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ARTICLE

THE LAW AND ECONOMICS OF FIDUCIARY DUTY: *WOMACK V. ORCHIDS PAPER PRODUCTS CO. 401(k) SAVINGS PLAN*

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I. INTRODUCTION

The following pages dissect the 2011 opinion of the United States District Court for the Northern District of Oklahoma in *Womack v. Orchids Paper Products Co. 401(k) Savings Plan*.[1] That civil action arose under the Employee Retirement Income Security Act of 1974[2] as amended (ERISA). ERISA authorizes recovery by individual participants (like Carolyn L. Womack) in a defined contribution-retirement-plan context (such as that of the Orchids Paper Products Co. 401(k) Savings Plan) from any fiduciary with respect to the plan whose breach of fiduciary duty results in losses.[3] Hence, the *Womack* opinion invited reclarification of the identities of plan fiduciaries, of the ambit of their fiduciary duties, and of the economic logic embodied within such legal determinations.[4]

The proud profession of economics in the years immediately to the eve of the *Womack* opinion had been lulled by a global Great Moderation preceding 2007.[5] It fueled an imperially exaggerated sense of competence on the part of macroeconomists to be abruptly stunned by a 2007–2009 worldwide financial crisis (exposing a professionally broad swath of macroeconomists as emperors without clothes, clueless). Ill-formulated professional paradigms and over-mathematization left macroeconomists ill-equipped safely to sail stormy business cycle seas.

However, an underlying paradigm of the juridical scientist's research into law and economics is instead microeconomic theory. That body of knowledge constitutes the market system's very anatomy. Rewarding is the application of microeconomic thinking in real-world analysis. The worldwide financial hurricanes of the past half-decade have chastised the theretofore supercilious band of macroeconomists. Their professional

1. Womack v. Orchids Paper Prods. Co. 401(k) Sav. Plan, 769 F. Supp. 2d 1322 (N.D. Okla. 2011). *See Court Finds Breach of Fiduciary Duties*, BENEFITS MAG., June 2011, at 61, 61, 66; *Rulings, Filings, and Settlements of Interests*, ERISA LITIG. NEWSL. (Proskauer Rose LLP, New York, N.Y.), March 2011, at 12, 13, *available at* http://www.proskauer.com/files/News/ace60235-a117-4bf5-a20d-b30aa03bce42/Presentation/NewsAttachment/8743219b-540b-4600-8007-1f9faa39a54e/erisa-litigation-newsletter-march-2011.pdf.

2. Employee Retirement Income Security Act of 1974, Pub. L. No. 93-406, 88 Stat. 829 (codified as amended at 29 U.S.C. §§ 1001–1461 (2006)).

3. 29 U.S.C. § 1109(a).

4. *See Womack*, 769 F. Supp. 2d 1322.

5. Michael Mandel, *The Even-Keel Economy*, BUSINESSWEEK, Nov. 5, 2007, at 36, 36.

attention to mathematization had won to their ranks scholars of slight feel for economic phenomena, whereas the more microeconomic topics, like trading efficiencies for individuals or firms or matters like incentives, might inform the fiduciary-duty principle.

"The standard economic-history version"[6] of money and debt supposes that barter preceded money (e.g., coin) with the development of banking and credit following.[7] However, nobody discovered any "Barterland."[8] "[M]onetary history is . . . backwards" because barter was not a primeval practice.[9] And credit and virtual money (e.g., promissory notes) preceded cash.[10] The regulation of financial markets might well proceed with a heed to the preciousness of trust as social capital. Business is erected upon trust relationships. The bulk of financial services and products is of a fiduciary nature. Securities regulation is promoted as investor protection. It simultaneously aids the issuers and sellers of securities to vend their wares to a potentially suspicious public.[11]

Investigation of the law and economics of *Womack* proceeds properly with a sensitivity to relationships. In the principal-agent relationship, the asymmetry of responsibilities is a special feature. The principal moves first, with her agent following. The agent as second mover wields a discretion justifying the attachment of a fiduciary duty. Just such discretion having obtained on the part of several defendants, and fiduciary duty having been breached on the part of one, Judge Kern's fiduciary-duty analysis in *Womack* was well-crafted. And given the cruel logic of retirement in the defined-contribution universe of ERISA-regulated 401(k) retirement-savings plans, well might a mature workingwoman like Carolyn L. Womack have gone to court to defend her investment in an individually managed 401(k) account.

6. DAVID GRAEBER, DEBT: THE FIRST 5,000 YEARS 22 (2011).
7. *Id.* at 21, 28.
8. *Id.* at 24.
9. *Id.* at 24, 29, 40, 43.
10. *Id.* at 18, 313.
11. JAMES D. COX ET AL., SECURITIES REGULATION 3–4 (6th ed. 2009).

II. The Pre-2007 Great Moderation

A. What Was the Great Moderation?

Once widely heeded was the global phenomenon that economists styled the Great Moderation.[12] Around much of the planet, the fluctuation in output, inflation, and unemployment occurring since the mid-1980s became greatly smoothed.[13] Recessions became fewer and gentler.[14] The Great Moderation label derived from a paper by economists James H. Stock and Mark W. Watson.[15] They reflected that over some thirty years the economic activity in most G7 countries had become less volatile.[16] An American Great Moderation had been documented in 1999 by Chang-Jin Kim and Charles R. Nelson,[17] and then by Margaret M. McConnell and Gabriel Perez-Quiros in 2000.[18] Before 2007, "volatility of global growth . . . progressively" declined since peaking in the 1970s.[19] "Interest rates in the 1970s and 1980s" extremely outpaced those in 2007.[20] The 1980s and 1990s experienced an inflation shrinking from eleven to two percent.[21] "[A]s markets became more liquid, the risk premium of investing in stocks over bonds" contracted.[22] Should the equity risk premium from stocks "over a riskless asset [like] Treasury bills" lower, stocks can be bid more

12. Mandel, *supra* note 5.

13. John B. Taylor, Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis 34 (2009).

14. Mandel, *supra* note 5.

15. James H. Stock & Mark W. Watson, *Has the Business Cycle Changed? Evidence and Explanations*, Fed. Res. Bank Kan. City (Sept. 2, 2003), http://www.kansascityfed.org/PUBLICAT/SYMPOS/2003/pdf/Stock-Watson.0902.2003.pdf.

16. *Id.* at 7.

17. *Id.* at 4; Chang-Jin Kim & Charles R. Nelson, *Has the U.S. Economy Become More Stable?: A Bayesian Approach Based on a Markov-Switching Model of the Business Cycle*, 81 Rev. Econ. & Stat. 608, 608 (1999).

18. Stock & Watson, *supra* note 15, at 4; *see also* Margaret M. McConnell & Gabriel Perez-Quiros, *Output Fluctuations in the United States: What Has Changed Since the Early 1980's?*, 90 Am. Econ. Rev. 1464 (2000).

19. Int'l Monetary Fund, World Economic Outlook October 2007: Globalization and Inequality 175 (2007).

20. Mark Sellers, *Investors, Cast Off Your Bonds*, Fin. Times (London), Nov. 17–18, 2007, at 5.

21. Robert J. Samuelson, The Great Inflation and Its Aftermath: The Past and Future of American Affluence 268–69 (2008).

22. Marvin L. Barron & Devasish Majumdar, *Comparative Analysis: An Alternative Investment Model for a Structurally Changing Market Environment*, J. Fin. Plan., June 2006, at 60, 61.

steeply.[23] Stock and Watson opined that shrunken variances of output probably had been elicited thanks to an era of extraordinarily curtailed macroeconomic shocks.[24] On "Shanghai Day" (February 27, 2007),[25] the Shanghai Composite Index slipped 8.8 percent.[26] That date put the quietus to the Great Moderation.[27]

B. Did the Great Moderation Mislead?

Judge Richard A. Posner's textbook treatise, *Economic Analysis of Law*,[28] has been deemed representative of the law and economics of the

23. James Picerno, *The Price of Kinder, Gentler Economic Cycles*, BLOOMBERG WEALTH MANAGER, July–Aug. 2004, at 88, 88.

24. Stock & Watson, *supra* note 15, at 39–40.

25. John Authers, *The Short View*, FIN. TIMES (London), Feb. 27, 2008, at 17.

26. John Authers, *Short View: Shanghai Surprise*, FIN. TIMES (July 29, 2009, 6:33 PM), http://www.ft.com/intl/cms/s/0/64f4756c-7c63-11de-a7bf-00144feabdc0.html ?ftcamp#axzz1qWKUt1pn. *See* JOHN AUTHERS, THE FEARFUL RISE OF MARKETS: GLOBAL BUBBLES, SYNCHRONIZED MELTDOWNS, AND HOW TO PREVENT THEM IN THE FUTURE xx, 1 (2010).

> The Shanghai Surprise, we now know, marked the start of the worst global financial crises for at least 80 years, and plunged the global economy into freefall in 2009—the most truly global economic crash on record.
>
> Inefficiently priced markets drove this dreadful process. If currencies are buoyed or depressed by speculation, they skew the terms of global trade. Governments' control over their own economies is compromised if exchange rates make their goods too cheap or too expensive. An excessive oil price can drive the world into recession. Extreme food prices mean starvation for billions. Money pouring into emerging markets stokes inflation and destabilizes the economies on which the world now relies for its growth. If credit becomes too cheap and then too expensive for borrowers, then an unsustainable boom is followed by a bust. And for investors, risk management becomes impossible when all markets move in unison. With nowhere to hide, everyone's pension plan takes a hit if markets crash together. In one week of October 2008, the value of global retirement assets took a hit of about 20 percent.

Id. at 2–3.

27. Posner dates the abrupt termination of the Great Moderation—which he castigates as the macroeconomists' Great Complacency—to September 2008. RICHARD A. POSNER, THE CRISIS OF CAPITALIST DEMOCRACY 264 (2010).

28. RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW (7th ed. 2007).

> Economics had now [after World War II] developed into the science focusing on human decisions under constraints, and it was these constraints that required specific attention, when many of the[m] arguably could be defined as being part of the law. The University of Chicago, with its many emigrant scholars, started to pioneer a new law and economics approach leading to the seminal work of Aaron Director, Ronald Coase, George Stigler, Richard Posner and

Chicago school[29] of political economy.[30] Yet, by 2010, Posner lamented that "critics of the interventionist era touched off by the Great Depression and the New Deal" had stumbled "by persuading themselves that markets were perfect" (i.e., that markets are self-regulating) and that governmental intervention in a marketplace virtually always renders matters worse.[31] The initial edition of *Economic Analysis of Law* was

> Frank Easterbrook, just to name a few, which can be characterized as the distinct insertion of an economic analytical skeleton into legal dogmatics, just as the earlier writers had done the same on the European continent, witness Jhering or von Gierke. However, these writers had to deal with a mass of amorphous case law, not codified law, and this made the task of seeking an organizing theoretical analytical framework a much more urgent one. In this these scholars excelled and, most notably, Richard Posner was able to render, originally, the entire body of private law, and later all the other relevant bodies of law, including constitutional law and administrative law as well as penal law, in one well-organized dogmatic system, whose dogmatic structure is clearly borrowed from price theory.

Jürgen G. Backhaus, *Introduction* to THE ELGAR COMPANION TO LAW AND ECONOMICS 1, 2 (Jürgen G. Backhaus ed., 1999). Backhaus's bibliography lists Richard A. Posner's 1986 edition of *Economic Analysis of Law*. *Id.* at 4.

29. H. H. Liebhafsky, *Price Theory as Jurisprudence: Law and Economics, Chicago Style*, *in* THE CHICAGO SCHOOL OF POLITICAL ECONOMY 237, 239 (Warren J. Samuels ed., 1993). "Law and economics is not equivalent to microeconomic theory or private enterprise, nor is it against government intervention." Peter R. Senn, *George Joseph Stigler (1911–92)*, *in* THE ELGAR COMPANION TO LAW AND ECONOMICS, *supra* note 28, at 483, 489 n.2.

30. Some recent critiques of the Chicago school of political economy have not been entirely friendly. As perceived by Gary S. Becker, the economics Nobel Laureate who first arrived at the University of Chicago in 1970:

> The origins of the financial crisis and the Great Recession are widely attributed to "market failure." This refers primarily to the bad loans and excessive risks taken on by banks in the quest to expand their profits. The "Chicago School of Economics" came under sustained attacks from the media and the academy for its analysis of the efficacy of competitive markets. Capitalism itself as a way to organize an economy was widely criticized and said to be in need of radical alteration.

Gary S. Becker, Op-Ed., *The Great Recession and Government Failure*, WALL ST. J., Sept. 2, 2011, at A13; *Gary S. Becker*, THE UNIV. OF CHI. DEP'T OF ECON., http://economics.uchicago.edu/facstaff/becker.shtml (last visited Mar. 29, 2012).

31. POSNER, *supra* note 27, at 331–32. "Conservative macroeconomists see a self-regulating economy, which achieves and maintains equilibrium (or an approximation to it) with minimal government regulation but is vulnerable to disruption by heavy-handed government regulation." *Id.* at 230. "The 1930s saw laissez faire explicitly rejected, first by President Herbert Hoover's administration and then by President Franklin D. Roosevelt, who launched the American political economy (the 'mixed economy') of today." George Steven Swan, *The Political Economy of American Family Policy, 1945–85*, 12 POPULATION & DEV. REV. 739, 754 (1986).

published in 1973.[32] Had Judge Posner's Chicago school free-market thinking been influenced by the atmosphere of Stock and Watson's long, pre-2007 Great Moderation?

The often quoted[33] political historian Charles Austin Beard supposed that "[w]ith economics left out of account, political science cannot rise much above the level of astrology."[34] "In the days before economics was developed as a distinct science, the word and the whole of history were generally conceived as subject to supernatural control or intervention: the hierarchical structure of society was ordained by Divine Providence . . . ."[35] Providence held in its view the spiritual enlightenment of each immortal human soul, and not humankind's terrestrial well-being.[36] Contrariwise, economics arose in the "wholly different [atmosphere] . . . of natural science."[37] The interest of natural science is factual, and its thinking is in terms of cause and effect."[38] Insofar as scientific thought is rational and recognizing no authority beyond nature, "claims of traditional authorities to rule by supernatural sanction were disputed."[39] "[T]he change in method reflected the emergence of a bourgeois world from the world of feudal hierarchies."[40]

But even Beard, renowned author of *An Economic Interpretation of the Constitution of the United States*,[41] recognized the worldwide twentieth century political and military men's domination over Homo economicus, or economic human.[42] Beard reminds one that "[i]n

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32. POSNER, *supra* note 28, at xxi.

33. *See, e.g.*, George Steven Swan, *Quasi-Constitutional Developments in Northern Ireland: Enduring Stalemate and Potential Resolution*, 13 CAL. W. INT'L L.J. 378, 389 (1983) (quoting CHARLES A. BEARD, THE ECONOMIC BASIS OF POLITICS AND RELATED WRITINGS 46–47 (William Beard ed., Vintage Books 1957)).

34. CHARLES A. BEARD, THE ECONOMIC BASIS OF POLITICS AND RELATED WRITINGS 99 (William Beard ed., Vintage Books 1957).

35. EDUARD HEIMANN, HISTORY OF ECONOMIC DOCTRINES: AN INTRODUCTION TO ECONOMIC THEORY 15 (2d prtg. 1966).

36. *Id.*

37. *Id.*

38. *Id.*

39. *Id.* at 15–16.

40. *Id.* at 16.

41. CHARLES A. BEARD, AN ECONOMIC INTERPRETATION OF THE CONSTITUTION OF THE UNITED STATES (1913).

42. BEARD, *supra* note 34, at 83. Adolf Hitler "preached the true doctrine of the totalitarian State - which the rulers of Soviet Russia also practised, but found it embarrassing to admit - the supremacy of politics over economics. It is not economics but power that is decisive." ALAN BULLOCK, HITLER: A STUDY IN TYRANNY 402 (Penguin Books rev. ed. 1971) (1952). On the other hand, the perspective of 2012

England and the United States, from the latter part of the eighteenth century onward, constitutional government, with emphasis on civil liberties, generally prevailed."[43] Therefore, circumstances smiled upon "the easy expression of economic interests in politics, and the exercise of power by such interests in affairs of state."[44] "Upon the assumption that these conditions would continue indefinitely, politics was extensively treated as if the theory of the economic basis of politics supplied the criteria for 'explaining' politics always and everywhere."[45] And Karl Marx "conducted his major economic studies in England and used English capitalism" as Marxism's (the class struggle theory of materialist determinism) classic example.[46] Supposedly, "'[t]he economic man' would . . . subdue 'the military man.'"[47] And the economic man puts the economic into law and economics.

III. The Economics In Law And Economics

A. The Paradigm Idea

"Not quantifiable, but a requirement if a scientific field is to advance, are scientific standards."[48] Late twentieth-century historians of science were rather infatuated with exploring those preconditions of accepting any given body of knowledge.[49] In normal science, work to define the legitimate methods and problems of a research field for succeeding practitioners essentially displays two features: Its achievement has been sufficiently unprecedented to attract an enduring body of adherents from competing investigative modes of activity, and it proves adequately open-ended to leave all kinds of problems for this newly defined bloc of

reveals that fascism and communism were defeated (or transcended) on their own chosen grounds of confrontation (military muscle and economic progress, respectively). *Cf.* Ludwig von Mises, Human Action: A Treatise on Economics 828 (3d rev. ed. 1966) ("There is no record of a socialist nation which defeated a capitalist nation."). However, Mises wrote prior to the 1975 overrunning of South Vietnam by the Soviet-equipped regular army of North Vietnam. Was either a "nation"?

43. Beard, *supra* note 34, at 97–98.
44. *Id.* at 98.
45. *Id.*
46. *Id.*
47. *Id.*
48. Senn, *supra* note 29, at 486.
49. Steven Shapin, Never Pure: Historical Studies of Science as if It Was Produced by People with Bodies, Situated in Time, Space, Culture, and Society, and Struggling for Credibility and Authority 17 (2010).

practitioners to solve. A paradigm shares these two characteristics.[50] The study of paradigms, mainly, is what prepares one for admission into a given scientific community.[51] (And historians of political development have long since delineated a succession of tradition-tied periods punctuated by noncumulative changes. Among such historians, a standard work tool is periodization in terms of revolutionary institutional-structure cleavages.[52])

And how has political economy evolved? According to Ernesto Screpanti of the University of Siena and Stefano Zamagni of the University of Bologna, noted historians of economic thought:

> [I]n more than 200 years of the history of economic thought, from the middle of the eighteenth century to the present day, there have been four great cycles of progress followed by periods of stagnation of ideas, four long revolutionary phases followed

50. THOMAS S. KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTIONS 10 (3d ed. 1996). On the other hand, Kuhn's paradigm itself draws fire: "I reject many of Kuhn's ambitious claims in his earliest and most interesting formulation of *The Structure of Scientific Revolutions*: the existence of a paradigm as demarcating 'mature science' from other forms of knowledge, a universal set of problem-solving values transcending paradigmatic divides, and 'paradigm shifts' . . . ." ROBERT S. WESTMAN, THE COPERNICAN QUESTION: PROGNOSTICATION, SKEPTICISM, AND CELESTIAL ORDER 20 (2011).

51. KUHN, *supra* note 50, at 10–11.

> For Kuhn the "primacy of paradigms" is a statement not just about the stability of existing intellectual frameworks in particular fields of knowledge but also about the stakes in maintaining allegiance to the status quo of individual scientists who control access to the processes and institutions that validate claims and methods of inquiry in their respective fields.

Paul R. Kleindorfer, *What If You Know You Will Have to Explain Your Choices to Others Afterwards?*, *in* THE IRRATIONAL ECONOMIST: MAKING DECISIONS IN A DANGEROUS WORLD 72, 284 n.4 (Erwann Michel-Kerjan & Paul Slovic eds., 2010) [hereinafter THE IRRATIONAL ECONOMIST].

52. KUHN, *supra* note 50, at 208. On the other hand, Kuhn's paradigm thinking (for disciplines boasting concrete scientific achievements) is assailed as inappropriate for the study of political science, Thomas C. Walker, *The Perils of Paradigm Mentalities: Revisiting Kuhn, Lakatos, and Popper*, 8 PERSP. ON POL. 433, 434 (2010), and by implication of economics: For where do the concrete scientific achievements of the economists rise? Inside political science, probability theory has been drawn upon to argue that the evolution of the comparative politics subfield was punctuated because its adherents' desire for mastering a predictive science misled them to imagine a world much more predictable than it actually was. *See* Mark Blyth, *Great Punctuations: Prediction, Randomness, and the Evolution of Comparative Political Science*, 100 AM. POL. SCI. REV. 493 (2006).

> by four equally long consolidation phases. We are now right in the middle of the fifth cycle. Each cycle begins with a period of brilliant ideas, innovations, and breaks with the tradition, controversies, bitter conflicts, and terminological confusion; in short, a stimulating process of creative destruction in the production of economic ideas. Old schools disintegrate, dwarfs give way to giants, and just when one believes that economic science has attained perfection, chaos breaks out again. Later, out of that hive of activity, the need for a new synthesis gradually emerges. This is finally reached after two or three decades, and produces a new classical situation. Then, for another twenty or thirty years political economy becomes a tranquil profession again: stable academic circles form, and members of the profession return to concerns with elegance, generality, and the solution of puzzles. Research follows well-trodden paths and produces excellent textbooks, refinements, generalizations, and varied applications.[53]

Yes, "academic establishments fight hard to resist paradigm shifts."[54] Such is so "even in physics, chemistry, and other . . . empirically testable hard sciences."[55] "[A] paradigm shift will be resisted even more fiercely" in economics, given the ideological baggage of the profession.[56] Economist John Kay was the initial director of Oxford's Said Business School.[57] Last year, he proclaimed that growing journal publication and peer reviews eat away at pluralist discourse in academia.[58] University economists are "under relentless pressure to conform to a narrow, established paradigm."[59] The prior year Joseph E. Stiglitz (who in 2001 was awarded the Nobel Memorial Prize in economics) acknowledged:

> Changing paradigms is not easy. Too many have invested too much in the wrong models. Like the Ptolemaic attempts to

53. ERNESTO SCREPANTI & STEFANO ZAMAGNI, AN OUTLINE OF THE HISTORY OF ECONOMIC THOUGHT 3–4 (David Feld trans., 1993).
54. ANATOLE KALETSKY, CAPITALISM 4.0: THE BIRTH OF A NEW ECONOMY IN THE AFTERMATH OF CRISIS 186 (2010).
55. *Id.*
56. *Id.*
57. *About*, JOHN KAY, http://www.johnkay.com/about (last visited Mar. 29, 2012).
58. John Kay, *Why Economists Still Stubbornly Stick to Their Guns*, FIN. TIMES (London), Apr. 16–17, 2011, at 7.
59. *Id.*

> preserve earth-centric views of the universe, there will be heroic efforts to add complexities and refinements to the standard paradigm. The resulting models will be an improvement and policies based on them may do better, but they too are likely to fail. Nothing less than a paradigm shift will do.[60]

The lack of a subdisciplinary category equivalent to error is a communal problem in economics (as well as in law).[61] "This category problem is . . . one reason why [such professionals'] past mistakes can be so elusive."[62] Additionally, to displace a belief seen to be erroneous entails, nearly always, the simultaneous acquisition of a "replacement belief": the psychologically instant "new correct."[63] Remember paradigmization: Psychologically, this replacement "new correct" speedily renders its predecessor "remote, indistinct, and irrelevant, as if we never took it . . . seriously."[64] Economics professors indifferent to

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60. Joseph Stiglitz, *Needed: A New Economic Paradigm*, FIN. TIMES (London), Aug. 20, 2010, at 7. Last year, Stiglitz admitted once again that economic models failed to predict the world's crisis exploding in 2008 and failed to prescribe its remedy. Camilla Andersen, *Rethinking Economics in a Changed World*, FIN. & DEV., June 2011, at 50, 50. Stiglitz's glass looks half-full anyhow: "So in a sense, for an economist, this is a very exciting time, because it means there's a lot of work to be done." *Id.*

> Are we witnessing a paradigm change? I suspect not. Remember Kuhn's assertion that a paradigm does not truly collapse until another is ready to take its place. China does provide an alternative, apparently successful, model, but it is difficult to see it succeeding in many other countries.
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> The free market will accommodate its lessons and find a way to survive. The Chinese model will continue for some time too. I don't see business's Copernicus. Kuhn was probably right: lessons from the history of science are hard to apply elsewhere.

Michael Skapinker, *Business Has Not Yet Found Its Copernicus*, FIN. TIMES (London), Feb. 16, 2010, at 11.

61. KATHRYN SCHULZ, BEING WRONG: ADVENTURES IN THE MARGIN OF ERROR 20 (2010).

62. *Id.*

63. *Id.*

64. *Id.* at 20–21. On the other hand, the relevance in business school of the history of the study of management has been recognized recently: "For management to constitute a field of study, it requires a history, which in turn requires early management thinkers." Stephen Cummings & Todd Bridgman, *The Relevant Past: Why the History of Management Should Be Critical for Our Future*, 10 ACAD. MGMT. LEARNING & EDUC. 77, 86 (2011). "[M]any management textbooks do not cover history at all." *Id.* at 78. Meanwhile, moving in a direction rather opposite, the political-science discipline squeezes out political theory. *See* Andrew Rehfeld, *Offensive Political Theory*, 8 PERSP. ON POL. 465 (2010).

their own disciplinary history, e.g., qualitative-economic research, "shore[]up [students'] tacit assumption[s] that current belief is identical with true belief," e.g., econometrics.[65] (Conversely "[l]aw is the most historically oriented . . . of the professions."[66])

The world is aware of the interdisciplinary reinforcement in the study of, for example, economics, happiness,[67] and politics.[68] But, what paradigm proves the best?[69]

B. Macroeconomics

1. Macroeconomists and Mathematization

Even in the thirteenth century, Roger Bacon (1214-1292) identified in the "Mathematics" section of his *Opus Majus* (*Major Work*)[70]

> [v]ery illustrious men . . . who by the power of mathematics have learned to explain the causes of all things . . . moreover, the sure

65. SCHULZ, *supra* note 61, at 21.

66. RICHARD A. POSNER, FRONTIERS OF LEGAL THEORY 145 (2001).

67. Timothy A. Judge & John D. Kammeyer-Mueller, *Happiness as a Social Value*, ACAD. MGMT. PERSP., Feb. 2011, at 30, 30. Recent years have witnessed a mushrooming of well-being and happiness research. *Id.* It is anticipated that this social-science-research avenue will gradually merge with related literature (deriving from the biological, medical, and epidemiological sciences on biomarkers and health). David G. Blanchflower & Andrew J. Oswald, *International Happiness: A New View on the Measure of Performance*, ACAD. MGMT. PERSP., Feb. 2011, at 6, 18–19.

In the unified-utilitarian theory, at any rate, utility is defined differently than happiness. C. L. SHENG, A DEFENSE OF UTILITARIANISM 23 (2004). The latter is deemed "the sole end." *Id.* But in common parlance, the formulation of happiness is vexed. *See, e.g.*, SISSELA BOK, EXPLORING HAPPINESS: FROM ARISTOTLE TO BRAIN SCIENCE 104 (2010).

68. *See, e.g.*, AMITAVA KRISHNA DUTT & BENJAMIN RADCLIFF, HAPPINESS, ECONOMICS AND POLITICS (2009).

69. Russ Roberts, *Is the Dismal Science Really a Science?*, WALL ST. J., Feb. 27–28, 2010, at A13. (Roberts is an economics professor and a research fellow at the Hoover Institution at Stanford University.) The paradigm of centrally planned socialism has irretrievably exploded. The renowned historian Eric Hobsbawm, President of Birbeck, University of London (and a longtime Communist) looked back in the 1990s: "Except for two small and somewhat eccentric states [Cuba and North Korea], nothing remained of the hope that the world of the future would be one of centrally planned socialist societies." Eric Hobsbawm, *Poker Face*, LONDON REV. BOOKS, Apr. 8, 2010, at 23, 23.

70. BRIAN CLEGG, THE FIRST SCIENTIST: A LIFE OF ROGER BACON 6, 8 (First Carroll & Graf ed. 2003). *See also* LAWRENCE GOLDSTONE & NANCY GOLDSTONE, THE FRIAR AND THE CIPHER: ROGER BACON AND THE UNSOLVED MYSTERY OF THE MOST UNUSUAL MANUSCRIPT IN THE WORLD 136, 141 (2005).

> proof of this matter is found in the writing of [these] men, as for example on impressions such as the rainbow, comets, generation of heat, investigation of localities on earth and other matters of which both theology and philosophy make use.[71]

"[M]athematics is the language of modern economics."[72] Macroeconomics is "the study of whole economic systems aggregating over the functioning of individual economic units."[73] "Macroeconomics is frequently taught with a heavy focus on equations and graphs."[74] "Mathematization is unambiguously [growing] in law and economics journals."[75] Econometrics is "the application of statistics to economic [issues]."[76] "Econometrics is often used to measure the independent

71. GOLDSTONE & GOLDSTONE, *supra* note 70, at 142 (alteration in original) (internal quotation marks omitted).

72. Bingyuan Hsiung, *Economic Analysis of Law: An Inquiry of Its Underlying Logic*, ERASMUS L. & ECON. REV., March 2006, at 1, 3 (citing Richard A. Posner, *Nobel Laureate Ronald Coase and Methodology*, 7 J. ECON. PERSP. 195, 207 (1993)), *available at* www.eler.org/include/getdoc.php?id=68&article=15&mode. "Mathematics isn't a science, but rather a language that allows us to describe complex things. Applying math to the study of social behavior, including investing, doesn't make it science." Jack Hough, *Put Science on the Shelf*, SMARTMONEY, June 2010, at 44, 44.

73. GRAHAM BANNOCK ET AL., DICTIONARY OF ECONOMICS 236 (4th ed. 2003). Macroeconomics is the subdiscipline to which laypeople are exposed through the media. *See* PETER E. KENNEDY, MACROECONOMIC ESSENTIALS: UNDERSTANDING ECONOMICS IN THE NEWS (3d ed. 2010).

74. DAVID A. MOSS, A CONCISE GUIDE TO MACROECONOMICS: WHAT MANAGERS, EXECUTIVES, AND STUDENTS NEED TO KNOW 2 (2007). David Moss is the John G. McLean Professor at Harvard Business School. *Biography-David A. Moss*, HARVARD BUS. SCH., http://drfd.hbs.edu/fit/public/facultyInfo.do?facInfo=bio&facEmId=dmoss (last visited Mar. 30, 2012). *See, e.g.*, MAURICE OBSTFELD & KENNETH ROGOFF, FOUNDATIONS OF INTERNATIONAL MACROECONOMICS 1, 8 (1996).

75. Hsiung, *supra* note 72, at 3.

76. Roberts, *supra* note 69. *See, e.g.*, JOHN GEWEKE, COMPLETE AND INCOMPLETE ECONOMETRIC MODELS (2010). As early as 1879, W.S. Jevons "reveal[ed] an inferiority complex, or spirit of emulation, in relation to mathematics" (not physics). SCREPANTI & ZAMAGNI, *supra* note 53, at 151.

> The financial world has probably had "physics envy," to borrow a phrase from a recent MIT paper on investment math gone awry, since the 17th century, when French mathematician Blaise Pascal showed that probability math was better than soothsayers at forecasting dice games. Dice and other games of "chance" take place in controlled, physics-friendly systems, so over the long term, they're games of certainty. The house wins. Apply dice math to less controlled systems, however, and the results vary widely.

Hough, *supra* note 72, at 44.

impact of one variable holding the rest of the relevant factors constant."[77] Economists have rendered economics a virtual outpost of mathematics.[78]

"Qualitative [economic] research [must] fight for recognition."[79] "Physics . . . inspire[s] most financial model[s]."[80] And in 2010, Chair of

77. Roberts, *supra* note 69. The year before the Great Recession, Stock and Watson assured students that "[e]conometric methods are used in many branches of economics, including finance, labor economics, macroeconomics, microeconomics, and economic policy." JAMES H. STOCK & MARK W. WATSON, INTRODUCTION TO ECONOMETRICS 3 (2d ed. 2007). Does their track record (the promulgation of the Great Moderation) inspire confidence in their estimation of econometrics?

78. FRITZ REDLICH, *"Quantitative" and "Qualitative" Research in Economics: Meaning and History of the Terms*, *in* STEEPED IN TWO CULTURES: A SELECTION OF ESSAYS 307, 310 (1971) (citing MILTON FRIEDMAN, ESSAYS IN POSITIVE ECONOMICS 12 (1953)).

> For sophisticated stock investors, today's math fetish arguably dates back to 1900, when Louis Bachelier, the son of a French wine merchant, published a Ph.D. thesis paper on options trading. Bachelier developed a mathematical model of a type of random motion that occurs naturally among things like pollen particles, and applied it to options prices (About five years later, Albert Einstein independently used a model of the same type of motion to confirm the existence of atoms and molecules.) Published comments from Bachelier's professors suggest the options portion of his paper was meant and was taken as a high-brow diversion, not as a serious investment strategy, but traders today use a 1970s options-pricing model based in part on Bachelier's math. It works, until humans stop acting like dispassionate molecules and start acting like panicky herd animals.

Hough, *supra* note 72, at 44.

79. REDLICH, *supra* note 78, at 310. Not dissimilarly in the decision sciences ("which . . . include aspects of economics, behavioral theory, and decision analysis," Ralph L. Keeney, *Thinking Clearly About Policy Decisions*, *in* THE IRRATIONAL ECONOMIST, *supra* note 51, at 239, 239) it proves a disappointment that there has not been a more intensive exploitation of the qualitative elements of decision-science theory as opposed to the quantitative elements thereof. Howard Raiffa, *Decision Making: A View on Tomorrow*, *in* THE IRRATIONAL ECONOMIST, *supra* note 51, at 248, 249. "The beauty of qualitative research is that it can accommodate different paradigms . . . ." Pratima (Tima) Bansal & Kevin Corley, Editorial, *The Coming of Age for Qualitative Research: Embracing the Diversity of Qualitiative Methods*, 54 ACAD. MGMT. J. 233, 234 (2011).

80. Emanuel Derman & Paul Wilmott, *Perfect Models, Imperfect World*, BUS. WK., Jan. 12, 2009, at 59, 59.

> The point has often been made that the propositions of physics are far more easily verified than those of the social sciences. For physics proceeds by isolating the crucial factors in the experiment so that whatever result is observed is attributable to the operation of a known change introduced into an otherwise unchanged context; whereas in the social world nothing can be isolated or held invariant, and any result is the product of many simultaneously conspiring factors—hence the difficulty in imputing events to their causes.

HEIMANN, *supra* note 35, at 20.

the President's Economic Recovery Advisory Board Paul A. Volcker (the 1979–1987 Federal Reserve Board of Governors chairman) discerned that "[o]ne basic flaw running through much of the recent financial innovation is that thinking embedded in mathematics and physics could be directly adapted to markets."[81] Or as Alan Greenspan (the 1987–2006 Federal Reserve Board of Governors chairman) recognized in 2011:

> Today's competitive markets, whether we seek to recognize it or not, are driven by an international version of Adam Smith's "invisible hand" that is unredeemably opaque. With notably rare exceptions (2008, for example), the global "invisible hand" has created relatively stable exchange rates, interest rates, prices, and wage rates.
>
> In the most regulated financial markets, the overwhelming set of interactions is never visible. This is the reason that interpretation of contemporaneous financial market behaviour is subject to so wide a variety of "explanations," especially in contrast to the physical sciences where cause and effect is much more soundly grounded.[82]

Let us reflect upon the paradigm shifts of physics in the early twentieth century.[83] Recognize that the academic economics of 2012 more

81. Paul Volcker, *'The Time We Have Is Growing Short,'* N.Y. REV., June 24, 2010, at 12, 12. This study is dated May 25, 2010. *Id.* at 14. While mathematics was momentarily in retreat in the economics field in 2012, it advanced as a means toward fresh insights, or even new discoveries, in biology. IAN STEWART, MATHEMATICS OF LIFE 11 (2011) ("biomathematics").

82. Alan Greenspan, *How Dodd-Frank Fails to Meet the Test of Our Times*, FIN. TIMES (London), Mar. 30, 2011, at 9.

83. KALETSKY, *supra* note 54, at 186.

Indeed, physics grows more receptive to the notion that consciousness is fundamental. CONOR CUNNINGHAM, DARWIN'S PIOUS IDEA: WHY THE ULTRA-DARWINISTS AND CREATIONISTS BOTH GET IT WRONG 374 (2010). Compare the late philosopher Timothy L. S. Sprigge who noted that "reality consists in one cosmic mind of which all finite minds are fragments, while the inanimate physical world is the way a system of low-level minds, or at least streams of experience, appear to minds like the human." T. L. S. SPRIGGE, THE IMPORTANCE OF SUBJECTIVITY: SELECTED ESSAYS IN METAPHYSICS AND ETHICS 7–8 (Leemon B. McHenry ed., 2011). Is this latter statement not rather reminiscent of Diderot's hypothesis (in the initial pair of dialogues in Diderot's *Le Réve de d'Alembert)* of a feature (*sensibilité*) innate to matter universally, even should such *sensibilitié* lie latent? 2 DENIS DIDEROT, OEUVRES PHILOSOPHIQUES (Michael Delon & Barbara de Negroni eds., 2010).

resembles the astronomy of 1543 than the physics of 2012.[84]

Meanwhile, Paul Krugman (who in 2008 was awarded the Alfred Nobel Memorial Prize in Economics by the Royal Swedish Academy of Science) recounts that "[b]etween 1985 and 2007 a [phony] [("for another twenty or thirty years political economy becomes a tranquil profession"[85])] peace [enveloped] the field of macroeconomics."[86] "[C]risis [then exploded that false] peace."[87] Tragically, the Great Recession of 2007 to 2009[88] seemed almost designed to teach macroeconomists, spawned during the Great Moderation, to gorge on humble pie.[89] Such was "the paradox of stability"[90] that the longevity of

84. KALETSKY, *supra* note 54, at 186. Physics and engineering excel at interplanetary rocket science. DUNCAN J. WATTS, EVERYTHING IS OBVIOUS: ONCE YOU KNOW THE ANSWER xiii, 250 (2011). Markedly different professional challenges arise in merging two corporations (to say nothing of managing an economy). *Id.* at 22. After all, any formal system of knowledge tends to identify a superior alternative by following, ideally, a single, generalizable law. *Id.* at 9. Whereas to program a robot just to navigate a crowded subway, one must incorporate a comparatively great quantity of rules to finesse choosing among options presented by even a few specific cases (involving courtesy, ownership, fair-sharing, etc.). *Id.* at 10.

85. SCREPANTI & ZAMAGNI, *supra* note 53, at 4.

86. Paul Krugman, *How Did Economists Get It So Wrong?*, N.Y. TIMES, Sept. 6, 2009 (Magazine), at 36.

87. *Id.*

88. *See, e.g.*, RICHARD A. POSNER, A FAILURE OF CAPITALISM: THE CRISIS OF '08 AND THE DESCENT INTO DEPRESSION (2009); POSNER, *supra* note 27, at 40–164.

89. In the United Kingdom, the Great Recession, thought to have closed in 2009, was both the deepest downturn and the most protracted "period of sustained economic contraction since records began." John Lanchester, *The Great British Economy Disaster*, LONDON REV. BOOKS, Mar. 11, 2010, at 3, 3. It succeeded the lengthiest sustained span of economic expansion since records began. *Id.*

> The macroeconomics taught in advanced economics today is largely based on analysis labelled dynamic stochastic general equilibrium. The unappealing title gives the game away: the theorists are mostly talking to themselves. Their theories proved virtually useless in anticipating the crisis, analysing its development and recommending measures to deal with it.

John Kay, *Economics May Be Dismal, but It Is Not a Science*, FIN. TIMES (London), Apr. 14, 2010, at 11.

90. DAVID SMITH, THE AGE OF INSTABILITY: THE GLOBAL FINANCIAL CRISIS AND WHAT COMES NEXT 3 (2010).

> Complex systems that have artificially suppressed volatility tend to become extremely fragile, while at the same time exhibiting no visible risks. In fact, they tend to be too calm and exhibit minimal variability as silent risks accumulate beneath the surface. Although the stated intention of political leaders and economic policymakers is to stabilize the system by inhibiting fluctuations, the result tends to be the opposite. These artificially constrained systems become prone to "Black Swans"—that is, they become extremely

the Great Moderation rendered the subsequent downswing all the deeper. From the perspective of 2010:

> Three years ago we lived in a world that thought it had tamed macroeconomic volatility through independent central banks and inflation targeting. 'Black swans' – low probability but high impact events – were thought to have been eliminated by sophisticated risk management and securitization. Investors and companies were lulled into thinking that 'all swans were white.' With the benefit of hindsight we now know that nothing was further from the truth. In retrospect, the biggest mistake during the 'great moderation' was to imagine that the business cycle was dead – rather than simply in suspended animation.[91]

The meaning of the 2007–2009 financial disaster was hotly debated among economics scholars.[92] Krugman opined that "[a]s I see it, the

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> vulnerable to large-scale events that lie far from the statistical norm and were largely unpredictable to a given set of observers.
>
> Such environments eventually experience massive blowups, catching everyone off-guard and undoing years of stability or, in some cases, ending up far worse than they were in their initial volatile state. Indeed, the longer it takes for the blowup to occur, the worse the resulting harm in both economic and political systems.

Nassim Nicholas Taleb & Mark Blyth, *The Black Swan of Cairo: How Suppressing Volatility Makes the World Less Predictable and More Dangerous*, J. FOREIGN AFF., May–June 2011, at 33, 33.

91. David Bowers, *Resilience of Corporate Sector Will Be Big Surprise*, FIN. TIMES (London), Mar. 3, 2010, at 20.

> Economists often refer to the Great Inflation of the 1970s, the only time the U.S. saw sustained inflation above 5% in peacetime in the 20th century. For a time, they talked about the Great Moderation, the unusually calm economic seas that stretched from the mid-1980s to the early-2000s that some saw as a permanent change. Recent events suggest it might be better described as the Great Mirage.
>
> The recent recession began in December 2007 and probably ended in June or July 2009. (The end to recession isn't the victorious end to a football game. The date marks only the moment where things stop getting worse.) It lasted about 18 months, longer than any post-war recession. Industrial production fell 16%, far more than any recession since the Depression. Payrolls fell 6%, unrivaled by recessions of the past half century. Unemployment went from 4.4% to 10.1%, an increase bigger than the five-percentage-point climb in the early 1980s—though the jobless rate didn't hit the 10.8% peak hit in 1982.

David Wessel, *A Big, Bad…'Great' Recession?*, WALL ST. J., Apr. 8, 2010, at A2.

92. *See, e.g.*, TAYLOR, *supra* note 13.

economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth."[93] "The emphasis on mathematization drew into economics brilliant young mathematicians who might have little feel for economic phenomena."[94] Such mathematical economists could lack understanding of, for example, "how deeply the banking industry was invested in housing and that it might collapse along with housing prices, [once the 2006 housing] bubble burst."[95] "In the three years [after the 2007–2009] financial crisis

> The greatest embarrassment for academic economics in the 2007–2009 crisis was not the failure to predict the crisis but the failure to provide any useful guidance for politicians and central bankers after the crisis struck. The failure of analysis was much more damning than the failure of prediction because economics had never seriously claimed to be a predictive science. Keynes never published an economic forecast, and neither did Hayek, Ricardo, or Adam Smith. What economics did claim to offer was a set of analytical tools to explain reality and suggest sensible responses to unexpected events. It was in this respect that contemporary economics revealed its inadequacy.

KALETSKY, *supra* note 54, at 157. Yes, "science."

93. Krugman, *supra* note 86, at 37. "Traditionally, a PhD in a numerate discipline has been the best route into a quantitative job in the financial sector." Michael Jacobs, *Alternative to a PhD as a Way in for Quants*, FIN. TIMES (London), June 21, 2010, at 4. Did those recruits' expertise ring true?

> The explosion of derivative markets and the application of sophisticated mathematics to risk modelling is a tribute to how theories can readily be given practical application if the rewards are sufficiently large. But the risks that the financial sector has devised techniques to manage are not the everyday risks of an uncertain world: they are risks almost entirely created within the financial sector itself. The benefits to the non-financial economy are slight, if they exist at all.

John Kay, *Finance Spread Its Own Risks but Left Ours Alone*, FIN. TIMES (London), July 7, 2010, at 7. Creative, complex credit derivatives were succeeded as the financial mathematicians' flavor of the month by algorithmic trading: "Just as regulators discovered back in 2007 that credit securitisation had built interconnections and fragilities across the financial system that nobody understood, so too the rise in algo trading has introduced new interconnections – and extreme fragilities, which are poorly understood." Gillian Tett, *Risks Posed by Get-Rich Geeks Are Not Just a Flash in the Pan*, FIN. TIMES (London), May 14, 2010, at 22.

94. POSNER, *supra* note 27, at 272. And King's College, London Professor of European Studies Alex Callinicos finds that intellectual complacency makes "the economics profession such an object of contempt among most of those interested in actually understanding how modern capitalist economies work." Alex Callinicos, *Dogmatic Faith in Markets Paved the Way for This Crisis*, FIN. TIMES (London), Aug. 6, 2010, at 6.

95. POSNER, *supra* note 27, at 315–16. Yale School of Management Professor Roger Ibbotson holds of the 2007–2009 financial crisis: "The market did not generally recognize the high default potential in the mortgage markets." Christina Nelson, *Roger*

exploded, financial mathematics has come in the line of fire, with 'quants' and models blamed for fuelling the banking woes."[96]

2. Macroeconomists, Mathematization, and Modeling

The "two [central] activities in social science . . . [are] modeling and empirical testing."[97] "A good economic model [weeds out] unnecessary . . . detail" to attend to a problem's essentials.[98] In economics, as in mathematics, the goal of such abstraction is simplification, not enhanced generality.[99] (Financial modeling, exploited

Ibbotson on Hedge Funds, Liquidity, and the Myth of Capricious Markets, J. FIN. PLAN., Sept. 2011, at 16, 17. In hindsight, one sees that the financial crisis hitting its nadir in autumn 2008 was completely initiated (arguably) by the American housing market. John Authers, *The Short View*, FIN. TIMES (London), Mar. 24, 2010, at 15. Not dissimilarly, the academic accountants for decades had done little to strengthen intracompany accounting. They failed to limn fruitful techniques toward "reporting, valuation, and disclosure" of such new-wave financial instruments as collateralized mortgage lending and securitization. Robert S. Kaplan, *Accounting Scholarship That Advances Professional Knowledge and Practice*, 86 ACCT. REV. 367, 370 (2011).

96. Gillian Tett, *What Happens to Markets When Numbers Don't Add Up*, FIN. TIMES (London), Apr. 16, 2010, at 18.

> A few years ago, Tim Johnson, a British academic at Herriot Watt university, was appointed to act as an official public "champion" for financial mathematics. It initially seemed an easy job.
>
> After all, before 2007, politicians were not very interested in things such as probability theory. So Dr. Johnson mostly used his huge grant to conduct his research in peace.
>
> No longer. In the three years since the financial crisis exploded, financial mathematics has come in the line of fire, with "quants" and models blamed for fuelling the banking woes. Hence Dr. Johnson now has his work cut out, as he tries to defend the world of maths. Or as he told a conference this week: "There [is] a sense of bewilderment amongst mathematicians [about] the view that mathematics was responsible for the crisis."

Id. (alterations in original). *Cf.* SCOTT PATTERSON, THE QUANTS: HOW A NEW BREED OF MATH WHIZZES CONQUERED WALL STREET AND NEARLY DESTROYED IT (2010).

97. JOEL P. TRACHTMAN, THE ECONOMIC STRUCTURE OF INTERNATIONAL LAW 4 (2008). *Cf.* FACT AND FICTION IN ECONOMICS: MODELS, REALISM, AND SOCIAL CONSTRUCTION 3 (Uskali Mäki ed., 2002). *See, e.g.*, MARÍA MANZANO, MODEL THEORY (Ruy J. G. B. DeQueiroz trans., Oxford Univ. Press 1999) (1990).

98. MICHAEL CARTER, FOUNDATIONS OF MATHEMATICAL ECONOMICS xii (2001). One bears in mind that an economic model always is, to some extent, an illusion. *See, e.g.*, EMMANUEL DERMAN, MODELS. BEHAVING. BADLY.: WHY CONFUSING ILLUSION WITH REALITY CAN LEAD TO DISASTER, ON WALL STREET AND IN LIFE 6, 47 (2011).

99. CARTER, *supra* note 98.

> Macroeconomics deals with growth and business cycles. Its dominant paradigm is known as "dynamic stochastic general equilibrium" (thankfully

in, for example, Alpha hunting, hedging, and risk management, often is "tackled with the full force of mathematical technology."[100] Flawed mathematical models fed the financial mayhem of the credit crisis beginning in mid-2007.[101])

Since economics is the study of rational choice, most economic models involve optimization by one or more economic agents. Building and analyzing an economic model involves a typical sequence of steps. First, the model builder identifies the key decision makers involved in the economic phenomenon to be studied. "For each decision maker, the model builder must postulate an objective or criterion [and relevant resources] . . . . Next, the model builder must formulate the constraints on the decision maker's choice."[102]

"[I]n modeling the business cycle economists ignored . . . vital institutional details . . . because . . . [these were awkward] to accommodate in mathematical models . . . ."[103]

> abbreviated to DSGE) - a complex model structure that seeks to incorporate, in a single framework, time, risk and the need to take account of the behaviour of many different companies and households.

John Kay, *A Realm Dismal in Its Rituals of Rigour*, FIN. TIMES (London), Aug. 26, 2011, at 9.

100. Rodney Sullivan, *Financial Models Useful But Limited*, FIN. TIMES (London), Apr. 4, 2011, at 19. At hand lie math tool kits for quantitative finance, ROBERT R. REITANO, INTRODUCTION TO QUANTITATIVE FINANCE: A MATH TOOL KIT (2010), and guides to financial modeling, SIMON BENNINGA, FINANCIAL MODELING (3d ed. 2008).

> As financial economics subjects have become popular, quantitative disciplines have sometimes overtaken more staid-seeming areas such as accounting, equity markets and corporate finance in the classroom.
>
> Learning about econometrics, microeconomics, stochastic calculus, and computational methods became a more important requirement than actually learning what a bond is.

Pablo Triana, *The Perfect Degree Does Not Exist Yet*, FIN. TIMES (London), June 20, 2011, at 3.

101. Pablo Triana, *Flawed Maths a Factor in Financial Mayhem*, FIN. TIMES (London), Nov. 29, 2010, at 13. Dr. Dirk Bezemer of the University of Groningen's Department of International Economics and Business in the Netherlands argues that "accounting (or flow-of-fund) macroeconomic models helped anticipate the credit crisis and economic recession," whereas the "ubiquitous[,] . . . mainstream" equilibrium models failed. Dirk J. Bezemer, *"No One Saw This Coming": Understanding Financial Crisis Through Accounting Models*, MUNICH PERS. REPEC ARCHIVE (June 2009), http://mpra.ub.uni-muenchen.de/15892/.

102. CARTER, *supra* note 98.

103. POSNER, *supra* note 27, at 310–11.

> Physicists will describe motion on frictionless [planes] or gravity in a world without air resistance. Not because anyone believes that the world is

"The complexity of a modern economy has defeated efforts to create mathematical models that would enable depressions to be predicted and would provide guidance on how to prevent or, failing that, recover from them."[104] Stiglitz holds that "standard [macroeconomic] models should be graded on their predictive" capabilities.[105] "Increasing the accuracy of forecast in normal times . . . is far less important than knowing the risk of a major recession."[106] Aside from "the most general and statistical terms, economic models cannot forecast the onset of bull or bear markets, or the decades-long cycles triggered by . . . technological innovation."[107] They fail to instruct anyone "whether tax cuts or national deficit reduction is

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> frictionless and airless, but because it is too difficult to study everything at once. A simplifying model eliminates confounding factors and focuses on a particular issue of interest. This is as legitimate a method in economics as in physics.

Kay, *supra* note 99.

104. POSNER, *supra* note 27, at 328. Nonetheless, some still contend that the recent economic crisis derived less from a failure of economics than from inadequate data. WILLIAM A. BARNETT, GETTING IT WRONG: HOW FAULTY MONETARY STATISTICS UNDERMINE THE FED, THE FINANCIAL SYSTEM, AND THE ECONOMY 4 (2012). Laborers nearer to the frontlines of life than economists might remonstrate: It's a poor workman who blames his tools. Or "[g]ood workmen never quarrel with their tools." LORD BYRON, DON JUAN 36 (London, Chutto & Winclus, Piccadelly 1875).

For that matter, how much do practical decision makers need mathematics in physics? A renowned quantum field theorist reviewed a biography by theoretical physicist Lawrence M. Krauss of the late Nobel Laureate Richard Feynman:

> The central theme of Feynman's work as a scientist was to explore a new way of thinking and working with quantum mechanics. The book succeeds in explaining without any mathematical jargon how Feynman thought and worked. This is possible because Feynman visualized the world with pictures rather than with equations. Other physicists in the past and present describe the laws of nature with equations and then solve the equations to find out what happens. Feynman skipped the equations and wrote down the solutions directly, using his pictures as a guide. Skipping the equations was his greatest contribution to science. By skipping the equations, he created the language that a majority of modern physicists speak. Incidentally, he created a language that ordinary people without mathematical training can understand. To use the language to do quantitative calculations requires training, but untrained people can use it to describe qualitatively how nature behaves.

Freeman Dyson, *The 'Dramatic Picture' of Richard Feynman*, N.Y. REV., July 14, 2011, at 39, 40 (reviewing LAWRENCE M. KRAUSS, QUANTUM MAN: RICHARD FEYNMAN'S LIFE IN SCIENCE (2011)).

105. Stiglitz, *supra* note 60, at 7.

106. *Id.*

107. EDWARD O. WILSON, CONSILIENCE: THE UNITY OF KNOWLEDGE 201 (1998).

the more effective in raising per capita income."[108] They fail to inform anyone "how economic growth will [impinge upon] income distribution."[109]

The contemporary approach of most economists is constructing fully predetermined models underpinning change.[110] Even probabilistic models (entailing random error terms with fully specified properties) "represent . . . participants as 'robots' who revise their behavior according to rules that are prespecified by an economist."[111] All this engenders insuperable epistemological difficulties for aggregate outcome-modeling.[112]

In contrast is "imperfect knowledge economics."[113] It models aggregate outcomes "by [connecting] them to individual behavior."[114] Imperfect knowledge economics "presume[s] that purposeful behavior exhibits [context-dependent] regularities."[115] It is open to the prospect that methods of marketplace decision making can be formalizable with qualitative conditions. Its models "generate qualitative implications."[116] Imperfect knowledge economists identify individual behavioral regularities "but presume[] that they can at best be formalized with qualitative restrictions on its representations."[117]

By 2010, macroeconomics confronted crisis.[118]

108. *Id.*

109. *Id.* On the other hand, witness the respect accorded to Robert Mundell, winner of the Alfred Nobel Memorial Prize in Economics in 1999: "His economic predictions carry great weight because, unlike most economists of his generation, he is often right." Sean Rushton, *Mundell: Deflation Risk for the Dollar*, WALL ST. J., May 23, 2011, at A19.

110. ROMAN FRYDMAN & MICHAEL D. GOLDBERG, IMPERFECT KNOWLEDGE ECONOMICS: EXCHANGE RATES AND RISK 3–4 (2007).

111. *Id.* at 4.

112. *Id.* at 6.

113. *Id.*

114. *Id.*

115. *Id.* Social context includes those "opportunities, incentives, and institutional arrangements, that propel individuals to engage in creative activities." *Id.* at 39.

116. *Id.* at 7.

117. *Id.* at 15.

118. POSNER, *supra* note 27, at 305–32. Paul A. Volcker rues:

> It should be clear that among the causes of the recent financial crisis was an unjustified faith in rational expectations, market efficiencies, and the techniques of modern finance. That faith was stoked in part by the huge financial rewards that enabled the extremes of borrowing, the economic imbalances, and the pretenses and assurances of the credit-rating agencies to persist so long. A relaxed approach by regulators and legislators reflected the

3. Macroeconomics, the Business Cycle, and the Evidence

The late Robert Nozick, Harvard's eminent social philosopher,[119] understood that philosophical argumentation attempts to elicit someone's belief whatever her own desires.[120] "To say that one has reasons for a belief that trumps reasons for not holding the belief is to say that one ought to hold the belief."[121] Ronald H. Coase (who in 1991was awarded the Alfred Nobel Memorial Prize in Economics[122]) found of published quantitative economics studies: "Some articles, of course, involve the testing of alternative theories, and this means that some theories are bound to come out worse. But I doubt whether such studies have often led to a change in the views of the authors."[123] Some scholars once wondered whether econometrics would settle economic disputes.[124] Crudely, those studies wherein "sophisticated econometrics [was applied] to a controversial policy issue . . . so well done that one side's proponents had to admit they were wrong" total few or none.[125] (Quaere:

new financial zeitgeist.

> All the seeming mathematical precision that was brought to investment, all the complicated new products, including the explosion of derivatives, that were intended to diffuse and minimize risk, did not work as had been claimed. Instead, the vaunted efficiency helped justify an explosion of weak credit and an emphasis on trading along with exceedingly large compensation for traders.

Paul A. Volcker, *Financial Reform: Unfinished Business*, N.Y. REV., Nov. 24, 2011, at 74. This work was dated October 27, 2011. *Id.* at 76.

119. *See, e.g.*, ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA (1974). It has not appeared "plausible . . . to press an attack on freedom of contract that [is] explicitly directed at egalitarian redistributive goals . . . . The loss of faith in the efficiency of central planning . . . and in the moral value of what Nozick has called 'patterning' imposed by the state" has precluded such assault. David Campbell, *Relational Contract and the Nature of Private Ordering: A Comment on Vincent-Jones*, 14 IND. J. GLOBAL LEGAL STUD. 279, 283 (2007) (citing NOZICK, *supra*, at 155–60).

120. ROBERT NOZICK, PHILOSOPHICAL EXPLANATIONS 4 (1981). "There is a personality type – it seems mostly male – that enjoys conflict. Some become football hooligans, others philosophers." John Kay, *How to Stay Ahead of the Angry Brigade*, FIN. TIMES (London), May 26, 2010, at 9.

121. RUSSELL HARDIN, HOW DO YOU KNOW?: THE ECONOMICS OF ORDINARY KNOWLEDGE 153 (2009).

122. BANNOCK ET AL., *supra* note 73, at 61.

123. R. H. COASE, ESSAYS ON ECONOMICS AND ECONOMISTS 26 (1995). Coase generally concurred in the central thrust of Thomas S. Kuhn's famed book, *The Structure of Scientific Revolutions*. *Id.*

124. Roberts, *supra* note 69.

125. *Id.* "Argument from philosophical epistemology is unlikely to motivate a change in beliefs for anyone, other than, perhaps, a deeply committed philosopher or scientist." HARDIN, *supra* note 121, at 189.

Where are those 2012 macroeconomists who actually do dine on crow?)

Business-cycle economics is macroeconomics.[126] Business-cycle management, until recently, was proclaimed to justify "regarding economics as the queen of the social sciences."[127] "[W]ere [macroeconomics] a scientific field, economists' conclusions would be 'observer independent' . . . ."[128] However, "rival theories [cannot] readily be confirmed or falsified empirically."[129] "Macroeconomists' advice tends to a suspicious degree to be correlated with their politics."[130]

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126. POSNER, *supra* note 27, at 230.

127. *Id.* at 311.

128. *Id.* at 230.

129. *Id.* at 308. According to one University of London economist: "Paradoxically, economics is extraordinarily fragile on its own terms (restrictive conditions for existence, stability, and efficiency of equilibrium, for example), let alone by wider criteria, and it can survive only by total intolerance of deviation from its rigidly imposed requirements." Ben Fine, Book Review, 8 PERSP. ON POL. 583, 584 (2010) (reviewing ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (1990)). So what might be added to economics?

Behavioral economics is psychology applied to economics. POSNER, *supra* note 66, at 252. Long since have many insights of behavioral economics been incorporated into the economic analysis of law. *Id.* at 256. And, "[b]ehavioral law and economics is notably empirical in its emphasis—a mark in its favor." *Id.* at 412. *See, e.g.*, DEAN KARLIN & JACOB APPEL, MORE THAN GOOD INTENTIONS: HOW A NEW ECONOMICS IS HELPING TO SOLVE GLOBAL POVERTY 48 (2011). In addition, "randomista" economics turns to randomized control trials to quell disputes in reaction to cloistered mathematical theorists. *See, e.g.*, ABHIJIT V. BANERJEE & ESTHER DUFLO, POOR ECONOMICS: A RADICAL RETHINKING OF THE WAY TO FIGHT GLOBAL POVERTY 14 (2011).

130. POSNER, *supra* note 27, at 305–06. Even Nobelist Krugman has been dubbed "the unofficial theoretician of the liberal wing of the Democratic Party." Peter Coy, *Encore! Encore?*, BLOOMBERG BUSINESSWEEK, Aug. 9–15, 2010, at 56, 59. Thomas C. Schelling, awarded the Alfred Nobel Memorial Prize in Economics in 2005, concedes:

> A perennial difficulty in dealing with economics and policy is the inability of people who are not economists, and some who are, to ascertain how much of an economist's confidence in the way markets work is faith and how much is analysis and observation. How much is due to the economist's observing the way markets work and judging actual *outcomes*, and how much is a belief that the *process* is right and just? (Or right, if occasionally unjust; or right, and justice is indeterminate.)

THOMAS C. SCHELLING, CHOICE AND CONSEQUENCES 24 (1984).

It is alleged, for example, in DEAN BAKER, TAKING ECONOMICS SERIOUSLY 11 (2010), that economists engaged in policymaking routinely ignore the basics of economics. Union College Psychology Professor Christopher F. Chabris counsels that "[s]ocial scientists should be well-placed to figure out ways of protecting their own credibility, and they might start by opening up some distance between themselves and the political arena." Christopher F. Chabris, *Hard Questions from 'Soft' Sciences*, WALL ST. J., Apr. 16, 2010, at W9. "One thing only do I know for certain and that is that man's judgments of value follow directly his wishes for happiness—that, accordingly, they are

By the 2011 annual meeting in Denver of the American Economic Association, the business press proclaimed that macroeconomists in particular "ha[d] been kicked in [their] teeth . . . [for] years."[131] Economist Robert E. Hall of Stanford University, the Association's outgoing president, denied that macroeconomics embraced schools of thought anymore.[132] Nonetheless, "it was clear that the decades-long project to weave different strands of macroeconomic thought into a 'neoclassical synthesis'" intellectually had crashed into a dead end.[133] "The modern macro 'synthesis'" was undergoing repair.[134]

an attempt to support his illusions with arguments." SIGMUND FREUD, CIVILIZATION AND ITS DISCONTENTS 92 (James Strachey ed., 1961). On the other hand, the twenty-first century witnesses the honest

> recognition of a simple truth: that the *political* dimension of economics sets serious problems which the economist cannot evade, whatever solution he offers. Thus the famous argument of the neutrality of economic science has been progressively abandoned. Whether this is justified from a liberal, neo-utilitarian, or neo-contractualist point of view, it remains true that the belief that economics cannot usefully exist separated from politics has been gradually spreading, and is now accepted by most scholars.

SCREPANTI & ZAMAGNI, *supra* note 53, at 371. How many economists honorably preface their counsel with such a caveat? It is a small wonder that the global economic crisis appeared a challenge to not merely economic theory but to political ideology. ADAIR TURNER, ECONOMICS AFTER THE CRISIS: OBJECTIVES AND MEANS (2012).

131. Peter Coy, *Back to the Economic Future*, BLOOMBERG BUSINESSWEEK, Jan. 17–23, 2011, at 6, 6. Robert E. Lucas of the University of Chicago was awarded the Alfred Nobel Memorial Prize in Economics in 1995 for his contribution to macroeconomic research, the policy ineffectiveness theorem (recognizing that the government impacts the economy only in the degree to which its policy is unanticipated). BANNOCK ET AL., *supra* note 73, at 252–53, 299. Back in 1979, Lucas, "the most closely watched theorist" of economics, already had declared the macroeconomics field a "total chaos." DANIEL T. RODGERS, AGE OF FRACTURES 49 (2011).

132. Coy, *supra* note 131, at 6, 7.

133. *Id.* at 7. Political science is a discipline which knows what it is like to be dissed, at the celebrity level, as a "third-rate field." ARTHUR M. SCHLESINGER, JR., JOURNALS: 1952–2000, at 622 (Andrew Schlesinger & Stephen Schlesinger eds., 2007). Political scientists gleefully danced atop the coffin they hammered together for once overproud campus colleagues after "[e]conomics abruptly fell from grace somewhere between late 2007 and the fall of 2008." Lloyd I. Rudolph & Susanne Hoeber Rudolph, *Economics' Fall from Grace*, 43 PS: POL. SCI. & POL. 747, 747 (2010). Political scientists Lloyd I. Rudolph and Susanne Hoeber Rudolph (of the University of Chicago), in an American Political Science Association scholarly journal, denominated Eugene Fama as a "high priest of market infallibility, a professor in the University of Chicago's economics department and its business school" who "spoke for the 'Chicago School' of economics" to scorn "Fama's circular reasoning." *Id.*

134. Coy, *supra* note 131, at 7. The global economic crisis justified an agonizing reappraisal of macroeconomics. *See* IN THE WAKE OF THE CRISIS: LEADING ECONOMISTS

"[M]acroeconomists grope[d] for . . . reinvigorating," innovative thinking for their calling.[135] The Association's ferment evoked mention of Thomas Kuhn's insight that between one scientific paradigm's death and its successor's birth "all hell breaks loose."[136] The University of Queensland's John Quiggin "argued that [among] the economic ideas most discredited by the crisis [was the] 'Great Moderation.'"[137] On the other hand, a lack of economist humility likewise was reported.[138] Economist Benjamin M. Friedman of Harvard University witnessed numerous economists returning to discredited theories: "A large amount of the old complacency has crept back."[139] How could this be true?

The economist's knowledge is imperfect because no fully predetermined model adequately represents (by whatever yardstick) the causal mechanism that underpins outcomes at every interval (past, present, and future).[140] Furthermore, given this imperfect knowledge, "individuals are not constrained to view the world through the prism of a common model."[141] That said, quaere, how *might* any economist wholly ascertain whether a party is reasonably pursing her objectives, such as whether anyone's performance is rational or irrational?[142] That matter being raised, ponder this: Imperfect knowledge on the part of economists themselves is salient. Meanwhile, there is copious research demonstrating that people confronted with fresh evidence are slow to adjust their beliefs.[143] Only gradually will they shift their beliefs.[144] The

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REASSESS ECONOMIC POLICY 31–44 (Oliver J. Blanchard et al. eds., 2012).

135. Coy, *supra* note 131, at 6.

136. *Id.* at 7.

137. *Id.*

138. *Id.*

139. *Id.*

140. FRYDMAN & GOLDBERG, *supra* note 110, at 8.

141. *Id.*

142. *Id.* at 14. "When do people attribute intentions to the actions of others? Several philosophers have argued that in understanding people's actions, we assume that others possess rational *minds* and abilities." RAYMOND W. GIBBS, JR., INTENTIONS IN THE EXPERIENCE OF MEANING 72 (2004) (emphasis added). "[T]he reflex to attribute intentions to other people's actions is a fundamental characteristic of our experience of meaning." *Id.* at 71.

143. *See* FRYDMAN & GOLDBERG, *supra* note 110, at 67.

144. *Id.*

> Inquests on the failure to forecast the Great Recession of 2008-09 tend to take one of two forms. The economic establishment urges us to work still harder on the equations and also urges banks to increase their capital, without pondering the fact that money with which to do the latter is itself created by the banking system. The alternative soi-disant radical school tends to blame

evidence they require is substantial.[145]

The results of the Association's annual meeting in Denver may be summed up as follows: imperfect knowledge, unconstrained by common worldview, slow to reform beliefs, substantial evidence required.

C. Microeconomics

"[T]he [circumstances] that create[] the schools characteristic of the early stages of a science's development" (schools in macroeconomics disclaimed by haughty President Hall) are that "facts collected with so little guidance from pre-established theory speak with sufficient clarity to permit the emergence of a first paradigm."[146] "[I]n the early stages of the development of any science different [investigators] confronting the same range of phenomena, but not usually all the same particular phenomena, describe and interpret them in different ways."[147] These differences dissipate upon the "triumph of one of the pre-paradigm schools."[148] The years 2008–2012 taught that "business cycle [economics] is a weak field."[149] "The more we learn about human perception, the more of a fragile, although generally dependable, baroque process it appears to be."[150] "There are few scientific principles that are so pervasive that they impinge on every domain."[151] "The desirability of adopting a language" featuring such principles as the fact "[t]hat people act out of momentarily perceived self-interest" hinges upon "the usefulness of the body of economic or mechanical doctrine they ultimately contribute to."[152] Indeed the evaluation of such a "theoretical doctrine is a multistep, multilevel process."[153] John Maynard Keynes[154]

> "rational expectations" economists for supposedly asserting that economic agents have either perfect or at least adequate knowledge and that the system as whole tends rapidly to equilibrium. A simpler explanation points to the two ancient human vices of gullibility and greed.

Samuel Brittan, *The Follies and Fallacies of Our Forecasters*, FIN. TIMES (London), May 27, 2011, at 9.

145. *See* Coy, *supra* note 131, at 7.
146. KUHN, *supra* note 50, at 16.
147. *Id.* at 17.
148. *Id.*
149. POSNER, *supra* note 27, at 305.
150. HENRY E. KYBURG, JR. & CHOH MAN TENG, UNCERTAIN INFERENCE 286 (2001).
151. *Id.* at 285.
152. *Id.*
153. *Id.* Geoffrey Howe, Lord of Aberavon, the 1979 to 1983 British Chancellor of the Exchequer, recalled, "It was as I became more and more familiar with the task of

prudently cautioned in 1921: "The Theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions."[155]

"Nearly all economists accept the fundamental principles of

managing the nation's economic affairs that I came increasingly to wonder whether the soundness of the judgements which I had to make was necessarily, or even at all, dependent on the breadth and quality of my economic literacy." GEOFFREY HOWE, *Can 364 Economists All Be Wrong?*, *in* The CHANCELLOR'S TALES: MANAGING THE BRITISH ECONOMY 76, 76 (Howard Davies ed., 2006). Lord Aberavon learned that "well-governed societ[ies]" demand intruders among the experts to size up their advice. *Id.* at 79. Perhaps such societies need intruders blessed with legal training like himself or Judge Posner. *See id.* at 77.

154. "[T]he neglect of the informal economic approach [favored] by Keynes in favor of mathematical models of the business cycle has been a mistake." POSNER, *supra* note 27, at 306. Keynes "had no degree in economics, [and] wrote extensively in other fields." *Id.* at 276. "He was an *eclectic* economist, a distinguished breed (think of Malthus, Mill, Schumpeter) that has since become extinct." *Id.*

> If we think of Adam Smith or John Stuart Mill or Alfred Marshall, the range of questions with which they dealt is greater than is commonly found in a modern work on economics. This impression is reinforced if we consider the articles which appear in most of the economics journals, which, to an increasingly great extent, tend to deal with highly formal technical questions of economic analysis, usually treated mathematically. The general impression one derives, particularly from the journals, is of a subject narrowing, rather than extending, its range.

COASE, *supra* note 123, at 37–38.

155. John Maynard Keynes, *Introduction to the Series* of D.H. ROBERTSON, MONEY, at v (1922). For example, Professor Tyler Cowen, George Washington University economist, explained the homely merits inherent in expected utility theory, even if utility is not a scientific concept:

> In contrast to many brainstorming sessions, trying to compute probabilities is a useful means of generating self-knowledge. When we are truly in doubt about different career paths, or about marriage proposals, we should try to quantify the choices. We should sit down with a pen and paper and try to figure out what probability of which outcome would be required to make one choice better than the other.
>
> This sounds impossibly wonky, but the goal is not to generate a rational number from the process. The claim is not that "expected utility theory" is somehow descriptively true or can reflect the complexity of our choices. The goal is to get people over their useless delusions. Thinking about numbers tends to slow down some of the least rational parts of our brains. It forces us to look at the matter from a less emotional perspective.

TYLER COWEN, DISCOVER YOUR INNER ECONOMIST: USE INCENTIVES TO FALL IN LOVE, SURVIVE YOUR NEXT MEETING, AND MOTIVATE YOUR DENTIST 127 (2007).

microeconomics."[156] The overall assumptions of economics are methodological individualism ("individuals seek to maximize the achievement of their preferences") and normative individualism ("the only valid source of preferences . . . is individuals").[157] Microeconomics is "the study of economics at the level of individual consumers, groups of consumers or firms"[158] (for example, incentives count and trading facilities prosperity).[159] In the most simple of microeconomic problems, a party is assumed to select among alternatives.[160] Her decision is premised upon a causal factor set plus her market's current prices. "[M]icroeconomics is an extremely powerful tool for analyzing and changing the real world."[161] "The list of useful applications of everyday microeconomics is endless."[162]

The post-1930s Keynesian Revolution left microeconomics "untouched."[163] Thus, the classical system (or, should one prefer, the neoclassical system) of Alfred Marshall[164] stood largely intact.[165] ("[N]eoclassical economics [is] named after the late-nineteenth-century theorists who elaborated on the concepts of their classical predecessors."[166] The term was coined in 1900 by Thorstein Veblen.[167] The fundamental assumption of neoclassical economics was a respect for the market system.[168]) Therein, "far more would be the same than would

156. Roberts, *supra* note 69.

157. TRACHTMAN, *supra* note 97, at 1.

158. BANNOCK ET AL., *supra* note 73, at 272.

159. FRYDMAN & GOLDBERG, *supra* note 110, at 74.

160. DIANE COYLE, THE SOULFUL SCIENCE: WHAT ECONOMISTS REALLY DO AND WHY IT MATTERS 97–98 (2007). Or does economics remain "the dismal science"? *See, e.g.*, STEPHEN A. MARGLIN, THE DISMAL SCIENCE: HOW THINKING LIKE AN ECONOMIST UNDERMINES COMMUNITY (2008).

161. COYLE, *supra* note 160, at 98.

162. *Id.* at 124.

163. JOHN KENNETH GALBRAITH, ECONOMICS IN PERSPECTIVE: A CRITICAL HISTORY 222, 235 (1987).

164. "Alfred Marshall (1842–1924)" was a "great English economist." HUGH S. NORTON, THE WORLD OF THE ECONOMIST 12 (1973).

165. GALBRAITH, *supra* note 163, at 236.

166. Krugman, *supra* note 86, at 37 (internal quotation marks omitted).

167. WILSON, *supra* note 107, at 196.

168. Krugman, *supra* note 86, at 37. A characteristic distinctive of the neoclassical approach regards the economic agents:

> If they have to be subjects able to make rational decisions with a view to maximizing an individual goal, such as utility or profit, they must be individuals, or, at the most, "minimum" social aggregates characterized by the individuality of the decision-making unit, such as households and companies.

be changed."[169] Indeed, microeconomics is "the anatomy of the market system."[170] This "separation off of microeconomics as the privileged preserve of the market was [more] influential . . . in Britain and the United States" than, for example, "Germany, Austria, Switzerland, Holland, [or] Scandinavia."[171]

What is the proper paradigm? Within juridical science, law and economics "draws upon the principles of microeconomic theory"[172]:

> From its early beginnings as a distinctive sub-discipline in the late 1950s, to the developed and expanding field of the mid-1990s, analysis in law and economics came to rely on a number of basic concepts and tools. The most important and distinctive of these are transaction costs; some hypothesis about

> Thus the collective agents, the social classes and "political bodies," which the mercantilists, the classical economists, and Marx had placed at the centre of their theoretical systems, disappear from the scene.

SCREPANTI & ZAMAGNI, *supra* note 53, at 148. Corresponding to these economic agents are the mediating institutions preclusive of the atomization of the solitary human before an omnipotent central government. George Steven Swan, *The Political Economy of Supreme Court Social Policymaking of 1987*, 8 ST. LOUIS U. PUB. L. REV. 87, 91–92 (1989). Those minimum social aggregates are distinguished by "the decisionmaking machinery of such contractual institutions as the corporation, the business partnership, the private university, the labor union, the religious congregation, and the marital partnership." *Id.* at 97–98 (footnote omitted). Mediating institutions contrast with such amorphous blocs ("social classes") as the racial bloc, or an entire sex. *Id.* at 97, 105.

169. GALBRAITH, *supra* note 163, at 112.

170. ROBERT L. HEILBRONER & LESTER C. THUROW, ECONOMICS EXPLAINED 155 (1982).

171. GALBRAITH, *supra* note 163, at 268. The late Professor Galbraith was not wholly appreciative of these developments:

> J. K. Galbraith was undoubtedly the most important exponent of contemporary institutionalist thought (not to be confused with the "new" and neo-institutional approaches), a stream of thought which numbers among its main exponents John Adams, Kenneth Boulding, Allan Gruchy, Warren Samuels, Daniel Fusfeld, and Paul Strassman, and which has in the *Journal of Economic Issues* its most prestigious critical platform. In the groove cut by [Thorstein] Veblen and on the basis of a very particular reading of Keynesian thought, Galbraith has explored the organizational nature and the planning methods of the company system as well as the influence of what he considers "the technological imperatives"; but he has also concerned himself with the social formation of individual preferences, interaction between private and public spheres, and the forces that influence the formation of opinion in the public sector.

SCREPANTI & ZAMAGNI, *supra* note 53, at 419.

172. ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS 13 (4th ed. 2004).

> maximization, for example of wealth, income or health; concepts of ownership, such as property rights and the optimal division of these; consideration of risk and uncertainty; and the effects of legal and economic changes. These are used within the framework of microeconomics which rests upon such ideas as scarcity, the valuation of alternatives and opportunity costs.[173]

In brief, the law and economics subdiscipline more or less represents a microeconomics market-values subdiscipline.[174]

Position and respect are netted by economists who are regulated or heavily influenced by professional bodies. The implementation of standards thereby creates a gravitational tug on research funding, publications, hiring, and courses that might be so irresistible as to impede developing fresh approaches. A likely reaction would be the creation of new professional constellations. Law and economics, in great degree, progressed not in economics departments but in schools of law.[175] "One of the most startling . . . developments in the law has been the relatively recent spread of economic learning among judges . . . , among professors in law schools, . . . and in many other segments of the policymaking and law-making world."[176] "[T]he spread of basic economic concepts and the awareness of economic ideas to noneconomists . . . is so unexpected and so promising . . . . because microeconomics is a field in which the

173. Peter R. Senn, *supra* note 29, at 483, 484–85. "A hallmark of the sub-discipline is the application of economic theory, mostly microeconomic, to subjects that now encompass the entire legal system. The scope of economics is virtually coextensive with that of the law." *Id.* at 485.

174. Francesco Parisi, *Coase Theorem and Transaction Cost Economics in the Law*, *in* THE ELGAR COMPANION TO LAW AND ECONOMICS, *supra* note 28, at 7, 13. The assumption favored in standard economics of rational economic agents is profoundly challenged. DANIEL KAHNEMAN, THINKING, FAST AND SLOW 14 (2011). One substantial contributor to the subdiscipline of economic sociology contends that "[e]ven some economists, while fully embracing rational choice models, have broadened their vision to provide often surprising and instructive explanations for the economics of everyday life." VIVIANA A. ZELIZER, ECONOMIC LIVES: HOW CULTURE SHAPES THE ECONOMY ix (2011).

175. COASE, *supra* note 123, at 31–32.

> It is not without significance that the new group of studies that has come to be known as "law and economics" has to a very considerable extent been carried forward in law schools rather than in economics departments, where the economists' somewhat narrow conception of the scope of their subject led them to be, at least initially, largely uninterested in the field.

Id. at 32. *Their* subject?

176. ROBERT H. BORK, *Antitrust in Transition: The Role of the Courts in Applying Economics*, *in* A TIME TO SPEAK: SELECTED WRITINGS AND ARGUMENTS 465, 465 (2008).

simple ideas are the most powerful ideas."[177]

True, the problems of the "lack of coordination of interaction and the resulting residual loss" are of major importance.[178] The primary way such problems appear is at the micro level.[179] But micromotives feed into macrobehavior.[180] These problems accumulate at the macrolevel into, for example, unemployment and recessions.[181] (What is the legal reasoning behind the global financial markets?[182]) Nonetheless, the macroeconomic analysis of such difficulties tends to fall beyond the ambit of the study of legal institutions and economic behavior.[183]

Under the jungle canopy of macroeconomic growth, undergrowth steadily is being filled by investigators (entailing important implications for government policy). Conventional microeconomics is most beneficial in forecasting the behaviors of businesses and consumers.[184] (*Quaere*: Can macroeconomics fruitfully forecast the advent of bull or bear markets or of decades-long cycles spawned by technological innovations, or instruct whether a national deficit reduction, or a taxcut, more readily boosts national income per capita?) And it is matters like incentives or the efficiencies of trading for individual consumers, groups of consumers, or firms that impinge upon the legal principle of fiduciary duty.

IV. SOCIAL CAPITAL AND FIDUCIARY DUTY

A. Trust as Social Capital

Social capital means those "resources embedded in social relationships and networks" conducive to "achievement of individual or cooperative objectives."[185] Dr. Gary Becker (who in 1992 was awarded

177. *Id.* at 465–66.
178. LARS WERIN, ECONOMIC BEHAVIOR AND LEGAL INSTITUTIONS: AN INTRODUCTORY SURVEY 121 (2003).
179. *Id.*
180. *See, e.g.*, THOMAS C. SCHELLING, MICROMOTIVES AND MACROBEHAVIOR (2006).
181. WERIN, *supra* note 178.
182. *See, e.g.*, ANNELISE RILES, COLLATERAL KNOWLEDGE: LEGAL REASONING IN THE GLOBAL FINANCIAL MARKETS (2011).
183. WERIN, *supra* note 178.
184. COYLE, *supra* note 160, at 63.
185. Gillian K. Hadfield, *Law for a Flat World: Legal Infrastructure and the New Economy* 23 (Univ. of S. Cal. Law Sch. Law & Econ. Working Paper Series, Paper No. 110, 2010), *available at* http://law.bepress.com/usclwps/lewps/art110.

the Alfred Nobel Memorial Prize in Economics[186]) was the "first major economist to use the term 'social capital.'"[187] Beckerian economics is indebted to rational choice models; it "treats all economic *and* social phenomena as if they could be reduced to optimizing individuals interacting as far as possible as if a (more or less perfect) market were present."[188] Envision markets functioning perfectly and the nonmarket as analyzable as though a market were present.[189] A broadly accepted element of "Becker's understanding of social capital" is that "social capital should serve as a residual explanatory factor for any, usually collective, resource."[190] Thereby social capital can sweep over the approximate entirety "of a market imperfections approach to economic and non-economic phenomena."[191]

The phenomenon of trust is valuable to individual consumers, groups of consumers, and firms. "Trust is as vital a form of social capital as money is a form of actual capital."[192] Some economists even tend to equate social capital with trust or the rule of law.[193] Social capital "enhance[s] efficiency by [minimizing] transaction costs."[194] Trust plays

186. BANNOCK ET AL., *supra* note 73, at 31.

187. BEN FINE, THEORIES OF SOCIAL CAPITAL: RESEARCHERS BEHAVING BADLY 171 (2010).

188. *Id.* at 17. "A professor of economics at the University of Chicago, Becker is known for his idea that individuals generally respond rationally to economic incentives." Roberto Pinheiro, *Off the Shelf*, ACAD. MGMT. PERSP., May 2011, at 86, 86 n.1 (reviewing STEVEN D. LEVITT ET AL., SUPERFREAKONOMICS: GLOBAL COOLING, PATRIOTIC PROSTITUTES, AND WHY SUICIDE BOMBERS SHOULD BUY LIFE INSURANCE (2009)). Compare the distinctive concepts of economics in Section III.C, *supra*.

189. FINE, *supra* note 187, at 18, 43.

190. *Id.* at 43.

191. *Id.*

192. MATT RIDLEY, THE ORIGINS OF VIRTUE: HUMAN INSTINCTS AND THE EVOLUTION OF COOPERATION 250 (1997). *See, e.g.*, MAREK KOHN, TRUST: SELF-INTEREST AND THE COMMON GOOD (2008).

193. RIDLEY, *supra* note 192. TIM HARFORD, THE UNDERCOVER ECONOMIST: EXPOSING WHY THE RICH ARE RICH, THE POOR ARE POOR—AND WHY YOU CAN NEVER BUY A DECENT USED CAR! 198 (2006). "[I]nside China, trust and commitments turn upon personal connections. They do not depend upon laws, contracts, or other legal instruments." SAMUEL P. HUNTINGTON, THE CLASH OF CIVILIZATIONS AND THE REMAKING OF WORLD ORDER 170 (First Touchstone ed. 1997).

Ridley sees trust as an element in human evolution itself. MATT RIDLEY, THE RATIONAL OPTIMIST: HOW PROSPERITY EVOLVES 94 (2010). In addition to social capital, economic capital, and cultural capital, Catherine Hakim of the London School of Economics recently advanced a new theory of erotic capital. Catherine Hakim, *Erotic Capital*, EUR. SOC. REV. (Mar. 19, 2010), http://est.oxfordjournals.org/cgi/content/abstract/jcq014.

194. MARGARET F. BRINIG, FAMILY, LAW, AND COMMUNITY: SUPPORTING THE

a notable role in reducing such transaction costs.[195] Interactions among those who share norms generate shared trust (social capital).[196] Trusting behavior comports with the rational choice model of law and economics.[197]

"[T]rust depends upon a supportive political culture and especially on a base of economic equality."[198] Economic equality is a potent determinant of trust.[199] Trust, in turn, facilitates policies that evoke wealth and further reduce inequalities.[200] An individualistic credo (the "Protestant ethic") teaches that "[t]o succeed in a competitive world, we need to rely upon other[s]."[201] Whereas "[i]n collectivist societies, people can rely upon their peer groups and get by with particularized trust."[202] In an individualistic (pro-laissez faire) nation, like the Jacksonian-era America (in the northern states), a "generalized trust becomes essential."[203] As Matt Ridley concludes his study, *The Origins of Virtue: Human Instincts and the Evolution of Cooperation*:

> The roots of social order are in our heads, where we possess the instinctive capacities for creating not a perfectly harmonious and virtuous society, but a better one than we have at present. We must build our institutions in such a way that they draw out these instincts. Pre-eminently this means the encouragement of exchange between equals. Just as trade between countries is the best recipe for friendship between them, so exchange between enfranchised and empowered individuals is the best recipe for

COVENANT 2 (2010).

195. *See, e.g.*, FRANCIS FUKUYAMA, TRUST: THE SOCIAL VIRTUES AND THE CREATION OF PROSPERITY (1995).

196. BRINIG, *supra* note 194, at 71.

197. *Id.* at 14. It is said that because money substitutes for trust, sufficient trust makes money a redundancy. George Steven Swan, *The Deconstruction of Marriage, Part 1: The Law and Economics of Unilateral No-Fault Divorce*, FAM. AMERICA, Fall 2009, at 15, 27 (citing JUDE WANNISKI, THE WAY THE WORLD WORKS 76 (1978)).

198. ERIC M. USLANER, THE MORAL FOUNDATIONS OF TRUST 218 (2002). The point has most recently been elaborated upon in RICHARD WILKINSON & KATE PICKETT, THE SPIRIT LEVEL: WHY MORE EQUAL SOCIETIES ALMOST ALWAYS DO BETTER (2009).

199. USLANER, *supra* note 198, at 245.

200. *Id.*

201. *Id.* at 221.

202. *Id.*

203. *Id.* (citing 2 ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 98 (Alfred A. Knopf, Inc. 1945) (1840)). Uslaner suggests sympathy for an equality promoted by an economically interventionist state. *Id.* at 222, 236.

> cooperation. We must encourage social and material exchange between equals for that is the raw material of trust, and trust is the foundation of virtue.[204]

But what of economic equality? In a free market, the first premise "is the *property right* of every man in his own person and in the resources which he finds, produces, or creates, or which he obtains in voluntary exchange . . . or as a gift."[205] (Note the consistency of this first premise with the aforementioned methodological individualism and normative individualism, assumptions upon which economics in general is built.[206]) Thereby equality is universal. Perhaps more concretely,

204. RIDLEY, *supra* note 192 at 264–65.

205. 2 MURRAY N. ROTHBARD, MAN, ECONOMY AND STATE: A TREATISE ON ECONOMIC PRINCIPLES 795 (1962). Historian James Oakes of the Graduate Center of the City University of New York holds that the denial by slaveowners of this premise caused the irreconcilable breach between the South and the largely pro-laissez faire Jacksonian-America North: "For a growing number of Yankees the natural right of self-ownership decreed that it was immoral to treat human beings as though they were commodities, to be bought and sold like any other article of merchandise." James Oakes, *Best of All Worlds*, LONDON REV. BKS., Mar. 11, 2010, at 30, 31 (reviewing ELIZABETH FOX-GIENOVESE & EUGENE GIENOVESE, SLAVERY IN WHITE AND BLACK: CLASS AND RACE IN THE SOUTHERN SLAVEHOLDERS' NEW WORLD ORDER (2008)). To be sure, in America the right of self-ownership remains void where prohibited by law: "In short, the unborn have never been recognized in the law as persons in the whole sense." Roe v. Wade, 410 U.S. 113, 162 (1973).

The moral element of objectification entails denying someone's autonomy by reducing her to an object or instrument. RAE LANGTON, SEXUAL SOLIPSISM: PHILOSOPHICAL ESSAYS ON PORNOGRAPHY AND OBJECTIFICATION 13 (2009). To a Kantian this means not an end in herself (hence, *Roe*). *Id.* at 10. And David Hume "thought that we (mistakenly) treat many mere subjective properties—color, causality, even identity—as objective, given the projective propensity of the human mind." *Id.* at 11. "Central to objectification's epistemological aspect is a double anomaly, projection and its real or apparent fulfillment . . . ." *Id.* at 14. Publicly projecting the abortionist's wishful thought that a living, individual *Homo sapiens* (also known as the fetus) is a subhuman thing elicits social behavior that seemingly ratifies that desire (hence, legalization of partial birth abortion). "These projective mechanisms help objectification, and they help to hide it too." *Id.* While the moral and epistemological aspects of objectification can coincide (as where a slave owner projects wishful fantasies of the subhumanity of an enslaved race), the former aspect alone suffices (as with a slave whose self-aware slave owner's autonomy-denying behavior against her is devoid of projection). *Id.* at 15.

206. "Normative individualism is closely aligned with liberalism." TRACHTMAN, *supra* note 97, at 1.

> [E]conomic and political theories were joined in the work of [David] Hume and others in the rational choice school. They were joined not because they had the same value theory . . . . The central, fundamental feature was, rather, that they

"[m]oney to be earned must continually be justifying itself in current service to consumers. Personal income, interest, profits, and rents are earned only in accordance with their *current*, not their past, services."[207] "The size of accumulated fortune is immaterial, . . . when their owners fail to reinvest them wisely in the service of consumers."[208] What if "the bulk of the wealthy consumers had acquired their property through theft . . . [thus] instill[ing] a 'built-in bias' into the market economy, since future producers must satisfy demands ensuing from unjust incomes"?[209] This bias is self-relieving.[210] The plunderers or their heirs must reinvest to serve consumers, for "entrepreneurial losses will diminish their assets and shift them to more able producers."[211] Free market "consumers . . . decide anew who should own and how much."[212] The successors to initial appropriators—and of expropriators—are "mandataries . . . of the consumers."[213] And those, among the mass of

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> were grounded in *individual* values, whatever those might be. Political philosophy need have no value theory at base. It can merely posit the structure of institutions that enable people to seek their own individual values.

HARDIN, *supra* note 121, at 97. Market economics and liberal (for example, libertarian) political institutions allow individuals to pursue their own values. *Id.*

> In both cases, the central theoretical move is to create institutions that let individuals seek their own values, which in experienced fact generally means to seek their own welfare to a substantial extent. The institutions of market economics and of liberal politics are mutual-advantage and in both economics and politics the underlying individual value theory is own-welfare. These two—own-welfare and mutual advantage—work well together, the first at the individual level and the second at the aggregate level.

Id. at 97–98.

207. MURRAY N. ROTHBARD, POWER & MARKET: GOVERNMENT AND THE ECONOMY 108 (1970).

208. *Id.*

209. ROTHBARD, *supra* note 205, at 555–56.

210. *Id.* at 556.

211. *Id.* But does a non-self-relieving distortion (for example, generated by fraud or carried over from a prior nonfree market) in a now free market tend to erode the general validity of such a principle of public action as, for example, laissez faire? Brown University economist Glenn C. Loury opines that "[a] principle of public action can hardly claim general validity if, by adhering to it, it becomes impossible to correct the consequences of its violation. Such a principle would be inconsistent in an essential way, for then a transitory departure from the principle would have permanent deleterious effects." GLENN C. LOURY, ONE BY ONE FROM THE INSIDE OUT: ESSAYS AND REVIEWS ON RACE AND RESPONSIBILITY IN AMERICA 104 (1995).

212. MISES, *supra* note 42, at 683.

213. *Id.* at 271. The Father of the Constitution knew that in society divergent (supposedly or actually) interests are natural. James Madison, *Parties*, *in* JAMES

consumers who likewise are investors, regularly rely upon investment managers and trustees.

Stewart Macaulay of the University of Wisconsin School of Law first elaborated upon the importance of context to business performance. Macaulay "emphasized how trust relationships underpin business behaviour."[214] In 1963, an early phase of his scientific study including interviews with businesspersons and attorneys indicated frequent dispute settlement "without reference to the contract or . . . legal sanctions."[215] "[C]ontract and contract law are often thought unnecessary, because there are many effective non-legal sanctions."[216] Two widely accepted norms are that "[c]ommitments are to be honored in almost all situations" and that "[o]ne ought to produce a good product and stand behind it."[217] Looking back on his 1963 study in 1985, Macaulay declared that it had not rested upon any naïve presumption of harmony.[218] Still, as of 1985, he would stress how "relational sanctions do not always produce cooperation or happy situations. Trust can be misplaced."[219]

Practically, it often proves difficult to disentangle legal and extralegal resources (for example, to disentangle "contract" and

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MADISON: WRITINGS 504, 504 (1999). He favored the end of minimizing factionalization "[b]y the silent operation of laws, which, without violating the rights of property, reduce extreme wealth towards a state of mediocrity, and raise extreme indigence towards a state of comfort." *Id.* Madison embraced this federal-level political-economy means:

> The powers delegated by the proposed constitution to the federal government, are few and defined. . . . The powers reserved to the several states will extend to all the objects, which, in the ordinary course of affairs, concern the lives, liberties and properties of the people; and the internal order, improvement and prosperity of the state.

THE FEDERALIST NO. 45 (James Madison), *in* JAMES MADISON: WRITINGS, *supra*, at 260, 264.

214. John Kay, *Think Before Your Tear Up an Unwritten Contract*, FIN. TIMES (London), Mar. 17, 2010, at 9. "Whereas nonmarket, premodern economies are assumed to be embedded in social relations, markets in industrial society are frequently imagined as operating according to formal and abstract economistic models." KAREN HO, LIQUIDATED: AN ETHNOGRAPHY OF WALL STREET 32 (2009). But even in Wall Street investment banks, it is "the network of relationships that enabled the accumulation of money," not only market mechanisms or abstract capital flows. *Id.* at 305, 306.

215. Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOC. REV. 1, 2, 10 (1963).

216. *Id.* at 13.

217. *Id.*

218. Stewart Macaulay, *An Empirical View of Contract*, 1985 WIS. L. REV. 465, 471.

219. *Id.*

"trust").[220] In 1959, Macaulay comprehended that ascertaining "the best possible answer in each case to questions such as when to let people out of bargains or overturn other transactions for . . . breach of fiduciary duty requires fine line drawing and great attention to individual differences."[221] "One can doubt whether legislators or judges framing common law rules could crystallize wise solutions for [each] case . . . ."[222] Our noun "fiduciary comes from the Latin word *fiducia*, meaning *trust*."[223] In agency, trust and incentives are certainly pivotal.[224] If trust can be misplaced, then what is the ideal way to divide fiduciary responsibilities in the context of investment managers and trustees?

B. The Fiduciary Duty Idea

In the context of investment managers and trustees, "[f]iduciary responsibilities fall into two generic categories."[225] The first is the duty of undivided loyalty, which covers "rules and regulations designed to minimize conflicts of interest."[226] The second is the standard of reasonable care.[227] Fiduciary duty is a long-standing principle.[228] Fittingly is the English noun, fiduciary, drawn from the Latin term. Partnership law commences with the Romans; the Justinian Code encompasses partnership law.[229] "The English took large sections from the Roman codification . . . ."[230]

Fiduciary duty debate among workaday financial planners in modern America remains informed by[231] the ancient wisdom of Marcus Tullius

220. Hadfield, *supra* note 185, at 24.
221. Stewart Macaulay, Comment, *Restitution in Context*, 107 U. PA. L. REV. 1133, 1136 (1959).
222. *Id.*
223. Ronald F. Duska, *On Fiduciary Duty: Have We Set the Bar Too High?*, J. FIN. SERVICE PROFS., Jan. 2009, at 20, 20.
224. Ramon Casadesus-Masanell & Daniel F. Spulber, *Trust and Incentives in Agency*, 15 S. CAL. INTERDISC. L.J. 45, 45 (2005).
225. William G. Droms, *Fiduciary Responsibilities of Investment Managers and Trustees*, FIN. ANALYSTS J., July–Aug. 1992, at 58, 58.
226. *Id.*
227. *Id.*
228. *Id.*
229. Jacob A. Stein, *A Note About Such Things as Fiduciary, UPA and RUPA*, WASH. LAW., Apr. 2011, at 48, 48. Stein thinks "the Romans . . . put the Justinian Code in their partnership law," *id.*, instead of putting partnership law into the Justinian Code.
230. *Id.*
231. Blaine F. Aikin, *The Role of a Fiduciary Is Timeless*, INVESTMENTNEWS, Aug. 16, 2010, at 17.

Cicero (106 B.C.–43 B.C.).[232] A product of the study of law in Rome, Cicero was a working lawyer.[233] In 81 B.C., Cicero, like many modern American attorneys, launched his career at the bar at the age of twenty-five.[234] In 79 B.C., he dramatically represented Sextus Roscius Amerinus.[235] Cicero won his client a brilliant victory.[236] His peroration at the bar[237] included this wisdom:

> In private affairs if anyone had managed a business entrusted to him, I will not say maliciously for the sake of his own gain and advantage, but even carelessly, our ancestors thought that he had incurred the greatest disgrace. Therefore, legal proceedings for betrayal of a commission are established, involving penalties no less disgraceful than those for theft. I suppose because, in cases where we ourselves cannot be present, the vicarious faith of friends is substituted; and he who impairs that confidence, attacks the common bulwark of all men, and as far as depends on him, disturbs the bonds of society. For we cannot do everything ourselves; different people are more capable in different matters. On that account friendships are formed, that the common advantage of all may be secured by mutual good offices.[238]

As has been repeatedly explained,[239] one savvy rabbi subsequent to Cicero taught this lesson:

> For the kingdom of heaven is as a man travelling into a far country, who called his own servants, and delivered unto them

232. ANTHONY EVERITT, CICERO: THE LIFE AND TIMES OF ROME'S GREATEST POLITICIAN 30 (2003).

233. *Id.* at 30–35, 52. *See, e.g.*, Albert I. Borowitz, *M. Tullius Cicero for the Defense*, 55 A.B.A. J. 932 (1969); Stephen Botein, *Cicero as Role Model for Early American Lawyers: A Case Study in Classical "Influence*,*"* 73 CLASSICAL J. 313 (1978).

234. EVERITT, *supra* note 232, at xiii, 58.

235. *Id.* at xiii, 59, 60.

236. *Id.* at 61.

237. *Id.* at 60.

238. 1 M.T. CICERO, *The Oration for Sextus Roscius of Ameria*, *in* THE ORATIONS OF MARCUS TULLIUS CICERO 37, 72 (C. D. Yonge trans., 1903). Cicero did more than anticipate the modern fiduciary duty idea. In book one, §§ 34–40 of *De Officiis*, he anticipated the Christian era's just-war tradition. CICERO: ON DUTIES 14–18 (Harry G. Edinger trans., 1974).

239. Droms, *supra* note 225, at 58 n.1 (citing Raymond H. Young & John J. Lombard, Jr., *Fiduciary Responsibility in Investments*, TR. & EST., June 1985, at 14, 14).

his goods.

And unto one he gave five talents, to another two, and to another one; to every man according to his several ability; and straightway took his journey.

Then he that had received the five talents went and traded with the same, and made them other five talents.

And likewise he that had received two, he also gained other two.

But he that had received one went and digged in the earth, and hid his lord's money.

After a long time the lord of those servants cometh, and reckoneth with them.

And so he that had received five talents came and brought other five talents, saying, Lord, thou deliveredst unto me five talents: behold, I have gained beside them five talents more.

His lord said unto him, Well done, thou good and faithful servant: thou hast been faithful over a few things, I will make thee ruler over many things: enter thou into the joy of thy lord.

He also that had received two talents came and said, Lord, thou deliveredst unto me two talents: behold, I have gained two other talents beside them.

His lord said unto him, Well done, good and faithful servant; thou hast been faithful over a few things, I will make thee ruler over many things: enter thou into the joy of thy lord.

Then he which had received the one talent came and said, Lord, I knew thee that thou art an hard man, reaping where thou hast not sown, and gathering where thou hast not strawed:

And I was afraid, and went and hid thy talent in the earth: lo, there thou hast that is thine.

His lord answered and said unto him, Thou wicked and slothful servant, thou knewest that I reap where I sowed not, and gather where I have not strawed:

Thou oughtest therefore to have put my money to the exchangers, and then at my coming I should have received mine own with usury.

Take therefore the talent from him, and give it unto him which hath ten talents.

For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath.

And cast ye the unprofitable servant into outer darkness: there shall be weeping and gnashing of teeth.[240]

It is in fiduciary law where principles regarding conflicts of interest most fully develop.[241] "In Roman Law, the *fideicommissa* was a means by which a person leaving a will (the testator) transferred goods upon his death to a party who would hold them for the beneficiary."[242] *Fideicommissa* (trusts) were found during both the republic and the Roman empire.[243] However, in the republic, the *fideicommissa* carried moral force alone.[244]

In relationships resembling those of the modern mortgage, the *fiducia* (or fiduciary) separated a property's ownership from its possession.[245] More precisely, the *fiducia* marked putting up a pledge as security for a loan.[246] The creditor became the owner because ownership shifted to the creditor in trust, although the debtor could retain possession.[247] Generally, the creditor could not use the pledge.[248] However, upon default, the creditor could naturally sell this pledge, passing outright title to the buyer.[249]

England developed its own law incorporating some Roman law (via the Catholic Church's canon law[250] and commentaries upon Roman law

240. *Matthew* 25:14–30 (King James). A recent book by a prominent economist tackling the parable of the talents is TIM HARFORD, DEAR UNDERCOVER ECONOMIST 57–58 (2009). The latest social science reaffirms the melancholy implications of the final verses quoted. *See* DANIEL RIGNEY, THE MATTHEW EFFECT: HOW ADVANTAGE BEGETS FURTHER ADVANTAGE (2010).

> The bottom line is that when deciding where to link on the web, we follow *preferential attachment*: when choosing between two pages, one with twice as many links as the other, about twice as many people link to the more connected page. . . .
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> Preferential attachment rules in Hollywood as well.

ALBERT-LÁSLÓ BARABÁSI, LINKED: THE NEW SCIENCE OF NETWORKS 85 (2002).

241. MARC A. RODWIN, CONFLICTS OF INTEREST AND THE FUTURE OF MEDICINE: THE UNITED STATES, FRANCE, AND JAPAN 251 (2011).

242. *Id.* at 252.

243. ALAN WATSON, ROMAN LAW & COMPARATIVE LAW 78, 80 (1991).

244. *Id.* at 80.

245. RODWIN, *supra* note 241, at 251–52.

246. WATSON, *supra* note 243, at 50.

247. *Id.* at 50–51, 140.

248. *Id.* at 140.

249. *Id.* at 50.

250. Indeed, *The Oxford History of the Laws of England* opens with 1 R. H.

and this law of England).[251]

> Early Medieval English law was formal and rigid, so aggrieved parties would often appeal to the King's Chancellor to use his equitable powers to create remedies where no legal recourse existed. The Chancellor, a representative of the Catholic Church, was trained in canon law—which included Roman law maxims and equitable principles—and often also in Roman law. Roman law equitable principles were a fertile source for the Chancellor's remedies. Over time the Chancellor's decisions grew into equity jurisprudence and a parallel judicial system arose. . . .
>
> Equity law created the trust, drawing on the Roman law *fideicommissa* and *fiducia*. It designated trustees and agents as *fiduciaries* . . . . [and] fiduciary principles . . . spread to other areas of law.[252]

"Anglo-American law also regulates as fiduciaries, bankers, corporate officers and directors, money managers, pension fund managers, and others who hold property or exercise powers on behalf of others."[253]

"[E]conomics-based explanations of fiduciary relationships are extremely helpful to the understanding of the law . . . ."[254] "Almost all of the problems of jurisprudence come down to a fundamental one of rule

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HELMHOLZ, THE OXFORD HISTORY OF THE LAWS OF ENGLAND: THE CANON LAW AND ECCLESIASTICAL JURISDICTION FROM 597 TO THE 1640S (2004).

251. RODWIN, *supra* note 241, at 254.

252. *Id.* (first two emphases added).

253. *Id.* at 255. A quite personalized ("largely independent") good faith might be particularly incumbent on the part of high-profile bankers commanding outsized pay packages:

> Small differences in the skill level of senior bankers tend to translate into large differences in the bank's bottom line. Competition for even the slightly more skilled is accordingly fierce. Senior bankers operate as largely independent entities whose "clients" are more theirs than the banks'; they leave with the "star" when he or she changes organisation.

Greenspan, *supra* note 82, at 9. "The best singer may not be much better than the second-best, and may be primarily motivated by the wish to sing better than the second-best, or just to sing well. What does that tell us about desirable incentive contracts, and, then, about taxation at these levels?" JAMES A. MIRRLEES, WELFARE, INCENTIVES, AND TAXATION 21 (2006).

254. 2 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 131 (Peter Newman ed., 1998).

and discretion, of administration of justice by law and administration of justice by the more or less trained intuition of experienced magistrates."[255] To bridle behaviors via detailed rules instead of general standards[256] entails costs in formulating a precise rule initially and later in revising such rules (since "a specific rule will obsolesce more rapidly than a general standard"[257]). The clear-guidance payoff of rulemaking can outweigh its costs.[258] "A broad standard also increases agency costs. It is harder to determine whether law enforcement officers and judges are straying outside the boundaries of their authority in prosecuting and adjudicating."[259] (Insofar as judges are delegated legislative power, "they work in the field of *lex ferenda*."[260] And the consequentialist approach to the economic analysis of law "has everything to do with *lex ferenda*."[261])

Standards are more apt to invite the application of economic cost-benefit-analysis logic.[262] But "[t]he clarity of a rule can be deceptive"

255. ROSCOE POUND, AN INTRODUCTION TO THE PHILOSOPHY OF LAW 54 (1982).
256. *See, e.g.*, FREDERICK SCHAUER, THINKING LIKE A LAWYER: A NEW INTRODUCTION TO LEGAL REASONING (2009).
257. POSNER, *supra* note 28, at 586.
258. *Id.*
259. *Id.* at 587.
260. TRACHTMAN, *supra* note 97, at 3.
261. *Id.* at 2.
262. *See, e.g.*, COST–BENEFIT ANALYSIS: LEGAL, ECONOMIC, AND PHILOSOPHICAL PERSPECTIVES (Matthew D. Adler & Eric A. Posner eds., 2001).

> My guess would be that the great bulk of the incursions made by economists into contiguous and not-so-contiguous disciplines in recent years has been in connection with the undertaking of cost-benefit studies. Cost-benefit analysis seems to me best described as a technique. But since it is essentially applied price theory, having as its aim the giving of a monetary value to what is gained and what is lost by following a particular course of action, it is certainly an activity in which economists have some obvious advantages.

COASE, *supra* note 123, at 40. But can interpersonal comparisons of welfare possibly be formulated? *See, e.g.*, George Steven Swan, *The Law and Economics of ERISA and Fiduciary Duty:* LaRue v. DeWolff, Boberg & Associates, Inc., 36 OHIO N.U. L. REV. 403, 425–27 (2010). "I think we should (and do) take interpersonal comparisons seriously. I do not have a metaphysical argument to establish how such comparisons can be given meaning in principle, or an argument to show how we can know another's welfare in order to compare it to our own." HARDIN, *supra* note 121, at 133.

> [Nevertheless, economists] regularly prescribe both institutions and policies, and they are the authors of countless cost-benefit analyses. The ardor with which economists have defended the impossibility of interpersonal comparisons is more than matched by the energy with which they have urged policies requiring trade-offs that could only be grounded on the assumption of

(since "[r]ules create pressure for exceptions" to themselves).[263] And any static rule can be eluded by the nimble. A rules set needed to cover the identical field as a standard does will probably be more complicated than such standard (for example, a traffic code versus the negligence standard).[264]

On the other hand, the latter might be promoted as a plus. In 2011, acrimony flared over the Securities and Exchange Commission's prospective imposition of a "universal fiduciary duty on anyone providing retail investment advice."[265] The fiduciary level of service legally exacted from registered-investment advisors, for example, financial planners (putting customers' interests before their own), was more stringent than the suitability level legally demanded of broker–dealers (who must know their customers and propose investments suiting customers' needs).[266] The National Association of Insurance and Financial Advisors squawked that the application of the fiduciary

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such comparisons.

Id. at 132.

Hardin here drops this footnote: "Presumably, their fees for the latter vastly exceed anything they have earned for the former." *Id.* at 132 n.5. After all, "[e]very economic theory of government must assume that the governors carry out their social function primarily in order to attain their private ends." ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY 291 (1957). Yet why? "For where your treasure is, there will your heart be also." *Matthew* 6:21 (King James); *Luke* 12:34 (King James). Ultimately, "the way economic forces and incentives operate remains constant, although the technologies, wages, prices, and interest rates change constantly." Nicholas L. Georgakopoulos, Meinhard v. Salmon *and the Economics of Honor*, 1999 COLUM. BUS. L. REV. 137, 153.

263. POSNER, *supra* note 28, at 588.

264. *Id.* at 586.

265. Mark Schoeff Jr., *Fiduciary Standard Gets Powerful Advocate*, INVESTMENTNEWS, Aug. 29, 2011, at 10.

266. *Id.*; Elizabeth Ody, *Beware the Registered Investment Adviser*, BLOOMBERG BUSINESSWEEK, Oct. 31–Nov. 6, 2011, at 60. On the other hand:

> Ordinary brokers must meet capital requirements that vary based on the size of their business and the type of trading they do. "If a large brokerage firm defrauds you, at least they have the money to pay you back," says Brian N. Smiley, an Atlanta securities lawyer. RIAs overseen by the SEC, by contrast, have no net capital requirements, the agency says. Brokers who don't pay arbitration awards "get their registration suspended," says Jane L. Stafford, a securities lawyer in Kansas City, Mo. If advisers don't pay, they "may have to disclose that they have an unsatisfied judgment against them, but it's not an automatic shutdown."

Id. at 61.

standard would substantially increase broker–dealer compliance costs.[267] Association President Terry Headley charged that "the suitability standard is robust and heavily enforced" and "is rules based, objective and prospective in nature, as opposed to fiduciary, which is process-oriented, subjective and retrospective."[268] "Fiduciary duties . . . [indeed] are examples of standards."[269]

"[C]ommon law countries, particularly the United States, using the concept of fiduciary duty, rely much more heavily on private litigation to recover losses experienced by investors."[270] The fiduciary standard "varies from state to state, industry to industry, and even regulator to regulator."[271] "There isn't just one universal fiduciary standard."[272]

More precisely, as Robert Flannigan, a Canadian law professor and expert on the law and economics of fiduciary duty, clarifies, "conventional fiduciary accountability has a constant application across all classes of fiduciaries. The mischief is generic and, consequently, the regulation is generic. There is one general proscription on self-interest, with various manifestations of that one proscription represented in the various specific rules . . . ."[273] It is true that one feature of a fiduciary relationship is "[a]lternative external controls that reduce entrustors'

267. Press Release, Nat'l Ass'n of Ins. & Fin. Advisors, NAIFA President Terry K. Headley Says Suitability Standard of Care Serves Consumers with 'Rules-Based, Objective' Approach (May 11, 2011), *available at* http://www.naifa.org/newsevents/releases/20110511_rulesased.cfm.

268. *Id.* (internal quotation marks omitted).

269. KENNETH W. DAM, THE LAW-GROWTH NEXUS: THE RULE OF LAW AND ECONOMIC DEVELOPMENT 176 (2006).

270. *Id.* at 188. "Principles are thought more closely than rules to approximate normative goals." Steven L. Schwarcz, *The 'Principles' Paradox*, 10 EUR. BUS. ORG. L. REV. 175, 175 (2009).

271. Rick Adkins, *The Rules of Engagement, Part 2*, J. FIN. PLAN., Mar. 2010, at 30, 34.

272. *Id.*; *cf.* Sandra K. Miller & James J. Tucker, III, *Government Accountability Office and Securities and Exchange Commission Recommendations: Fiduciary Duty and Implications for Insurance Services*, J. FIN. SERVICE PROFS., Sept. 2011, at 42. Steven L. Schwarcz, founding co-academic director of the Duke Global Capital Markets Center and professor of law and business, perceives that the extent whereby principles-based regulation attains normative goals hinges upon its enforcement regime. Schwarcz, *supra* note 270, at 176. Parties subjected to unpredictable liability probably adhere to the most conservative reading of principle. *Id.* Thereby would such party perform as though rule-subject (or, worse, subject to an unintended rule). *Id.*

273. Robert Flannigan, *The Economics of Fiduciary Accountability*, 32 DEL. J. CORP. L. 393, 421 (2007). "Context determines whether opportunism is actionable as a fiduciary breach." *Id.* at 394.

risks, such as market controls, either do not exist or are too weak."[274]

Anyway, "*legislatures* freely apply fiduciary duties piecemeal."[275] For example, "courts [do] not impose fiduciary duties on banks towards their depositors . . . and on insurance companies towards their policyholders."[276] "As trustees, banks and insurance companies would have had to segregate deposits or reserves, undermining the very utility of banking and insurance, which requires pooling."[277] Hence, banks and insurance companies are deemed debtors, not fiduciaries.[278] Nevertheless, "[*l*]*egislation* imposes duties of loyalty and care on these institutional debtors, which, doctrinally, is a contradiction in terms."[279]

V. THE REGULATION OF FINANCIAL MARKETS

A. The Background to Legislative Imposition of Fiduciary Duty

At least some form of a shareholder company can "flourish[] in a legally underdeveloped but politically supportive environment."[280] Such was the "*societas publicanorum*" in ancient Rome.[281] (The *societas*—partnership—was a standard Roman contract.[282]) Indeed, the "*societas publicanorum* flourished in a legally underdeveloped but politically supportive" Roman Republic.[283] It disappeared under the politically less receptive Roman Empire, notwithstanding the elevated legal sophistication therein.[284] "[L]egal development . . . mattered little as long as the law as practiced was flexible and adapted to economic needs."[285] Compare the merits of standards over rules. "In large measure the famed Roman genius for law comes down to their having found a method of lawmaking where there could be continual easy innovation at the desire of the best legal brains, coupled with equally

274. 2 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW, *supra* note 254, at 127–28.
275. *Id.* at 128 (emphasis added).
276. *Id.* (citations omitted).
277. *Id.*
278. *Id.*
279. *Id.* (emphasis added).
280. Ulrike Malmendier, *Law and Finance "at the Origin,"* 47 J. ECON. LITERATURE 1076, 1076 (2009).
281. *Id.* at 1077.
282. WATSON, *supra* note 243, at 133.
283. Malmendier, *supra* note 280, at 1076.
284. *Id.*
285. *Id.*

easy and frequent amendment of the innovations."[286]

Indeed, "from the eleventh century until the modern era of codification, the main feature of legal development in Continental Europe was the Reception of Roman Law."[287] The "Reception of Roman Law" means "the assimilation of the learned Roman law as taught at the universities into the law of the individual territories of Western Europe."[288] However, the Roman genius for legal development contrasts with the experience of civil-law systems post Reception.[289] Legal change during the latter span was generally snail-like, above all being marked by mounting abstraction and systematization.[290]

"[A]lthough Roman law gave rise to civil code legal systems, most of them did not incorporate the *fiducia*."[291] ("France and most other civil law countries initially developed conflict of interest principles in public law without reference to the *fiducia* or *fiduciary*."[292]) The *fideicommissa* and the *fiducia* were elements of ancient French law.[293] "The 1804 Napoleonic Code incorporated many Roman law concepts from ancient French law, but not the *fiducia* and *fideicommissa*."[294] (The Roman law's *fiducia* was embraced nevertheless in the civil codes of Austria, Germany, Liechtenstein, Switzerland, and the Netherlands.[295] These countries subsequently utilized this resource to evoke "Anglo-American style trusts and fiduciary obligations."[296])

"When France revised its law that governs publicly held companies in 1966," it used U.S. fiduciary duties.[297] The fiduciary was added to the French civil code only in 2007, to "harmonize[] French law with

286. ALAN WATSON, THE MAKING OF THE CIVIL LAW 191 (1981).
287. WATSON, *supra* note 243, at 98. "To the extent that the Romans were accorded prominence in histories of political thought . . . it was due to Roman contributions to constitutionalism and ideas about law and jurisprudence." Benjamin Straumann, *Book Reviews*, 8 PERSP. ON POL. 660, 661 (2010) (reviewing DEAN HAMMER, ROMAN POLITICAL THOUGHT AND THE MODERN THEORETICAL IMAGINATION (2008)).
288. WATSON, *supra* note 243, at 90. The French invented a monarchical law by applying Roman law to customary law. JACQUES LE GOFF, SAINT LOUIS 162 (Gareth Evan Gollrad trans., 2009).
289. WATSON, *supra* note 243, at 191.
290. *Id.*
291. RODWIN, *supra* note 241, at 251 (emphasis added).
292. *Id.* at 251–52 (emphasis added).
293. *Id.* at 252.
294. *Id.* (emphasis added).
295. *Id.*
296. *Id.*
297. *Id.* at 253.

European Community law."[298] Today, "French fiduciaries are not held to a higher standard of conduct than other commercial actors, or subject to explicit conflict-of-interest rules."[299]

In 2012, "standards are less used in corporate law in civil law countries than in common law countries, at least the United States."[300] Anyway, "it is certainly true that extensive securities markets can form without such regulation."[301] "[S]ecurities markets blossomed in the United States and Britain in the nineteenth and early twentieth centuries before modern securities regulation was introduced."[302] "One of the more common proposals, at least in the past, for dealing with the various problems of financial regulation has been to try to limit deposit insurance and the safety net to a set of narrow banks . . . ."[303] These were to be "constrained to hold only liquid and safe assets," affording "safe deposits for the orphans and widows."[304] "For all other financial institutions, . . . caveat emptor" would prevail.[305] Indeed, "in the UK something akin to a narrow banking system was put in place in the 19th century with the Post Office Savings Bank and the Trustee Savings Bank."[306] (Economist Laurence J. Kotlikoff of Boston University in 2010 called for profound financial reforms which would, at least in some degree, revive narrow banking.[307])

298. *Id.*
299. *Id.*
300. DAM, *supra* note 269, at 177.
301. *Id.* at 188. It has been submitted that regulation generally is less a phenomenon of market failure than a judicial failure to efficiently resolve tort and contract disputes. *See* ANDREI SHLEIFER, THE FAILURE OF JUDGES AND THE RISE OF REGULATORS (2012). The enforcement theory of regulation views regulation as the more effective social control of business. *Id.* at 1–23. The recent call for a heavier use of quantitative guidance to reform rules and regulations presumably implies an enhanced administrative and shrunken judicial role. *See* REFORMING RULES AND REGULATIONS: LAWS, INSTITUTIONS, AND IMPLEMENTATION (Vivek Ghosal ed., 2011).
302. DAM, *supra* note 269, at 188.
303. MARKUS BRUNNERMEIER ET AL., THE FUNDAMENTAL PRINCIPLES OF FINANCIAL REGULATION 63 (2009) (footnote omitted) (internal quotation marks omitted). The introduction of narrow banks to segregate insured deposit-taking from casino banking was proposed by John Kay, lately a visiting professor at the London School of Economics and Political Science. John Kay, Ctr. for the Study of Fin. Innovation, *Narrow Banking: The Reform of Banking Regulation*, JOHN KAY (Sept. 15, 2009), http://www.johnkay.com/2009/09/15/narrow-banking.
304. BRUNNERMEIER ET AL., *supra* note 303 (internal quotation marks omitted).
305. *Id.* (internal quotation marks omitted).
306. *Id.* "But the idea that the official safety net should have been restricted to POSB and TSB was never seriously entertained. Nor could it have been." *Id.*
307. *See generally* LAURENCE J. KOTLIKOFF, JIMMY STEWART IS DEAD: ENDING THE

But nowadays, globally, "compared to other sectors of the economy a much more elaborate system of regulatory interventions has been set in the financial sector."[308] "Elementary economics teaches us that smooth consumption paths yield higher welfare than volatile ones. . . . [F]or households to keep purchases smooth from month to month they need savings or access to loans . . . ."[309] "The right reason to save is so you can even out your consumption."[310] "Credit [can] dampen the swings of short-term fortunes . . . ."[311] Unfortunately, it cannot do so long term.[312] "[F]inancial markets should provide consumption insurance, allowing individuals to borrow and lend."[313] The financial markets, at a price, deliver "capital to do things today that [one] could not otherwise afford."[314] "And [those financial firms], whose chief economic function is to provide capital to households and nonfinancial businesses, are themselves highly dependent on competitive securities markets to raise their own capital."[315] Finance lies at the "heart of the market system."[316]

WORLD'S ONGOING FINANCIAL PLAGUE WITH LIMITED PURPOSE BANKING (2010).

308. Dirk Heremans, *Regulation of Banking and Financial Markets*, *in* 3 ENCYCLOPEDIA OF LAW AND ECONOMICS 950, 951 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000). Thomas C. Schelling deems the combination of law and economy to be inseparable from a smoothly functioning free market:

> There are a lot of requirements for making the free market work well, or even work at all. In addition to physical protection and contract enforcement, there has to be a lot of shopping around so that people know what trades are available, or enough information so that without shopping around people know what to expect when they buy or sell. Behind a typical free market [are] centuries of patient development of property rights and other legal arrangements, and an extraordinary standardization of goods and services and the terminology for describing them. Think of all the things you can actually purchase by telephone, confident that you will get what you asked for or be able to tell the difference at a glance. A lot of legal and institutional arrangements are designed to protect the rights of people who might, though affected by a transaction, be left out of it.

SCHELLING, *supra* note 180, at 29.

309. Stephen Cecchetti, *We Need to Sustain the 'Great Moderation,'* FIN. TIMES (London), June 23, 2008, at 11.

310. Steven Levitt, *The Smartest Advice I Ever Got: Don't Save Too Much*, CNN (July 22, 2008, 11:27 AM), http://money.cnn.com/galleries/2008/pf/0807/gallery.smartest_advice.moneymag/24.html.

311. LOUIS HYMAN, DEBTOR NATION 4 (2011).

312. *Id.*

313. Cecchetti, *supra* note 309.

314. CHARLES WHEELAN, NAKED ECONOMICS: UNDRESSING THE DISMAL SCIENCE 120 (2002).

315. Benjamin M. Friedman, *Two Roads to Our Financial Catastrophe*, N.Y. REV., Apr. 29, 2010, at 27, 27.

B. America Becomes a "Debtor Nation"

Personal lending has existed from time immemorial.[317] However, "personal debt had never been able to be a normal business" because of legal curbs on personal interest rates and lack of lender opportunities to resell their customers' indebtedness (or borrow against it).[318] This changed after the close of World War I.[319] Modern consumer credit "did not precede the mass economy production" of the Roaring Twenties.[320] Usury laws[321] "were relaxed around the country, as progressive reformers attempted to create a profitable alternative to loan sharks for industrial workers."[322]

316. Martin Wolf, *'Back to the Future' Imperils Britain*, FIN. TIMES (London), Mar. 26, 2010, at 11. Financial markets can be good servants: "It goes without saying that we need mechanisms for channelling surplus savings into physical investment, for a second-hand market in titles to ownership, for shifting personal spending over time, for saving for old age, and much else." Samuel Brittan, *Good Servants Can Make Bad Masters*, FIN. TIMES (London), June 10, 2011, at 9.

317. HYMAN, *supra* note 311, at 1.

318. *Id.*

319. *Id.* at 1–2. Of course, finance had been funding technological innovation in America over many decades. *See generally* FINANCING INNOVATION IN THE UNITED STATES, 1870 TO THE PRESENT (Naomi R. Lamoreaux & Kenneth L. Sokoloff eds., 2007).

320. HYMAN, *supra* note 311, at 3.

In fact, Rutgers University historian James Livingston argues that between "roughly 1840 to 1920, increasing private investment in new plant and equipment made capital formation the engine of rapid growth. . . . Since 1919, however, growth has happened under capitalism *because* more and more of the national income has gone toward consumption . . . ." JAMES LIVINGSTON, AGAINST THRIFT: WHY CONSUMER CULTURE IS GOOD FOR THE ECONOMY, THE ENVIRONMENT, AND YOUR SOUL 42 (2011) (emphasis added).

321. Regarding usury law:

> Nowadays, the label "usury law" alludes to the complicated legal hodgepodge whereby states regulate the rate of interest. In general, a state denominates a legal interest rate as its default rule; a variety of higher civil interest rate ceilings; and its yet headier criminal interest rate ceiling. Often, ceilings are declared in different enactments such as "Installment Credit Acts" and "Small Loan Acts," which are coordinated badly. Civil ceilings diverge in correspondence with loan duration; loan size; nature of a transaction (pledges, money loans, retail installment loans); the amount of security; the nature of a borrower (persons, corporations); and the nature of a lender (persons, pawnshops, banks, credit unions).

George Steven Swan, *The Economics of Usury and the Litigation Funding Industry:* Rancman v. Interim Settlement Funding Corp., 28 OKLA. CITY U. L. REV. 753, 769 (2003) (footnotes omitted).

322. HYMAN, *supra* note 311, at 3.

> Laws and regulations, such as those on installment contracts and mortgage loans, created standards for how debt was lent, allowing investors to evaluate the worth of the loans. With known values, debts could be sold like commodities or borrowed against assets. . . . Resale allowed lenders to extend far more money than they themselves possessed by tapping into mainstream sources of capital.[323]

The federal government evoked a secondary mortgage market as Fannie Mae purchased local lenders' mortgages to resell to investors.[324]

At the close of World War II, consumer debt remained less profitable than manufacturing or retailing.[325] "[E]arlier twentieth-century lending depended on the resale of debt, that resale was always between two parties that knew each other—mortgage company and insurance company or finance company and commercial bank. . . . [The] asset-backed securities . . . allowed these networks to become markets. Credit markets were deep, anonymous, and global."[326] So by the 1970s, America's corporations and banks "slowly reoriented . . . away from producing and distributing goods to financing them."[327] The United States has become history's "first example of an economy based upon debt that can be resold at a profit."[328]

C. Trust and Finance

The increasingly fine-tuned global division of labor since the dawn of the Industrial Revolution depends on a "delicate . . . web of trust."[329] Institutions facilitate social trust, which is indispensible to the division of labor.[330] "Finance is a special case, in being dependent *only* on trust."[331]

323. *Id.* at 2.
324. *Id.* at 2, 227.
325. *Id.* at 6.
326. *Id.* at 4.
327. *Id.* at 6. In the United States, the turn to finance in the national economy (since about the opening of the final quarter of the past century) was itself influenced by government actions. *See* GRETA R. KRIPPNER, CAPITALIZING ON CRISIS: THE POLITICAL ORIGINS OF THE RISE OF FINANCE (2011).
328. HYMAN, *supra* note 311, at 8.
329. DIANE COYLE, THE ECONOMICS OF ENOUGH: HOW TO RUN THE ECONOMY AS IF THE FUTURE MATTERS 148, 149 (2011).
330. PAUL SEABRIGHT, THE COMPANY OF STRANGERS: A NATURAL HISTORY OF ECONOMIC LIFE 247–49 (2004).
331. COYLE, *supra* note 329, at 149.

History records eight centuries or more of financial follies.[332] The theory of money and financial institutions attends to, primarily, trust-economizing (plus information processing and data evaluation in economic life). Trustless trade, anonymous and in mass, proves viable in the real sector while requiring scant informational processing and evaluating.

It is imperative that financial institutions determine the integrity of those with whom they trade.[333]

> The economizing of trust is usually set in the context of price-guided economies with an economically powerful government sector. Taken as given is a level of acceptance of "rules of the game" that are made manifest in laws such as those governing property, contracts, bankruptcy, inheritance, taxes, and commerce.[334]

Regulatory capitalism is comprehensible.[335]

"In its early stages in late medieval and early modern times, the trust was personal, between members of the same social or religious group who knew each other personally."[336] One twentieth-century study (prior to the 2012 level of more nearly fully electronic marketing[337]) examined three Manhattan market maker subcultures (traders in stocks, bonds, and futures respectively).[338] Economists assume traders are rational profit

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332. *See* CARMEN M. REINHART & KENNETH S. ROGOFF, THIS TIME IS DIFFERENT: EIGHT CENTURIES OF FINANCIAL FOLLY (2009).

333. *See* 2 MARTIN SHUBIK, THE THEORY OF MONEY AND FINANCIAL INSTITUTIONS 313–14 (1999).

334. 1 MARTIN SHUBIK, THE THEORY OF MONEY AND FINANCIAL INSTITUTIONS 3 (1999).

335. *See* JOHN BRAITHWAITE, REGULATORY CAPITALISM: HOW IT WORKS, IDEAS FOR MAKING IT BETTER (2008); *cf.* 3 MARTIN SHUBIK, THE THEORY OF MONETARY AND FINANCIAL INSTITUTIONS 135 (2011) (assessing the roles of financial institutions as to link unvarying financial functions with the mutable institutions thereof).

336. COYLE, *supra* note 329, at 147.

337. *See, e.g.*, AJIT KAMBIL & ERIC VAN HECK, MAKING MARKETS: HOW FIRMS CAN DESIGN AND PROFIT FROM ONLINE AUCTIONS AND EXCHANGES (2002).

338. MITCHEL Y. ABOLAFIA, MAKING MARKETS: OPPORTUNISM AND RESTRAINT ON WALL STREET 7–8 (1996). Legal professionals also play a role in financial stability, helping stabilize a market "commons." RILES, *supra* note 182, at 244.

> [A]spects of market practice that deploy legal expertise—have proven to have a vitality and a solidity that deserve greater attention, even when there is very little actual threat of sanction, public or private, to back up particular norms and practices. . . . [Legal] experts . . . stick with them even when the rational actor model tells us they should not. This was the case with collateral calls in the

maximizers.[339] A highly institutionalized environment of norms was revealed to which the trading community habituated.[340] Recurring transactions between parties established norms and trustworthy reputations.[341] For example, in a futures market, reputation is valuable social capital.[342] Meanwhile, opportunism is deceptively selective or a distorted transactional information disclosure.[343] Recognition of opportunism is influenced by informal norms.[344] Group pressure enforces informal norms.[345] The 2007–2009 financial crisis taught how the functioning of financial markets had obscured the interpersonal relationships, which financial contracts supposedly incarnate. This erosion of transparency, and the consequent retreat of trust, was a grave matter.[346]

D. The Vulnerable Public in the Financial Sector

Stiglitz offers that "the management of [a] firm can be viewed as a public good, in the sense that all shareholders benefit if the firm is well managed. . . . [T]here is a risk of underprovision of oversight of this public good."[347] The agency problem is especially relevant to the financial sector.[348] "One of the major reasons for market failures that

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> recent financial crisis when, rather than abandon their legal obligations, institutions (that is, the people within those institutions) stuck with those legal obligations to the bitter end (even as they disputed valuation and other financial aspects of these same deals).

Id. at 237.

339. *See* ABOLAFIA, *supra* note 338, at 173.
340. *Id.* at 174.
341. *See id.* at 41.
342. *See id.* at 19.
343. *See id.* at 181.
344. *Id.* at 187.
345. *Id.*
346. *Id.* at 149.
347. JOSEPH E. STIGLITZ, FREEFALL: AMERICA, FREE MARKETS, AND THE SINKING OF THE WORLD ECONOMY 341 n.25 (2010). Stiglitz perceives that the system is less stable than it was prior to the explosion of the 2008 financial-system crisis:

> They are worse in two ways. First, we have a more concentrated banking system, especially here in the United States. And, second, the problem of moral hazard is at a heightened level. The banks know that when push comes to shove, any bank that is very big will be rescued.

Andersen, *supra* note 60, at 51.

348. STIGLITZ, *supra* note 347, at 12.

economists are generally aware of is known as agency risk."[349] This agency challenge is a modern challenge. "There is a separation of ownership and control in which management . . . may run the corporation largely for its own benefit."[350] The agency problem in corporate governance feeds not solely upon an "extreme dispersion of the shareholder base" but also on the "advent of high-frequency trading."[351] "The financial incentives that motivate the executives who run the firms (the agents) differ from the interests of the longer-term investors, the shareholders (the principals)."[352]

Stiglitz insists: "People who run investment vehicles have a fiduciary responsibility to the people who place money with them."[353] At least as early as the 1870s, English and French investment manuals "stressed cognitive abilities as intrinsic to the rationality of financial behavior: analysis of balance sheets, reading of stock price diagrams, examination and evaluation of news."[354] "Investor behavior was reduced to decisions according to certain, given situations; decisions were reduced to calculations."[355] "Since decisions depended on information, and since information determined prices too, . . . there is a constant preoccupation . . . with identifying the communicational factors which should determine financial behavior."[356] "[T]he new mode of

349. Jeff Madrick, *Can They Stop the Great Recession?*, N.Y. REV., Apr. 8, 2010, at 54, 56.

350. STIGLITZ, *supra* note 347, at 13.

351. Tony Jackson, *West Must Harness Ingenuity to Bridge Governance Gap*, FIN. TIMES (London), Apr. 26, 2010, at 18. A corporate CFO told Securities and Exchange Commission Chairman Mary Schapiro:

> As a CFO, one of the challenges I find is that when I try to engage our shareholders in discussions around governance and proxy issues, they're often not interested. They're under tremendous pressure to perform financially, and they say, "I need to understand your company and your business so I can make a decision whether to buy or sell your stock." That's their focus.

Rules. And More Rules, WALL ST. J., June 27, 2011, at C9.

352. Madrick, *supra* note 349, at 56.

353. STIGLITZ, *supra* note 347, at 94.

354. ALEX PREDA, FRAMING FINANCE: THE BOUNDARIES OF MARKETS AND MODERN CAPITALISM 93 (2009).

355. *Id.*

356. *Id.* at 94.

> The term *information* is properly and appropriately used in the sense given by mathematical statistics or communication theory: an observation on one random variable . . . relevant to decision making. It is clear and reasonable that different individuals have access to different information; they have varying life experiences and varying opportunities to make observations.

understanding market actors had to define brokers as mere dealers in merchandise . . . ."[357] "[B]rokers and traders . . . . were nothing more than calculative agents . . . ."[358] "This redefinition of the actors present on the floor was accompanied toward the turn of the century by the legal reconceptualization of the relationship between clients and brokers as that between principals and agents in a fiduciary position."[359]

"Special protection has to be provided to the consumer due to the fiduciary nature of most financial products and services."[360] "Financial markets in particular are seen as imperfect."[361] They are characterized by both the aforementioned agency problems and asymmetrical information.[362] Indeed, the central motive traditionally underlying regulatory intervention (especially retail markets) lays in the impulse to shield consumers from information-related failures.[363] "[A]symmetric information problems [in financial market operations] create risks of fraud, negligence, incompetence, and so on."[364]

Kenneth J. Arrow, *Economic Theory and the Financial Crisis*, *in* THE IRRATIONAL ECONOMIST, *supra* note 51, at 183, 187–88. A philosophy of information remains in development. Stevan Harnad, *Lunch Uncertain*, TIMES LITERARY SUPPLEMENT, Oct. 21, 2011, at 22, 22 (reviewing LUCIANO FLORIDI, THE PHILOSOPHY OF INFORMATION (2011)).

357. PREDA, *supra* note 354, at 94.

358. *Id.*

359. *Id.* (citing WALTER S. SCHWABE & G.A.H. BRANSON, A TREATISE ON THE LAWS OF THE STOCK EXCHANGE 102 (London, Stevens & Sons 1905)).

360. Heremans, *supra* note 308, at 951. *See, e.g.*, NEW DIRECTIONS IN FINANCIAL SERVICES REGULATION (Roger B. Porter et al. eds., 2011).

361. Heremans, *supra* note 308, at 952. "The fastest-growing section in the American Bar Association . . . is fiduciary liability: people suing investment advisers and money managers." Mike Clowes, *How Advisers Can Head Off Litigation*, INVESTMENT NEWS, May 27, 2002, at 2.

362. Heremans, *supra* note 308, at 951.

363. *Id.* at 956.

364. *Id.* at 955.

America gropes in the direction of an investors' democracy. *See* JULIA C. OTT, WHEN WALL STREET MET MAIN STREET: THE QUEST FOR AN INVESTORS' DEMOCRACY (2011). Yet thus far financial education has not demonstrably fostered a financial literacy engendering healthier financial results. Lauren E. Willis, *The Financial Education Fallacy*, 101 AM. ECON. REV.: PAPERS & PROC. 429, 429 (2011). Firms endorse futile consumer financial education to fend off its feared alternative: regulation inconveniencing those firms. *Id.* at 433.

At least it is absurd to suppose that small savers can protect themselves by perusing fine print. John Kay, *Bonds Designed to Leave Savers Bemused*, FIN. TIMES (London), Nov. 17, 2010, at 11. Worse, consumers burned by sharpies could despair of the capitalistic enterprise altogether. John Kay, *The $10 Minibar Beer Is No Basis for Capitalism*, FIN. TIMES (London), July 6, 2011, at 9.

Nationally respected scholars of financial planning, such as Danielle D. Winchester, Likewise, "market participants' ever-imperfect knowledge leads them to hold diverse forecasts of prices and risk."[365] "[N]o single individual or institution can render a definitive judgment on the riskiness of securities."[366] "[A]n effective regulatory regime should require that rating agencies and issuers of securities help, rather than hinder, asset markets in the performance of this function."[367] "Contemporary macroeconomic and finance theory . . . has been of little relevance in guiding the debate about whether and to what extent the state should play a more active role in asset markets."[368]

Multitudes of savers in financial markets sense scant incentive to dedicate their own resources to screen and monitor their investors.[369] By contrast, financial intermediaries do feel an incentive to invest in information and to serve as delegated monitors for those numerous individuals who deposit funds with such an intermediary, if these intermediaries can extract enhanced profits via such information production.[370] So, financial intermediaries do alleviate information challenges, yet those financial intermediaries' own operations in turn evoke similar informational and monitoring problems[371]—hence, governmental supervision of financial institutions.[372]

find that investors utilizing a financial advisor are more likely to persevere in long-term investing decisions. Danielle D. Winchester et al., *Investor Prudence and the Role of Financial Advice*, J. FIN. PLAN. SERVICE PROFS., July 2011, at 43, 43. However, middle-income consumers are still just learning where to turn. Mary Beth Franklin, *Financial Advice for the Rest of Us*, KIPLINGER'S PERS. FIN., Aug. 2011, at 43, 43.

365. ROMAN FRYDMAN & MICHAEL D. GOLDBERG, BEYOND MECHANICAL MARKETS: ASSET PRICE SWINGS, RISK, AND THE ROLE OF THE STATE 235 (2011).

366. *Id.* at 248.

367. *Id.*

368. *Id.* at 218. For years preceding 2007, Wall Street failed to efficiently allocate capital to its highest use. JEFF MADRICK, AGE OF GREED: THE TRIUMPH OF FINANCE AND THE DECLINE OF AMERICA, 1970 TO THE PRESENT 398–402 (2011).

369. Heremans, *supra* note 308, at 951.

370. *Id.* An actual information industry markets information to decision makers. *See* MIKLOS SARVARY, GURUS AND ORACLES: THE MARKETING OF INFORMATION (2012). Entire firms and whole industries can be fancied as information-processing machinery. *See* JAMES W. CORTADA, INFORMATION AND THE MODERN CORPORATION (2011).

371. Heremans, *supra* note 308, at 951. The asymmetric information model informs banking theory; the microeconomic theory of banking advances to present the theoretical bases of banking regulation. XAVIER FREIXAS & JEAN-CHARLES ROCHET, MICROECONOMICS OF BANKING (2d ed. 2008).

372. FRYDMAN & GOLDBERG, *supra* note 365, at 218. In the wake of the global financial crisis, a reappraisal of regulatory lacunae and reform of the U.S. financial markets was advocated. *See* RANDALL S. KROSZNER & ROBERT J. SHILLER, REFORMING U.S. FINANCIAL MARKETS: REFLECTIONS BEFORE AND BEYOND DODD-FRANK (Benjamin

E. The Public Vulnerable to Its Governmental "Protector"

"The most commonly asserted objective of securities regulation is the protection of investors."[373] Governments promote growth by protecting investors via corporate and securities enactments.[374] "A more sophisticated variant of the theme of investor protection is that the purpose of the regulation is to protect investors in order to help issuers and securities [salesmen] sell securities to the public."[375] Recall the sometimes-venomous (to consumers) governmental business axis in financial regulation. Prospective buyers can "deal with established firms with good reputations for honesty, diversify their portfolios, and insist upon and examine carefully information about the investment."[376] (Remember that notion of trust as social capital.[377]) In the United States, there obtained even prior to the 2007–2009 financial crisis a half-dozen main statutes, which the Securities and Exchange Commission already oversaw.[378] These include the Securities Act of 1933,[379] the Securities Exchange Act of 1934,[380] the Public Utility Holding Company Act of 1935,[381] the Trust Indenture Act of 1939,[382] the Investment Company Act

M. Friedman ed., 2011).

373. Edmund W. Kitch, *Regulation of the Securities Market*, *in* 3 ENCYCLOPEDIA OF LAW AND ECONOMICS, *supra* note 308, at 813, 822.

374. *See, e.g.*, CURTIS J. MILHAUPT & KATHARINA PISTOR, LAW AND CAPITALISM: WHAT CORPORATE CRISES REVEAL ABOUT LEGAL SYSTEMS AND ECONOMIC DEVELOPMENT AROUND THE WORLD (2008). For that matter, in 2011 a trio of the planet's top economic policy-making slots (International Monetary Fund's managing director, World Bank president, and chief economic advisor to President Obama) were occupied by attorneys (Christine Lagarde, Robert Zoellick, and Gene Sperling). Alan Beattie, *Take a Deep Breath, Economists, It's Time for the Lawyers*, FIN. TIMES (London), June 18–19, 2011, at 7. An attorney was the finance minister in Italy, Germany, and Greece. *Id.* French President Nicolas Sarkozy was the first lawyer–practitioner to snatch that post in modern times, and China looked to be appointing its first premier to boast a law degree. *Id.*

375. Kitch, *supra* note 373, at 822.

376. *Id.*

377. RIDLEY, *supra* note 192, at 250.

378. *Securities and Exchange Commission*, *in* 2 GALE ENCYCLOPEDIA OF U.S. ECONOMIC HISTORY 907, 907 (Thomas Carson ed., 1999).

379. Securities Act of 1933, ch. 38, 48 Stat. 74 (codified as amended at 15 U.S.C. §§ 77a–77aa (2006)).

380. Securities Exchange Act of 1934, ch. 404, 48 Stat. 881 (codified as amended at 15 U.S.C. §§ 78a–78m (2006)).

381. Public Utility Holding Company Act of 1935, Pub. L. No. 74-333, 49 Stat. 803 (repealed 2005).

382. Trust Indenture Act of 1939, Pub. L. No. 76-253, 53 Stat. 1149 (codified as amended at 15 U.S.C. §§ 77aaa–77bbbb (2006)).

of 1940,[383] and the Investment Advisers Act of 1940.[384]

Simultaneously, a governmental business axis is "especially pernicious in finance."[385] "Governments see themselves as partners of their industries in world competition."[386] ("The lobbying power of the [U.S.] banks is phenomenal."[387] Bankers' lobbying capabilities are "legendary."[388]) Consequently, "regulators seek not a playing field but one tilted to their own groups' advantage. This is not a hidden bias. It is proudly advertised. A government that did less than stand up for its own companies would be seen as failing in its duty."[389] In 2011, the world watched a neck-and-neck race between London and New York for preeminence in global finance. The victor, determined by the variables of regulation, taxation, and handling of institutions felt too big to be permitted to expire.[390]

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383. Investment Company Act of 1940, Pub. L. No. 76-768, 54 Stat. 789 (codified as amended at 15 U.S.C. §§ 80a-1–80a-64 (2006)).

384. Investment Advisers Act of 1940, ch. 686, 54 Stat. 847 (codified as amended at 15 U.S.C. §§ 80b-1–80b-21 (2006)).

385. Clive Crook, *Designs That Ignore a Wider Terrain*, FIN. TIMES (London), Mar. 22, 2010, at 11.

386. *Id.*

387. John Plender, *Rules Will Decide the New York vs London Battle*, FIN. TIMES (London), Apr. 7, 2010, at 20.

388. John Kay, *How Our Leaders Get to Grips with a Scare Story*, FIN. TIMES (London), Apr. 21, 2010, at 13. Bluntly, the tie accommodating financial legislation to financial-industry lobbying is tight. *See, e.g.*, Deniz Igan & Prachi Mishra, *Making Friends*, FIN. & DEV., June 2011, at 27.

389. Crook, *supra* note 385. Nobel Laureate Joseph Stiglitz confirms that: "The best way of doing the regulation is global. Because, in the absence of global rules, there is going to be regulatory arbitrage." Andersen, *supra* note 60, at 51. This assertion proves problematic. While dynamic agents of economic expansion, for example, regulated exchanges, have both fostered and influenced growth, *see* REGULATED EXCHANGES: DYNAMIC AGENTS OF ECONOMIC GROWTH (Larry Harris ed., 2010), governing the financial infrastructure, such as stock exchanges or securities depositories, is a contested area. *See* RUBEN LEE, RUNNING THE WORLD'S MARKETS: THE GOVERNANCE OF FINANCIAL INFRASTRUCTURE (2011). The advanced industrial nations' domestic political constituencies substantially drive the policies of international organizations, such as the World Bank and International Monetary Fund. KATHRYN C. LAVELLE, LEGISLATING INTERNATIONAL ORGANIZATION: THE U.S. CONGRESS, THE IMF, AND THE WORLD BANK (2011). Anyway, World Bank economist Branko Milanovic confirms that the institutions of global governance remain incipient only. BRANKO MILANOVIC, THE HAVES AND THE HAVE-NOTS: A BRIEF AND IDIOSYNCRATIC HISTORY OF GLOBAL INEQUALITY 149 (2011).

390. Plender, *supra* note 387. The dominant issue confronting global banking is one of banks "too big to fail." Tony Jackson, *'Too Big to Fail' Debate Makes Move in Right Direction*, FIN. TIMES (London), Apr. 12, 2010, at 18. "If lending to big banks, in effect, means lending to the state, it is riskless." *Id.* Smithers & Co. Chairman Andrew Smithers explained that "the implicit taxpayers' guarantee constitutes a subsidy. . . . But

Given a footloose finance industry, such striving for a regulatory edge undercuts foreign countries' rules.[391] ("Regulatory arbitrage" is the "unedifying practice" of a firm "configuring its structure in a particular way . . . [to] bring itself under the jurisdiction of an agency . . . offer[ing] a softer regulatory touch."[392]) In the United States, "rules have turned going public into a bureaucratic and expansive proposition."[393] At the turn of the century, the New York Stock Exchange "launched half the world's new public companies."[394] In 2010, it was twenty percent.[395] Understandably, London Stock Exchange brokers displayed photographs

this subsidy does not derive from any assumption made by Goldman Sachs, but from the assumptions made by its lenders." Andrew Smithers, Letter to the Editor, *Rent-Gouging Activities, Subsidised by Taxpayers*, FIN. TIMES (London), Apr. 15, 2010, at 8.

To be sure, in the millennium of crony capitalism instead of laissez faire, not every piggy is summoned to swill at the public (taxpayer) trough:

> Former Washington Mutual Inc. Chief Executive Kerry Killinger scoffed at lawmakers who blamed him for the largest bank failure in U.S. history, accusing regulators of helping only financial institutions deemed "too clubby to fail."
>
> The 60-year-old Mr. Killinger's defiant, two-hour testimony at Tuesday's hearing by the Senate Permanent Subcommittee on Investigations was marked by confrontations with lawmakers who claimed he repeatedly ignored warnings that the overinflated real-estate bubble was about to burst. But the former CEO held his ground, insisting the Seattle thrift's seizure in September 2008 could have been avoided if regulators had offered the same help given to other battered banks, including capital infusions.
>
> "For those that were part of the inner circle and were 'too clubby to fail,' the benefits were obvious," Mr. Killinger said. "For those outside the club, the penalty was severe." A spokesman at the Office of Thrift Supervision, the federal agency that seized Washington Mutual, declined to comment on Mr. Killinger's testimony.

John D. McKinnon & Dan Fitzpatrick, *Ex-WaMu Chief Blames the 'Club,'* WALL ST. J., Apr. 14, 2010, at C1.

391. Plender, *supra* note 387. "[I]n the late 1990s, Congress completed the SEC's monopolization of securities regulation." ROBERTA ROMANO, THE ADVANTAGE OF COMPETITIVE FEDERALISM FOR SECURITIES REGULATION 3 (2002). Yet preemption is criticized by advocates of the competitive federalism securities regulation approach: "Under such an approach, corporations would be able to select their securities regime from among those offered by states, the SEC, and even other nations, with the result that securities regulators would compete for firms' registrations." *Id.*

392. POSNER, *supra* note 27, at 340. Too, "often, powerful global industry associations promote law reform projects central to their interests in multiple jurisdictions around the world." RILES, *supra* note 182, at 2.

393. L. Gordon Crovitz, *Exporting Wall Street*, WALL ST. J., Feb. 28, 2011, at A17.

394. *Id.*

395. *Id.*

of Paul Sarbanes and Michael Oxley[396]—the namesakes of the Sarbanes-Oxley Act of 2002.[397] That statute "encourages companies to go public outside the U.S."[398] That said, is it not wholly comprehensible why the finance sector should be far more heavily regulated than other (less manifestly petted)[399] sectors of a given economy?[400]

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396. *Id.*

397. Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (2002) (codified in scattered sections of 5, 11, 12, 15, 18, 28, 29, and 49 U.S.C.).

398. Crovitz, *supra* note 393.

399. That an industry is long regulated signals that it enjoys preferential treatment, whatever scorching rhetoric surrounded its regulation originally. Notwithstanding the crosses carried by their sector of the economy in 2011, banks and financial services firms recruited newly minted MBAs with a vengeance. Della Bradshaw, *Doors Open Again for MBAs*, FIN. TIMES (London), June 27, 2011, at 9. At Harvard Business School, seven percent of the 2011 graduating class went into hedge funds. *Id.*

Indeed, in 2010, 150 escrow firms, operating under § 1031 of the Internal Revenue Code, and organized in the Federation of Exchange Accommodators, pressed for federal regulation. Robert Schmidt, *One Exec's Plea to Congress: Regulate Me*, BLOOMBERG BUSINESSWEEK, June 7–13, 2010, at 31.

> A small provision buried in both the House and Senate versions of financial-reform legislation is being hailed by some as a modest but important step for the financial planning industry.
>
> That provision calls for the Government Accountability Office, the investigative arm of Congress, to conduct a study on the oversight of financial planning. Although many planning advocates are pushing for regulation of their profession, the call for a study – and recognition on Capitol Hill that would go with it – is viewed by many as a step in the right direction.
>
> "The financial planning study being in the bill was a victory of sorts," said Dan Barry, director of government relations for the Financial Planning Association.

Mark Schoeff Jr., *Planners Claim Small Victory in Financial-Reform Legislation*, INVESTMENTNEWS, May 31, 2010, at 6. Long-regulated industries house break and train their lawmaking supposed masters. The headline says it all in reporting the evolution of a financial-reform package introduced in March 2010 by the U.S. Senate Banking Committee chairman. Dan Jamieson, *Wall Street Wins Big as Dodd Drops Fiduciary Provision*, INVESTMENTNEWS, Mar. 22–26, 2010, at 1. "Chalk it up as a win for the securities and insurance industries." *Id.*

400. That heavy regulation tends to coddle the regulated industry. Notably in finance, it is comprehensible given the practical impossibility for the public to elicit informed appraisals of financial regulators. *See* JAMES R. BARTH ET AL., GUARDIANS OF FINANCE: MAKING REGULATORS WORK FOR US (2012). Law and economics analyzes not merely regulation but the business response thereto. *See* EXPLAINING COMPLIANCE: BUSINESS RESPONSES TO REGULATION (Christine Parker & Vibeke Lehmann Nielsen eds., 2011).

VI. *WOMACK V. ORCHIDS PAPER PRODUCTS CO. 401(k) SAVINGS PLAN*

A. The Womack *Controversy*

In the *Womack* opinion, the district court decided plaintiff Womack's motion for partial summary judgment on the issue of liability, as well as the defendants' motion for summary judgment.[401] Defendants Robert Snyder and Keith Schroeder were respectively the president and chief executive officer and the chief financial officer of defendant Orchids Paper Products Company.[402] Also a defendant was the Orchids Paper Products Company 401(k) Savings Plan.[403]

Carolyn L. Womack had started employment with Orchids in 1978 and was terminated at the age of seventy during April 2008.[404] During that interval, she had participated in the Plan and contributed to her individual 401(k) account a quarter of her pre-tax compensation.[405] Womack "served as a contract consultant after her termination and trained her replacement for four months. . . . [She] could not contribute compensation to her account while she was employed as a contract consultant."[406]

During this consultancy, "Orchids transferred management of the Plan's investments . . . to Fidelity Management Trust Company," the plan's trustee-designee.[407] At an April 2008 informational meeting for Orchid's employees attended by the plaintiff, "a Fidelity representative explained the investment options available under the Plan" (including the Fidelity Advisor Stable Value Portfolio II) and explained that participants failing to "select a specific investment fund would have their existing funds rolled into a Fidelity Advisor Freedom Fund."[408] Womack filled out Fidelity's designation of beneficiary (DOB) form, delivering instructions concerning distribution of her retirement money and naming her beneficiaries.[409] Two times she wrote "see attached" under this

401. Womack v. Orchids Paper Prods. Co. 401(k) Sav. Plan, 769 F. Supp. 2d 1322, 1324 (N.D. Okla. 2011).
402. *Id.*
403. *Id.*
404. *Id.* at 1325.
405. *Id.*
406. *Id.*
407. *Id.*
408. *Id.*
409. *Id.*

form's primary and contingent beneficiary sections.[410] This referred to an attached one-page spreadsheet she created.[411] She also completed a Fidelity enrollment form, electing therein to allot to the Stable Fund the entirety of her individual plan account money.[412] "Plan participants were instructed that they could submit their enrollment forms either to Orchids or Fidelity"[413] (as did twenty among the approximately 150 participants[414]). The plaintiff, "on or after April 28, 2008, . . . delivered a five-page set of documents, which included her DOB Form and Enrollment Form, to Margie King . . . Orchids' Accounts Receivable and Credit Manager."[415] King was selected by Orchids to collect these forms.[416]

Womack's "documents were paper-clipped together, with [her] DOB Form on top, followed by . . . [the] spreadsheet."[417] Reviewing the DOB Form, King saw the "see attached" notation, flipped to the spreadsheet, and assumed the package wholly related to beneficiary designation instructions.[418]

King had been assigned by Schroeder, Snyder, or both to duties including the collection of DOB forms and the confirmation of their proper completion, plus transmission of completed enrollment forms to Fidelity.[419] (The former "were maintained in individual Plan participants' files by Orchids."[420]) King lacked any special training.[421] She assigned to a subordinate the filing of completed DOB forms.[422] King "placed [Womack's] DOB Form and attached documents in a stack to be filed" in accordance with standard procedures.[423] A clerk filed all of the paperwork in Womack's individual participant file.[424] "Had King seen [the] Enrollment Form, she would have transmitted it to Fidelity, as

410. *Id.*
411. *Id.*
412. *Id.*
413. *Id.*
414. *Id.* at 1326.
415. *Id.* at 1325.
416. *Id.*
417. *Id.*
418. *Id.* at 1326.
419. *Id.*
420. *Id.*
421. *Id.*
422. *Id.*
423. *Id.*
424. *Id.*

she did other enrollment forms."[425]

This oversight could scarcely have proved more ill-timed, for it immediately preceded the 2008 market meltdown.[426] Fidelity, lacking Womack's enrollment form, allocated the money in her individual plan account to its default fund.[427] In late November 2008, Womack initially accessed her retirement account to find her savings in the default fund instead of the Stable Fund.[428] They had been depleted by roughly $100,000.[429] "In December 2008, [Womack] directed Fidelity to reinvest the funds in her personal account into the Stable Fund. . . . [She] sent letters to Orchids requesting that it refund certain amounts to her individual Plan account. Orchids denied all such requests."[430] Plaintiff's solitary cause of action alleged that all four defendants had breached fiduciary duties under ERISA.[431]

B. ERISA Fiduciary Duty

1. Defendant Plan

ERISA provides in relevant part:

> Any person who is a fiduciary with respect to a plan who breaches any of the responsibilities, obligations, or duties imposed upon fiduciaries by this subchapter *shall be personally liable to make good to such plan any losses to the plan resulting from each such breach*, and to restore to such plan any profits of such fiduciary which have been made through use of assets of the plan by the fiduciary, and shall be subject to such other equitable or remedial relief as the court may deem appropriate,

425. *Id.*
426. Blaine F. Aikin, *Not Delivering on Your Promises Is Costly*, INVESTMENTNEWS, Mar. 7, 2011, at 21.
427. *Womack*, 769 F. Supp. 2d at 1326.
428. *Id.*
429. *Id.*
430. *Id.*
431. *Id.* "For those . . . practicing under fiduciary standards . . . the challenge does not lie in understanding and adhering to the fiduciary standards themselves but rather in creating an efficient fiduciary process within your practice." Janelle McMurdie-Kahler, *Fiduciary Standards: The Proof Is in the Process*, PRAC. MGMT. SOLUTIONS, Sept.–Oct. 2011, at 22, 22.

including removal of such fiduciary.[432]

Civil actions thereunder may be brought by participants, beneficiaries, or fiduciaries.[433] The 2008 Supreme Court opinion in *LaRue v. DeWolff, Boberg & Associates, Inc.* clarified that in the defined-contribution-plan context (as in *Womack*), ERISA authorizes recovery sought by individual participants for fiduciary duty breaches impairing the value of their individual account's plan assets.[434] Nevertheless, the *Womack* Plan could not be "liable for breach of fiduciary duties . . . because the Plan [could not] be a fiduciary of itself."[435] Not holding a fiduciary status, the Plan was held to be entitled to summary judgment as a matter of law.[436]

2. Defendant Orchids

"Orchids is the named fiduciary in the Plan."[437] ERISA does not restrict fiduciary status to individuals[438] and explicitly allows employee benefit plans to denominate a corporate fiduciary.[439] Orchids is also the Plan administrator. Such administrators are generally considered fiduciaries (premised upon discretionary administrative responsibilities or upon exercising discretionary authority).[440] "Based on Orchids' status as a named fiduciary and Plan administrator, Orchids generally holds fiduciary status with respect to the Plan."[441]

Orchids, through King, functioned as a fiduciary, as plainly taught by *obiter dictum* in *LaRue*.[442] Orchids exercised authority over proper investment of fund assets;[443] it failed to evade the *LaRue* net by styling its shortcoming as simple failure to forward a document to Fidelity.[444] And Orchids then wore its plan administrator hat, not its employer hat.[445]

432. 29 U.S.C. § 1109(a) (2006) (emphasis added).
433. 29 U.S.C. § 1132(a)(2).
434. LaRue v. DeWolff, Boberg & Assocs., Inc., 552 U.S. 248, 253 (2008).
435. *Womack*, 769 F. Supp. 2d at 1328.
436. *Id.*
437. *Id.*
438. 29 U.S.C. § 1002(a)(2)(A)–(B).
439. Aikin, *supra* note 426, at 21.
440. *Womack*, 769 F. Supp. 2d at 1328 (citing 29 C.F.R. § 2509.75-8 (2011)).
441. *Id.* at 1329 (citing 29 U.S.C. § 1102(a)(2)).
442. *Id.*; LaRue v. DeWolff, Boberg & Assocs., Inc., 552 U.S. 248, 253 (2008).
443. *Womack*, 769 F. Supp. 2d at 1330.
444. *Id.*
445. *Id.*

Whereas ministerial tasks do not generate fiduciary duty, Orchid's case was not one of a breach committed within a framework of rules and procedures formulated by someone else.[446] Orchids was no "third party hired to perform purely ministerial tasks."[447] (Orchids had no need to receive investment-selection paperwork itself. But having done so, it bore fiduciary responsibility to implement instructions faithfully.)

3. Defendants Schroeder and Snyder

"Schroeder and Snyder [were] identified in the Plan itself as the two individuals designated by [Orchids] to act as Administrator for the Plan or to whom authority [had] been delegated by such Administrator."[448] Their fiduciary status hinged upon "their discretionary authority . . . in the administration of the Plan, as expressly designated in the Plan."[449] Moreover, the same elements of *LaRue* that enmeshed Orchids also ensnared Schroeder and Snyder: Failure to ensure the proper execution of participant investment directives entails a fiduciary function.[450]

ERISA provides this duty of care:

> [A] person is a fiduciary with respect to a plan to the extent (i) he exercises any discretionary authority or discretionary control respecting management of such plan or exercises any authority or control respecting management or disposition of its assets . . . or (iii) he has any discretionary authority or discretionary responsibility in the administration of such plan. Such term includes any person designated under section 1105(c)(1)(B) of this title.[451]

The *Womack* opinion, in accordance with *LaRue*, determined that the question before it remained "whether a fiduciary [had] acted with the care . . . a prudent man would use in ensuring that the directions [were] properly carried out."[452]

446. *Id.* (citing 29 C.F.R. § 2509.75-8 (2011)).
447. *Id.* at 1331.
448. *Id.* (alteration in original) (internal quotation marks omitted).
449. *Id.* at 1332 (internal quotation marks omitted).
450. *Id.*
451. 29 U.S.C. § 1002(21)(A) (2006).
452. *Womack*, 769 F. Supp. 2d at 1333 (internal quotation marks omitted).

C. Breach of Fiduciary Duty

1. Defendant Orchids

"King's failure to look through the entire set of documents submitted by [Ms. Womack], resulting in a failure to transmit [her] investment directions," was the undisputed conduct at issue.[453] And said failure did not comport with the prudent person standard.[454] "A prudent fiduciary in similar circumstances would have reviewed all pages of [Womack's] submission . . . ."[455] Hence, "a breach of ERISA's fiduciary duty of care occurred as a matter of law."[456]

2. Defendants Schroeder and Snyder

Plaintiff Womack submitted that Schroeder and Snyder "fail[ed] to properly train or supervise King and/or [failed] to implement policies and procedures to ensure that King completed . . . processing enrollment forms."[457] But the court concluded that "prudent managers under similar circumstances would have taken similar actions."[458] "Further, the process set up by Schroeder and Snyder successfully brought [Womack's] Enrollment Form into the hands of King. There [was] no evidence that the decisions made by Schroeder and Snyder—as opposed to those made by King—contributed to the specific omission that occurred in this case."[459] Therefore, Schroeder and Snyder "fulfilled their duty of care owed to . . . Plan participants . . . and [were] entitled to judgment as a matter of law."[460]

Plaintiff Womack's motion for partial summary judgment was granted regarding Orchids alone and denied as to all other defendants.[461] Defendants' motion for summary judgment was denied to Orchids alone and granted as to the Plan, Schroeder, and Snyder.[462] Damages were to

453. *Id.*
454. *Id.*
455. *Id.*
456. *Id.*
457. *Id.* at 1334.
458. *Id.*
459. *Id.*
460. *Id.*
461. *Id.* at 1336.
462. *Id.*

be determined in a nonjury trial.[463]

VII. THE LAW AND ECONOMICS OF *WOMACK*

A. The Whys of Fiduciary Fealty

James A. Mirrlees won the Alfred Nobel Memorial Prize in Economics in 1996.[464] Mirrlees declares that "[m]ost economic problems and possibilities involve . . . *relationships* between and among individual agents."[465] Every agent is a fiduciary. Mirrlees perceives that "[i]t is not so much the asymmetry of information that is special about principal–agent relationships, but the asymmetry of responsibilities, with the principal moving first, the agent following."[466] (Was Womack a first-mover principal, thereafter hostage to the discretion of Orchids, Schroeder, and Snyder?) "Contracts often create relationships and relationships create legal duties, . . . [f]or example, . . . fiduciary relationship[s]."[467]

Judge Kern's opinion focused on the fact that the named fiduciary in the Plan, Orchids, was likewise the Plan administrator.[468] Such administrators, generally, are considered fiduciaries given their "exercise of discretionary authority or discretionary responsibility."[469] So potent is this discretionary element in identifying a plan administrator as a fiduciary that *Womack* read *LaRue* to teach that Orchids' failure in *Womack* "flowed from the non-performance of an administrative task, rather than from a discretionary decision to purposefully disregard [Womack's] investment directions . . . implicat[ing] fiduciary obligations to properly manage fund assets."[470] The identical logic ensnared

463. *Id.*
464. BANNOCK ET AL., *supra* note 73, at 255.
465. MIRRLEES, *supra* note 253, at 21 (emphasis added).
466. *Id.* This logic was applied in the mutual fund investment–adviser context in George Steven Swan, *The Law and Economics of Mutual Fund Investment-Adviser Fiduciaries*: Jones v. Harris Associates, L.P., 35 NOVA L. REV. 393, 468, 471 (2011). And when a company hires an outside investment firm to run a 401(k) retirement plan, such firms being reimbursed not directly but by a cut from fees associated with the investments, workers who complained that the 401(k) fees were excessive have met with some success in court. Ian Salisbury, *Workers Come Out Winners Even After 401(k) Lawsuits Are Losers*, WALL ST. J., Oct. 25, 2011, at C7.
467. COOTER & ULEN, *supra* note 172, at 225 (internal quotation marks omitted).
468. *Womack*, 769 F. Supp. 2d at 1328.
469. *Id.*
470. *Id.* at 1331.

Schroeder and Snyder in fiduciary status due to their own "discretionary authority or discretionary responsibility in the administration of the Plan."[471] Is discretion properly to play so mighty a role in fiduciary law?

The virtue of loyalty is "vexing."[472] Fortunately, the fiduciary's duty of loyalty actually can be economically modeled.[473] Dean of the Tel-Aviv University Faculty of Law Hanoch Dagan opines that "[t]he duty of loyalty is the distinctive feature of fiduciary law – the entailment of the vulnerability of the fiduciary's discretion in using or working with a critical resource (such as information) belonging to the beneficiary."[474] *Discretion*—assuredly in *Womack* this distinctive feature was present. Yet "identifying the beneficiary's entitlement to the fiduciary's loyalty is only the first . . . step of the analysis."[475]

B. The Deterrent Capability

The inescapable second phase probes the "beneficiary's capacity to deter breaches of . . . loyalty."[476] This deterrence issue is inferred from the characterization of the fiduciary relationship as one of vulnerability to abuse.[477] "Deterrence . . . is merely the remedial correlative of a rather uncontroversial normative judgment regarding the beneficiary's entitlement to the fiduciary's loyalty."[478]

Deterrence can become an issue of some intricacy.[479] The judiciary sometimes "leave fiduciaries who breached their duty of loyalty with some part of the gain."[480] For instance, "underdeterrence may be beneficial in order 'to spur the fiduciary to discover and exploit

471. *Id.* at 1332 (internal quotation marks omitted). What might Freud say of corporate accidents to a consultant who had been terminated from employment at age seventy? As Michael Corleone told his family's lawyer, Tom Hagen: "And you know something? Accidents don't happen to people who take accidents as a personal insult." MARIO PUZO, THE GODFATHER 147 (1969). Or as Edward M. Kennedy once quoted the late Ambassador Joseph P. Kennedy, Sr.: "You remember my father's old saying?—'Things don't just happen; they are *made* to happen.'" SCHLESINGER, *supra* note 133, at 299.

472. *See, e.g.*, ERIC FELTEN, LOYALTY: THE VEXING VIRTUE (2011).

473. Robert Cooter & Bradley J. Freedman, *An Economic Model of the Fiduciary's Duty of Loyalty*, 10 TEL AVIV U. STUD. LAW 297, 298–300 (1990).

474. HANOCH DAGAN, THE LAW AND ETHICS OF RESTITUTION 236 (2004).

475. *Id.*

476. *Id.*

477. *Id.*

478. *Id.* at 236–37.

479. *Id.* at 237.

480. *Id.*

opportunities.'"[481] But this assumes available "market devices that provide the fiduciary with incentive compensation to align her interest with that of the [beneficiary]."[482] Indeed, where is the line between profits and morality?[483]

Or, some agree, business owners can "exploit their firm and compromise its long-term interests" unless angelic "steward-like agents . . . use their superior information to benefit a firm and its stakeholders."[484] This view reverses agency theory wherein executives (opportunistic agents) harness "their superior information to exploit owners, unless effectively monitored or incentivized to do otherwise."[485] "[O]wner-agent informational asymmetries . . . may become a good thing for the sustainability of a firm and the benefit of all its stakeholders."[486] Incentivizing and empowering those promoting long-term organizational interests, be they agents or owners, could be preferable to an "owner-agent alignment per se."[487] At a minimum, others hold, "[i]f market misvaluation is long-lived, perhaps we do need powerful agents to fend off myopic shareholders who may insist on short-term price gains at the expense of long-term . . . value creation."[488] "Opportunistic shareholders can pressure managers into making socially destructive investments . . . ."[489] Agents are not the predestined "economic millstones around the necks of modern widely held corporations" of 2012.[490]

"By contrast, in the 'core' cases of fiduciary relationships . . . for example, of trustees . . . the fiduciary's duties are (and should be) more

481. *Id.* (quoting Frank H. Easterbrook & Daniel R. Fischel, *Contract and Fiduciary Duty*, 36 J.L. & ECON. 425, 442 (1993)).
482. *Id.* (alteration in original) (internal quotation marks omitted).
483. *See generally* PROFITS & MORALITY (Robin Cowan & Mario J. Rizzo eds., 1995). Over money and morality muse many. *See, e.g.*, STEPHEN GREEN, GOOD VALUE: REFLECTIONS ON MONEY, MORALITY, AND AN UNCERTAIN WORLD (2010). Long debated is whether it runs to an individual's self-interest to be moral or whether morality impedes her self-interest. *See, e.g.*, MORALITY AND SELF-INTEREST (Paul Bloomfield ed., 2008).
484. Danny Miller & Cyrille Sardais, *Angel Agents: Agency Theory Reconsidered*, ACAD. MGMT. PERSP., May 2011, at 6, 6.
485. *Id.*
486. *Id.*
487. *Id.* at 12.
488. Vikas Mehrotra, *Angel Agents: What We Can (and Cannot) Learn From Pierre Lefaucheux's Stewardship of Régie Renault*, ACAD. MGMT. PERSP., May 2011, at 14, 19.
489. *Id.*
490. *Id.*

stringently enforced given the unavailability of such market devices."[491] ("[T]he core character of fiduciary accountability is" well established.[492]) The characteristics of these core cases entail, primarily, that "the beneficiary's interests are subject to the fiduciary's discretion; the fiduciary should control and manage the asset in the beneficiary's best interest."[493] *Discretion*—in *Womack*, had the beneficiary any market alternative at hand to restructure fiduciary incentives? No. Was the beneficiary more engaged in a corporate relationship or in a trust relationship? The latter. And a key variable in such a latter, core case among fiduciary relationships is discretion.[494]

C. Carolyn L. Womack and the Cheery Theory

Moreover, altogether *apropos* is the logic underlying the role of Carolyn L. Womack as plaintiff–beneficiary. Judge Kern properly explained that under *LaRue*, an ERISA-defined contribution plan participant can file suit for breach of fiduciary duty notwithstanding that "such breach only reduces *plan* assets payable to persons tied to particular individual *accounts*."[495] (Compare: The fiduciary principle in American law lays fiduciary duties to corporations upon corporate management.[496] Accurately interpreted, such fiduciary duties run "primarily to the [corporation's] shareholders."[497] Not unlike the retirement plan assets is the property called a corporation. Not unlike the defined contribution plan participants are people called corporate shareholders.) Trust and honesty should make a difference in America's business generally.[498] More specific to a case like *Womack* is the streak

491. DAGAN, *supra* note 474, at 237.

492. Robert Flannigan, *The Core Nature of Fiduciary Accountability*, 2009 N.Z. L. REV. 375, 376.

493. DAGAN, *supra* note 474, at 237–38.

494. *Id.* at 237. It is one of two important "structural characteristics." *Id.*

495. Womack v. Orchids Paper Prods. Co. 401(k) Sav. Plan, 769 F. Supp. 2d 1322, 1327–28 n.1 (N.D. Okla. 2011) (emphasis added) (internal quotation marks omitted).

496. WERIN, *supra* note 178, at 337.

497. *Id.*

498. *See* TAMAR FRANKEL, TRUST AND HONESTY: AMERICA'S BUSINESS CULTURE AT A CROSSROAD 5–6 (2006).

> Market economies are always vulnerable to chancers and spivs who sell overpriced goods to ill-informed customers and seem to promise things they do not intend to deliver. If such behaviour becomes a dominant business style, you end up with the economies of Nigeria and Haiti, where rampant opportunism makes it almost prohibitively difficult for honest people to do

of trust to be found (or not) in human resource management.[499]

Simultaneously, an ethicist might "face the basic fact that human beings are largely self-interested and rarely act in a totally altruistic way."[500] An ethicist probes whether the imposition of a fiduciary standard truly elicits "more effective ethical behavior and really protect[s] the consumer."[501] Meanwhile, some people have gone so far as to posit that human values are scientifically determinable.[502] And today's Anglo-American jurisprudence presents a high-profile exponent of moral objectivity in Professor Dworkin[503]: "We cannot defend a theory of justice without also defending, as part of the same enterprise, a theory of moral objectivity. It is irresponsible to try to do without such a theory."[504]

A "hypothesis . . . [emphasizing] the self-interest model tends to inhibit cooperation"[505]: There appears to be a "large difference in the

> business. Our prosperity depends on a self-enforcing culture of ethical business values, in which traders value their reputation and seek to develop long-term commercial relationships. That is the culture in which banks used to operate: it is time they did so again.

John Kay, *Cautionary Lessons on Ethics from Yet Another Bank Fiasco*, FIN. TIMES (London), May 11, 2011, at 11. "When established institutions become unreliable or corrupt, trust is withdrawn, with suspicion of strangers, familiars, and even family members becoming the standard." PATRICIA S. CHURCHLAND, BRAINTRUST: WHAT NEUROSCIENCE TELLS US ABOUT MORALITY 65 (2011).

499. *See, e.g.*, TRUST AND HUMAN RESOURCE MANAGEMENT (Rosalind H. Searle & Denise Skinner eds., 2011).

500. Ronald F. Duska, *Fiduciary Duty, Regulations and Financial Planning*, J. FIN. SERVICE PROFS., May 2011, at 17, 17.

501. *Id.* (internal quotation marks omitted).

502. *See* SAM HARRIS, THE MORAL LANDSCAPE: HOW SCIENCE CAN DETERMINE HUMAN VALUES (2010).

503. *See, e.g.*, RONALD DWORKIN, TAKING RIGHTS SERIOUSLY (1977); RONALD DWORKIN, A MATTER OF PRINCIPLE (1985); RONALD DWORKIN, LAW'S EMPIRE (1986); RONALD DWORKIN, A BILL OF RIGHTS FOR BRITAIN (1990); RONALD DWORKIN, LIFE'S DOMINION: AN ARGUMENT ABOUT ABORTION, EUTHANASIA, AND INDIVIDUAL FREEDOM (1993); RONALD DWORKIN, FREEDOM'S LAW: THE MORAL READING OF THE AMERICAN CONSTITUTION (1996); RONALD DWORKIN, SOVEREIGN VIRTUE: THE THEORY AND PRACTICE OF EQUALITY (2000); A BADLY FLAWED ELECTION: DEBATING *BUSH V. GORE*, THE SUPREME COURT, AND AMERICAN DEMOCRACY (Ronald Dworkin ed., 2002); RONALD DWORKIN, JUSTICE IN ROBES (2006); RONALD DWORKIN, IS DEMOCRACY POSSIBLE HERE? PRINCIPLES FOR A NEW POLITICAL DEBATE (2006); RONALD DWORKIN, THE SUPREME COURT PHALANX: THE COURT'S NEW RIGHT-WING BLOC (2008).

504. RONALD DWORKIN, JUSTICE FOR HEDGEHOGS 8 (2011).

505. Robert H. Frank et al., *Does Studying Economics Inhibit Cooperation?*, *in* ECONOMICS, ETHICS, AND PUBLIC POLICY 51, 61 (Charles K. Wilber ed., 1998). "[The latest] research documents a positive relationship between economics education and

extent to which economists and noneconomists behave self-interestedly."[506] Yet research suggests that, at least insofar as would-be cooperators can identify one another and so team-up, the ultimate victim of noncooperation could be the noncooperator herself.[507] "[T]he direct pursuit of material self-interest may indeed often be self-defeating."[508]

In a not dissimilar vein, business scholar John Kay last year recounted George Merck's "oblique philosophy."[509] Merck was a manufacturer whose company profited when he aimed at producing medicine "for the people" and "not for the profits."[510] Kay propounds his own "profit-seeking paradox."[511] Thereunder, as interpreted by Andrew Stark, professor of strategic management at the University of Toronto, "[c]ustomers will purchase from your business, or employees will go the extra mile to contribute to your success, only if they believe that you care about their interests. The best way to establish that you care is to show that you can place their interests ahead of your own."[512] And "place their interests ahead of your own" is evocative of an assumption of fiduciary duty.

In economists' principal–agent models, a principal's (employer's) most cost-effective tactic can be trusting the agent (employee). Insofar as the principal can excite her agent's propensity toward reciprocity, the principal's trust can attain dramatically more efficient results than punishing a miscreant agent (for example, discharge).[513] And should an employer brandish a punishment option but refrain from the exercise thereof, she can extract superior employer performances. "Fairness-based altruism is . . . a powerful source of human cooperation."[514] This

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attitudes toward greed" (for example, retention of funds in academic game playing, enhanced rating of greed's morality, and the association of "positive statements about self-interest [leading] to positive moral ratings of greed"). Long Wang, Deepak Malhotra & J. Keith Murnighan, *Economics Education and Greed*, 10 ACAD. MGMT. LEARNING & EDUC. 643, 657 (Dec. 2011).

506. Frank et al., *supra* note 505, at 61.

507. *Id.*

508. *Id.*

509. JOHN KAY, OBLIQUITY: WHY OUR GOALS ARE BEST ACHIEVED INDIRECTLY 3 (2010).

510. *Id.* at 28.

511. *Id.*

512. Andrew Stark, *The Long Way Around*, WALL ST. J., Apr. 12, 2011, at A13 (reviewing KAY, *supra* note 509).

513. Ernst Fehr et al., *Reciprocity as a Contract Enforcement Device: Experimental Evidence*, 65 ECONOMETRICA 833, 855 (1997).

514. Ernst Fehr & Bettina Rockenbach, *Detrimental Effects of Sanctions on Human*

phenomenon is "probably relevant in all domains in which voluntary compliance matters," including markets and business relationships.[515]

Where could all of this sunshine come from?

Director of Harvard University's Program for Evolutionary Dynamics Martin Nowak and Nowak's coauthor, Roger Highfield, advanced what they call "the science of cooperation" in 2011.[516] These two cooperating authors are blunt: "Many problems that challenge us today can be traced back to a profound tension between what is good and desirable for society as a whole and what is good and desirable for an individual."[517] Their account draws upon five quite general social mechanisms eliciting human cooperation: direct reciprocity,[518] indirect reciprocity,[519] spatial games,[520] group selection,[521] and kin selection.[522] And they are "upbeat," as they style their conclusion:

> Mutation and natural selection are not enough in themselves to understand life. You need cooperation too. Cooperation was the principal architect of 4 billion years of evolution. Cooperation built the first bacterial cells, then higher cells, then complex multicellular life and insect superorganisms. Finally cooperation constructed humanity.[523]

Altruism, 422 NATURE 137, 137 (2003).

515. *Id.*

516. MARTIN NOWAK & ROGER HIGHFIELD, SUPER COOPERATORS: ALTRUISM, EVOLUTION, AND WHY WE NEED EACH OTHER TO SUCCEED xix (2011).

517. *Id.* at xviii.

518. *Id.* at 21.

519. *Id.* at 51.

520. *Id.* at 69.

521. *Id.* at 81.

522. *Id.* at 95.

523. *Id.* at 280. In all events, evolutionary theory is part and parcel of law and economics thinking. *See, e.g.*, LAW, ECONOMICS AND EVOLUTIONARY THEORY (Peer Zumbansen & Gralf-Peter Calliess eds., 2011). After all, markets evolutionarily fumble toward success. Whereby? Successful ideas take wing, while the less profitable become extinct. TIM HARFORD, ADAPT: WHY SUCCESS ALWAYS STARTS WITH FAILURE 12 (2011). For that matter, Sir Robert M. May (once the United Kingdom's government's chief scientist) and the financial stability director of the Bank of England, Andrew G. Haldane, teamed to analyze the financial system's systemic frailties. Andrew G. Haldane & Robert M. May, *Systemic Risk in Banking Ecosystems*, 469 NATURE 351 (2011). *Cf.* BERTRAND M. ROEHNER, DRIVING FORCES IN PHYSICAL, BIOLOGICAL AND SOCIO-ECONOMIC PHENOMENA: A NETWORK SCIENCE INVESTIGATION OF SOCIAL BONDS AND INTERACTIONS (2007).

So runs the Cheery Theory.

D. Carolyn L. Womack and a More Dreary Theory

Nevertheless, is this cheery theory too good to believe? Thus probes the weary query.

Sure enough, as the populations of primitive "settlements grew in size to thousands of individuals, the advantages of interacting with non-kin familiars and with strangers may well have become clear enough to stabilize practices of fairness in trade."[524] "New data from field anthropologists studying the patterns of behavior in people from widely different communities as they play money-exchange games . . . strongly suggests that levels of trust and cooperation with strangers are greater among those whose groups have greater market integration."[525] (Market integration means "the proportion of calories in their diet that are purchased or traded, as opposed to being grown or hunted by the groups themselves."[526]) "Cooperative systems that extend beyond the small group of kin and familiars are thus likely to be highly dependent on culture . . . and on the institutional arrangements for reducing the risk of cooperating with strangers."[527] "[T]rust is not so much a relation between the individuals engaged in the transaction as vested in the institution that has established itself as trustworthy."[528] People's trust in a regulated institution emerges from their background knowledge of how much it is reliable.[529]

Yet, trust is not a social outcome alone. It marks a biological phenomenon as well. Oxytocin is called the "trust hormone."[530] As oxytocin level elevates, one tends to "be more generous toward others."[531] It is also styled the "attachment hormone."[532] There is a relationship between "levels of oxytocin and feelings of safety [and] trust."[533] "Cooperation and trust are sensitive to [oxytocin] levels."[534]

524. CHURCHLAND, *supra* note 498, at 64.
525. *Id.* (internal quotation marks omitted).
526. *Id.*
527. *Id.* at 65.
528. *Id.* at 203.
529. *Id.* at 202.
530. SIMON BARON-COHEN, THE SCIENCE OF EVIL: ON EMPATHY AND THE ORIGINS OF CRUELTY 137 (2011).
531. *Id.*
532. *Id.* at 138.
533. CHURCHLAND, *supra* note 498, at 56.

Neuroeconomic investigators have studied players of the economic decision-making game, Trust.[535] Therein, a trustee and his investor are incommunicado and "their identities are masked."[536] "The investor can . . . invest [varied sums] with the trustee."[537] Any invested sum is tripled by the investigator.[538] "The trustee can send back however much, or little, he wishes to the investor."[539] Generous early returns signal trustee trustworthiness sufficient to elicit a hefty second round of mutually profitable investment.[540]

Administration of oxytocin significantly increased an investor's trust in her trustee and thus her sum entrusted therewith.[541] But oxytocin had zero impact upon a trustee's behavior.[542] The trustee's role demands recognition of when an investor signals his trust but does not demand that the trustee do any trusting.[543] As Mirrlees would teach, the investor must be the one to do the trusting because the investor–principal (not trustee–agent) is the first mover in their minuet.[544]

More sinisterly, "[c]ontrol subjects playing Trust typically adjust levels of money transactions when a breach of trust occurs—when a stingy amount is passed back from the trustee."[545] However, "[s]ubjects given [oxytocin] . . . tend to continue with their high level of trust, regardless of the breach."[546] Consequently, what is a trusting investor but a sheep to be shorn? Mirrlees might conclude that such an investor–principal requires the protection of a fiduciary duty laid upon the trustee–agent (ensuring that trustees put investors' interests above their own) because it is the asymmetry of responsibilities that is distinctive of principal–agent relationships.[547]

Such an institutional mechanism might foster trust between cooperators transacting in their investor–principal and trustee–agent

534. *Id.* at 71.
535. *Id.*
536. *Id.*
537. *Id.* at 72.
538. *Id.*
539. *Id.*
540. *Id.*
541. *Id.*
542. *Id.*
543. *Id.*
544. MIRRLEES, *supra* note 253, at 21.
545. CHURCHLAND, *supra* note 498, at 79.
546. *Id.*
547. MIRRLEES, *supra* note 253, at 21.

roles. Elderly workingwoman Carolyn L. Womack was an investor in a 401(k) retirement account. Is the institutional environment of 2012 America conducive to trust among cooperators in these investor–principal and trustee–agent roles? Or is it more one wherein the workaday world's Womacks are sheep to be shorn?

So says the more dreary theory.

E. Carolyn L. Womack: An Inspiration

One discerns an "ideology of career management" that has been dubbed "neoliberalism for the organization man."[548] This ideology has been articulated in the context of unemployment in Great Recession America. Neoliberalism for the organization man or woman "naturalizes the absence of secure, long-term employment, [and] casts the resulting insecurity as an empowering alternative to dependence on a single employer."[549] Lynda Gratton, management practice professor at the London Business School, prescribes opening "the aperture of choice that creates the space which will enable you to write a personal career script that can bring you fulfillment and meaning."[550] One must "shift from shallow generalist to serial mastery,"[551] capable of "sliding and morphing" as market demand evolves.[552] (Do not most intern laborers accept their lot, a fair remuneration being ill-defined in the freelance or salaried sectors, if not in wage-earner workplaces of twenty-first century economies?[553]) Such ideology "prescribes individualistic, apolitical, pro-

548. CARRIE M. LANE, A COMPANY OF ONE: INSECURITY, INDEPENDENCE, AND THE NEW WORLD OF WHITE-COLLAR UNEMPLOYMENT 13 (2011).

549. *Id.*

550. LYNDA GRATTON, THE SHIFT: THE FUTURE OF WORK IS ALREADY HERE 196 (2011).

551. *Id.* at 68.

552. *Id.* at 18.

553. ROSS PERLIN, INTERN NATION: HOW TO EARN NOTHING AND LEARN LITTLE IN THE BRAVE NEW ECONOMY xi–xii (2011). "Yet as employers place more importance on internships, critics have raised questions – including about the fairness of a system that may exclude students who cannot afford a summer of unpaid work." Johanna Kassel, *Graduates Find Internships Outdo Marks in Labour Market*, FIN. TIMES (London), July 1, 2011, at 6. Is not exclusionism the goal?

> [R]ecently, HSBC's legal division was accused of nepotism and bolstering social inequality when a senior employee implied that his department limited work experience to the offspring of its own executives. In April, Nick Clegg, the UK deputy prime minister, said Whitehall would ban informal internships as part of a drive to improve social mobility.

market means by which one can best position oneself to succeed in an increasingly global and competitive world."[554] That picture reflects the post-*LaRue* defined-contribution world of ERISA-regulated 401(k) retirement savings plans.[555]

Therefore, Carolyn Womack, terminated at the age of seventy and rehired as a contract consultant, might well have fought[556] for her stake in her individually managed 401(k) account. Yale School of Management Professor Roger Ibbotson emphasizes the importance of an individual's human capital, or earning power: "[T]he more stable your human capital is"—the more dependable one's earning power—"the more you should aggressively invest in your stock market portfolio."[557] Bear in mind that Ms. Womack was in her eighth decade. Ibbotson adds that as one ages, they should aim for more investments "to be more stable."[558] Sure enough, Ms. Womack dedicated the whole of her account's money to the Stable Fund, just like a Yale School of

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Alicia Clegg, *Hard Work Doesn't Always Pay*, FIN. TIMES (London), June 23, 2011, at 10.

554. LANE, *supra* note 548, at 13. Comparably, in the United Kingdom it is asserted that in recent decades "[b]oth Thatcherism and New Labour have promoted . . . rugged individualism." OWEN JONES, CHAVS: THE DEMONIZATION OF THE WORKING CLASS 250 (2011). They shared the premise that workers' social problems lay on workers' own shoulders. *Id.* at 91. In the "New Labour lexicon, only self-enrichment counts as aspiration." *Id.* at 90. "[A]spirationism is presented as the means of individual salvation . . . ." *Id.* at 250. Meanwhile, England's business press observes that Europe's left lacks economic arguments because "it talks as if [Europe] could isolate [itself] in a bubble within which the state assuages the pain caused by languishing national competitiveness." Max Hastings, *Society Will Not Suffer for Ever These Sky-High Pay-Offs*, FIN. TIMES (London), June 11–12, 2011, at 7.

555. Pauline Skypala, *How to Put Scheme Members First*, FIN. TIMES (London), July 12, 2010, at 6.

> The idea of a European 401(k)-style defined contribution pension was put forward earlier this year by Efama, the European Fund and Asset Management Association. Ideally, the fund industry would like European governments to mandate pension savings through automatic enrolment into schemes. Regardless of whether this happens, there is a need for a personal pension plan with unified standards across Europe, it says. It points to Ucits, the European cross-border funds, as the ideal vehicles to sit in such a wrapper.

Id.

556. Swan, *supra* note 262, at 440–41.

557. Nelson, *supra* note 95, at 18.

558. *Id.* "Investors in 'stable-value funds,' which are bundles of bonds tied together with an insurance policy within a 401(k) retirement plan, have fared remarkably well in recent years." Jason Zweig, *What Price Smooth Sailing?*, WALL ST. J., Dec. 3–4, 2011, at B1. "Stable-value funds have proven their resilience." *Id.*

Management professor. *It's every man for himself*.[559]

VIII. CONCLUSION

The preceding discussion has reviewed the opinion of the United States District Court for the Northern District of Oklahoma in a civil action arising under the 1974 Employees Retirement Income Security Act. ERISA authorizes recovery by individual participants (like Carolyn L. Womack) in a defined-contribution retirement plan (such as that of the Orchids Paper Products Co. 401(k) Savings Plan) from any plan fiduciary whose breach of fiduciary duty generates losses. The *Womack* facts opened the door to that opinion's reclarification of the identities of plan fiduciaries, of the range of their fiduciary duties, and of the economic rationales embedded in such legal determinations. The law and economics of *Womack* teaches that within the principal–agent relationship an asymmetry of responsibilities is a special feature. The principal proves the initial mover, and her agent follows. Such a second-moving agent brandishes a discretion justifying the attachment of fiduciary duty. Said discretion having obtained on the part of several defendants, and fiduciary duty being breached by one, the *Womack* duty analysis was well-honed.

What is the legal environment wherein Americans must retire?[560] Economist David Laibson of Harvard in late 2011 responded to the suggestion that the retirement system itself is perilous and irrational:

559. Swan, *supra* note 262, at 441.

> But America and other modern economies have entered what might be called the new work order – an economy where most workers are untethered from large institutions and bouncing from one job to the next. In this economy, each worker is, in effect, their own small business – responsible for guiding their own career and economic future.

Andrei Cherny, *A Jobs Plan for the Starbucks Generation*, FIN. TIMES (London), July 5, 2011, at 10. The impact upon wages of globalized production is real. ROBERT C. FEENSTRA, OFFSHORING IN THE GLOBAL ECONOMY: MICROECONOMIC STRUCTURE AND MACROECONOMIC IMPLICATIONS vii (2010). The captive center mode of offshoring (utilizing branch offices or offshore subsidiaries, for example, back-office functions) waxed even during global economic turbulence. *See* ILAN OSHRI, OFFSHORING STRATEGIES: EVOLVING CAPTIVE CENTER MODELS (2011). The offshoring of the jobs of Americans has arrived. *See generally* JAGDISH BHAGWATI & ALAN S. BLINDER, OFFSHORING OF AMERICAN JOBS: WHAT RESPONSE FROM U. S. ECONOMIC POLICY? (Benjamin M. Friedman ed., 2009).

560. *See, e.g.*, ELLEN SCHULTZ, RETIREMENT HEIST: HOW COMPANIES PLUNDER AND PROFIT FROM THE NEST EGGS OF AMERICAN WORKERS (2011).

> It is terrible. Unbelievable. We have this odd system in which people who need the most protection—the elderly—have less protection than the 50 year-old. *During their working life, people will typically be accumulating savings in a 401(k), in which their employer, the so-called plan sponsor, is legally obligated to put beneficiaries' interests first.*
>
> But for the retired 85-year-old, unless they stayed in that 401(k), which few of them do, it is like the Wild West. People at that advanced age are particularly vulnerable and need the protections even more than folks in their fifties.[561]

So what might rational investing look like?

> Financial planning best practices . . . arise from both deductive and inductive reasoning. Some have developed from "self-evident" propositions and their natural implications, and others have arisen from a slow accumulation of observations that ultimately seem to form a pattern. That our best practices arise in ways that mirror the deductive/inductive methods of science shouldn't be a surprise; humans have evolved to think that way. As Albert Einstein put it, "The whole of science is nothing more than a refinement of everyday thinking."[562]

Considering the logic to retiring in the defined-contribution universe of ERISA-regulated 401(k) retirement savings plans, most fittingly might a workingwoman like Ms. Womack litigate in defense of her investment.

561. Kim Clark, *An Exuberance of Irrational Investing*, MONEY, Nov. 2011, at 103, 106 (emphasis added).

562. Elissa Buie & Dave Yeske, *Evidence-Based Financial Planning: To Learn . . . Like a CFP*, J. FIN. PLAN., Nov. 2011, at 38, 39. The rational-choice paradigm survived recent critiques of economics's shortcomings. *See* ITZHAK GILBOA, RATIONAL CHOICE (2010).