or the past 15 years or so, I have told audiences a story about how my perception of what determines good business performance has changed since the 1960s. Starting as a professional accountant and then shifting to the academic world to study and teach economics and management accounting, for almost the first three decades of my career, I saw business through the lens of financial information embodied in market prices, accounting statements, and cost reports. Then, about 20 years ago, a chance introduction to Toyota’s operations shook my longstanding belief that the surest pathway to superior business performance was improved financial information in forms such as activity-based costing, balanced scorecards, and performance budgets. I came to see that Toyota’s unrivaled performance resulted primarily from its unique way of organizing relationships among people in the workplace, not from driving people’s work with financial targets.

At about the same time that I was discovering Toyota, I was also exploring modern science, especially life sciences and astrophysical cosmology, and exploring writers who distilled lessons for business from recent scientific discoveries. From this study, I surmised that Toyota’s way of organizing work succeeded so brilliantly because it resembled Nature’s way of “organizing” life on Earth. In that context, I began to consider whether Toyota’s practices might show businesses how to achieve robust sustainability analogous to the sustainability that Earth’s living systems have achieved for more than four billion years.

Lost in Financial Crisis

In the wake of the recent global economic crisis, accompanied by Toyota’s first financial losses in nearly 50 years and massive product recalls, people ask me if I still see Toyota’s management approach as a model for other organizations to follow. My answer is that Toyota as it was before the early 2000s will always serve as an exemplary model. The company’s present financial problems developed because top managers after 2000 violated the unique thinking that had shaped Toyota’s stunningly successful practices throughout the previous four decades. Toyota’s current crisis occurred because the company’s top managers turned away from the thinking that had implicitly anchored the company’s operations to the concrete reality of natural systems in the real world.

Instead, these managers concentrated on the virtual reality of financial abstractions, and in so doing they emulated the limited thinking that has guided almost all other large corporations in the world for the past 30 years or so. Typically, large corporations and financial markets give primacy to the virtual reality of financial abstractions and are relatively indifferent to the concrete reality of human and non-human life. Adopting this perspective, which helped produce the recent worldwide economic crisis, caused Toyota’s financial performance to turn sharply south in the current recession. In February 2009, Shoichiro Toyoda, the 84-year-old family patriarch and honorary chairman of Toyota Motors, announced a stunning shake-up of top management. He excoriated top managers for losing sight of the fundamentals that had made the company so outstanding. He pointed out that the company’s financial reversal occurred not primarily because of the recession’s severity, but because after 2000 its top executives, in order to achieve excessive finance-driven growth and pricing, sacrificed the fundamentals that had made Toyota thrive. Mr. Toyoda promised that the company would “return to basics.”

Those fundamentals are not well understood by Western management observers, who understandably, but mistakenly, attribute Toyota’s success to a set of practices they labeled “lean manufacturing.” “Lean” is not a term Toyota uses to describe the management approach it developed in the last 40 to 50 years. Observers outside Toyota first used the term “lean” in the 1980s to describe unique practices they saw in Toyota plants, such as kanban, jidoka, andon signaling, heijinka, takt time, and kaizen.

Outsiders from the West who saw these practices as the key to Toyota’s distinctiveness did not realize that people working in Toyota viewed them as temporary solutions, countermeasures, devised as remedies for particular problems that kept the company from achieving an ideal operating condition. More basic in Toyota than those specific countermeasures is the company’s distinctive way of thinking that drives it constantly to strive for an ideal state, sometimes referred to as a “True North.” This problem-solving process
and the underlying thinking is described fully for the first time in English in *Toyota Kata* (McGraw-Hill, 2010), a new book by Mike Rother.

In general, that “True North” thinking focuses the company’s workers and managers on generating and continually improving a carefully orchestrated process. This process is capable of producing results sufficient to sustain the organization’s ongoing activities indefinitely. Companies other than Toyota, however, tend to focus attention on forcing everyone in the organization to achieve the highest possible short-run bottom-line targets, targets set for the most part by global financial markets. These companies tend to view results as an additive, linear sum of independent contributions from a mechanistic collection of parts. Each part of the organization is viewed as an isolated entity that can be manipulated with predictable consequences.

Toyota sees differently. Toyota always viewed results as emerging from a complex, non-linear process, in which people belong to, and patiently nurture, a web of relationships. Just as all components of natural living systems are interrelated, so it is in Toyota.

In short, Toyota’s management culture at its zenith was process-driven, not results-driven. Toyota eschewed the financial markets’ absurdly impossible demand to produce higher results quarter by quarter. Its own pathway to higher results echoed W. Edwards Deming’s advice, given many years ago, to improve the capability of the process, not to demand that people meet higher targets by any means possible. Toyota’s attention to process and the thinking it generated led to the company’s many decades of remarkable financial performance.

**The Implications of Global Finance**

Although we have recently come to understand better than ever the cause of Toyota’s greatness, and of its present decline, we have achieved this insight in the context of a global financial system that is hostile to the financial health of Toyota or any other large and successful publicly traded company. If nothing stops global financial institutions from their relentless drive for immediate returns, if the financial sector completes the takeover of the global economy that it has worked toward for the past 30 years, then knowing that emulating nature’s systems will improve long-run performance cannot rescue non-financial businesses.

The recent slide toward bankruptcy of the Simmons Bedding Company, until now a successful manufacturing firm for 133 years, illustrates exactly how large financial institutions profit by destroying non-financial companies (Julie Creswell, “Profits for Buyout Firms as Company Debt Soared,” *The New York Times*, October 5, 2009). Like thousands of American companies, Simmons is the victim of corporate buy-out schemes that began almost 40 years ago with conglomeration, followed by the growth of an increasingly sophisticated takeover market that featured hostile takeovers, then leveraged buyouts, and, most recently, purchase by private equity and hedge funds.

Details change from decade to decade, but the general pattern has been much the same over these years. First, a large investor, generally a financial company with access to big lines of credit, approaches a target non-financial company considered to be undervalued by the market. With the consent of the target company, if possible, or against its wishes if consent is not forthcoming, the investor uses borrowed funds to purchase shares sufficient to gain effective control over the target’s operations. Having achieved control, the investor then arranges either a public equity offering of the target company’s shares or borrows against the target company’s assets. Using that capital, the investor repays the debt it incurred to purchase the target company and, usually, pockets a substantial capital gain. The next step is to boost the target company’s market value by increasing its earnings as quickly as possible, by whatever means possible. This done, the target company is sold to another investor ready to profit through the same ritual, until the target company’s debt is no longer sustainable, and it is driven to bankruptcy.

At Simmons, this process began in the 1970s with its acquisition by two large conglomerates (Gulf + Western being the best known). The process continued in the 1980s when William E. Simon’s leveraged buyout firm, Westray Capital, purchased and sold Simmons (Simon was U.S. treasury secretary in the Nixon years). Finally, Simmons has been “flipped” seven times in the last two decades by firms such as Merrill Lynch, Thomas H. Lee Partners, and others. The debt piled onto Simmons by all these investors rose from $164 million in 1991 to $1.3 billion today, a burden the company could not sustain and that now drives it toward bankruptcy.

The only winners in this process are members of the investment firms, the large financial institutions that help those investors raise capital, and, on occasion, top executives of the target company who negotiate with the investors. Everyone else loses, including the target company’s creditors and stockholders, its employees, customers, and the communities in which it operates. The terrible costs that investment firms impose on their targets are driven home when we note that Bill Simon’s firm cashed out of its investment in Simmons in 1989 by selling its stock to the company’s employee pension fund for $241 million cash. That cash equaled twice what Simon’s firm had paid for Simmons in 1986. When Simmons shares plunged during a subsequent market slump, the employee pension fund was left penniless.

The harsh reality is that today’s large global financial institutions do not value the performance of any large non-financial company for its own sake. Firms such as Goldman Sachs and J.P. Morgan Chase that now combine investment banking, commercial banking, brokerage, and insurance under one worldwide roof are not interested in the possibility that a client company might improve its financial performance if management replaces mechanistic management-by-results (MBR) thinking with Toyota’s living-system style of management-by-means (MBM) thinking (H. Thomas Johnson and Anders Broms, *Profit Beyond Measure*, Free Press, 2000). Such global financial
institutions today are far more interested in generating revenue from “trading” activities than from “investment” activities. Their primary concern is not to make money by helping businesses grow and prosper. Rather, it is to maximize as quickly as possible the returns they can generate for their own benefit through destructive trading activities that strip a business of its entire value and leave it bankrupt, if not worse. Their aim is to capture for themselves all the wealth they can garner, especially by using debt to gain control of a business, and then selling it, or its pieces, for as much as possible. The large financial institutions have learned that destroying a business makes them more money than building one. And they are good at it.

**The Rise of the Virtual Economy**

An important new article by John Cobb, one of the world’s leading scholars of Alfred North Whitehead’s work, discusses the current power of the global financial community to force corporate managers to subordinate an organization’s concern for concrete, real processes to abstract financial considerations. For Cobb, the power happened in large part because enormous financial firms can grow their assets in a virtual economy at a much faster pace than non-financial business institutions can achieve in the real economy. The term “virtual economy” refers to an economy in which the chief economic pursuit is to invest in, and trade in, financial instruments. As our economy became more and more focused on finance, monetary wealth was concentrated in the hands of a few, and the industrial capacity of the nation was hollowed out. We see this increasingly in the United States, where productive industries have disappeared at an alarming rate. And yet human beings cannot survive without a real economy where manufacturing and other forms of non-financial business are ubiquitous (John Cobb, “Landing the Plane in the World of Finance,” *Process Studies*, v. 38, no. 1, pp. 119–138).

The enorman size of global financial institutions now gives them, and the financial markets they control, increasing power to force businesses in the real economy—businesses, in other words, that could provide real jobs for real people—to capitulate to their demands for short-term earnings growth and share-price appreciation. Global financial institutions have almost unlimited power to purchase control of non-financial businesses and drive their managers toward decisions that maximize the financial traders’ short-run returns. This power virtually ensures that efforts to improve long-term business performance by improving management practices are doomed. As pawns of the virtual economic system, most non-financial business organizations will no longer be able to survive and thrive by optimizing a system of relationships that contributes to the economic well-being of the larger community. As soon as they show robust performance, such firms will be taken over and dismembered by financial institutions for the benefit of the small handful of traders and executives who orchestrated the takeover.

I once believed that the goal of corporate managers should be to nurture a profitable enterprise that sustains good-paying jobs by providing useful products and services to customers at competitive prices. I saw the fundamental cause of poor business performance since the late 1960s to be the power of accounting and finance to focus managers’ attention on immediate growth in bottom-line financial results. Higher and more stable average financial results are achieved, I thought, when managers concentrate on perfecting the concrete, real, human features of a business rather than merely on achieving abstract financial targets. But my belief did not take into account the nature and impact of today’s global financial institutions.

It troubles me deeply to have been forced to conclude that global financial institutions have themselves become an insidious threat to the well-being of businesses. Today’s financial institutions seek to gain far more than the returns that even the best-performing business can produce. Their object is nothing as mundane and useful as arranging long-term financing for profit-oriented businesses. No, as Fritjof Capra pre-sciently observed almost a decade ago, today’s global financial institutions seek to deal with people, resources, and businesses as commodities to be traded in the least regulated and least transparent markets possible in order to make as much money for themselves as possible, whatever the cost to society as a whole (*The Hidden Connections*, Doubleday, 2002, chs. 5, 7, and Epilogue).

This system works most insidiously through the trading activities of global financial institutions that control their own commercial banking subsidiaries from which they borrow and use enormous sums to acquire non-financial businesses at virtually no cost and with almost all risk transferred to taxpayers. Because of the spectacular market collapse of the 1920s, for 50 years under the Glass-Steagall Act, large financial institutions that engaged in corporate underwriting and securities trading were prohibited from owning and controlling commercial deposit banks. That Act was repealed in 1999, with the result that these institutions can once again own and use deposit banks.

Since the 1970s, the immense market power of these global financial institutions has enabled them to pressure corporate management to focus attention increasingly on results compiled by accountants and financial analysts. This pressure caused companies to become obsessed with achieving only short-term financial targets, and virtually to disregard the relationships that create a healthy and profitable organization for the long term. And so here we stand today.

**A Ray of Hope**

Although it is a stretch, I would like to offer hope that we can restore some semblance of independence to our economy’s non-financial business sector. I suggest that business might become once again a viable engine for creating well-paying jobs and for meeting the public’s needs for safe, useful products and services. This will not happen if the financial sector is able to continue sating its limitless greed by using the power of the virtual economy to destroy the real economy on which our society’s standard of living depends. How can we bring the
financial sector under control and reduce its egregious influence on our lives? Instead of looking to the government for solutions, let’s address the problem by asking the following question: What can Toyota’s example teach us that might lead us out of this vicious cycle?

I ask this question because Toyota, unlike almost every other large publicly traded company in the world today, has relied scarcely at all on financial markets to raise capital for long-term investment. Instead, Toyota has used internally generated funds to finance virtually all its growth for at least the past 50 years. Indeed, a long-standing joke in Japanese financial circles is that Toyota only borrows as a favor to banks, not because it needs outside capital. And its shares are listed on the Nikkei Exchange in Tokyo because in the 1950s the Toyota family sold a substantial portion of its Toyota holdings for family reasons. Toyota has not sold shares publicly to raise equity capital for the company. Similarly, Toyota became “listed” on the NYSE for the first time in 1999, largely for political reasons, not to raise capital.

A sign of Toyota’s limited need for outside finance is its consolidated cash balance, which in recent decades has run in the $25 to $30 billion range, and often more. Wall Street gurus and financial experts commonly criticize such large cash holdings as a sign of top management inattention to shareholder interests, something that usually makes a company a target for corporate takeover artists. For Toyota, however, such cash balances made it possible to spend billions in the 1990s on hybrid power-train development, leading to the highly successful Prius model, and to spend more billions sustaining its full-time workforce during the current recession.

Were all non-financial companies able to emulate Toyota’s disdain for outside finance, it is unlikely that Wall Street and the global financial institutions it has spawned would exist today. However, finance experts usually take for granted that companies will borrow and issue stock. But what creates this perception?

To get to the source of such an issue, a Toyota sensei would say “ask why five times.” So, let us ask of this assertion that companies must borrow and issue stock: Why? The first answer probably will be that the demand for growth makes it necessary. Why? Because growth requires a lot of investment in capacity before it can be financed out of current earnings. Why? Because initial earnings will not be sufficient to cover the cost of initial investment. Why? Because costs will exceed revenue until sales reach a certain level. Why? Because then economies of scale will kick in. Why? Because we build capacity to a larger scale than needed at first, in order to enjoy lower costs per unit as sales rise.

At this point, the Toyota sensei asking these questions might inquire: What if you build capacity as needed, in small increments, so that costs rise more or less in line with revenue, thus leading to profits, and cash, from the first unit sold?

### Moving Beyond the Virtual Economy

This vignette is based on the well-known fact that, from its pre-World War II beginning to the present, Toyota has always aimed at consuming no more resources (material, labor, supplies, power, capital, etc.) than necessary to produce what is needed to serve customers at the moment. It was scarcely possible for the company to do otherwise in its early years, especially after the war, when scarcity was extreme. But over time, Toyota became adept at finding ways to continually do more with less. For Toyota, the pathway to achieving low costs, at which they have always excelled, was to reduce total costs by continuously reducing consumption of resources. That strategy not only insured low costs, but it also made profitability a way of life, thereby eliminating the need to deal with financial institutions, in financial markets.

By contrast, the American pathway to low costs has usually been to achieve low average costs per unit of output, the metric that follows from the economies of scale mindset. The easiest way to achieve low cost per unit, then, is to produce more units, not to reduce consumption of resources. Inevitably, the need to produce more in order to supposedly “cut costs” led over time to larger and faster machines, more offline work to keep track of material flows, more need for marketing, advertising, and deal-making to sell excess output, and so forth. In other words, producing more output to achieve lower cost per unit led to higher total costs and thus, unfortunately, to the need to seek funds in the external financial community.

### Pathway to Sustainability

In addition to emulating Toyota’s highly disciplined approach to limiting growth to what is possible with internally generated resources, what other steps can reduce the global financial system’s grip on our economy? Surely the most fundamental, and most difficult, step is to focus the primary purpose of business activity on the essential concerns of humans and natural systems—on life, that is—rather than on financial concerns. If business is viewed as concerned above all with life, then its primary purpose is to provide people with meaningful and fulfilling livelihoods through which they satisfy the genuine economic needs of fellow humans in ways that harmonize with Nature’s life-sustaining system on Earth.

According to the story financial institutions have disseminated for the past 30 or more years, business exists specifically to maximize shareholder value. Focusing on shareholder value means seeing business through the narrow lens of accounting statements and financial abstractions. That narrow lens blinding us to the true purpose of business in a real economy, a purpose that requires diminishing the power and influence of the global financial system. We need to replace the longstanding story about the purpose of business, from financial gain to sustaining life.

An important consequence of redefining the purpose of business in terms of human and natural systems is that it puts the issue of sustainability front and center. All too often, sustainability is thought of as little more than a collection of desirable features to add to a global corporation while it continues pursuing “business as usual.” In
other words, a publicly traded, shareholder-value-maximizing corporation can tout such sustainability features while its operations remain firmly planted in the web of the existing financial economy. Such features include, for example, an increase in the efficiency of resource consumption, attention to working conditions of laborers in underdeveloped, low-income countries around the world, environmental programs to promote carbon-free energy sources, reduced use of toxic substances in manufacturing process and products, products designed for easy and foolproof recycling, and so on.

While pursuing these features is a valuable and commendable goal, none of them addresses the ultimate concern of true sustainability. True sustainability requires conducting economic activity in a way that makes it possible for all life, human and non-human, to flourish on Earth indefinitely. But we humans make tens of thousands of non-human life forms extinct every year as our economic pursuits cause us to encroach on their habitat to serve our own ends. Certainly an economic system focused on endless growth to achieve share price appreciation does not encourage a sustainability that allows all life to flourish.

Indeed, I firmly believe that true sustainability in an economy dominated by publicly traded firms is an oxymoron. True sustainability might be possible, however, were businesses in our real economy to escape the destructive growth-oriented emphasis imposed on them by the global financial sector. Toyota was free from this pressure throughout virtually all of its modern history, until very recently when finance-motivated growth stretched its management ranks too thin, weakening its unique process-improvement *kata*, and causing quality to slip. Perhaps freedom from pressure to grow will become Toyota’s condition again, and the condition of companies that adopt Toyota’s original habits of thought.

The path to true sustainability cannot be known in advance. It must emerge from a disciplined process that leads our actions through uncharted terrain toward the vision of a truly sustainable economy. However, I think it is reasonable to suggest certain features of business activity that might emerge as we pursue this vision. For one thing, business is likely to focus more and more on place—on the local, not on the global. Going local means operating more to human scale, making connections between actions and consequences visible so that externalities caused by distance in time and space between producers and consumers are reduced and even eliminated.

After all, “globalization” of the economy in recent years means not just the spread of business activities across national borders, a trend that has been evident in the industrial world for over 150 years. It means, more importantly, the globalization of financial markets, markets that permit very few, very large financial institutions to conduct transactions of unprecedented magnitude, with lightning speed. This has shifted all economic activity increasingly outside of national boundaries and made it rootless, even lawless, bounded only by the financial power and greed of a small number of extremely large financial institutions. In the modern world, once economic activity is framed in financial terms, it becomes subject to global transacting and trading. All sense of place and locale, of people and nature, is lost. Humans become mere commodities, the same the world over, valued only for their price as labor and their spending as consumers. Financial wealth and the power it gives to control Earth’s resources becomes concentrated in ever fewer hands, while increasing numbers of humans sink into poverty.

Nevertheless, there is hope. It lies not in efforts to take over and control the financial economy. Rather, it resides in the discovery by businesses of ways to function without financial markets and global financial institutions, a discovery that would make the financial economy largely irrelevant. If companies succeeded at limiting growth to the extent of internally generated funds, they would not need to issue shares, and they would not need public markets in which to trade shares. In the absence of those institutions, it would not be necessary to pressure companies to grow relentlessly. And without relentless growth, there would be much less pressure, or opportunity, to assume massive amounts of debt. This is the pattern always seen in Toyota. Toyota followed these precepts during the decades after World War II—when they were becoming one of the world’s most successful large corporations.

Today, Toyota is paying for a decade when top management foolishly drove the company to grow to become #1 in sales in its industry. Hopefully that obsession has ended, at least for now. The company promises to restore the thinking and habits that generated its original success. The challenge now is for all businesses to adopt the same thinking and disciplined habits. The result could be a real economy in which businesses operate in harmony with Earth’s capacity to sustain all life. That surely is a purpose worthy of our highest dedication.


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