Rethinking Economics for a New Era of Financial Regulation: The Political Economy of Hyman Minsky

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INTRODUCTION

Many policymakers and most of the economics profession failed to anticipate the recent global financial crisis and the subsequent Great Recession—the most severe downturn since the Great Depression. Even worse, many economists did not think such a crisis was possible. "[T]hey positively denied that it would happen," says finance professor Franklin Allen of the Wharton School of the University of Pennsylvania.¹

In the wake of that crisis, policymakers and economists have begun to take a fresh look at the financial system. Policymakers, for example, enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank), signaling a new era of U.S. financial regulation.² That legislation seeks to strengthen and extend financial-system rules and oversight, not only to protect investors and consumers from deceptive and abusive practices, but also to reduce systemic risks that could threaten the economy.³ Meanwhile, economists and financial analysts have rediscovered the ideas of the late Hyman P. Minsky (1919–1996), a monetary economist who devoted his

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¹ Why Economists Failed to Predict the Financial Crisis, KNOWLEDGE@WHARTON (May 13, 2009), http://knowledge.wharton.upenn.edu/article.cfm?articleid=2234.

² Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

³ *Id*.

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career to the study of financial instability.⁴ In fact, Nobel Laureate Paul Krugman presented a mid-2009 lecture at the London School of Economics entitled "The Night They Re-Read Minsky."⁵

This Article takes the ongoing rediscovery of Minsky as its point of departure and presents his ideas in the context of the recent crisis. It explains that Minsky's views provide a way of rethinking economics that fits with the new era of financial regulation. Minsky focused on three features of economic life: the cyclical nature of advanced capitalist economies, the reality of incessant institutional innovation, and the role of public policy in fostering and sustaining economic prosperity. Each feature draws inspiration from the scholarship of earlier economists, and each remains relevant to understanding today's economy and the economic challenges likely to confront policymakers, economists, and the general public in the years to come.

I. THE CYCLICAL NATURE OF ADVANCED CAPITALIST ECONOMIES

Like many of the economists who earned a Ph.D. at Harvard in the early 1950s, Minsky drew inspiration from the economics of John Maynard Keynes.⁸ Unlike most of his classmates, however, Minsky was interested in the conception of economic life underlying Keynes's analysis, not merely in Keynes's policy recommendations for coping with severe business downturns. As Minsky explains in his 1975 book, *John Maynard Keynes*, the economics of Keynes derives from a business cycle perspective of the economy: the subject matter is "a sophisticated capitalist economy, whose past and whose future entail business cycles."

⁴ Minsky taught at the University of California at Berkeley and Washington University before taking up residence at the Levy Economics Institute at Bard College in the last decade of his life. For evidence of the recent rediscovery of Minsky, see, e.g. Justin Lahart, In Time of Tumult, Obscure Economist Gains Currency, WALL St. J., Aug. 18, 2007, at A1; Janet L. Yellen, President and CEO, Fed. Reserve Bank of S.F., President's Speech to the 18th Annual Hyman P. Minsky Conference on the State of the U.S. and World Economies: A Minsky Meltdown, Lessons for Central Bankers (Apr. 16, 2009).

⁵ Paul Krugman, The Return of Depression Economics III: The Night They Re-Read Minsky, L.S.E. CENTRE FOR ECON. PERFORMANCE (June 10, 2009), http://cep.lse.ac.uk/_new/interviews/default.asp.

⁶ See Hyman P. Minsky, Stabilizing an Unstable Economy 10 (1986).

⁷ See id. at 8-10 & nn.7-9.

⁸ Hyman P. Minsky, in A BIOGRAPHICAL DICTIONARY OF DISSENTING ECONOMISTS 352, 353–55 (Philip Arestis & Malcolm Sawyer eds., 1992) [hereinafter Minsky, in A BIOGRAPHICAL DICTIONARY OF DISSENTING ECONOMISTS].

⁹ HYMAN P. MINSKY, JOHN MAYNARD KEYNES 58 (1975) [hereinafter MINSKY, JOHN MAYNARD KEYNES].

The political economy of Minsky builds on Keynes' business cycle perspective. ¹⁰ Indeed, Minsky's analyses are rooted in the notion that economic expansions and contractions are an inherent part of advanced capitalist economies. ¹¹ In *John Maynard Keynes*, Minsky defines such economies as characterized by expensive and long-lived capital goods as well as by short-term financing and financial markets (the New York Stock Exchange, for example). ¹² These are the economies for which Minsky develops what he calls the "financial instability hypothesis" (FIH). ¹³

The FIH can be seen as an alternative to the "efficient market hypothesis" that was popular in academic circles before the recent financial crisis.¹⁴ According to the efficient market perspective, investors, lenders, and other financial-market participants are not, as a group, predisposed to overconfidence or other biases.¹⁵ In contrast, the FIH treats panics and overconfidence—what some have called "irrational exuberance"—as regular features of the economic landscape.¹⁶

Behind both the conventional economics of Keynes' time and the modern efficient market hypothesis is an assumption that the future can be treated as a matter involving *risk* in the probabilistic sense.¹⁷ In other words, the assumption suggests that outcomes can be anticipated (and therefore managed) by a calculation of probabilities. Keynes, however, dismissed that notion. He argued instead that the economic future most often involves *uncertainty*, for which no assignment of probabilities is possible.¹⁸ For example, Keynes wrote:

The whole object of the accumulation of Wealth is to produce results, or potential results, at a comparatively distant, and sometimes at an indefinitely distant, date. Thus the fact that our knowledge of the future is fluctuating, vague and uncertain, renders Wealth a peculiarly unsuitable subject for the methods of classical economic theory. This theory might work very well in a world in which

¹⁰ Id. at 56-57.

¹¹ *Id*. at 57.

¹² *Id*.

¹³ See Minsky, in A BIOGRAPHICAL DICTIONARY OF DISSENTING ECONOMISTS, supra note 8, at 355.

¹⁴ CHARLES J. WHALEN, LEVY ECON. INST. OF BARD COLLEGE, THE U.S. CREDIT CRUNCH OF 2007: A MINSKY MOMENT 12 (2009) [hereinafter WHALEN, THE U.S. CREDIT CRUNCH OF 2007].

¹⁵ HERSH SHEFRIN, BEYOND GREED AND FEAR 5 (2002).

¹⁶ ROBERT J. SHILLER, IRRATIONAL EXUBERANCE 2 (2d ed. 2005).

¹⁷ Paul Davidson, Risk and Uncertainty in Economics 3–7 (Feb. 6, 2009) (paper presented at the conference on "The Economic Recession and the State of Economics").

¹⁸ John Maynard Keynes, The General Theory of Employment, 51 Q. J. ECON. 209, 213–14 (1937).

economic goods were necessarily consumed within a short interval of their being produced. But it requires, I suggest, considerable amendment if it is to be applied to a world in which the accumulation of wealth for an indefinitely postponed future is an important factor; and the greater the proportionate part played by such wealth-accumulation the more essential does such amendment become. 19

In short, wealth accumulation in an advanced capitalist economy involves uncertainty rather than risk.

In a world of uncertainty, Keynes argued that the expectations of borrowers and lenders rest on conventions and rules of thumb that are used to assess the hazards accompanying economic decisions.²⁰ Minsky followed Keynes' lead. Minsky stressed not only that reliance on conventions causes market participants to engage in herd behavior, but also that such reliance is a "flimsy foundation" for economic decisions.²¹ Thus, the FIH sees an economy in which expectations are prone to sudden and substantial change.²²

According to Minsky's FIH, the financial structure of our economy becomes more and more fragile over a period of prosperity.²³ In the early stages of an economic expansion, enterprises in "highly profitable segments of the economy are rewarded for taking on increasing amounts of debt.... [T]heir success encourages other firms to engage in similar behavior."²⁴ Eventually, a number of enterprises—sometimes even many households—begin to pile up so much debt that they require refinancing merely to make interest payments.²⁵

That pattern of refinancing was certainly evident in the high-tech sector during the late-1990s and in the housing sector during the early- and mid-2000s.²⁶ Indeed, construction companies and contractors were not the only ones taking on more

20 Id. at 213-14.

¹⁹ Id. at 213.

²¹ Id. at 214-15. See also Minsky, John Maynard Keynes, supra note 9, at 91.

²² Keynes, The General Theory of Employment, supra note 18, at 214-15.

²³ Charles J. Whalen, A Minsky Perspective on the Global Recession of 2009 3 (Research on Money & Fin., Discussion Paper No. 12, 2009), available at http://www.researchonmoneyandfinance.org/media/papers/RMF-12-Whalen.pdf [hereinafter Whalen, Global Recession].

²⁴ Id.

²⁵ Minsky calls this extraordinary state of affairs "Ponzi finance" because such a situation often recalls the pyramid schemes of infamous financial swindler, Charles Ponzi. Hyman P. Minsky, *The Financial Instability Hypothesis* 6 (Levy Econ. Inst., Working Paper No. 74, 1992), available at http://www.levyinstitute.org/pubs/wp74.pdf; *Ponzi Schemes—Frequently Asked Questions*, U.S. SEC, http://www.sec.gov/answers/ponzi.htm (last visited Feb. 26, 2011).

²⁶ Whalen, Global Recession, supra note 23, at 3. See also Kai Tian, What's the Risk with Interest Only Mortgage?, EZINE ARTICLES, http://ezinearticles.com/?Whats-the-Risk-With-Interest-Only-Mortgage?&id=3817044 (last visited Feb. 26, 2011).

debt at the start of the new millennium.²⁷ Homebuyers also accumulated a growing amount of debt "as the housing market began heating up, in part because interest rates were low and the stock market had become less attractive in the wake of the dotcom boom and bust."²⁸ While it had long been customary for U.S. homebuyers to make a twenty percent down payment on a home, in the last decade, forty-two percent of first-time homebuyers and thirteen percent of non-first-time homebuyers put no money down to acquire homes.²⁹

In retrospect, of course, enterprises and homebuyers should have resisted the impulse toward increasing indebtedness, but the incentives at the time were just too great. As economists Gary Dymski and Robert Pollin explained in a 1992 essay, nobody in a robust sector of the economy wants to be left behind due to underinvestment:

Even if market participants did have full knowledge of the Minsky model, and were therefore aware that financial crises will occur at some point, that still would not enable them to predict when the financial crisis will occur. In the meantime, aggressive firm managers and bank loan officers will be rewarded for pursuing profitable opportunities and gaining competitive advantages. Cautious managers, operating from the understanding that boom conditions will end at some uncertain point, will be penalized when their more aggressive competitors surpass their short-run performance.³⁰

As the preceding quote indicates, lenders, as well as borrowers, fuel the tendency toward greater indebtedness during an expansion. The same climate of expectations that encourages borrowers to acquire more risky financial liability structures also eases lenders' worries that new loans might go unpaid.³¹ Moreover, it is not just that borrowing and lending expand in the boom. There is also financial innovation (which will be given further attention in the next section). In fact, in a 1992 essay, Minsky wrote that bankers and other financial intermediaries are "merchants of debt who strive to innovate in the assets they acquire and the liabilities they market."³²

²⁷ Whalen, Global Recession, supra note 23, at 3.

²⁸ Id.

²⁹ Gloria Irwin, *No Money Down Gains More Buyers*, AKRON BEACON J. (July 31, 2005), http://www.policymattersohio.org/media/ABJ_No_money_down_gains_more_buyers_2005_0731.htm.

³⁰ Gary Dymski & Robert Pollin, *Hyman Minsky as Hedgehog: The Power of the Wall Street Paradigm* 36 (Univ. of Cal. Riverside, Dep't of Econ., Working Paper No. 92-24, 1990).

³¹ Whalen, Global Recession, supra note 23, at 3.

³² Minsky, The Financial Instability Hypothesis, supra note 25, at 6.

A boom cannot continue forever, however. We eventually arrive at what some have called the "Minsky moment."³³ In other words, it eventually becomes clear that some borrowers have become overextended and need to sell assets (or, if possible, secure a government bailout) to make their loan payments. In the recent crisis, early high-profile cases involved the mortgage broker Countrywide, the British bank Northern Rock, and two hedge funds run by Bear Stearns (which itself became a casualty of the crisis some months later).³⁴

Then the problem spreads. Since bankers and investors hold subjective expectations about acceptable debt levels, once a shortfall of cash and a forced selling of assets materializes somewhere in the economy, it can lead to widespread reassessment of how much debt or lending is appropriate.³⁵ Moreover, the buildup can go on for years, but when anything goes wrong the revaluation can be sudden.³⁶

When banks decide to rein in their lending, we find ourselves in a credit crunch. It is easy to think of the recent economic crisis as something that began with the worldwide stock-market downturn in the autumn of 2008.³⁷ In fact, though, the difficulties of 2008 were preceded by a credit crunch that began in the summer of 2007, and signs of trouble—traceable in large part to the subprime mortgage market—were evident as early as March 2007.³⁸

Once a credit crunch emerges, financial difficulties are no longer confined to one sector.³⁹ In fact, a crunch threatens not only business investment, but also household spending (which depends in large part on credit conditions as well as on employment generated by businesses).⁴⁰ This means that when a sectoral bubble bursts—as in the high-tech sector a decade ago or in the housing sector more recently—the collapse threatens to trigger an economy-wide recession.⁴¹ That sort of slump is what the United States and much of the world experienced recently.

As the recent crisis demonstrated, a "Minsky moment" can quickly transform into an economic "meltdown." In the United States, that meltdown revealed itself in at least three sectors:

³³ Lahart, supra note 4.

³⁴ WHALEN, THE U.S. CREDIT CRUNCH OF 2007, supra note 14, at 9, 19–20.

³⁵ Whalen, Global Recession, supra note 23, at 3.

³⁶ *Id*.

³⁷ Id.

³⁸ WHALEN, THE U.S. CREDIT CRUNCH OF 2007, supra note 14, at 8.

³⁹ FIN. CRISIS INQUIRY COMM'N, FINANCIAL CRISIS INQUIRY REPORT 389 (2011).

⁴⁰ *Id*.

⁴¹ *Id.* at 390.

housing, banking, and the stock market.⁴² House prices, on average, fell by more than ten percent between the beginning of the second quarter of 2006 and the end of 2007, when the recent recession began (as determined by the National Bureau of Economic Research).⁴³ House prices plummeted by another twenty-two percent during the recession—wiping out a total of nearly \$6 trillion from the net value of real estate held by households—and have still not recovered as of this writing (January 2011).⁴⁴ In addition, the recent housing downturn has been accompanied by record levels of "underwater" mortgages (when a family owes more on their mortgage than their home is worth) and mortgage defaults.⁴⁵

The meltdown in banking slowed considerably after enactment of the federal government's Troubled Asset Relief Program (TARP) in 2008, but the damage has still been substantial in the financial industry.⁴⁶ Over 300 financial institutions failed since the beginning of 2007.⁴⁷ And, "as of the third quarter of 2010 the Federal Deposit Insurance Corporation (FDIC) identified 860 'problem' banks," the highest number since the savings and loan crisis nearly two decades ago.⁴⁸

The stock market has been recovering since mid-2009, but the initial market decline was stunning, and the loss of household net worth from falling equity prices was even greater than the loss from falling house prices.⁴⁹ The Dow Jones Industrial Average, for example, fell thirty-seven percent between March 30, 2007 and April 1, 2009.⁵⁰ In fact, "[t]he total value of corporate equities held by households directly or indirectly (through pensions, life insurance companies, government retirement programs, or mutual funds) fell by almost

⁴² U.S. CONG. BUDGET OFFICE, THE BUDGET AND ECONOMIC OUTLOOK: FISCAL YEARS 2011 TO 2021 32–34 (2011), available at http://www.cbo.gov/ftpdocs/120xx/doc12039/01-26_FY2011Outlook.pdf [hereinafter BUDGET AND ECONOMIC OUTLOOK]; Determination of the December 2007 Peak in Economic Activity, THE NATIONAL BUREAU OF ECONOMIC RESEARCH 1, http://www.nber.org/cycles/dec2008.pdf (last updated Dec. 11, 2008).

⁴³ BUDGET AND ECONOMIC OUTLOOK, supra note 42, at 32.

⁴⁴ Id. at 33.

⁴⁵ John Gittelsohn, *Home-Price Drop Leaves 27% of U.S. Homeowners Underwater on Loans, Zillow Says*, BLOOMBERG (Feb. 9, 2011), http://www.bloomberg.com/news/print/2011-02-09/home-price-decline-leaves-27-of-u-s-owners-underwater-on-loans.html.

⁴⁶ CONG. OVERSIGHT PANEL, SEPTEMBER OVERSIGHT REPORT: ASSESSING THE TARP ON THE EVE OF ITS EXPIRATION 3 (2010), available at http://cop.senate.gov/documents/cop-091610-report.pdf.

⁴⁷ BUDGET AND ECONOMIC OUTLOOK, supra note 42, at 34.

⁴⁸ Id.

⁴⁹ Id. at 33.

⁵⁰ Dow Jones Industrial Average Values from March 30, 2007 to April 1, 2009, YAHOO! FINANCE, http://finance.yahoo.com (follow "Dow" hyperlink; then follow "Historical Prices" hyperlink; then search "Mar. 30, 2007" for "Start Date" and search "Apr. 1, 2009" for "End Date").

\$8 trillion during the recession."⁵¹ As of the third quarter of 2010, households' equity holdings had only regained about \$4 trillion—half of what they had lost.⁵²

Looking beyond housing, banking, and equities, one also finds a troubled U.S. labor market. The nation's unemployment rate rose from 4.4% in March 2007 to 10.1% in October 2009 (approaching its post-World War II peak of 10.8%), and in 2010 the jobless rate averaged 9.6%.⁵³ That rate would have been higher, but many job seekers became discouraged after failing to find work, leaving the labor force, and were thus excluded from the official unemployment count.⁵⁴

Moreover, rates of long-term unemployment observed in 2010 were unprecedented in the post-World War II era. For example, on average, forty-three percent of workers who were unemployed in 2010 were out of work for more than twenty-six weeks.⁵⁵ Many economic forecasters expect that it will take a few more years for the unemployment rate to return to less than six percent.⁵⁶

According to Minsky's FIH, a downturn will eventually give way to recovery.⁵⁷ An unwinding of the previous credit expansion is usually a precondition of such a turn of events, but that process can take years. Moreover, if pessimistic expectations are allowed to feed on themselves, then a contracting economy can spiral downward (in what Minsky called a "debt deflation") for quite some time.⁵⁸ If there is a road to full employment by way of market adjustments alone, Minsky wrote, "it may well go by way of hell."⁵⁹

II. THE REALITY OF INCESSANT INSTITUTIONAL INNOVATION

The political economy of Minsky was inspired by Keynes, but it was also influenced by Minsky's association with Joseph A.

53 Monthly Unemployment Rate from 1948 to 2011, BUREAU OF LABOR STATISTICS, http://data.bls.gov/pdq/SurveyOutputServlet?data_tool=latest_numbers&series_id=LNS1 4000000 (last visited Mar. 20, 2011) (change output options "from" to 1948); BUDGET AND ECONOMIC OUTLOOK, *supra* note 42, at 29.

⁵¹ BUDGET AND ECONOMIC OUTLOOK, supra note 42, at 33.

⁵² *Id*.

 $^{^{54}}$ News Release, U.S. Bureau of Labor Statistics, The Employment Situation—December 2010 (Jan. 7, $\,2011),\,\,available\,\,at\,\,$ http://www.bls.gov/news.release/archives.empsit_01072001.pdf.

⁵⁵ BUDGET AND ECONOMIC OUTLOOK, supra note 42, at 31.

⁵⁶ Id. at 42.

⁵⁷ MINSKY, STABILIZING AN UNSTABLE ECONOMY, supra note 6, at 175-77.

⁵⁸ Minsky, The Financial Instability Hypothesis, supra note 25, at 1.

⁵⁹ MINSKY, STABILIZING AN UNSTABLE ECONOMY, supra note 6, at 177.

Schumpeter, who supervised Minsky's doctoral work until his untimely death in 1950.⁶⁰

While Keynes offered insight into cyclical fluctuations, Schumpeter provided Minsky with insight into structural economic evolution over a series of cycles. That is because Schumpeter—who coined the phrase "creative destruction" placed the dynamic power of ceaseless structural economic change at the center of his economic analysis.⁶¹ In fact, Minsky underscored an aspect of Schumpeter's concept of "creative destruction" that few others recognized: financial innovation.62 "[N]owhere is evolution. change and Schumpeterian entrepreneurship more evident than in banking and finance and nowhere is the drive for profits more clearly the factor making for change," wrote Minsky in an article produced in the last few vears of his life, a period during which his writings gave increasing attention to Schumpeter's ideas. 63

In the 1990s, Minsky still believed that the U.S. economy moved along a cyclical path, but he also believed that the system had recently entered a new stage of capitalist development as a consequence of constant institutional change.⁶⁴ According to Minsky, the *managerial* era of American capitalism, which matured in the immediate aftermath of World War II, had given way in the 1980s to a stage characterized by emergence of money managers as the nation's dominant economic decision-makers.⁶⁵ He called the new era *money-manager* capitalism (MMC).⁶⁶

At least four institutional features of MMC have emerged to play a role in explaining the economic difficulties of the past few years. The origin of the recent global crisis can be traced in large part to the following financial-sector innovations: unconventional mortgages, securitization, the rise of hedge funds, and the globalization of finance.⁶⁷

At the heart of the recent financial crisis are home mortgages that deviate from the traditional U.S. home-loan

 $^{^{60}}$ $\it Minsky, in$ A BIOGRAPHICAL DICTIONARY OF DISSENTING ECONOMISTS, $\it supra$ note 8, at 353–54.

⁶¹ JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY 87–89 (4th ed. 1952).

⁶² Hyman P. Minsky, Schumpeter and Finance, in MARKET AND INSTITUTIONS IN ECONOMIC DEVELOPMENT 103, 106 (Salvatore Biasco, Alessandro Roncaglia, & Michele Salvati eds., 1993).

⁶³ *Id*.

⁶⁴ Id. at 111-13.

⁶⁵ Id. at 109-13.

⁶⁶ *Id.* at 111–12.

 $^{67~{\}rm For}$ a similar analysis, see generally FINANCIAL CRISIS INQUIRY REPORT, supra note 39.

arrangement, which involves a long-term loan on fixed-rate terms.⁶⁸ Many of these unconventional—some writers call them "exotic"—mortgages have adjustable interest rates and/or payments that balloon over time.⁶⁹ Federal law has allowed banks to issue adjustable-rate mortgages since 1982, but their use and complexity exploded starting in 2003.⁷⁰ For example, industry experts estimate that a variant called the "option adjustable rate mortgage" (option ARM), which offers a low "teaser" rate and later resets so that minimum payments skyrocket, accounted for about 0.5% of all U.S. mortgages written in 2003, but close to thirteen percent (and up to fifty-one percent in some U.S. communities) in 2006.⁷¹ More precise figures are unavailable because banks have not been required to report how many option ARMs they originate.⁷²

Many of these mortgages were created to target less creditworthy customers, including those in what the banking industry calls the subprime market.⁷³ Others were marketed to people who wanted to speculate in the booming housing market, through buying and then quickly reselling property.⁷⁴ However, many unconventional loans were marketed to ordinary working families who could have handled conventional mortgages.⁷⁵

Unfortunately, it was clear from the outset that many of these exotic mortgages could never be paid back.⁷⁶ But why did this happen? Why did the mortgage market evolve in this dangerous direction?

This is where securitization comes into the picture. Securitization is simply the bundling of loans—which can include auto loans, student loans, accounts receivable, and of course, mortgages—and the subsequent selling of bundle shares to investors.⁷⁷ In the mid-1980s, Minsky returned home from a conference sponsored by the Federal Reserve Bank of Chicago

69 Mara Der Hovanesian, Nightmare Mortgages, Bus. Week, Sept. 11, 2006, at 71–

⁶⁸ Id.

⁷⁰ *Id.* at 72.

⁷¹ *Id*.

⁷² *Id*.

⁷³ FINANCIAL CRISIS INQUIRY REPORT, supra note 39, at 7.

⁷⁴ Id.

⁷⁵ Bruce Marks, Op-Ed., Bailout Must Address the Foreclosure Crisis, BOSTON GLOBE, Sept. 24, 2008, at A17.

⁷⁶ For an eye-opening look at the aggressive marketing of unconventional mortgages, see Gretchen Morgenson, *Inside the Countrywide Lending Spree*, N.Y TIMES, Aug. 26, 2007, at BU1, 8.

⁷⁷ Hyman P. Minsky, *The Capital Development of the Economy and the Structure of Financial Institutions* 22 (Levy Economics Institute, Working Paper No. 72, 1992), available at http://www.levyinstitute.com/pubs/wp72.pdf.

and wrote that securitization was emerging as a key, new financial innovation: "That which can be securitized, will be securitized."⁷⁸ He was right, but way ahead of his time. Securitization of mortgages exploded onto the scene only in the past decade.

After the dot-com bubble burst in 2001, housing in the United States looked like a safer and more attractive investment to many Americans, especially with low interest rates in place due to Federal Reserve policy.⁷⁹ Still, returns on conventional mortgages were too mundane to satisfy the aims of most money managers. As a result, what Minsky and Schumpeter might have called the "financial-innovation machine" turned its attention to housing and shifted into high gear.

Securitization of mortgages meant that home loan originators could be less concerned about the creditworthiness of borrowers than in the past.⁸⁰ Thus, they had an incentive to steer customers toward the most profitable types of mortgages, even if they were the riskiest (which, of course, they were). The result was the explosive growth in option ARMs and in "no money down" and "no documentation" (of income) loans.⁸¹ Minsky warned of all this in 1992, when he observed that securitization means mortgage originators are rewarded as long as they avoid "obvious fraud."⁸²

Securitization worked like magic upon risky mortgages. Instead of "garbage in, garbage out," risky loans went into the process, but out came bundles that received high credit ratings from agencies like Standard and Poors.⁸³ According to Christopher Huhne, a member of the British Parliament and former rating-agency economist, part of the challenge of rating the bundles was "that financial markets fall in love with new things, with innovations, and the [important] thing about new things is that it is very difficult to assess the real riskiness of them because you don't have a history by definition."⁸⁴

⁷⁸ Hyman P. Minsky, Schumpeter: Finance and Evolution, in EVOLVING TECHNOLOGY AND MARKET STRUCTURE 51, 64 (Arnold Heertje & Mark Perlman eds., 1990)

⁷⁹ Dean Baker, *The Housing Bubble and the Financial Crisis*, 46 REAL WORLD ECON. REV. 73, 74 (2008), http://www.paecon.net/PAEReview/issue46/Baker46.pdf.

⁸⁰ FINANCIAL CRISIS INQUIRY REPORT, supra note 39, at 8.

⁸¹ Baker, *supra* note 79, at 74–76.

⁸² Minsky, The Capital Development of the Economy and the Structure of Financial Institutions, supra note 77, at 22–23.

⁸³ Christoper Huhne, quoted on World Business Review (BBC World Service Sept. 1, 2007) (on file with author).

⁸⁴ *Id*.

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Another problem is that rating agencies did not verify the information provided by mortgage issuers.⁸⁵ Instead, they based their decisions on information received from intermediaries that, as Minsky put it, "did not hazard any of their wealth on the longer term viability of the underlying [loans]."⁸⁶

Moreover, there are so many middlemen in the mortgage securitization game, including a number that have been permitted to operate in a largely unregulated manner, that no one person or organization could be easily assigned blame in the event of default. The chain between the borrower and the investor includes realtors, home appraisers, mortgage brokers, mortgage originators, investment banks that bundled the mortgages, agencies that rated the bundles, and even companies (like American International Group) that "insured" many of the bundles.⁸⁷

Mortgage-backed securities totaling into the trillions of dollars were bundled and sold as shares to investors. In late 2008, Fannie Mae and Freddie Mac alone held \$4.1 trillion.88 Moreover, the private market in "credit-default swaps" (CDS) reached \$45 trillion by late 2007.89 The CDS were used by borrowers and lenders as a hedge against (mortgage-backed) securities losses, as a way to speculate that other companies will experience a loss, or as an arbitrage instrument (that is, they allowed purchasers to take advantage of price differences in the market).90

Many of the mortgages underlying mortgage-backed securities are now in foreclosure or headed there. In 2008, 2.3 million U.S. homes went into foreclosure, up 81% from 2007 and

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⁸⁵ OFFICE OF COMPLIANCE INSPECTIONS & EXAMINATIONS, U.S. SEC, SUMMARY REPORT OF ISSUES IDENTIFIED IN THE COMMISSION STAFF'S EXAMINATIONS OF SELECT CREDIT RATING AGENCIES 17–18 (2008).

⁸⁶ Minsky, The Capital Development of the Economy and the Structure of Financial Institutions, supra note 77, at 23.

⁸⁷ Mortgage brokers, who operated without much government regulation, accounted for eighty percent of all U.S. mortgage originations in 2006, double their share a decade earlier. See Der Hovanesian, supra note 69, at 72.

⁸⁸ Scott Lanman & Dawn Kopecki, Fed Commits \$800 Billion More to Unfreeze Lending, Bloomberg (Nov. 25, 2008, 3:20 PM), http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ai_aErzotzx8.

⁸⁹ Phillip A. O'Hara, The Global Securitized Subprime Market Crisis, 41 Rev. of Radical Pol. Econ. 318, 332 (2009).

⁹⁰ *Id*. at 331–32.

225% from $2006.^{91}$ There were an additional 2.8 million filings in 2009, and 2.9 million more in $2010.^{92}$

Mortgage delinquencies have also risen to record levels as a result of the financial crisis and recession that followed. In February 2009, for example, seven percent of U.S. homeowners with mortgages were at least thirty days late on their loans, an increase of more than fifty percent from a year earlier. Among subprime borrowers, that month's delinquency rate was 39.8%. According to the latest data available, the delinquency rate on residential properties was just over nine percent of all loans outstanding as of the end of the third quarter of 2010.

There has been much public discussion in the United States over the past few years about reckless homebuyers. Some were, but mortgage seekers did not bring the economy to its knees on their own. Trouble in the housing market would not have generated a crisis of the magnitude we have witnessed in the absence of the financial innovations described above. As Minsky stressed at a pair of professional conferences in the late 1980s and early 1990s, there is a symbiotic relationship "between the growth of securitization and managed money."

From a Minsky perspective, yet another part of the story of the recent crisis is the role of hedge funds and other investment funds—and of investment banks and other financial institutions. Although the following discussion focuses on hedge funds (which not only operated largely outside the realm of financial-system

⁹¹ Melinda Fulmer, Foreclosure's Up 81% in 2008, MSN REAL ESTATE, http://realestate.msn.com/article.aspx?cp-documentid=16831437 (last visited Mar. 21, 2011). The data is also available from various press releases provided by RealtyTrac in 2009, 2010, and 2011, available at http://www.realtytrac.com.

⁹² Press Release, RealtyTrac, Record 2.9 Million U.S. Properties Receive Foreclosure Filings in 2010 Despite 30-Month Low in December (Jan. 12, 2011), available at http://www.realtytrac.com/content/press-releases/record-29-million-us-properties-receive-foreclosure-filings-in-2010-despite-30-month-low-in-december-6309; Press Release, RealtyTrac, Year-End Report Shows Record 2.8 Million U.S. Properties With Foreclosure Filings in 2009 (Jan. 14, 2010), available at http://media.oregonlive.com/frontporch/other/RealtyTrac%20Year-End%202009%20National%20Data%20FINAL.pdf.

⁹³ Helen Chernikoff, U.S. Mortgage Delinquencies Up 50 Percent, REUTERS UK (Apr. 8, 2009), available at http://uk.reuters.com/article/2009/04/08/us-mortgages-delinquencies-exclusive-idUKTRE5374LT20090408.

⁹⁴ *Id*

⁹⁵ Press Release, Mortgage Bankers Ass'n, Delinquencies and Loans in Foreclosure Decrease, But Foreclosure Starts Rise in Latest MBA National Delinquency Survey (Nov. 18, 2010), available at http://www.mbaa.org/NewsandMedia/PressCenter/74733.htm.

 $_{96}$ Keith Hennessey et al., Dissenting Statement to the Financial Crisis Inquiry Commission Report: Causes of the Financial and Economic Crisis 417–18 (2010), $available\ at\$ http://keithhennessey.com/2011/01/26/the-three-man-fcic-dissenthennessey-holtz-eakin-thomas/.

⁹⁷ Minsky, Schumpeter: Finance and Evolution, supra note 78, at 71.

regulation, but were relatively new to the scene prior to the crisis), investment banks and other institutions played a similar role.⁹⁸

Some of the biggest purchasers of securitized mortgages have been hedge funds. The earliest of these funds were established in the first few decades after World War II for the purpose of seeking absolute returns (rather than beating a benchmark stock market index).⁹⁹ They were indeed "hedged" funds, which sought to protect principal from financial loss by hedging investments through short selling (which involves betting that the price of an investment product will fall) or other means.¹⁰⁰

The number of hedge funds and the assets under their management expanded in the 1990s and grew even more rapidly in the 2000s. 101 At the same time, these assets became increasingly concentrated at the top ten firms, and funds became more diverse in terms of the strategies their managers employed. 102 In mid-2008, the Alternative Investment Management Association estimated that the world's hedge funds (based primarily in the United States) were managing \$2.5 trillion, though it acknowledged that other estimates were as high as \$4 trillion. 103

The total value of assets under hedge-fund management is uncertain because such funds are typically restricted to wealthy individuals and institutional investors, which exempts them from most financial-sector reporting requirements and regulation. Taking advantage of their largely unregulated status, managers of hedge funds used mortgage-backed securities as collateral to take out highly leveraged loans. They then purchased an

104 Investment Company Act of 1940, §§ 2-3, 15 U.S.C. §§ 80a-2-80a-3 (2010).

⁹⁸ Indeed, since 1999, U.S. banking operated without the Glass Stegall firewall that separated commercial and investment banking for over a half century. See Cyrus Sanati, 10 Years Later, Looking at Repeal of Glass-Steagall, DEALBOOK (Nov. 12, 2009, 3:49 PM), http://dealbook.nytimes.com/2009/11/12/10-years-later-looking-at-repeal-of-glass-steagall/.

⁹⁹ James E. McWhinney, A Brief History of the Hedge Fund, INVESTOPEDIA, http://www.investopedia.com/articles/mutualfund/05/HedgeFundHist.asp (last visited Mar. 21, 2011).

¹⁰⁰ See Definition of Hedge Fund, INVESTOPEDIA, http://www.investopedia.com/terms/h/hedgefund.asp (last visited Mar. 21, 2011).

¹⁰¹ IFSL RESEARCH, HEDGE FUNDS 2009 (2009), available at http://www.thehedgefundjournal.com/research/ifsl/cbs-hedge-funds-2009-2-.pdf; CLARK CHENG, SECURITIZATION & HEDGE FUNDS: CREATING A MORE EFFICIENT MARKET 3 fig. 1 (2002), available at www.securitization.net/pdf/rcg hedge 080602.pdf.

¹⁰² See ALEXANDER INEICHEN & KURT SILBERSTEIN, ALTERNATIVE INVESTMENT SOLUTIONS, UBS GLOBAL ASSET MANAGEMENT, AIMA'S ROADMAP TO HEDGE FUNDS 17 (2008).

¹⁰³ *Id.* at 16

¹⁰⁵ James Freeman, How the Money Vanished: A Close Look at the Collapse of Bear

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assortment of financial instruments, including still more mortgage bundles. ¹⁰⁶ As a result, the world's hedge funds used securitized mortgages to lay an inherently fragile foundation for a financial "house of cards." ¹⁰⁷

The recent crisis was unmistakably global. It had economic and political ramifications on all continents. Its ripple effect reached even unexpected places including rural China, which saw workers return home from that nation's export-oriented cities when factories cut production. 108

The global nature of the recent situation would not have surprised Minsky, who stressed early on that money-manager capitalism "is international in both the funds and the assets in funds." Looking ahead to the recent crisis, Minsky wrote: "The problem of finance that will emerge is whether the... institutions of national governments can contain both the consequences of global financial fragility and an international debt deflation." He worried that the United States would be unable to serve as "the guardian angel for stability in the world economy" and stressed the need for "an international division of responsibility for maintaining global aggregate gross profits." 111

In short, the global economy has recently experienced a classic Minsky crisis—one with intertwined cyclical and institutional (structural) dimensions. Its origins were in a housing boom fueled by rising expectations, expanding debt, and financial innovation. Then the bubble burst, creating first a credit crunch, then a broader banking and stock-market crisis, and, ultimately, a recession, the adverse effects of which continue to linger, especially in labor, housing and financial markets.

Since 2007, the global banking industry has seen an unprecedented shakeout, but even in early 2011 there is uncertainty about how much more difficulty lies ahead. There are concerns, for example, that some U.S. banks will be forced to buy back mortgage securities that may have failed to meet

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107 Christopher Holt, *A Graphical Look at Hedge Fund Leverage*, SEEKING ALPHA (Mar. 8, 2009), http://seekingalpha.com/article/124783-a-graphical-look-at-hedge-fund-leverage.

Stearns, WALL St. J. (Mar. 6, 2009), http://online.wsj.com/article/SB123630340388147387.html.

¹⁰⁶ *Id*

¹⁰⁸ Don Lee, Migrant Factory Workers at a Loss as China's Economy Slumps, L.A. TIMES, Jan. 24, 2009, at C1.

¹⁰⁹ Minsky, Schumpeter: Finance and Evolution, supra note 78, at 71.

¹¹⁰ Hyman P. Minsky, Longer Waves in Financial Relations, 29:1 J. ECON. ISSUES 83, 93 (1995).

¹¹¹ Hyman P. Minsky, Global Consequences of Financial Deregulation, in 2 MARCUS WALLENBERG PAPERS ON INT'L. FIN. 1, 15, 71 (1986).

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certain underwriting standards. 112 The uncertainty regarding institutional exposure to possible mortgage-related financial losses was a contributor to the credit crunch of 2007, and similar uncertainty exists today. 113 In addition, a new threat has emerged in the form of uncertainty about the fiscal stability of entire nations, such as the recent concerns over Greece and Ireland.114

III. THE ROLE OF PUBLIC POLICY

The third dimension in the political economy of Minsky is the role of public policy. Before writing about Keynes and studying with Schumpeter, Minsky was a student of Henry C. Simons at the University of Chicago. 115 Simons' influence left an indelible mark on Minsky's approach to public policy.

Simons is remembered today as a critic of Keynes (as was Schumpeter) and founder of the "Chicago School" brand of economics that generally favors a laissez-faire approach to economic policy. 116 Nevertheless, his views were complex, and he had a nuanced position on the role of government, one shaped by a career that focused not only on that topic directly, but also on taxation, monetary policy, and other specific aspects of economic policy.¹¹⁷ Simons favored market decisions over collective action in circumstances where competition prevailed, but he also gave the public sector major responsibilities. 118 These included providing the legal foundation for such competition and acting decisively—and, if need be, permanently—when such conditions could not prevail.119

Simons' notion that there is a "division of labor" between what can be left to the market and what needs to be done by the public sector manifests itself in Minsky's overall conception of the role of government, which can be seen perhaps most clearly in his 1986 book, Stabilizing an Unstable Economy. 120

114 See RIKSBANK, FINANCIAL STABILITY REPORT 1/2010, 20 (2010), available at http://www.riksbank.com/upload/Dokument_riksbank/Kat_publicerat/Rapporter/2010/ FSR1/FS_2010_1_eng_box1.pdf.

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¹¹² David Indiviglio, Will Washington Let the Mortgage Put-back Fiasco Escalate?, ATLANTIC MONTHLY, Oct. 2010, available at http://www.theatlantic.com/business/archive/ 2010/10/will-washington-let-the-mortgage-put-back-fiasco-escalate/64868/.

¹¹⁵ Minsky, in A BIOGRAPHICAL DICTIONARY OF DISSENTING ECONOMISTS, supra note 8, at 354.

¹¹⁶ Id.

¹¹⁷ See generally George J. Stigler, Henry Calvert Simons, 17 J. L. ECON. 1 (1974).

¹¹⁸ HENRY C. SIMONS, ECONOMIC POLICY FOR A FREE SOCIETY 99, 117 (1948).

¹¹⁹ Id. at 117; Minsky, in A BIOGRAPHICAL DICTIONARY OF DISSENTING ECONOMISTS, supra note 8, at 354.

¹²⁰ See Minsky, Stabilizing an Unstable Economy, supra note 6, at 332.

influence also appears in Minsky's attention to specific policy elements, especially Minsky's call for a "structure of industry policy" aimed at preventing institutions from becoming "too big to fail." Against the backdrop of the recent financial crisis and recession, Minsky's approach to public policy can be presented as generating an economic policy strategy aimed at recovery and reform.

A. Recovery

The overall aim of Minsky's strategy for economic recovery is to prevent a recession from becoming another Great Depression.¹²² That strategy gives attention to both fiscal policy and monetary policy. Each is considered in turn.

The fiscal policy component of Minsky's strategy centers on what he called Big Government. At the heart of Big Government is a federal budget that tends toward surpluses in inflationary periods and produces deficits large enough to stabilize aggregate profits in recessionary periods. Minsky envisioned that such countercyclical spending would be a "built-in" feature of the budget structure, but he also recognized that discretionary legislative action (the recent American Recovery and Reinvestment Act, for example) would be needed on occasion. 125

The monetary policy component of Minsky's strategy centers on the stabilizing actions of the central bank. He envisioned that the Federal Reserve (Fed) would intervene as "lender of last resort" in response to the threat of a serious credit crisis and economic contraction. ¹²⁶ "Central banks are the institutions that are responsible for containing and offsetting financial instability," Minsky wrote in 1986. ¹²⁷ In that same year, he also contributed an article emphasizing the globalization of finance and calling for international central-bank coordination as a way to prepare for the next big financial crisis. ¹²⁸

Much of what Minsky described in his recovery agenda has been pursued by U.S. policymakers during the recent

¹²¹ For more on the compatibility of the views of Simons and Minsky with respect to the role of the state, see Charles J. Whalen, *Stabilizing the Unstable Economy: More on the Minsky-Simons Connection*, 25 J. ECON ISSUES 739 (1991).

¹²² See MINSKY, STABILIZING AN UNSTABLE ECONOMY, supra note 6, at 18–19.

¹²³ See id.

¹²⁴ See id. at 296-97, 302-04.

¹²⁵ Id. at 132, 292.

¹²⁶ *Id.* at 192,

¹²⁷ Id. at 322.

¹²⁸ See generally Minsky, Global Consequences of Financial Deregulation, supra note 111.

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recession.¹²⁹ While fiscal policy already contained automatic stabilizers, major legislative measures were taken to support aggregate demand in 2008, 2009, and again in 2010.¹³⁰ Monetary policy has also been engaged in the stabilization effort.

To stabilize the financial sector and overall economy in the wake of the recent financial crisis, the Fed aggressively cut interest rates, allowed financial institutions to borrow from it at nominal rates, and gave banks cash in exchange for risky assets (promising to take on the risk that those assets could prove worthless). The Fed, which students of Minsky sometimes call the "Big Bank," has also engineered bank mergers and worked with other central banks to increase the supply of dollars worldwide. In many ways, Fed Chairman Ben Bernanke has pursued a strategy consistent with Minsky's conception of a Big Bank that provides the monetary-policy complement to the fiscal policy of Big Government.

Legislation creating TARP in 2008 is also broadly consistent with Minsky's conception of the central bank as lender of last resort.¹³⁴ However, Minsky admired how the Reconstruction Finance Corporation closed insolvent banks and assisted solvent ones during the Great Depression.¹³⁵ Thus, it is likely he would have preferred a more hands-on approach to cleaning up bank balance sheets than that resulting from TARP.

B. Reform

Looking beyond policies designed to address an economic downturn, Minsky's reform agenda included stricter regulation and supervision of the financial system.¹³⁶ It also included a national commitment to full employment by means of public-service employment for the jobless.¹³⁷ The aim of both was to foster and sustain a period of prosperity as well as lay the foundation for more moderate future downturns.¹³⁸

131 *Id*.

¹²⁹ BUDGET AND ECONOMIC OUTLOOK, supra note 42, at 34–35.

¹³⁰ *Id*.

¹³² HYMAN P. MINSKY, STABILIZING AN UNSTABLE ECONOMY xvii (2d ed. 2008) [hereinafter MINSKY, STABILIZING AN UNSTABLE ECONOMY (2d ed. 2008)].

¹³³ For a discussion of the often overlooked link between Minsky's ideas and financial-market research organized by Bernanke at Princeton University, see Justin Lahart, *Bernanke's Bubble Laboratory*, WALL St. J., May 16, 2008, at A1, A10.

¹³⁴ On TARP, see BUDGET AND ECONOMIC OUTLOOK, supra note 42, at 35.

¹³⁵ MINSKY, STABILIZING AN UNSTABLE ECONOMY (2d ed. 2008), supra note 132, at xxi.

¹³⁶ MINSKY, STABILIZING AN UNSTABLE ECONOMY, supra note 6, at 329–30.

¹³⁷ Id. at 308-12.

¹³⁸ *Id*.

Minsky believed that those responsible for government regulation and supervision of the financial system are in a constant struggle with financial-market innovators. Any set of regulations can contain financial innovation for only so long; then an updated regulatory framework will be required—and the process begins again. "After an initial interval, the basic disequilibrating tendencies of capitalist finance will once again push the financial structure to the brink of fragility," he explained. 140

Still, Minsky believed it was necessary for the Fed and regulators to continue the struggle: "The evolution of financial practices must be guided to reduce the likelihood that fragile situations conducive to financial instability will develop." This is where Dodd-Frank would fit into the Minsky framework.

Minsky's financial reform also involved broader corporate reform, which he sometimes called a structure-of-industry policy. This included placing size limits on corporations based on the level of assets and/or employment. These were seen as a way to foster greater competition, reduce the need for lender-of-last-resort interventions, and avoid situations in which specific corporations would be seen as "too big to fail." 144

Minsky's reform agenda also included an employment policy that envisions government as "employer of last resort." The idea was for public-service employment based roughly on the New Deal Era's Works Progress Administration and Civilian Conservation Corps. This policy would provide able-bodied people with an alternative to joblessness and unemployment benefits; under such a policy, public-service payrolls would rise and fall to offset private-sector demand for workers. In Minsky's view, the policy would help stabilize the economy, but it would also help foster a more humane economy.

CONCLUSION: STANDING ON THE SHOULDERS OF MINSKY

With enactment of Dodd-Frank, financial regulation has entered a new era. The political economy of Minsky can

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¹³⁹ Id. at 252.

¹⁴⁰ Id. at 333.

¹⁴¹ Id. at 322.

¹⁴² MINSKY, STABILIZING AN UNSTABLE ECONOMY, supra note 6, at 330–31.

¹⁴³ Id. at 330.

¹⁴⁴ Id. at 330-31.

¹⁴⁵ Id. at xvii, 308-312.

¹⁴⁶ *Id*.

¹⁴⁷ *Id*.

¹⁴⁸ Id. at 293.

accompany that era with a fresh approach to economics. In place of the efficient-market hypothesis, Minsky offers a financial-instability alternative. That alternative is consistent with Keynes' observation that business cycles are a characteristic feature of advanced capitalist economies. Minsky's approach also incorporates Schumpeter's recognition of incessant institutional innovation; indeed, recent innovations help explain the first serious financial crisis of the age of moneymanager capitalism. In addition, Minsky's approach earns the name "political" economy because, drawing inspiration from Simons, he envisioned an important division of labor between the market and the public sector, one that gives key responsibilities to government in the realm of economic management. 151

Minsky used to say we should stand on the shoulders of giants to better understand the economy. Just as he stood on the shoulders of Keynes, Schumpeter, and Simons, we can now stand on his shoulders—to not only better understand the recent financial crisis, the Great Recession, and the anemic U.S. recovery, but also to better anticipate what might lie ahead. From a Minsky perspective, explaining current events involves incorporating cyclical and structural dimensions. His perspective also involves devising a policy strategy that gives attention to both recovery and reform.

The recent attention to Minsky's ideas, in the academy and in the practical world of financial decision-making, has enriched our understanding. But Minsky has been "discovered" in the midst of other periods of financial turmoil (in October 1987, for example), only to fall back into obscurity once the economy has recovered. We do ourselves a disservice when Minsky's insights are reduced to an analysis of just a single event (a "Minsky moment") or even of financial instability.

Here is how that can be avoided. Standing squarely on the shoulders of Minsky means recognizing the perennial value of evolutionary and institutionally focused thinking about the economy. It also means giving serious attention not only to business cycles and financial innovation but also to Minsky's

¹⁴⁹ MINSKY, JOHN MAYNARD KEYNES, supra note 9, at 56-57.

 $^{^{150}}$ $\it Minsky, in$ A BIOGRAPHICAL DICTIONARY OF DISSENTING ECONOMISTS, $\it supra$ note 8, at 354–55.

¹⁵¹ *Id*.

 $_{\rm 152}$ Minsky, Stabilizing an Unstable Economy (2d ed. 2008), supra note 132, at xiii.

¹⁵³ Id. at vii-viii.

¹⁵⁴ See, e.g., MINSKY, STABILIZING AN UNSTABLE ECONOMY, supra note 6, at 290.

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effort to guide the further development of the economic system in a more humane direction. 155

 155 For more on the path forward for economics, using analyses inspired by Minsky, see Financial Instability and Economic Security After the Great Recession (Charles J. Whalen ed.) (forthcoming 2011).