, and economies begin a downward spiral. Companies make more cautious decisions. They put new product development on hold; they reduce their marketing and advertising budgets. Prudence dictates slimming down, surviving in the short run and disinvesting as far as the long run is concerned. The great economist John Maynard Keynes remarked that in the long run, we are all dead.

Conditions eventually hit rock bottom, after a multitude of bankruptcies, foreclosures, lost jobs, and lost income. Somehow basic needs and government action may put a floor on the losses and things start looking a little better. Turbulence and pessimism are replaced by a measure of stability and renewed confidence. Betting on a recovery, some companies seek increased opportunities and investments. It all sounds like the classic business cycle with its ups and downs, where overexpansion is followed by subsequent underinvestment before returning to normal.

But even when normalcy returns to the economy, it doesn't return to every industry or market or individual company. Hypercompetition operates continuously and relentlessly in normal times. The U.S. auto industry today is experiencing a perfect storm of high health care costs and enormous pension obligations converging with falling demand for its products, which for decades have been seen as less attractive than foreign competitors' products. The airline industry is marked by too much capacity and further consolidation is likely. Even without a global financial meltdown, times can be turbulent for specific industries and organizations.

Turbulence always means an increase in risk and uncertainty. Risk is used to describe uncertainty that can be estimated and for which insurance can be purchased. But there is always uninsurable

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risk, real uncertainty that company decision makers face. Instead of companies seeking to maximize their returns in the face of high uncertainty, they might instead make decisions that minimize risk so that if the worst happens, the companies will still survive.

The National Intelligence Council released a 2008 report entitled *Global Trends 2025: A Transformed World.* Its purpose was to stimulate strategic thinking about the future by identifying key trends, the factors that drive them, where they seem to be headed, and how they may interact. It used a number of scenarios to illustrate some of the many ways in which the drivers examined in the report (e.g., globalization, demography, the rise of new powers, the decay of international institutions, climate change, and the geopolitics of energy) may interact to generate challenges and opportunities for future decision makers and business leaders. *Global Trends 2025* isn't a prediction of what is to come in the next decade and beyond, but a description of the drivers and developments likely to shape world events.[1]

Reading the report further reinforces the point that for the foreseeable future, the world will be facing ongoing disruptions, turbulence, chaos, and violence. These factors will impact business around the globe directly and indirectly, creating an environment that business leaders will have to deal with if their companies are to remain viable over the long term.

Such was the case in India over three terrifying days in late November 2008, when armed Islamist militants mounted a multipronged overnight attack in Mumbai, India's sprawling business capital of more than 18 million people. The sheer scale and audacity of the assault were staggering. Gangs of well-armed youths attacked two luxury hotels, a restaurant, a railway station, a Jewish center, and at least one hospital. Gunfire and explosions rang through Mumbai with 179 people killed and more than 300 wounded, including several foreigners from America, Japan, and

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Britain, as well as Mumbai's chief counterterrorism officer. Up to 100 hostages, including selected American and British guests, were held hostage inside a hotel.[2]

The attacks appeared to ratchet up tensions in an already volatile region. As one of the BRIC countries (Brazil, Russia, India, and China, a term coined in 2001 by Goldman Sachs head of global research, Jim O'Neill), India was on the fast track to pull itself out of decades of economic stagnation before the terrorists hit. India, no stranger to terrorist attacks in recent years, had recovered from most of them to stay on its economic fast track. But regrettably, as the globalized world is now characterized by an interlocking fragility that spreads the news of chaos virally and instantaneously throughout a global news network, India, and possibly that entire region of Asia, may backslide. After all, foreign businesses are reluctant to put their people and their investments in harm's way.

As summarized in Figure 1–1 and Figure 1–2, there are a multitude of reasons for the rising uncertainty that will bring new and increasing challenges to business leaders in the next two decades.

In the next decade and beyond, according to *Global Trends 2025,* we can anticipate increasing turbulence around the world: rapid political leadership change in emerging markets; major policy shifts; increasing armed conflicts; local and national government budget cuts and the spillover effect on business. We are living in uncertain times. That means there is greater risk for businesses of all sizes everywhere in the world. They need new strategies to protect themselves and to capitalize on the opportunities that will undoubtedly arise.

While companies are gearing up for the greater turbulence and chaos that lie ahead, they will not soon forget the pain and the lessons of the 2008 financial meltdown. Companies will proceed more cautiously and adopt a risk-oriented mindset. Governments will try to pass regulations that will prevent a repeat of this kind

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RELATIVE CERTAINTIES	LIKELY IMPACT
A global multipolar system is emerging with the rise of China, India, and others. The relative power of nonstate actors—businesses, tribes, religious organizations, and even criminal networks—also will increase. The unprecedented shift in relative wealth and economic power, roughly from West to East now under way, will continue. The United States will remain the single most powerful country but will be less dominant.	By 2025, a single "international community" composed of nation-states will no longer exist. Power will be more dispersed, with the newer players bringing new rules to the game, while risks will increase that the traditional Western alliances will weaken. Rather than emulating Western models of political and economic development, more countries may be attracted to China's alternative development model. As some countries become more invested in their economic well-being, incentives toward geopolitical stability could increase. However, the transfer is strengthening states like Russia that want to challenge the Western order. Shrinking economic and military capabilities may force the United States into a difficult set of tradeoffs between domestic versus foreign policy priorities.
Continued economic growth—coupled with 1.2 billion more people by 2025—will put pressure on energy, food, and water resources.	The pace of technological innovation will be key to outcomes during this period. All current technologies are inadequate for replacing traditional energy architecture on the scale needed.
The number of countries with youthful populations in the "arc of instability" will decrease, but the populations of several youth-bulge states are projected to remain on rapid growth trajectories.	Unless unemployment conditions change dramatically in parlous youth-bulge states such as Afghanistan, Nigeria, Pakistan, and Yemen, these countries will remain ripe for continued instability and state failure.
The potential for conflict will increase, owing to rapid changes in parts of the greater Middle East and the spread of lethal capabilities. Terrorism is unlikely to disappear by 2025, but its appeal could lessen if economic growth continues in the Middle East and youth unemployment is reduced. For those terrorists that are active, the diffusion of technologies puts dangerous capabilities within their reach.	The need for the United States to act as regional balancer in the Middle East will increase, although other outside powers—Russia, China, and India—will play greater roles than today. Opportunities for mass-casualty terrorist attacks using chemical, biological, or less likely, nuclear weapons, will increase as technology diffuses and nuclear power (and possibly weapons) programs expand. The practical and psychological consequences of such attacks will intensify in an increasingly globalized world.

Global Trends 2025: A Transformed World, U.S. Office of the National Intelligence Council, November 2008

Figure 1–1. *Global trends 2025: relative certainties and likely impact.*

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KEY UNCERTAINTIES	POTENTIAL CONSEQUENCES
Whether an energy transition away from oil and gas—supported by improved energy storage, biofuels, and clean coal—is completed during the 2025 time frame. How quickly climate change occurs and the locations where its impact is most pronounced. Whether mercantilism stages a comeback and global markets recede.	With high oil and gas prices, major exporters such as Russia and Iran will substantially augment their levels of national power, with Russia's GDP potentially approaching that of the United Kingdom and France. A sustained plunge in prices, perhaps underpinned by a fundamental switch to new energy sources, could trigger a long-term decline for producers as global and regional players. Climate change is likely to exacerbate resource (particularly water) scarcities. Descending into a world of resource nationalism increases the risk of great power confrontations.
Whether advances toward democracy occur in China and Russia.	Political pluralism seems less likely in Russia, absent economic diversification. A growing middle class increases the chances of political liberalization and potentially greater nationalism in China.
Whether regional fears about a nuclear-armed Iran trigger an arms race and greater militarization. Whether the greater Middle East becomes more stable, especially whether Iraq stabilizes and the Arab-Israeli conflict is resolved peacefully. Whether Europe and Japan overcome economic and social challenges caused or compounded by demography. Whether global powers work with multilateral institutions to adapt their structure and performance to the transformed geopolitical landscape.	Episodes of low-intensity conflict and terrorism taking place under a nuclear umbrella could lead to an unintended escalation and broader conflict. Turbulence is likely to increase under most scenarios. Revival of economic growth, a more prosperous Iraq, and resolution of the Israeli-Palestinian dispute could engender some stability as the region deals with a strengthening Iran and a global transition away from oil and gas. Successful integration of Muslim minorities in Europe could expand the size of productive workforces and avert social crisis. Lack of efforts by Europe and Japan to mitigate demographic challenges could lead to long-term declines. Emerging powers show ambivalence toward global institutions like the UN and IMF, but this could change as they become bigger players on the global stage. Asian integration could lead to more powerful regional institutions. NATO faces stiff challenges to meet growing out-of-area responsibilities as Europe's military capabilities decline. Traditional alliances weaken.

Global Trends 2025: A Transformed World, U.S. Office of the National Intelligence Council, November 2008

Figure 1–2. Global Trends 2025: *key uncertainties and potential consequences.*

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of housing and mortgage bubble. Banks and companies will be less prone to sell their goods and services "with no money down." Credit practices will be monitored more carefully to avoid another "house of cards" economy.

Intel's former chairman, Andy Grove, wrote in his best-selling book, *Only the Paranoid Survive*, that "strategic inflection points" occur in all businesses as a direct result of specific forces affecting particular businesses. A business has arrived at a strategic inflection point when its old strategy no longer works and must be replaced by a new one if the business is to ascend to new heights. If a company's leaders fail to successfully navigate their way through the inflection point, the business declines.[3]

Your instincts—or maybe your paranoia—will tell you to remain ever vigilant because you don't know when a strong and sudden wind will hurl your company or your whole industry into unwanted chaos. Sometimes the turbulence is minor. Other times it is more dramatic, such as when the great global financial meltdown of 2008 had nearly everyone gasping for breath as the markets experienced unpredictable and uncontrollable free fall from one day to the next.

Even more unsettling is the harsh recognition that whenever chaos arrives, you'll have little more than a fig leaf to hide behind—unless you can anticipate it and react fast enough to lead your company, your business unit, your region, or your department through it safely.

There's one more matter that makes leaders squirm: the increasing level of transparency that's now going to be demanded of you and your management team. Even if you and your company were merely victims of the global financial meltdown in 2008 that cost world shareholders in the real economy trillions of dollars of lost market value, your world and your company's world has now changed forever. The many institutional and private investor portfolios that lost up to half of their value in a matter of weeks—some of which include employees' pensions and savings plans—will now

begin to demand a higher level of transparency from the companies in which they are invested. Scrutiny from all company stakeholders is already becoming increasingly intense. Going forward, more of your company's customers, employees, board directors, banks, suppliers, distributors, and the business and financial media overall will be watching your and other companies' actions a lot more closely to see how management runs their businesses at many levels.

What Is Market Turbulence?

To understand market turbulence and its effect on business, it may be helpful to review concepts of turbulence in nature as well as in science and physics. Turbulence in the natural world is characterized by violent or agitated behavior. Think of hurricanes, windstorms, tornados, cyclones, and tsunamis. Their defining characteristics are violence, randomness, and unpredictability.

Turbulence has always worried physicists because it is so difficult to model and predict, despite the sophistication and power of supercomputing today.[4] Scientists have developed Chaos Theory to study how events may unfold given an initial condition and deterministic assumptions. They can show that a small initial effect can lead to an exponential growth of perturbations. The behavior of dynamic systems—systems whose state evolves with time—appears random even though no randomness was built into the systems.[5]

On December 26, 2004, the great tsunami in the Indian Ocean that violently swirled in the air and the waters created tremendous turbulence and destruction in Asia. Although it wasn't physically felt by persons in San Francisco or in an airplane flying over Stuttgart, scientists have long postulated that, in fact, there is an effect in the atmosphere tens of thousands of miles away from the originating source. In 1972, Edward Lorenz, father of Chaos Theory, gave speeches in which he posed the question, "Does the flap of a butterfly's wings in Brazil set off a tornado in Texas?"

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The phrase *butterfly effect* refers to the idea that a butterfly's wings create tiny changes in the atmosphere that may ultimately alter the path of a storm system like a tornado or delay, accelerate, or even prevent the occurrence of a tornado in a certain location. According to the theory, had the butterfly not flapped its wings, the trajectory of the tornado might have been vastly different. Scientists agree that the butterfly can influence certain details of weather events, including large-scale events like tornados.[6]

Now, you may ask, what does all of this have to do with turbulence in business?

To begin, business turbulence is defined as the unpredictable and swift changes in an organization's external or internal environments that affect its performance.[7] The "butterfly effect" occurs because ours is an increasingly interconnected, interdependent globalizing world that is accelerating in its "globalness." All people, all governments, all businesses—everyone and every entity in the world—are now connected and interconnected at some level, and the impact of the turbulence of each will be *felt* in some way by others in our globally connected environment.

To fully grasp the magnitude of the impact of turbulence—*severe turbulence*—and the resultant devastating chaos and wreckage that was left in its wake, we need look no further than the final four months of 2008, when several trillion dollars of market value in the real economy simply evaporated, leaving behind economic carnage for a newly elected U.S. president and the rest of the world to clean up and rebuild, globally.

In fact, the very public demise of investment bank Bear Stearns, dating back to March 2008, set the roller coaster in motion. After that, from September through October 2008, the world's stock exchanges were battered and torn. In early October, the S & P 500, the broad U.S. stock index, lost 22 percent of its value in just six trading sessions!

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On September 24, 2008, U.S. Federal Reserve chief, Ben Bernanke, and then-Treasury Secretary Henry Paulson petitioned the U.S. Congress to support a $700 billion bailout plan (officially known as H.R. 1424: the Emergency Economic Stabilization Act of 2008). "Despite the efforts of the Federal Reserve, the Treasury, and other agencies," Bernanke told the lawmakers, "global financial markets remain under extraordinary stress."[8]

Ten days later, in an emergency meeting called by the heads of the four largest European economies to deal with the looming crisis, Jean-Claude Trichet, head of the European Central Bank, stated, "Nothing in the past resembles what we are currently seeing. We are in the presence of events that we have not seen since World War II. This is a period of absolutely exceptional uncertainty [that] calls for responses that match the events from both the public and private sector."[9]

The historic $700 billion bailout of the banking industry in the United States was matched by the European Central Bank's collective $1.3 trillion bailout of its banking industry, and followed by similar actions by central banks in Australia, Canada, Japan, Singapore, and many more countries. Hungary and Iceland lined up seeking rescue from the IMF, and others even sought direct help from cash-rich nations such as China and Russia.

But September 29, 2008, is the day that will live in financial infamy. That was when Wall Street ended a stunning session with a huge loss, with the Dow Jones industrials plunging more than 776 points in a matter of minutes—their largest point drop ever—after the U.S. House of Representatives failed to pass the bailout.

The credit markets remained close to frozen, as banks were afraid to lend, even to other banks. Eight consecutive days of losses erased an estimated $2.4 trillion in shareholder wealth. Conditions went from bad to worse. Borrowing costs for banks and companies jumped once again as investors sought safety in Treasury bills, despite earlier signs that the government might take equity stakes

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in troubled companies to try to halt the credit crisis. The cost of borrowing shot up for even blue-chip companies: IBM agreed to pay 8 percent interest on $4 billion of thirty-year bonds, twice the rate that the federal government borrows money. Then, on October 10, the roller-coaster ride abruptly ended when "the market made a U-turn, surging higher with the Dow climbing nearly 900 points in less than forty minutes."[10]

While the rebound momentarily allayed fears in the U.S., it set off a selling frenzy for the global financial community. Suddenly, previous boastful talk of nations decoupling from the U.S. economy seemed rather sardonic. Reports worldwide were grim. Global stocks had fallen sharply in one of the worst days of trading in thirty years, despite ongoing government efforts to stem the crisis.[11]

On October 24, 2008, when the world's stock exchanges dropped around 10 percent in most indices, Bank of England deputy governor Charles Bean warned, "This is a once-in-a-lifetime crisis, and possibly the largest financial crisis of its kind in human history."[12]

Between November 3 and 6, 2008, the U.S. Federal Reserve lowered interest rates to one percent; the Bank of England slashed its rate by 1.5 percent to 3 percent; and the European Central Bank cut rates to 3.25 percent, the lowest level since October 2006, and an aggressive response to the region's rapid plunge into recession.[13]

Then, on November 24, 2008, the U.S. government bailed out Citigroup Inc., agreeing to shoulder most of the potential losses on $306 billion of high-risk assets and inject $20 billion of new capital, in its biggest rescue of a bank yet.[14] And during the week of February 16th, 2009, U.S. President Obama signed his landmark $787 billion economic stimulus plan, in addition to his $75 billion housing stimulus package, in a bold effort to kickstart the U.S. economy and a key sector underpinning the stalled U.S. economy.

Since then, we continue to experience unpredictable, and also *heightened* turbulence in an increasingly globalizing world. Strategic

inflection points will occur with increasing frequency, raising the stakes for all businesses to identify them more quickly and respond to the changed environment faster. The contrasts between normal business cycle times and turbulent economies are summarized in Figure 1–3: Normal Versus New Normality Economies.

FEATURE	NORMAL ECONOMY	NEW NORMALITY ECONOMY
Economic Cycles	Predictable	Absent
Upturns/Booms	Definable (Avg. 7 years)	Unpredictable, Erratic
Downturns/Recessions	Definable (Avg. 10 months)	Unpredictable, Erratic
Potential Impact of Issues	Low	High
Overall Investment Profile	Expansive, Broad	Cautious, Focused
Market Risk Tolerance	Acceptance	Avoidance
Customer Attitudes	Confident	Insecure
Customer Preferences	Steady, Evolving	Apprehensive, Flight to Safety

Figure 1–3*. Normal versus new normality economies.*

When we describe turbulence in the context of a *normal economy* versus a *new normality economy,* we need to better define what actually is a normal economy. Throughout the history of business there have always been levels of turbulence both at the macro level (the overall economy, whether it be local, regional, or global) as well as at the micro level, i.e., at the individual company level. Business owners and business people have always lived with certain levels of turbulence in the business. This is normal, and is part of a normal economy. And in the normal economy of the past, broad economic swings lasting several years were an essential feature. Over the past 50 years, we've come to count on two essential swings that mark a

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normal economy. First is the upswing that has historically lasted between six and seven years on average, oftentimes referred to as the "bull market." Second is the market downswing, lasting an average of ten months, often referred to as the "bear market", or sometimes as the "market correction."

These two swings were largely smooth and somewhat predictable in their movements, notwithstanding aberrations such as the stock market crash on October 19, 1987, a date that is also known as Black Monday. By the end of October 1987, all major world markets had declined substantially. It took only two years for the Dow to recover completely; by September 1989, the market had regained all of the value it had lost in the 1987 crash. During even these two years of recovery, while businesses would continue to battle competition as always, once the economic upswing began, it became substantially reliable—if not even substantially predictable—that the upswing would continue largely unabated and uninterrupted until such time as the next bear market correction would then kick in. Then the cycle would begin again.

Today's economy, with its heightened turbulence, is markedly different. Today and for the foreseeable future, the *new normality economy* is more than just normal times of up and down business cycles which, after all, has brought some predictability to businesses at the macro level. Today we can expect more big shocks and many painful disruptions, causing heightened levels of overall risk and uncertainty for businesses at both the macroeconomic and the microconomic level. On top of the everyday challenges of dealing in a perpetually competitive arena, and the usual business cycles, business leaders need to recognize a heightened stream of major and minor disturbances challenging their business planning.

The heightened turbulence is the *new normality* that challenges business and government leaders to better understand, fully accept,

and then create new ways, new strategies to deal with it if we are to succeed in the years ahead.

Factors That Can Cause Chaos

Today's world of increasing interconnectivity and interdependence means more risk for every company. Critical factors that are raising the stakes for business risks include:

- Technological Advances and the Information Revolution
- Disruptive Technologies and Innovations
- The "Rise of the Rest"
- Hypercompetition
- Sovereign Wealth Funds
- The Environment
- Customer Empowerment

TECHNOLOGICAL ADVANCES AND THE INFORMATION REVOLUTION

Information technology (IT) is one of the key driving factors in the process of globalization. Advances since the early 1990s in computer hardware, software, telecommunications, and digitization have led to the speedy transfer of data and knowledge throughout the entire world. The information revolution is probably the single greatest contributor shaping the new global economy. Through the creation of interconnections with the potential to link all people and all businesses via a single medium—the Internet—the world's buyers and sellers can search, inquire, evaluate, and buy or sell from long distances. People no longer need to limit their buying or selling only to their local area.

Adding to the challenges for most business—especially large or legacy businesses—is that most of their top executives were born

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during the industrial revolution, but lead their companies during the digital revolution. In a sense, those over the age of thirty are *digital immigrants* and the "twentysomethings" are the *digital natives.* If anything, the information revolution has given way to information overload, which contributes to more turbulence and chaos.

The Internet has transformed and globalized commerce, creating entirely new ways for buyers and sellers to conduct transactions, for businesses to manage the flow of production inputs and to market their products, and for job recruiters and job seekers to connect with each other. New media have arisen—websites, e-mail, instant messaging, chat rooms, electronic bulletin boards, blogs, podcasts, webinars—creating a global system that makes it much easier for people and businesses with common interests to find one another, to exchange information, and to collaborate.

The global IT revolution has been driven by the extraordinarily rapid decline in the cost and rapid increase in the processing power of newer and newer digital technologies, doubling memory and computing power roughly every six months for the past two decades.[15] In the future, however, the single most powerful driver of the information revolution pushing globalization to even greater heights will be "cloud computing."

> ***Cloud computing*** *refers to the complex Internet-based infrastructure in which IT-related capabilities are provided "as a service." Users access "computing" services from the Internet "cloud" without needing knowledge of, expertise in, or control over the supporting technology infrastructure.*[16]

As information technology embraces the global Internet "cloud," an increasing amount of computing activity is moving into data centers accessible from anywhere. IT is once again becoming more centralized. But how will that affect the way people conduct business?

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The cloud will allow digital technology to penetrate every nook and cranny of the economy and of society, creating some tricky political problems and increased economic turbulence for businesses to deal with along the way. One theme is already emerging. Businesses must become more like the technology itself: more adaptable, more interwoven, and more specialized. These developments may not be new, but cloud computing will speed them up.[17]

Cloud computing services have been hugely successful with start-up businesses, which can now access and exploit software of the same quality found in large companies. Were it not for cloud computing services provided by firms such as Amazon.com and its Amazon Web Services (AWS) unit, many start-ups would probably not even exist. Take Animoto, a service that lets users turn photos into artsy music videos using artificial intelligence. When it launched on the popular social network Facebook, demand was so high that Animoto had to increase the number of its virtual machines on AWS from 50 to 3,500 within three days.[18]

The impact of Web-based services will be felt on a macroeconomic level, as cloud computing makes small firms more competitive with larger ones. And it will help developing economies compete with developed economies. These two factors alone will contribute greatly to increased market turbulence for companies of all sizes.

And the fact that the computing cloud is global will lead to political tensions over how it should be regulated. Cloud computing involves vast virtualized computer systems and electronic services that know no borders.[19] Governments will likely go to great lengths to avoid losing even more control over the Internet, which will invariably create further opportunities for turbulence and chaos for businesses that base their IT strategies more and more on cloud computing.

Regarding cloud computing, there is an underlying issue that few of today's experts have adequately addressed: knowledge sharing.

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Technology to date has not solved the problem of finding people and sharing knowledge in an easy way. It is the proverbial "holy grail" and one that even Microsoft has not solved, although it tried to with SharePoint. Microsoft's SharePoint offering includes browser-based collaboration and a document-management platform that can be used to host websites that access shared workspaces and documents, as well as specialized applications like wikis and blogs, from a browser.[20] In fact, the real issue is to effectively—yet safely—*collaborate across firewalls and between companies* that are stakeholders in each other's business. The goal of sharing knowledge, while also limiting the sharing of too much knowledge (i.e., allowing access only to certain amounts of data), is still the biggest problem. The other remaining issue looming before business that has yet to be solved is that of *communication versus information.* This is, in fact, a false division because *information is communication* and *communication is information.* As long as software companies split these two worlds, however, the problem remains.

DISRUPTIVE TECHNOLOGIES AND INNOVATIONS

The term *disruptive technology* was created by Clayton M. Christensen, a Harvard Business School professor, who introduced it in his 1995 *Harvard Business Review* article, "Disruptive Technologies: Catching the Wave," and which he later described in his book, *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail.*[21]

In his later book, *The Innovator's Solution*: *Creating and Sustaining Successful Growth,*[22] Christensen eventually replaced the term *disruptive technology* with the new concept he called *disruptive innovation,* because he recognized that few technologies are intrinsically disruptive in character. The strategy or business model that the technology enables creates the disruptive impact. The concept of disruptive technology continues a long tradition of the identification of

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radical technical change. The great Harvard economist Joseph Schumpeter pioneered research on how radical innovations lead to "creative destruction" and are necessary for a dynamic economy.[23]

> ***Disruptive technology,*** *or disruptive innovation, is a term describing a technological innovation, product, or service that uses a "disruptive" strategy, rather than an "evolutionary" or "sustaining" strategy, to overturn the existing dominant technologies or status quo products in a market. It has been systematically shown to the research community that most disruptive innovations are in a minority compared to evolutionary innovations, which introduce an innovation of higher performance to the market. Examples of true disruptive innovations are rare.*[24]

The entire basis of disruptive innovation is that it creates dramatic change in the market, causing the status quo technology to be quickly rendered obsolete. Such an event creates significant turbulence for all participants engaged in both the preexisting and the changed technologies. Some disruptive technologies on the five-year horizon include cloud and ubiquitous computing, contextual computing, virtualization and fabric computing, augmentive reality, and social networks and social software. Disruptive technology has the potential to be the ultimate "game-changer" that can create chaos in an entire industry, especially for the incumbents who haven't been paying attention to the turbulence quietly swirling around them until it is too late (see Figure 1–4).

Christensen distinguishes between "low-end disruption," which targets customers in a market segment who do not need the full performance valued by customers at the high end of the market, and "new market disruption," which targets customers who have needs that were previously unserved or insufficiently served.

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Christensen postulates that "low-end disruption" occurs when the rate at which products improve exceeds the rate at which customers can adopt the new performance. Therefore, at some point the product's performance overshoots the needs of certain customer segments. Then, a disruptive technology may enter the market and provide a product that does not perform as well as the incumbent product but exceeds the requirements of certain segments, thereby gaining a foothold in the market.

DISRUPTIVE TECHNOLOGY/INNOVATION	DISPLACED/MARGINALIZED TECHNOLOGY
Mini steel mills	Vertically integrated steel mills
Container ships; containerization	"Break cargo" ships; stevedores
Desktop publishing	Traditional publishing
Digital photography	Chemical photography
Semiconductors	Transistors
Personal computers	Mainframes and minicomputers
Music downloads; file sharing	Compact discs
eBooks	Paper books
VoIP	Traditional telephones

Figure 1–4. *Examples of disruptive technology/innovation.*

Once the disrupter has gained a foothold in this customer segment, it will proceed to exploit the technology in order to improve its profit margin. Typically, the incumbent does little to defend its share in a not-so-profitable segment and usually moves up-market to focus on more attractive, profitable customers. The incumbent is eventually squeezed into smaller markets until the disruptive technology finally meets the demands of the most profitable segment, ultimately driving the incumbent out of the market entirely.

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For example, early desktop publishing systems could not match high-end professional systems either in features or quality. Nevertheless, the early desktop publishing systems lowered the cost of entry to the publishing business, and economies of scale eventually enabled them to match, and then surpass, the functionality of older, dedicated publishing systems. As printers, especially laser printers, have improved in speed and quality, they have become increasingly competitive.

According to Christensen, "new market disruption" occurs when a product fits a new or emerging market segment that is not being served by existing incumbents in the industry. For example, when it was first introduced, the Linux operating system (OS) was inferior in performance to other operating systems such as Unix and Windows NT. But the Linux OS is inexpensive compared to others. After years of continuing improvements, Linux is now installed in 84.6 percent of the world's 500 fastest supercomputers.[25]

In disruptive technology battles, disrupters usually win against older technology incumbents in the industry. One reason is an asymmetry in financial incentives. A disrupter may see a huge opportunity, whereas the incumbent sees a much smaller one. Initially, the incumbent may actually find being disrupted even a bit pleasant, especially if the disruption causes the company's most unprofitable and troublesome customers to leave the market first. As its own profit margins improve, the incumbent may even be tempted to ignore the encroaching competition. The disrupter continues to make quiet innovations to its technology until it reaches a level sufficient to capture the core market from the incumbent.

Another reason disrupters usually win against incumbents is the fact that the larger, successful incumbent companies are organized into product divisions, whose managers will keep a close eye on their known rivals' offerings to ensure that their own products retain their edge. This inherent weakness of many incumbent companies is

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exacerbated by traditional silo behaviors within companies. Such behaviors occur not just between product divisions, but within each product division as well. The silos do not communicate: R&D doesn't communicate enough with design and development, production, marketing and sales, and business development. This silo effect has dire consequences and leads to the business operating like a slow-moving ship instead of a fast-moving speedboat. Collaboration across disciplines is essential. The disrupters, however, do not care about products as much as they care about those customers who aren't using the incumbent's products. The disrupters want to see what needs these potential customers have that are not being adequately fulfilled.[26]

When attacked by a disrupter, the first reaction by executives in incumbent technology companies is usually to protect their high-paying positions and their well-worn, comfortable business models. The typical response: *Close your eyes and maybe it will go away.* Occasionally it does go away, but usually it does not, and then the chaos really kicks in: Scramble to cut staff. Argue and debate. And make it as difficult as possible for the customer to actually adopt the new technology. Incumbents typically do everything in their power to put off the day of technological reckoning because their biggest problem is that they must bear the burden of supporting the older technology and the business model built around that technology, while at the same time experimenting with, building up, and transitioning into the new business model structures. Meanwhile, the technological disrupters do not bear this double-cost burden. For disrupters, everything is fluid and relatively low-cost.[27] And while the incumbents are fighting to make sense of the chaos in which they are so deeply mired, the disrupters are aggressively plowing forward with the winds and waves of turbulence at their backs.

Today, for instance, Microsoft may take comfort from the fact that Excel has more features than any other spreadsheet on the market.

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On the other hand, a potential disrupter such as Google, with its Google Docs office suite, including its free Google spreadsheet, may take note that people are driven to despair when trying to transfer files from an old to a new computer, or that many Excel users cringe at the thought of paying Microsoft still more money to get the latest version of Excel.[28] If the disrupter's path is again repeated, Microsoft's current dominant position in spreadsheets could eventually give way to Google's free alternative.

THE "RISE OF THE REST"

A new chapter in global economic history has begun, one in which the United States, and to a lesser extent Europe, will no longer play their former dominant roles. A process of redistributing money and power around the world, away from the United States and Europe and toward the resource-rich countries and rising industrialized nations in Asia and the rest of the emerging world, has been under way for years. The financial crises of 2008 only accelerated the process.

Newsweek's Fareed Zakaria speaks eloquently about the new American malaise:

> American anxiety springs from something much deeper, a sense that large and disruptive forces are coursing through the world. In almost every industry, in every aspect of life, it feels like the patterns of the past are being scrambled. "Whirl is king, having driven out Zeus," wrote Aristophanes 2,400 years ago. And—for the first time in living memory—the United States does not seem to be leading the charge. Americans see that a new world is coming into being, but fear it is one being shaped in distant lands and by foreign people.[29]

What Zakaria calls the "rise of the rest" attests to the turbulence and the chaos caused by one of the most compelling new forces—the world's rising emerging market powers, most notably the BRIC

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countries (Brazil, Russia, India, China) and countries in the cash-rich Middle East. Zakaria writes further that the world is now entering the "third great power shift in modern history":

> The first was the rise of the Western world, around the fifteenth century, which produced the world as we know it now—science and technology, commerce and capitalism, the industrial and agricultural revolutions. It also led to the prolonged political dominance of the nations of the Western world. The second shift, which took place in the closing years of the nineteenth century, was the rise of the United States. Once it industrialized, it soon became the most powerful nation in the world, stronger than any likely combination of other nations. For the last twenty years, America's superpower status in every realm has been largely unchallenged—something that's never happened before in history, at least since the Roman Empire dominated the known world 2,000 years ago. During this "Pax Americana," the global economy has accelerated dramatically. And that expansion is the driver behind the third great power shift of the modern age—the rise of the rest.[30]

In the aftermath of the global financial crises that followed the simultaneous world stock market crashes in October 2008, China initially proclaimed itself relatively unscathed. Although as weeks progressed and the deep dependence of China's market on the United States and Europe became apparent, China's high-growth market quickly slowed. Chinese government leaders were forced to enact their own $585 billion economic stimulus plan. And then a few weeks later, in a bold showing of its new economic strength, when leaders of the world's top-twenty economies attended an emergency meeting in Washington to discuss reforming the world's financial markets and to gain commitments from the biggest

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economies to set aside money for a proposed International Monetary Fund (IMF) emergency loan fund for struggling countries, Beijing's delegates resisted calls for developing countries to contribute to the fund. Instead, China pushed for developing countries—itself especially—to have more influence at the IMF and other global bodies. Many analysts believe an increased say at the IMF may be Beijing's price to contribute funds. "Steady and relatively fast growth in China is in itself an important contribution to international financial stability and world economic growth," China's President Hu Jintao told state media at the summit.[31]

China, currently the world's third-largest economy with the biggest foreign-exchange reserves, also made no secret of its aspirations for a world financial order that's less dominated by the United States and its currency. With its $1.9 trillion in cash reserves, China, along with other Asia-Europe Meeting (ASEM) member countries, made plans to set up an $80 billion fund by the middle of 2009 to help countries in its own Asian backyard deal with liquidity problems—a plan already agreed to in May 2008 by ASEM.[32] And with the bulk of the money coming from China, it will have the ability to wield more clout.

BRIC countries and the Middle East are now stabilizing the global economy as consumption in these leading emerging market economies continues to offset the slowdown in the United States and Europe. During the turbulent months of 2008 when U.S. and European banks were sinking into a financial market tsunami, several leading financial institutions in Europe and the United States avoided bankruptcy when investments were made by various Middle East kingdoms and the Chinese government.

And while the number of companies from emerging markets appearing in the *Fortune* Global 500 rankings of the world's biggest firms continues to grow, the United States boasted only 153 in 2008, down from 162 in 2007—its worst performance in more than a decade.[33]

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As Harold Sirkin writes in his book, *Globality: Competing with Everyone from Everywhere for Everything:*

> Imagine 100 companies from former Third World countries with a combined revenue in the trillions of dollars—greater than the total economic output of many countries—competing with U.S. and European companies for space on the world stage. Imagine several hundred such companies. Now imagine thousands. You are looking at the future, when U.S., European, Japanese companies, and companies from other matured markets will be competing not only with each other, but with Chinese companies and with highly competitive companies from every corner of the world: Argentina, Brazil, Chile, Egypt, Hungary, India, Indonesia, Malaysia, Mexico, Poland, Russia, Thailand, Turkey, Vietnam, and places you'd never expect.[34]

Companies from all these countries will be aggressively buying their way into the *Fortune* Global 500 with their acquisitions e.g. Budweiser of leading Western companies—juicy acquisitions with their experienced global and local management teams and their established global brands. Emerging market companies such as Brazil's Petrobras and InBev, Russia's Gazprom and Severstal, India's Reliance and Tata, and China's Lenovo and Huawei will increase turbulence and disruptions. These companies are growing at a record pace. The pace at which they acquire Western firms will increase as the global recession takes a bigger toll on companies in North America and Europe than on those in emerging economies. In fact, in 2008, the number of companies from emerging markets on the *Fortune* Global 500 list stood at sixty-two, mostly from the BRICs, up from thirty-one in 2003, and that number is set to rise rapidly. Based on current trends, emerging

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market companies will account for one-third of the *Fortune* list within ten years.[35]

Emerging markets companies will continue to capitalize on the chaos caused by the shifting balance of economic and political power in the world. These extremely ambitious and aggressive companies will do whatever it takes to beat competitors from developed economies, as it is in the developed economies where the most robust profits are found. These rising, globally aspiring upstarts from distant lands will do all that it takes to create as much chaos as necessary to trip up or buy up incumbents from the developed world to level the competitive playing field.

HYPERCOMPETITION

Hypercompetition occurs when technologies or offerings are so new that standards and rules are in flux, resulting in competitive advantages that cannot be sustained. It is characterized by intense and rapid competitive moves, in which competitors must move quickly to build new advantages and erode the advantages of their rivals. Speed of the disruptive turbulence created by hypercompetition is driven by globalization, more appealing substitute products, more fragmented customer tastes, deregulation, and the invention of new business models—all contributing to structural disequilibrium, falling barriers to market entry, and the dethronement of industry leaders.[36]

Richard D'Aveni, professor of business strategy at the Amos Tuck School at Dartmouth College and author of *Hypercompetition: Managing the Dynamics of Strategic Maneuvering,* argues that competitive advantage is no longer sustainable over the long haul. Advantage is continually created, eroded, destroyed, and recreated through strategic maneuvering by those firms that disrupt markets and act as if there were no boundaries to entry. The way to go about winning today is to render the current market leader's competitive advantages obsolete.[37]

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Hypercompetition Strategies for Disruption

1. ***Stakeholder satisfaction*** *is key to winning each dynamic interaction with competitors.*

2. ***Strategic soothsaying*** *is the process for seeking out new knowledge for predicting what customers will want in the future.*

3. ***Speed*** *is crucial to take advantage of opportunities and respond to counterattacks by competitors.*

4. ***Surprise*** *enhances a company's ability to stun a competitor, to build up superior position before a competitor can counterattack.*[38]

Hypercompetition Tactics for Disruption

1. ***Signals*** *sent to (1) make announcements of strategic intent to dominate a marketplace, or (2) manipulate the future moves of rivals.*

2. ***Shift rules*** *of the market to create tremendous disruption for competitors.*

3. ***Simultaneous or sequential thrusts*** *using several moves to mislead or confuse a competitor.*[39]

In the age of turbulence, the competitive environment shifts dramatically from slow-moving incumbents attempting to protect their positions to fast-moving attackers with strategies targeted specifically at disrupting the competitive advantage of market leaders. These market leaders are often larger, inflexible firms with more traditional (and increasingly obsolete) competitive advantages. Competitive advantage becomes more transitory, and the most successful firms are those that migrate from one competitive position to another amid the turbulence and chaos.[40]

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In the chaotic hypercompetitive environment, profits will be lower for firms that fail to create new competitive positions faster than their old positions crumble, especially as the weight of their depreciated and costly strategies will prevent many of them from adapting and adopting new chaotics behaviors fast enough.

SOVEREIGN WEALTH FUNDS

A sovereign wealth fund (SWF) is a state-owned investment fund made up of financial assets like stocks, bonds, property, precious metals, or other financial instruments. SWFs have been around for decades but have increased in number dramatically since 2000. Some are held solely by central banks that accumulate the funds in the course of managing a nation's banking system. This type of fund is usually of major economic and fiscal importance. Other SWFs are simply the state's savings, which are invested by various entities.[41]

During the global financial crisis in 2008, several U.S. and European financial institutions avoided bankruptcy by accepting SWFs from the Chinese government and various Arab kingdoms.[42] This says a lot about the "rise of the rest," as well as about who among those *rising* will be making waves in the new age.

In this new chapter in economic history, the perennial drivers of globalization over the past fifty years will no longer play their former dominant roles. A process of redistributing money and power around the world—away from the United States and Europe and toward the resource-rich countries and rising industrialized nations in Asia—has been under way for years following the 9/11 terrorist attacks, when China, Russia, the Middle East, and other rising economies began to accumulate tremendous hoards of cash as globalization gained momentum, and prices for oil, natural gas, and other commodities soared.

Sovereign wealth funds gained worldwide exposure in recent years by investing in several Wall Street financial firms, including

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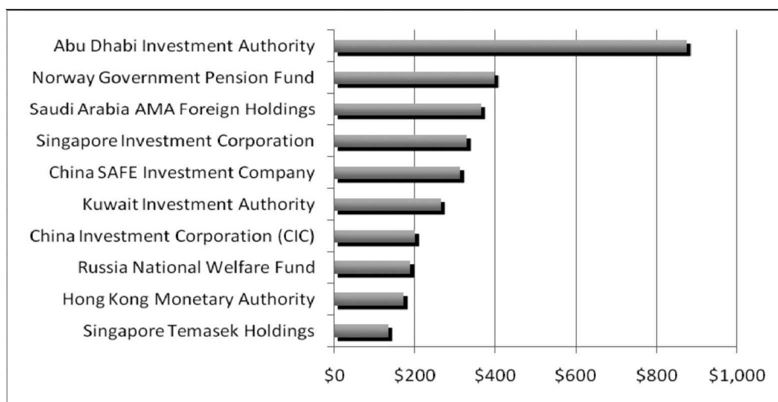
Citigroup, Morgan Stanley, and the former Merrill Lynch, when these firms needed a cash infusion due to losses at the beginning of the subprime mortgage crisis in January 2008. The tremendous damage that surfaced from the crises in late 2008 only accelerated the transformation process.

The wealthy state-owned investment funds of China, Singapore, Abu Dhabi, and Kuwait control assets of almost $4 trillion, and they are now, and for the foreseeable future, in a position to buy their way onto Wall Street and the major London and European exchanges in a big way, making big waves (see Figure 1–5).[43]

Most SWFs have remained cautious until now, partly as a result of poor experiences in the past. For example, China's China Investment Corporation invested $3 billion in the initial public offering of the private equity firm Blackstone Group in June 2008, and before that, $5 billion in Morgan Stanley in December 2007. In both cases, it lost a lot of money within months of its investments. Furthermore, the fall in oil prices has reduced the flow of cash into these funds.

But time may be on the side of the SWFs. With the long-term forecasts for severe recession in the United States and Europe



Source: 2008 Sovereign Wealth Fund Institute Inc., updated June 2008, http://www.swfinstitute.org/funds.php.

Figure 1–5. *Top-ten largest sovereign wealth funds in 2008 ($ billion).*

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extending well into 2010,[44] U.S. and European stocks become cheaper each month, and American and European objections to buyers from Asia, Russia, and the Middle East become weaker as well. While the world is experiencing its global recession, moneys from these regions will be welcomed to help stabilize these Western economies.

Much of the turbulence eventually arising from SWF investments in these markets may come as a result of pent-up feelings of nationalism and protectionism. Before the many welcoming Western hands started reaching out, requesting SWF money to help stabilize their shaky financial markets, there was widespread skepticism from both the U.S. and many European governments. Such feelings date back to 2006, when the U.S. government rejected Dubai Ports World's proposed investments in several major U.S. seaports.

And the cynicism continued as more statements were made in mid-2008, when U.S. lawmakers and congressional investigators went on record stating that the unregulated activities of SWFs and other speculators have contributed to the dramatic swing in oil prices in recent months, and that the massive investment pools run by foreign governments are now among the biggest speculators in the trading of oil and other vital goods such as corn and cotton in the United States.[45] And then at the end of 2008, France's president, Nicholas Sarkozy, stated at a meeting of European leaders that Europe should have its own SWFs to take stakes in companies stricken by the global financial crisis to protect them from "predators," reasserting his previous promise to protect innocent French (and other European) companies from the "extremely aggressive" sovereign funds.[46]

Latent fears about incredibly wealthy—and opaque—sovereign wealth funds will add to the inevitable rise in protectionist sentiment when there is a return to less financially turbulent times. This rise in fear will be further fueled by the inherent disdain that many

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Westerners have for oligarchic and state-led capitalism, both of which are prevalent in many emerging markets with the biggest SWFs.[47]

Ultimately, through corporate acquisitions and the investments of SWFs in the U.S., Europe, and other Western economies, the role of the state (often an undemocratic one) in the global economy is rapidly expanding, and with it the inevitable "push back" from Western governments and businesses, creating new sources of turbulence and chaos with which businesses will need to contend.

THE ENVIRONMENT

For many business leaders, when discussions turn to the environment, most often it conjures up the issue of risk and opportunity. In managing risk, very often a business's primary objective is to avoid the costs associated with an industrial accident, a consumer boycott, or an environmental lawsuit—all of which become more probable as the business climate becomes increasingly more turbulent. In managing opportunity, businesses must weigh the returns on their investments in the many opportunities they face every day.

All companies face increased pressure to conserve scarce natural resources and reduce pollution to ward off global warming so that life on the planet is not irreparably damaged. These requirements add to the cost of doing business overall, irrespective of any investment returns. The "green movement" is growing; it is gaining clout. Citizens and companies are entreated to consume and invest more conscientiously in systems that conserve air, water, and energy. And though most companies desire to support the green movement, with technological advancements it is becoming easier each year to prove that investments in environmental initiatives at the company level are actually bearing fruit, especially for shareholders. The potential for overinvestment is a real concern. Few companies in the post–global financial market meltdown have much discretionary money to invest on new projects that cannot directly deliver a solid return on the

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company's investment. Conversely, most companies now recognize that the growing markets for cleaner energy, water, food, transportation, and the like are already seeing bottom-line benefits from business strategies and innovation based on sustainable development. General Electric is one company trying to profit by providing solutions to energy and pollution problems.

Some investments in environmental initiatives are prudent and need to be seriously considered by companies, especially since stakeholders—who have environmental issues high on their list—increasingly express themselves about how businesses should be run. According to a *McKinsey Quarterly* survey conducted in September 2008, compared with one year earlier, many more executives said they now see environmental issues as opportunities rather than as risks. Executives answered questions on which issues matter most to the public. Environmental issues, including climate change, catapulted to the top of executives' sociopolitical agendas compared to the previous survey one year earlier. Around half of the 1,453 executives picked the environment as one of the top-three issues they expect will attract the greatest amount of public and political attention and most affect shareholder value.[48]

Because competitors are likely to invest in going green at different rates, at least in the short term, conditions favor those who skimp. In some markets, leveling the playing field may require more government regulation and enforcement. The overall effect will be to increase the level of turbulence within and across different industries. At first glance, the United States and Europe are likely to be competitively disadvantaged relative to less developed countries that are less able and less likely to make and enforce "green" investments. The West may try to use this as an excuse to lessen its own investments, leading to an ecologically risky outcome for everyone.

Ultimately, the value of companies is likely to change as environmental factors begin to affect their performance. The short-term impact

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on cash flows may be limited, but it will eventually be significant in some industries. As nations and companies begin acting more aggressively to address environmental concerns, including potentially expensive systems to reduce carbon emissions, major shifts in the valuations of sectors and companies will start to become clearer and more predictable. A critical first step is to review and quantify a company's exposure to noncompliance with current or prospective regulatory measures (such as carbon pricing, new standards, taxes, and subsidies), new technology, and environmentally prompted changes in customer and consumer behavior. Business executives will have to ask how specific changes would affect a company's competitive position if other companies adopted new business models and moved more quickly to going "green."[49]

To preempt any disruption or chaos prompted by environmental issue turbulence, the best companies will ultimately bring all stakeholders—both public and private—together to help shape the company's Business Enterprise Sustainability (BES) strategy so that environmentally effective "green" solutions also provide attractive returns on "green" investments.

CUSTOMER AND STAKEHOLDER EMPOWERMENT

In the past, businesses dominated the information airwaves. They would send out volleys of powerful brand messages on radio, TV, and billboards and in newspapers and magazines. If customers sought further information about a brand or a seller, they could only turn to their own experiences or to close friends and family members. Such "asymmetric" information was weighed in favor of the sellers.

In the last decade a revolution has occurred. Today's consumers continue to get advertising from sellers, but they also can survey hundreds of "friends" on Twitter, Facebook, or MySpace. They can look up reports online, on Angie's List, or Zagat, and learn what other businesses and people like themselves think of a company's

products and services. Increasingly, each region or individual country around the world has its own new group of online, interactive sites connecting businesses and people to share experiences.

This means that customers and other stakeholders are no longer passive agents in the marketing process. They can learn as much about a company, product, or service as they choose. Beyond that, customers and all stakeholders can use what they have learned and tell others in their network by blogging, podcasting, e-mailing, or chatting.

"You cannot hide behind the curtain in this new world. Authenticity is key, and if there is any sign of lack of authenticity, the news is viral amongst the consumers . . . this is why service design is so bloody important," states Anna Kirah, a noted expert in innovation and concept making. "Understand that people look at a company as a service itself. People are buying the experience—not the product or service—and if the experience does not meet the expectation, the company will pay a high price." Kirah concludes, "Seeing this process holistically is crucial in the information revolution of today."[50]

The profound implication of this is that sellers who make substandard products or provide less than high-quality service will disappear faster than ever. The volume of word-of-mouth coming from businesses and people who have experienced a product or service will end up advertising the good guys and defeating the bad guys. And it will prod the good guys to get better and better. So customer and stakeholder empowerment acts as a catalyst leading to continuous improvement in the offerings of serious competitors.

By the same token, word-of-mouth has the potential to create turbulence and chaos for sellers. One person who experiences terrible service during a commercial flight can create a website devoted to the airline and welcome others with bad experiences to tell their tales. One angry customer or consumer can potentially undo an established company. Vigilant companies need to aim for high customer satisfaction and monitor the talk on the Internet to make

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sure that that one angry customer or consumer doesn't destroy the company. In today's world, one little angry voice has the potential to affect thousands.

British Airways and Virgin Atlantic are two examples of companies that were damaged by bad publicity through social networks—and paid the price. In October 2008, Virgin fired thirteen of its cabin crew who had posted derogatory comments about its safety standards and some of its passengers on a Facebook forum. Among other things, Virgin crew members joked that some Virgin planes were infested with cockroaches and described customers as "chavs," a disparaging British term for people with flashy bad taste. A few weeks later British Airways faced the same problem when it began investigating the behavior of several employees who had described some passengers as "smelly" and "annoying" in Facebook postings. While both airlines stated that they had policies prohibiting employees from posting such information online, and they had internal channels through which staff can vent frustrations, neither measure seemed effective enough to prevent employees from disparaging the companies publicly on the Internet.[51]

The Economist Intelligence Unit (EIU) performed a 2008 study that includes feedback from more than 650 enterprise executives, more than half holding C-suite titles. The study shows that a key driving force for change is the technology-enhanced interaction between employees, suppliers, investors, and most important, customers. The data also shows that over the next five years, e-mail via fixed and mobile devices will solidify its position as the most important communication channel for establishing and maintaining strong online business interactions with these audiences. Among the highlights from the EIU study:[52]

- E-mail (according to 93 percent of respondents) and the World Wide Web (81 percent) maintain their leading positions as preferred

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business communications channels, and will continue to do so through 2013.

- There will be a general increase in adoption across other emerging "networked" channels by 2013 to enable companies to build new competencies in-house and collaborate with outside partners.

- Customer empowerment through technology will have a profound and positive effect on business. More than 76 percent of respondents believe this empowerment will positively impact new product and service development, and 73 percent expect that it will have a positive influence on revenues.

- Organizations believe that the most significant impact on their business models between today and 2013 will be as a result of technology-led operational changes.

- Executives anticipate technology changes will considerably affect their companies' customer service (40 percent of respondents) and sales and marketing (24 percent) initiatives, which rely heavily on e-mail and Web communications.

And in the face of the quickening pace of technological and social change, e-mail is becoming the new "snail mail." Traditional companies are less likely to recognize this fast enough and will lose out to those who adopt the faster communication media. The Internet and the World Wide Web enable communication and collaboration between empowered consumers and the businesses with whom they choose to engage. As customers increasingly demand greater input into how businesses interact with them, leading organizations of all sizes will gain advantages by transforming this increased customer involvement from risk to opportunity and long-term success.

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Conclusion

Having reviewed the main factors causing change and turbulence, businesses must recognize that they cannot operate as they have in the past, with one playbook for normal and boom markets and another for down and recessionary markets. Today, businesses in all markets must be able to manage and market in environments exposed to some level of turbulence. What's needed now is *a new strategic framework for operating in the face of intermittent and unpredictable turbulence.*

When he wrote of turbulence during the deep recession in the early 1990s, Peter Drucker stated:

> In turbulent times, an enterprise has to be managed *both* to withstand sudden blows and to avail itself of sudden unexpected opportunities. This means that in turbulent times the fundamentals have to be managed, and managed well.[53]

Turbulence is occurring at a blistering pace, leaving many businesses unprepared and vulnerable to the chaos it brings. Entering this new era is a time of tremendous opportunity, but also one of substantial risk. And while turbulence in business cannot be avoided, companies can certainly choose how they will face it. They can navigate through the turbulence or be caught up in it. They can ignore or resist turbulence's chaos while trying to hold on and survive, or they can anticipate and leverage the forces of turbulence to their advantage.

Businesses must now develop the skills, the systems, the processes, and the disciplines to quickly detect and predict turbulence in their environment and identify the vulnerabilities and opportunities that come from the consequent chaos—and the business enterprise must respond wisely and deliberately and with strong resolve.

We wrote *Chaotics* with this very purpose in mind. In *Chaotics,* we share our insights and our observations of companies that have confronted turbulence and heightened turbulence, and what they've done

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to survive better than their competitors. We present guidelines for developing early-warning systems to recognize *weak signals* that may offer only *soft cues* to detect and predict turbulence that are missed by most companies. We describe scenarios for imagining what could happen as a result of different new forces. We consider responses to each scenario that would avoid or minimize the damage. We introduce methodologies and checklists in Chapter 3 for designing *Chaotics Management and Marketing Systems* to help create a robust and resilient business enterprise that capably manages risk and uncertainty and skillfully exploits opportunities during chaotic times.

Chaotics presents a disciplined approach to detecting sources of turbulence, predicting consequent vulnerabilities and opportunities, and developing critical and appropriate responses to ensure that the business lives on successfully and thrives. The aim is to achieve Business Enterprise Sustainability (more about that in Chapter 6).

All business leaders are intensely focused on creating strategies, organizational structures, and company culture to create "superior customer value" over the life of a business enterprise. In the age of turbulence, maximizing the creation of value on an ongoing and continuous basis will require a new set of behaviors.

In *Chaotics,* we are not advocating a conservative, risk-avoiding approach to strategy, but rather an alert and prudent approach that both protects the business enterprise from the disruptive forces that impact businesses during times of turbulence and yet advances its interests. It is a prophylactic approach to business risk, one that wards off the likelihood of hubris and greed overtaking the more sober management of business affairs.

We see *Chaotics* as providing business leaders across a wide range of industries with a single source handbook they can use to prepare their companies to face the chaotic situations that lie ahead, and succeed in The Age of Turbulence.