Praise for

Financial Darwinism

“The world’s political and economic uncertainties, exacerbated by a serious lack of financial transparency, can lead business leaders to feel like they may be virtually flying blind in a rapidly changing global economy. Leo Tilman offers some important tools to address the clear imperative of better strategic and systemic risk management.”

William E. Brock
Former United States Senator
United States Trade Representative
and United States Secretary of Labor

“History is littered with the wrecks of financial institutions. Some failed to change their strategies. Others pursued tantalizing returns while paying insufficient attention to the risks. Judging from recent financial crises, many financial institutions still have not learned how to avoid crippling, perhaps even life-threatening, wrecks. Leo Tilman’s timely book is a navigator’s manual for managers of 21st-century financial institutions. To prosper, even to survive, Tilman clearly and forcefully shows that they must abandon outmoded strategies, adopt new ones, and pay much more attention to the trade-off between risk and return. He blends theory with experience to show how this can be done, and even how it has been done.”

Dr. Richard Sylla
Henry Kaufman Professor of The History of Financial Institutions and Markets
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Financial Darwinism

Create Value or Self-Destruct
in a World of Risk

LEO M. TILMAN
For Alisa and Owen
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The great economic theorist at Chicago, Frank Knight, observing American business experience, took the unprecedented position in his 1921 classic *Risk, Uncertainty and Profit* that most business decisions, especially strategic ones, are to varying degree steps into the unknown. Each of the possible outcomes of a business venture can be considered to have some probability of occurring, but those probabilities are not known to the players. Thus was born the concept of *Knightian uncertainty*. The great theorist at Cambridge and Knight’s contemporary, John Maynard Keynes, produced major ideas on the consequences of such uncertainty in his 1921 book *Essay on Probability* and in his 1936 book *The General Theory*.

Knightian uncertainty does not stem from some failure to study on the part of decision makers. Rather, it results from the unknowability of some of the conditions, present and future, on which the consequences of the decisions depend. If gamblers keep betting heads or tails, the evolving holdings may be knowable in a probabilistic sort of way. In the world of Knight and Keynes, though, the economic future is, in large part, not even probabilistic—it is to an important degree indeterminate. And if the probabilities governing the future cannot be known to a participant, they cannot be known to an outside observer or theorist, either. The driver in Keynes’s “general theory” is entrepreneurs’ intuition about the profitability of investments they contemplate; with their limited understanding, his entrepreneurs can have little idea what the correct expectation of profitability would be.

The heightened uncertainty and indeterminacy in economic life that Knight and Keynes captured came with the rise of the modern economy in the last decades of the nineteenth century. The arrival of finance capitalism, with its restless experimentalism, created *economies of dynamism*—economies with a propensity to innovate in ways that prove viable. It is this new dynamism that radically increased the unknowability that the actors in these economies had to confront. Dynamism—and the accompanying uncertainty and indeterminacy—were virtually unheard of in the so-called *traditional economies* of the eighteenth century. In those economies, uncertainties seldom intruded except in the case of exogenous forces—the occasional scientific discovery, a natural disaster, and so forth. In contrast,
in the modern economies that followed, new commercial ideas—thus elements of unknowability and uncertainty—were generated by the operation of economies themselves. From time to time some businessperson, observing current practice first hand, would hit upon an original idea for a better way to do things. First in Britain, then on a wider scale and with greater force in Germany, and later the United States, finance capitalism generated a torrent of endogenous innovations from the 1860s onward for decades—a torrent that in the United States stretched through the 1930s and has had significant recurrences since.

This economic dynamism, though not measured directly, is manifest in several ways. It injects new kinds of activity into business life: employment in the financing, development, and marketing of new commercial products for launch into the marketplace and a cadre of managers deciding what to produce and how to produce it. It appears to lift job satisfaction and employee engagement. It increases turnover in the ranks of the economy’s largest firms, as some new firms grow large and displace old firms. Last but not least, it lifts productivity onto a higher (whether or not a faster growing) path. It must be emphasized that rapid growth for a time is not evidence of much or any dynamism; and slow growth for a time is not evidence of a lack of it: Dynamism and growth are not synonymous.

The importance of dynamism in understanding and appreciating the standout economies—going back more than a century—are no secret among economists and business historians. It has been present for years in the pages of Friedrich Hayek, Alfred Chandler, Richard Nelson and Sidney Winter, Roman Frydman and Andrzej Rapaczynsky, Amar Bhide, Virginia Postrel, and some work of mine. Yet the general public has been led to believe the myth that high productivity, wages, and wealth are driven by the great technological advances of unworldly scientists operating outside the nation’s economy: Columbus, Magellan, Watt, Volta, Faraday, Marconi, von Neumann, Berners-Lee, and the rest. It has to be mentioned that large numbers of economists find it inconvenient to recognize originality and novelty in their formal economic models. Empirically, however, we do not find that productivity growth arrives in great waves, each linked to a scientific breakthrough. Furthermore, looking across countries, we do not see the patterns that the popular myth would predict: There are wide gaps in productivity levels and in some of the other manifestations of dynamism. It is clear that, in many countries though not all, something big is going on besides science—namely, ideas for new commercial products and new ways to produce.

Historically, capitalism—despite its many imperfections and episodic malfunctions—has proved the premiere economic system for dynamism. Capitalism is all about commercial innovation—the birth of the idea, the development and marketing, and the adoption. Once key freedoms,
supporting institutions and favorable attitudes have evolved, some participants step forward with entrepreneurial proposals, others step into roles as lenders or investors to finance some of these projects, still others, as managers or consumers, evaluate and sometimes make pioneering adoptions of the new products.

Of course, the uncertainty and the learning costs entailed by economic dynamism make business life treacherous, though exciting and challenging. There are hazards in acting without allowance for one’s limited understanding. Unfortunately, it has become the style in business decision making to pretend that the economy and the financial markets are well understood and that the pertinent numerical parameters of financial and economic models, including the relevant probabilities, are fully known (or close enough to it). The misadventures of recent times—the monetary policy blunders, regulatory mistakes, astonishing financial losses, and worldwide systemic financial crises—are dramatic evidence to the contrary.

The recent problems in the banking sector in the United States are indicative of some of the failures. While many believed for some time that subprime lending and securitization would enable more people to own homes, decision makers had no foundation on which to estimate either the valuations or the risks of the novel assets acquired. Mistakenly, many thought that portfolio diversification could eliminate Knightian uncertainty as well as other risks. Furthermore, models did not allow for macroeconomic swings and for the unknown numbers of new financial companies that might enter the business. The irony here was that the financial sector, in the practices it introduced to capture what it thought were opportunities for a pure profit, ended up creating new and colossal uncertainties for itself and the global economy.

Capitalism has thus been disgraced precisely in the area of its greatest competence. The relatively capitalist economies, notwithstanding the considerable dynamism that classic capitalism showed in its glorious past—the knack for efficient and profitable innovation—have betrayed a lack of awareness and sophistication about what is required for making successful decisions of an innovative nature. Yet we can hope to find in the faults of standard practice and governance some ways to reorient the financial sector toward business development and commercial innovation—with resulting dividends in increased dynamism in the economy. As I have argued for some time, an economically advanced country is not doing justice to the potentialities of the population for self-actualization and self-discovery if it does not examine institutions, attitudes, and beliefs for ways to shore up its dynamism.

This original and provocative book by Leo Tilman therefore comes in our hour of need. It starts off by making sense of the tectonic shift that occurred in finance over the past quarter century. It then proceeds
to offer a decision-making framework for operating in the new financial world. Tilman argues that the mechanism of how economic value is created and destroyed in finance is central to understanding modern financial institutions and capital markets. Equally intriguing, he proposes that it is the dynamism of financial institutions’ risk-taking and business decisions that both distinguishes the modern financial world from prior financial regimes and serves as the main determinant of their success going forward. He calls this evolutionary thesis **Dynamic Finance**.

This thesis contrasts the brave new world of finance with the old regime of the post-WWII economy. In the past, Tilman argues, financial institutions used to fulfill their chartered roles in ways that, from the risk-management perspective, were very traditional and static. Measures of economic success based on accounting earnings and standard financial disclosures may have been the adequate lens through which to view reality in the good-old days of the banker George Bailey in Frank Capra’s *It’s a Wonderful Life*, to borrow the author’s apt image. However, they are not applicable to the new dynamic state of affairs and thus often lead to confusion and inoptimal decisions. This depiction reminded me of the “traditional economy”—the economy of routine captured by the neoclassical models of economic equilibrium: they excluded change for which there was no prior information and departures for which there was no known knowledge to go by.

The modern economy opens the door for individuals to exercise their creativity by venturing to do something innovative—financing, developing, and marketing of new products and methods. Models of such an economy must recognize the nonroutine ways in which market participants make decisions or deploy resources. These models must also be general enough to be compatible with the myriad of ways in which market participants might revise their views of the future and act on them. In applying a similar line of thinking to financial institutions, Tilman develops a concept of risk-based economic performance that underlies the book’s evolutionary thesis and leads to a decision-making framework that he calls **Financial Darwinism**. This book introduces a new intellectual paradigm that can be used to guide strategic and investment decisions. Importantly, however, by recognizing the essence of dynamism, it does not impose the author’s views or advocate any particular paths to success, leaving it to financial executives to use their creativity, proprietary knowledge, and ingenuity when ultimately deciding what is best for their firms.

This brings me back to the interaction of uncertainty and dynamism. Given that nonroutine business decisions are steps into the unknown, I have always found it odd that financial executives seemed to think so little about Knightian uncertainty. Tilman does not view this fact as surprising at all, attributing it to old mental paradigms and static business models that obscured the roles of risk taking and uncertainty during the old financial
regime. He argues that, as a result of the tectonic financial shift, active risk
taking has become a much greater contributor to economic value creation,
and, therefore, the role of risk in the lives of financial institutions must be
made explicit. Tilman points out that the greater complexity of today’s fi-
nancial world stems from more dynamic economies, more dynamic financial
institutions, greater connectivity of the capital markets, and a set of other
powerful secular forces. Therefore, the nature of executives’ strategic vision
and their understanding of uncertainty must change accordingly.

Leo Tilman and I first met at the World Economic Forum in Davos and
have since continued our discussion of economic dynamism and the atten-
dant uncertainties at Columbia’s Center on Capitalism and Society. From the
start, Tilman and I were intrigued by the many parallels between economic
dynamism and the dynamism in finance. He sees the latter as essential
for modern financial institutions’ survival and success. I see the former as
the key determinant of a nation’s success and, in the age of globalization,
maybe its survival. Economic dynamism is invaluable both for high pro-
ductivity and employment—which serve in turn to increase the inclusion of
people into the commercial economy—and for meeting some of our most
basic needs: to exercise our imaginations, to enjoy the mental stimulus of
change, to have an endless series of new problems to solve, to expand
our capabilities, to feel the thrill of discovery, and to experience personal
growth.

I believe this thought-provoking book—in interpreting major financial
trends, in pointing to the need for financial dynamism, and in providing
the relevant arsenal of ideas and decision-making tools to that end—will be
of great interest to a broad range of executives, investors, regulators, aca-
demics, and students of economics and finance. If Tilman’s new paradigm is
embraced, financial institutions will be more dynamic. The present banking
crisis is both a danger and an opportunity. Let us hope that the banking in-
dustry will be given the opportunity to reform itself: to acquire the strategic
vision and management practice that will create real and lasting economic
value, thus benefiting shareowners, employees—indeed, the whole society.

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“It is not necessary to change. Survival is not mandatory.” When it comes to the world of modern finance, this timeless quote from W. Edward Deming is more relevant than ever—and broader in scope than it seems. In fact, financial institutions’ willingness and ability to change—and, more generally, the dynamism of their business and risk-taking decisions—have become the critical determinants not merely of their survival, but also of their success in creating economic value and benefiting all stakeholders.

This book seeks to help financial institutions adapt to the new financial order. It explains the nature of the tectonic financial shift that has taken place over the past quarter century. It distills strategic, investment, regulatory, and public policy implications of the “future that has already happened.” It explores why and shows how financial firms must continuously evolve amidst genuine complexity and uncertainty in order to survive and remain competitive. Last, it identifies actionable ways of putting new ideas into practice in a risk-focused manner.

This book is about blue ocean strategies of value creation in finance. It is about change, and change is always difficult—indeed wrenching. Institutions must be redesigned, outdated paradigms discarded, and corporate cultures redefined in the process. However, the alternative—the Darwinian failure to evolve—is far more painful. This is when capital markets, clients, and counterparties beat you to the punch and make difficult choices for you, setting in motion self-fulfilling prophecies that often lead to financial ruin.

The ideas underlying this book emerged in the course of my strategic advisory work with financial executives and institutional investors around the world over the better part of the past decade. The detectable origins of the manuscript itself date back to late 2005, when it was the perplexing duality of the financial landscape that gave me the final impetus to start putting new thoughts, observations, and common themes on paper. If you recall, that particular time period was characterized by the tranquility of macroeconomic and market environments, global economic expansion, and impressive financial innovation—all seeming testaments to globalization at its best. New financial markets were growing by leaps and bounds. New
assets—ranging from air rights to equipment leases to subprime mortgages—were being securitized, expeditiously blessed by credit rating agencies, and sold around the world. Hedge funds and private equity firms were employing an incredible amount of leverage and dominating financial markets. Investors from New York to Taipei, Munich, and Buenos Aires were dabbling in increasingly complex financial instruments. The financial industry was happily obliging on all counts—and raking in record profits in the process. According to some financial pundits and news commentators, there were all reasons to believe that a combination of skillful monetary policies, regulation, financial engineering, and risk management rid the world of financial instability forever. Needless to say, developing a sense of urgency, seeking introspection, and embarking on difficult organizational changes when life is this good is not easy.

Amidst the bliss, however, something profound was happening behind the scenes, making many of my clients and colleagues increasingly anxious. In sharp contrast to record profits, margins on traditional financial businesses were under severe pressure. Fees for basic financial services were compressing across the board. Competitive pressures were intensifying as the world was becoming increasingly “flat” and flooded with information. The origins, implications, and potential permanence of the low-return environment (dubbed conundrum by then–Federal Reserve Chairman Alan Greenspan) were not fully understood. The word normalization was frequently used to describe the hope that the financial regime would revert to something more familiar. Most importantly, the choices facing financial executives were unclear. Were they supposed to retrench and wait for the world to come to its senses? Were they supposed to radically transform their companies; and if so, how?

This book analyzes the dominant global forces behind the tectonic financial shift and then comprehensively explores the challenges facing financial institutions as well as the universe of their potential responses. Conceptually, it consists of two highly intertwined parts. The first one, presented in Chapters 2 and 3, is the evolutionary thesis (Dynamic Finance) that deals with the origins and drivers of the profound changes in the global financial landscape. I propose that the basic key to understanding the behavior of modern financial institutions and capital markets lies in the recognition of the fact that the process of economic value creation in finance has undergone a fundamental transformation. More specifically, due to significant margin pressures on basic financial businesses, active risk taking has begun to play an increasingly dominant role in how financial institutions create (and for that matter destroy) shareholder value. In order to demonstrate this, I introduce the so-called risk-based economic performance equation that helps depart from the outdated accounting-earnings-inspired mental paradigm. Throughout, the dynamism of risk-taking and business
decisions is emphasized as a distinguishing characteristic of the new world vis-à-vis the old financial regime.

Managing modern financial institutions is a task of enormous uncertainty, scope, and complexity. Thus, the second part of this book (Chapters 4 and 5) uses the evolutionary perspective of Dynamic Finance to introduce an actionable decision-making framework (Financial Darwinism) that is designed to help financial executives respond to the modern-day challenges. Together, the decision-making framework, the evolutionary thesis, and the risk-based economic performance equation filter out the complexity of the financial world and give financial executives a menu of broad choices on how to create or enhance economic value. They help define strategic vision that properly integrates customer-related and risk-taking decisions, thus unifying business strategy, corporate finance, investment analysis, and risk management. Last, they help determine an optimal way to implement the strategic vision using the entire arsenal of advanced financial tools. In the process, risk management naturally becomes the very language of strategic decisions.

This book is intended for a broad audience of executives, financial practitioners, institutional investors, analysts, academics, financial journalists, regulators, and policy makers. Because in today’s globalized and competitive world all companies increasingly take on financial risks, many of the ideas should also be relevant to senior decision makers and professionals at nonfinancial companies. Last, this book is written for individual investors and students in finance who are interested in understanding broad financial and macroeconomic trends as well as the challenges faced by the diverse participants in the global financial system.

This work has many theoretical and practical undercurrents, institutional examples, and lessons learned. Because of that, we felt that outlining main ideas in broad strokes prior to getting into technical details was important. Thus, Chapter 1 is a self-contained, non-mathematical, big-picture overview of the entire book. Technical readers who are eager to dive into a more detailed discussion as soon as possible may skip the last six sections of Chapter 1 and proceed straight to Chapter 2.

Writing this book—and applying the underlying ideas to the real-life challenges facing leading financial institutions, institutional investors, and nonfinancial companies worldwide—has been a truly exciting intellectual journey that spanned many years. I have tried to convey the timeliness and importance of the subject matter at hand on the pages that follow. Meanwhile, the global financial crisis that erupted as this book was nearing its completion amplified the sense of urgency and in many ways validated the premise and
proposed approaches. I hope that the readers will find this book engaging and relevant, and I look forward to their feedback. Needless to say, any errors (stemming from the previously mentioned urgency, excitement, or otherwise) that undoubtedly remain in this book are entirely mine.

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