Assessing the Contribution of Hyman Minsky’s Perspective to Our Understanding of Economic Instability

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Abstract

A juxtaposition of the key ideas in Hyman Minsky’s writings against passages from the Financial Crisis Inquiry Commission makes clear that Minsky’s main ideas about economic instability were prescient. Nevertheless, Minsky did not provide a well defined model of his framework, which might be one of the reasons his ideas have not been more readily accepted by economists, policy makers, and the media. In addition, behavioral economics was not well developed during most of Minsky’s career, and he did not provide a strong psychological foundation for his assertions about behavior. This paper uses ideas from behavioral economics to extend the treatment of psychology in Minsky’s framework as well as the role psychology has played in limiting the influence of his work.
1. Introduction

There are two psychological dimensions to Hyman Minsky’s insightful analysis of financial instability. The first involves the psychological traits of economic agents, in both public and private sectors, which generate the instability characterized by booms and busts (Shefrin and Statman, 2012). The second involves the psychological traits of economists, politicians, and members of the media who in the main have resisted Minsky’s analysis. The purpose of this paper is to highlight both dimensions.

The main ingredients of the global financial crisis are delineated in the report of the Financial Crisis Inquiry Commission (FCIC, 2011). The mix includes a bubble in housing prices, loose lending practices in the mortgage market, innovation and rapid growth of mortgage-based derivatives, and lax regulation of financial markets. All of these, and more, comprise key elements of Minsky’s instability framework.

This paper is organized around the main elements in Minsky’s dynamic, and juxtaposes direct quotations from Minsky with illustrative excerpts from the FCIC report. The quotations help to make clear the tone and emphasis in his writings. The excerpts help to make clear how relevant is Minsky’s framework to understanding the global financial crisis that unfolded more than ten years after his death. In effect, the global financial crisis that erupted in 2008 was a major out of sample test for Minsky’s ideas.

Lying at the heart of the Minsky dynamic is a concept Minsky called “Ponzi finance.” Ponzi finance features debt financing for assets where full repayment of the debt only occurs if there is sufficient growth in the price of the assets. Significantly, Ponzi finance is what Minsky believes sustains asset pricing bubbles, up to the point at which they burst. Minsky’s discussion does not emphasize the degree to which decisions about Ponzi finance are impacted by psychological elements. Indeed, one of the purposes of this paper is to do so, drawing on examples from the financial crisis.

One of the most important psychological elements that applies to Minsky’s perspective is the extent to which financial crises are unavoidable. The behavioral decision literature is replete with studies demonstrating the extent to which heuristics and biases are hard wired into human cognitive processes. This paper discusses how this literature adds to Minsky’s perspective, using examples from the financial crisis to illustrate.

Although Minsky suggests that economic stability is unattainable, he does offer policy recommendations that can help mitigate the extent of instability. In this regard, the Fed has identified as one of the main lessons from the financial crisis, the importance of placing financial market regulation on an equal footing to monetary policy. Notably, this was one of Minsky’s four major policy recommendations.

Another of Minsky’s four policy objectives involved employment policy. Minsky was raised in a socialist, Jewish environment in Chicago, and his perspective reflects his background. He writes: “[T]he humane objective of stabilization policy is to achieve a close approximation to full employment … [with] demand for labor being at a floor or
minimum wage that does not depend upon long- and short-run profit expectations of business.”  p. 343

The final issue discussed in the paper concerns the reaction to Minsky’s work, not only during his lifetime, but in the wake of the financial crisis.

The paper is organized as follows. Section 2 describes eight of the main elements in Minsky’s perspective. Section 3 juxtaposes quotations from Minsky (1986) with excerpts from the FCIC report. Section 4 discusses advances in behavioral finance that elucidate the psychological phenomena that are critical to economic instability. Section 5 describes the reaction to Minsky’s ideas. Section 6 concludes.

2. Eight Elements in Minsky’s Perspective

The global financial crisis drew attention to Minsky’s analysis of economic instability, which during his lifetime received limited attention from mainstream economists, policymakers, and members of the media. In this section, I provide a short description of eight key elements which Minsky (1986) highlighted as contributing to instability.

1. **Leverage**: Minsky told us that economists have historically ignored the part of Keynes’s theory that relates to the relationship between Wall Street and the overall economy. Minsky’s analysis begins with leverage, which he warned would grow for households, government, nonfinancial firms, and especially financial institutions.

2. **Fringe finance**: Minsky highlighted the role of fringe financial institutions, which in recent years have become the shadow banking sector. His concern about fringe financial institutions is that their activities lay outside the purview of financial regulators, thereby leading these institutions to take on leverage and risk, with the commercial banks as their lender-of-last resort.

3. **Ponzi finance**: Lying at the center of Minsky’s analysis of what drives a financial crisis is financial innovation involving excessive “Ponzi finance,” by which he meant short-term lending by financial institutions against long-term assets, where repayment of the debt depends heavily on asset price appreciation rather than the generation of cash flows. Minsky emphasized that the growth of Ponzi finance tends to generate asset pricing bubbles.

4. **Financial innovation and outmaneuvered regulators**: Minksy argued that the financial sector is politically more agile and powerful than the regulators who oversee them, which is why the financial sector will ultimately win the regulatory game. In this regard, the financial sector uses financial innovation as a tool to increase leverage and risk.
5. **New era thinking**: Minsky told us that during an economic boom with rising asset values, people concoct new era explanations, consistent with free market ideology, to justify the inflated asset prices.

6. **Regulatory failure**: Minsky suggests that during booms, free market ideology permeates the mindset of regulators. In this regard, he was very concerned that the Fed was overly focused on monetary policy at the expense of overseeing the quality of lending in financial markets. This focus, he suggested, would lead regulators to fail at their task.

7. **Runs on financial institutions and markets**: Economic booms do not last forever, and booms themselves tend to generate increases in interest rates which eventually bring booms to an end. If leverage and Ponzi finance have been strong during the boom, Minsky tells us that the bust which follows will tend to feature runs on financial institutions and markets for short-term debt such as commercial paper.

8. **Too big to fail**: Large busts threaten the existence of many large financial institutions and other large firms, some of whom require large scale government assistance in order to survive. Moreover, some of those institutions are beneficiaries of this assistance precisely because they are too big to fail. Minsky called this approach “contingency socialism,” pointing out that many financial institutions will wind up with weakened balance sheets as a result of the bust.

All eight of the Minsky elements described above were major features of the global financial crisis. Of course, Minsky died more than a decade before the financial crisis, and so he fashioned his ideas on earlier crises such as the credit crunch of 1966, the liquidity squeeze of 1970, the REIT crisis of 1974, the recession of 1975, and the failures of banks such as Franklin National and Penn Square.

The dates of these events are notable. Minsky argued that because of prudent decisions about leverage, risk, and government policy, the fifteen year period 1945-1960 was stable. However, he suggested that beginning in 1960, leverage levels and risk began to rise, eventually becoming excessive, so that the economy became more fragile and prone to instability.

Minsky’s insights about the causes of the instability that prevailed between 1960 and 1985 were so apparent in the global financial crisis that the latter is described came to be described as a “Minsky moment.” The phrase “Minsky moment” originated with PIMCO economist Paul McCulley in reference to the Asian debt crisis of 1997, and appears in a Wall Street Journal quote on the cover of the reprinted edition of Minsky’s 1986 book. The next section juxtaposes passages from Minsky’s book with excerpts from the report of the Financial Crisis Inquiry Commission that investigated the causes of the global financial crisis. This juxtaposition allows Minsky to speak for himself, and because his writings occurred two decades before the financial crisis, to demonstrate the extent to which his insights are prophetic. The juxtapositions are organized along the lines of the eight elements described above.
One of the examples Minsky mentions, and which appears in one of the quoted passages, is the 1982 failure of Penn Square Bank, whose history illustrates one of Minsky’s key points about financial crises leaving financial institutions with weakened balance sheets. During the late 1970s and early 1980s Penn Square Bank was a small commercial bank located in Oklahoma City, which invested in high-risk energy loans. Between 1974 and 1982, the price of oil rose dramatically and Penn Square grew rapidly. Indeed, many of Penn Square’s deposits came from other banks, which made it systemically important. However, in the early 1980s a glut of oil led to falling oil prices, which severely reduced the value of Penn Square’s assets.

In July 1982, Penn Square Bank failed, and many of its depositors who held high interest-rate, uninsured, jumbo certificates of deposit lost money. Included in this group were Continental Illinois National Bank and Trust Company of Chicago, both of which collapsed after having to write down hundreds of millions in loans that they purchased from Penn Square. Among the other banks who sustained major losses was Seattle First National Bank. Because of these losses, Seattle First was forced into a merger with Bank of America, and Minsky mentions that Bank of America’s balance sheet was severely weakened by the acquisition.

The passage involving Penn Square appears below in the passages about too big to fail. One thing that makes the passages notable is Minsky’s mention of Bank of America’s balance sheet having been made weaker by the risky decisions at Penn Square, which ultimately led Bank of America to acquire Seattle First. One can only speculate what Minsky would have said about more recent events involving Bank of America’s financial crisis acquisitions of Countrywide Financial and Merrill Lynch a quarter century after Seattle First. However, there is good reason to think that he would point to the systemic rankings of the Volatility Lab at New York University which, at the end of 2012, ranked Bank of America as the systemically riskiest financial firm in the U.S.

In the next section, I assume that readers are generally familiar with the main events associated with the global financial crisis.

3. Minsky and FCIC Juxtaposed

The most comprehensive analysis of the financial crisis is the report by the Financial Crisis Inquiry Commission (FCIC, 2011). The FCIC documents that the global financial crisis that erupted in 2008 featured high leverage across the economy, a large shadow banking system, a boom in housing construction and bubble in housing prices, innovation in mortgage products such as limited documentation loans in the subprime market, adjustable rate mortgages with low teaser rates and very high subsequent rates, an associated securitization process featuring collateralized debt obligations (CDOs) and credit default swaps (CDSs), deregulation in financial services, two runs on commercial paper, and an eventual deep recession requiring drastic remedial government action in the form of a extremely high deficit, and major intervention by the Federal Reserve. Notably,
the FCIC points out that the subprime housing market at the heart of the crisis was relatively small, but its potency stemmed from the manner in which financial institutions took concentrated positions in pools of securitized subprime debt, with little capital coverage. These actions led to the demise of some financial firms, and the rescue of other financial firms deemed too big to fail. Government intervention also rescued failing automobile firms, which were deemed either too big or too important to fail.

This section provides a juxtaposition of excerpts from Minsky (1986) and excerpts from the FCIC, organized into eight key elements described in the previous section, to enable readers to see for themselves how prescient were Minsky’s insights in respect to the causes and consequences of the financial crisis. For example, the first quotation from Minsky below refers to the ratio of financial net worth to total liabilities for commercial banks and the debt-to-income ratio for households. This is contrasted with statements from the FCIC about leverage in financial institutions and households in the period leading up to the financial crisis.
1. Leverage

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<td>Between 1950 and 1960 this ratio trended upward from the neighborhood of 0.074 to 0.086; in the years since 1960 it has declined, falling to 0.056 in 1974 and stabilizing at around 6 percent in 1978. Thus, the equity protection, even as conventionally measured in commercial banking where assets are not written down to allow for interest rate increases, falls sharply… Household liabilities to personal income grew steadily until 1964, at which time a cyclical pattern emerged.” p. 94.</td>
<td>In the years leading up to the crisis, too many financial institutions, as well as too many households, borrowed to the hilt, leaving them vulnerable to financial distress or ruin if the value of their investments declined even modestly. For example, as of 2007, the five major investment banks—Bear Stearns, Goldman Sachs, Lehman Brothers, Merrill Lynch, and Morgan Stanley—were operating with extraordinarily thin capital. By one measure, their leverage ratios were as high as 40 to 1, meaning for every $40 in assets, there was only $1 in capital to cover losses. Less than a 3% drop in asset values could wipe out a firm… The kings of leverage were Fannie Mae and Freddie Mac, the two behemoth government-sponsored enterprises (GSEs). For example, by the end of 2000, Fannie’s and Freddie’s combined leverage ratio, including loans they owned and guaranteed, stood at 75 to 1.</td>
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<td>But financial firms were not alone in the borrowing spree: from 2001 to 2007, national mortgage debt almost doubled, and the amount of mortgage debt per household rose more than 63% from $91,500 to $149,500, even while wages were essentially stagnant. When the housing downturn hit, heavily indebted financial firms and families alike were walloped. pp. xix, xx</td>
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2. Fringe/Shadow Banking System

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<td>[I]n the early 1960s the mode of behavior of the financial system underwent significant transformation—became more speculative—and that this change tended to accelerate the trend toward fragile finance. As a result, the performance of the economy during the first fifteen years of the 1960s is more unstable that it was during the first fifteen years of the postwar era, with a tendency to higher rates of inflation and unemployment. Institutional changes also contribute to the transformation of the financial structure; from 1960 to 1974 fringe banking institutions and practices—such as business lending by finance companies, REITs and nonmember commercial banks—have grown relative to other elements of the financial system. As fringe banking institutions have grown, member banks – and especially the large money-market banks – have become their de facto lenders of last resort through relations that are often formalized by lines of credit. p. 96.</td>
<td>In the early part of the 20th century, we erected a series of protections— the Federal Reserve as a lender of last resort, federal deposit insurance, ample regulations—to provide a bulwark against the panics that had regularly plagued America’s banking system in the 19th century. Yet, over the past 30-plus years, we permitted the growth of a shadow banking system—opaque and laden with short-term debt—that rivaled the size of the traditional banking system. Key components of the market—for example, the multitrillion-dollar repo lending market, off-balance- sheet entities, and the use of over-the-counter derivatives—were hidden from view, without the protections we had constructed to prevent financial meltdowns. We had a 21st-century financial system with 19th-century safeguards. p. xx</td>
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### 3. Hedge, Speculative and Ponzi Finance

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<td>There are three types of financing of positions in assets that can be identified in the financial structure of our system: hedge, speculative, and Ponzi finance. These financing regimes are characterized by different relations between cash payment commitments on debt and expected cash receipts due to the quasi-rents earned by capital assets or the debtor contractual commitments on owned financial instruments. Hedge-financing instruments and their bankers … expect the cash flow from operating capital assets (or from owning financial contracts) to be more than sufficient to meet contractual payment commitments now and in the future… Speculative-financing units, and their bankers, expect the cash flows to the unit from operating assets (or from owning financial contracts) to be less than the cash payment commitments in some, typically near-term, periods. However, if cash receipts and payments are separated into income and return of principal components (as for example, monthly payments on a fully amortized home mortgage are separated), then the expected income receipts exceed the income (interest) payments on existing commitments in every period… Speculative financing involves the rolling over of maturing debt… A Ponzi-financing unit is similar to a speculative financing unit in that, for some near-term periods, the cash payment commitments exceed the expected cash receipts on account of owned assets. However, for at least some near-term</td>
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<td>Subprime mortgages rose from 8% of mortgage originations in 2003 to 20% in 2005. About 70% of subprime borrowers used hybrid adjustable-rate mortgages (ARMs) such as 2/28s and 3/27s—mortgages whose low “teaser” rate lasts for the first two or three years, and then adjusts periodically thereafter. Prime borrowers also used more alternative mortgages. The dollar volume of Alt-A securitization rose almost 350% from 2003 to 2005. In general, these loans made borrowers’ monthly mortgage payments on ever more expensive homes affordable—at least initially. Popular Alt-A products included interest-only mortgages and payment-option ARMs. Option ARMs let borrowers pick their payment each month, including payments that actually increased the principal—any shortfall on the interest payment was added to the principal, something called negative amortization. If the balance got large enough, the loan would convert to a fixed-rate mortgage, increasing the monthly payment—perhaps dramatically. Option ARMs rose from 2% of mortgages in 2003 to 20% in 2006. p. 105 The general view … was that some of the underlying mortgages “were structured to fail, [but] that all the borrowers would basically be bailed out as long as real estate prices went up. p. 200 When the housing and mortgage markets cratered, the lack of transparency, the extraordinary debt loads, the short-term loans, and the risky assets all came home to roost. What resulted was panic. We had reaped what we had sown. p. xx.</td>
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periods, the cash payment commitments on income account exceed the expected cash payment receipts on income account… so that the face value of the outstanding debt increases; Ponzi units capitalize interest into their liability structure. ..

Debtors and bankers engaged in speculative and Ponzi finance expect payment commitments on debts to be met by refinancing, increasing debts, or running down superfluous stocks of financial assets. pp. 230-232

The mixture of hedge, speculative, and Ponzi finance in an economy is a major determinant of its stability. The existence of a large component of positions financed in a speculative or a Ponzi manner is necessary for financial instability.
4. Rising Asset Values and Shift to Speculative- and Ponzi-Financing

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<td>In a system dominated by hedge finance, the pattern of interest rates (short-term rates being significantly lower than long-term rates) are such that profits can be made by intruding speculative arrangements. The intrusion of speculative relations into a system of mainly hedging financing of positions increases the demand for assets and therefore raises asset values—that is, it leads to capital gains. A regime in which capital gains are being earned and are expected is a favorable environment for engaging in speculative and Ponzi finance. Profit opportunities within a robust financial structure make the shift from robustness to fragility an endogenous phenomenon.</td>
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<td>Between 2003 and 2007, as house prices rose 27% nationally and $4 trillion in mortgage-backed securities were created, Wall Street issued nearly $700 billion in CDOs that included mortgage-backed securities as collateral.</td>
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<td>In the aftermath of a financial crisis, bankers and businessmen who have been burned shy away from speculative and Ponzi financing.</td>
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<td>Jamie Dimon, the CEO of JP Morgan, told the Commission [FCIC], “In mortgage underwriting, somehow we just missed, you know, that home prices don’t go up forever and that it’s not sufficient to have stated income.”</td>
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<td>In a world dominated by hedge finance and in which little value is placed on liquidity because it is so plentiful, the interest rate structure yields profit opportunities in financing positions in capital assets by using short-term liabilities. If investment and the government deficit generate ample profits in an economy with a robust financial structure, short-term interest rates on secure investments will be significantly lower than the yield from owning capital.</td>
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<td>Historically, 2/28s or 3/27s, also known as hybrid ARMs, let credit-impaired borrowers repair their credit. During the first two or three years, a lower interest rate meant a manageable payment schedule and enabled borrowers to demonstrate they could make timely payments…</td>
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<td>But as house prices rose after 2000, the 2/28s and 3/27s acquired a new role: helping to get people into homes or to move up to bigger homes. “As homes got less and less affordable, you would adjust for the affordability in the mortgage because you couldn’t really adjust people’s income,” Andrew Davidson, the president of Andrew Davidson &amp; Co. and a veteran of the mortgage markets, told the FCIC. Lenders qualified borrowers at low teaser rates, with little thought to what might happen when rates reset. Hybrid ARMs became the workhorses of the subprime securitization market.</td>
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1 In the FCIC excerpt, ARMs are adjustable rate mortgages. A 2/28 ARM has a 30 year maturity featuring a fixed rate for the first two years and a floating rate thereafter. A 3/27 ARM features a fixed rate for the first three years, and a floating rate thereafter.
... during good time the interactions between bankers and their borrowing customers increase the weight of assets reflecting speculative and Ponzi finance in the balance sheet of banks. As a result, the financial system evolves from an initial robustness toward fragility, and continuous control and periodic reform ... are needed to prevent the development of a financially unstable economy ... p. 354

The existence of profit opportunities does not necessarily mean that fragile financing patterns will emerge immediately... The ruling borrower’s and lender’s risk sets limits upon the rapidity with which the opportunities for profits through liability management are exploited...

Another barrier to the quick exploitation of interest rate differentials in the aftermath of a financial trauma lies in the need to develop institutions that can absorb the preferred liabilities of holders of capital assets and emit instruments that satisfy the need of wealth owners or other financial institutions for liquidity or value assuredness. Bankers—using the term generically to include various financial-market operators—are always seeking to innovate in financial usages.

A third barrier to the immediate emergence of fragile financing patterns once profit opportunities from speculative and Ponzi finance exist is the need for assured refinancing by organizations engaging in speculative finance... The speed at which financial innovations such as commercial paper occur and spread is a governor that regulates the pace of movement out of hedge and into speculative finance. pp.

Option ARMs rose from 2% of mortgages in 2003 to 20% in 2006.

Simultaneously, underwriting standards for nonprime and prime mortgages weakened. Combined loan-to-value ratios—reflecting first, second, and even third mortgages—rose. Debt-to-income ratios climbed, as did loans made for non-owner occupied properties.

Fannie and Freddie continued to purchase subprime and Alt-A mortgage–backed securities from 2005 to 2008 and also bought and securitized greater numbers of riskier mortgages. The results would be disastrous for the companies, their shareholders, and American taxpayers. p. 125

Fannie Mae and Freddie Mac’s market share shrank from 57% of all mortgages purchased in 2003 to 42% in 2004, and down to 37% by 2006. Taking their place were private-label securitizations—meaning those not issued and guaranteed by the GSEs. p. 105.

In the first decade of the 21st century, a previously obscure financial product called the collateralized debt obligation, or CDO, transformed the mortgage market by creating a new source of demand for the lower-rated tranches of mortgage-backed securities.

Still, it was not obvious that a pool of mortgage-backed securities rated BBB could be transformed into a new security that is mostly rated triple-A. But math made it so. The securities firms argued—and the rating agencies agreed—that if they pooled many BBB rated mortgage-backed securities, they would create additional diversification benefits.
The rating agencies believed that those diversification benefits were significant—that if one security went bad, the second had only a very small chance of going bad at the same time. And as long as losses were limited, only those investors at the bottom would lose money. They would absorb the blow, and the other investors would continue to get paid. p. 125

But when the housing market went south, the models on which CDOs were based proved tragically wrong. The mortgage-backed securities turned out to be highly correlated—meaning they performed similarly. Across the country, in regions where subprime and Alt-A mortgages were heavily concentrated, borrowers would default in large numbers. This was not how it was supposed to work. Losses in one region were supposed to be offset by successful loans in another region.

The greatest losses would be experienced by big CDO arrangers such as Citigroup, Merrill Lynch, and UBS, and by financial guarantors such as AIG, Ambac, and MBIA. These players had believed their own models and retained exposure to what were understood to be the least risky tranches of the CDOs: those rated triple-A or even “super-senior,” which were assumed to be safer than triple-A-rated tranches. p. 129
## 5. Economic Ideology During a Boom

### Minsky

As a previous financial crisis recedes in time, it is quite natural for central bankers, government officials, bankers, businessmen, and even economists to believe that a new era has arrived. Cassandra-like warnings that nothing basic has changed, that there is a financial-breaking point that will lead to a deep depression, are naturally ignored in these circumstances… Endogenous forces make a situation dominated by hedge finance unstable, and endogenous disequilibrating forces will become greater as the weight of speculative and Ponzi finance increases. pp. 237-238

As financial and product markets react to profit opportunities in an investment boom, the demand for financing increases interest rates… Rising interest rates diminish or eliminate the margins of safety that make the financing of investment possible. This tends to force units to decrease investment or sell out positions. p. 239

### FCIC

During a June meeting, the Federal Open Market Committee (FOMC), composed of Federal Reserve governors, four regional Federal Reserve Bank presidents, and the Federal Reserve Bank of New York president, heard five presentations on mortgage risks and the housing market. Members and staff had difficulty developing a consensus on whether housing prices were overvalued and “it was hard for many FOMC participants … to ascribe substantial conviction to the proposition that overvaluation in the housing market posed the major systemic risks that we now know it did,” according to a letter from Fed Chairman Ben Bernanke to the FCIC. “The national mortgage system might bend but will likely not break,” and “neither borrowers nor lenders appeared particularly shaky,” one presentation argued, according to the letter. In discussions about nontraditional mortgage products, the argument was made that “interest-only mortgages are not an especially sinister development,” and their risks “could be cushioned by large down payments.” The presentation also noted that while loan-to-value ratios were rising on a portion of interest-only loans, the ratios for most remained around 80%. Another presentation suggested that housing market activity could be the result of “solid fundamentals.” Yet another presentation concluded that the impact of changes in household wealth on spending would be “perhaps only half as large as that of the 1990s stock bubble.” Most FOMC participants agreed “the probability of spillovers to financial institutions seemed moderate.”

As one recent study argues, many...
economists were “agnostics” on housing, unwilling to risk their reputations or spook markets by alleging a bubble without finding support in economic theory. But not all economists hesitated to sound a louder alarm. A couple of months later, Fed economists in an internal memo acknowledged the possibility that housing prices were overvalued, but downplayed the potential impacts of a downturn. pp. 158-159.
### 6. Failure of Financial Market Regulation

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<td>Conservatives call for the freeing of markets even as their corporate clients lobby for legislation that would institutionalize and legitimize their market power; businessmen and bankers recoil in horror at the prospect of easing entry into their various domains even as technological changes and institutional evolution make the traditional demarcations of types of businesses obsolete. In truth, corporate America pays lip service to free enterprise and extols the tenets of Adam Smith, while striving to sustain and legitimize the very thing that Smith abhorred—state mandated market power. p. 322</td>
<td>Where were the regulators? Declining underwriting standards and new mortgage products had been on regulators’ radar screens in the years before the crisis, but disagreements among the agencies and their traditional preference for minimal interference delayed action. p. 171.</td>
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<td>The standard analysis of banking has led to a game that is played by central banks, henceforth to be called the authorities, and profit-seeking banks. In this game, the authorities impose interest rates and reserve regulations and operate in money markets to get what they consider to be the right amount of money, and the banks invent and innovate in order to circumvent the authorities. The authorities may constrain the rate of growth of the reserve base, but the banking and financial structure determines the efficacy of reserves.</td>
<td>Fed Chairman Greenspan described the argument for deregulation: “Those of us who support market capitalism in its more competitive forms might argue that unfettered markets create a degree of wealth that fosters a more civilized existence. I have always found that insight compelling.” p. 34.</td>
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<td>This is an unfair game. The entrepreneurs of the banking community have much more at stake than the bureaucrats of the central banks. In the postwar period, the initiative has been with the banking community, and the authorities have been “surprised” by changes in the way financial markets operate. The profit-seeking bankers almost always win their game with the authorities, but, in winning, the banking community destabilizes the economy; the true losers are those who are hurt by unemployment</td>
<td>Henry Cisneros, a former housing and urban development secretary, expressed a similar view. “OFHEO,” Cisneros told the FCIC, “was puny compared to what Fannie Mae and Freddie Mac could muster in their intelligence, their Ivy League educations, their rocket scientists in their place, their lobbyists, their ability to work the Hill. p. 322.</td>
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<td>Supervisors had, since the 1990s, followed a “risk-focused” approach that relied extensively on banks’ own internal risk management systems. “As internal systems improve, the basic thrust of the examination process should shift from largely duplicating many activities already conducted within the bank to providing constructive feedback that the bank can use to enhance further the quality of its risk-management systems,” Chairman Greenspan had said in 1999. Across agencies, there was a “historic vision, historic approach, that a lighter hand at regulation was the appropriate way to</td>
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and inflation. p. 279

Today’s standard theory argues that the authorities should focus on the money supply and should operate to achieve a constant rate of growth of this construct…The money supply blinders worn by authorities in effect dismiss the ways in which portfolio transformations occur and how they affect the stability of the economy. The erosion of bank equity bases, the growth of liability management banking, and the greater use of covert liabilities are virtually ignored until financial markets tend to break down. At this time, the Federal Reserve’s original reason for being comes into play—and the Federal Reserve, acting as lender of last resort, pumps reserves into the banking system and refinances banks in order to prevent a breakdown of the financing system. p. 280


[Richard Spillenkothen was the Fed’s director of Banking Supervision and Regulation from 1991 to 2006.] Spillenkothen said that one of the regulators’ biggest mistakes was their “acceptance of Basel II premises,” which he described as displaying “an excessive faith in internal bank risk models, an infatuation with the specious accuracy of complex quantitative risk measurement techniques, and a willingness (at least in the early days of Basel II) to tolerate a reduction in regulatory capital in return for the prospect of better risk management and greater risk-sensitivity.

But too little was done, and too late, because of interagency discord, industry pushback, and a widely held view that market participants had the situation well in hand. Fed staff replied that the GSEs were not large purchasers of private label securities.

In the spring of 2006, the FOMC would again discuss risks in the housing and mortgage markets and express nervousness about the growing “ingenuity” of the mortgage sector. One participant noted that negative amortization loans had the pernicious effect of stripping equity and wealth from homeowners and raised concerns about nontraditional lending practices that seemed based on the
presumption of continued increases in home prices.

John Snow, then treasury secretary, told the FCIC that he called a meeting in late 2004 or early 2005 to urge regulators to address the proliferation of poor lending practices. He said he was struck that regulators tended not to see a problem at their own institutions. “Nobody had a full 360-degree view. The basic reaction from financial regulators was, ‘Well, there may be a problem. But it’s not in my field of view,’” Snow told the FCIC. Regulators responded to Snow’s questions by saying, “Our default rates are very low. Our institutions are very well capitalized. Our institutions [have] very low delinquencies. So we don’t see any real big problem.

In May 2005, the banking agencies did issue guidance on the risks of home equity lines of credit and home equity loans. It cautioned financial institutions about credit risk management practices, pointing to interest-only features, low- or no-documentation loans, high loan-to-value and debt-to-income ratios, lower credit scores, greater use of automated valuation models, and the increase in transactions generated through a loan broker or other third party. While this guidance identified many of the problematic lending practices engaged in by bank lenders, it was limited to home equity loans. It did not apply to first mortgages.

Once the Fed and other supervisors had identified the mortgage problems, they agreed to express those concerns to the industry in the form of nonbinding guidance.

“There was among the Board of Governors folks, you know, some who felt that if we just put out guidance, the banks would get
the message,” [Fed governor Susan] Bies said.

Immediately, the industry was up in arms. The American Bankers Association said the guidance “overstate[d] the risk of non-traditional mortgages.” They disputed the warning on low-documentation loans, maintaining that “almost any form of documentation can be appropriate.” They denied that better disclosures were required to protect borrowers from the risks of nontraditional mortgages, arguing that they were “not aware of any empirical evidence that supports the need for further consumer protection standards.

The need for guidance was controversial within the agencies, too. “We got tremendous pushback from the industry as well as Congress as well as, you know, internally,” the Fed’s Siddique told the FCIC. “Because it was stifling innovation, potentially, and it was denying the American dream to many people.” [Sabeth Siddique was the assistant director for credit risk in the Division of Banking Supervision and Regulation at the Federal Reserve Board.]

The pressures to weaken and delay the guidance were strong and came from many sources. Opposition by the Office of Thrift Supervision helped delay the mortgage guidance for almost a year. It also appeared some institutions switched regulators in search of more lenient treatment. In December 2006, Countrywide applied to switch regulators from the Fed and OCC to the OTS.

The OTS approved Countrywide’s application for a thrift charter on March 5, 2007. pp. 170-174.
## 7. Busts and Runs on Commercial Paper

<table>
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<th>Minsky</th>
<th>FCIC</th>
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<td>REITs were the boom financial industry of the early 1970s. These organizations are a creature of the tax laws – if they pay 90 percent of their earnings in dividends, they do not have to pay a corporate income tax…</td>
<td>Subprime and Alt-A mortgage–backed securities depended on a complex supply chain, largely funded through short-term lending in the commercial paper and repo market—which would become critical as the financial crisis began to unfold in 2007. These loans were increasingly collateralized not by Treasuries and GSE securities but by highly rated mortgage securities backed by increasingly risky loans. Independent mortgage originators such as Ameriquest and New Century—without access to deposits—typically relied on financing to originate mortgages from warehouse lines of credit extended by banks, from their own commercial paper programs, or from money borrowed in the repo market. p. 113.</td>
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<td>Although a REIT could wholly own and operate real estate, that was a rarity; the REITs that financed construction were heavily indebted. ... As the REIT business exploded in the early 1970s, the industry depended ever more heavily on short-term financing; this made profits and the market value of REITs equity shares vulnerable to runups in interest rates. p. 68</td>
<td>Commercial banks used commercial paper, in part, for regulatory arbitrage. When banks kept mortgages on their balance sheets, regulators required them to hold 4% in capital to protect against loss. When banks put mortgages into off-balance-sheet entities such as commercial paper programs, there was no capital charge (in 2004, a small charge was imposed). But to make the deals work for investors, banks had to provide liquidity support to these programs, for which they earned a fee. This liquidity support meant that the bank would purchase, at a previously set price, any commercial paper that investors were unwilling to buy when it came up for renewal. During the financial crisis these promises had to be kept, eventually putting substantial pressure on banks’ balance sheets. p. 114.</td>
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<td>Accrued income poses a dilemma for REITs. Income is accruing; they need to pay 90 percent of earnings in dividends to retain their tax advantage, but there is no cash flow. In these circumstances, the REITs have to borrow in order to pay dividends…</td>
<td>In the summer of 2007, as the prices of...</td>
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sell their paper on the open market. Obviously, at some stage in this process even the bankers must have known they were making loans to organizations whose creditworthiness was suspect. Making loans because of other than profit-making considerations is characteristic of lender-of-last-resort operations…

The REIT episode is a classic speculative bubble. But the big crash that usually results did not take place, because institutional lenders refinanced the REITs and because the examining bodies went along with this business judgment… As a result of the REIT episode, commercial banks had weakened balance sheets and therefore increased vulnerability to disturbance after future speculative periods. p. 71

some highly rated mortgage securities crashed and Bear’s hedge funds imploded, broader repercussions from the declining housing market were still not clear. “I don’t think [the subprime mess] poses any threat to the overall economy,” Treasury Secretary Henry Paulson told Bloomberg on July 26.

Meanwhile, nervous market participants were looking under every rock for any sign of hidden or latent subprime exposure. In late July, they found it in the market for asset backed commercial paper (ABCP), a crucial, usually boring backwater of the financial sector.

This kind of financing allowed companies to raise money by borrowing against high-quality, short-term assets. By mid-2007, hundreds of billions out of the $1.2 trillion U.S. ABCP market were backed by mortgage-related assets, including some with subprime exposure…

When the mortgage securities market dried up and money market mutual funds became skittish about broad categories of ABCP, the banks would be required under these liquidity puts to stand behind the paper and bring the assets onto their balance sheets, transferring losses back into the commercial banking system. In some cases, to protect relationships with investors, banks would support programs they had sponsored even when they had made no prior commitment to do so. p. 246.

Soon, panic seized the short-term funding markets—even those that were not exposed to risky mortgages. “There was a recognition, I’d say an acute recognition, that potentially some of the asset-backed commercial paper conduits could have exposure to those areas. As a result, investors in general—without even looking
Steven Meier, global cash investment officer at State Street Global Advisors, testified to the FCIC:

> into the underlying assets—decided ‘I don’t want to be in any asset-backed commercial paper, I don’t want to invest in a fund that may have those positions,’”

From its peak of $1.2 [trillion] on August 8, the asset backed commercial paper market would decline by almost $400 billion by the end of 2007. p. 248.
### 8. Too Big to Fail

#### Minsky

The United States has a type of contingency socialism, in which the liabilities of particular organizations are protected either by overt government intervention or by the grant of monopoly price setting powers.

Financial reform needs to confront the public nature of much that is private. Big or giant corporations carry an implied public guarantee (i.e., contingency liability) on their debts. This introduces a financing bias favoring giant corporations and giant banks, for the implicit public liability leads to preferred market treatment.  p. 354

… Consequently, the already weakened portfolios of some banks are made even weaker when these banks act as proximate lender of last resort to fringe institutions. Furthermore, a succession of episodes in which giant money-market banks bail out fringe banks is likely to result in a cumulative debilitation of the giant banks; Bank of America was not necessarily strengthened when it absorbed Seafirst of Seattle in the aftermath of the Penn Square fiasco of 1982.

The potential for a domino effect, which can cause a serious disruption, is implicit in a hierarchical financial pattern. The introduction of additional layering in finance, together with the invention of new instruments designed to make credit available by tapping pools of liquidity, is evidence, beyond that revealed by the financial data itself, of the increased fragility of the system.  p. 97

When a Chrysler is bankrupt, the bankruptcy should be handled by a

#### FCIC

From 1998 to 2007, the combined assets of the five largest U.S. banks—Bank of America, Citigroup, JP Morgan, Wachovia, and Wells Fargo—more than tripled, from $2.2 trillion to $6.8 trillion. p.53.

During a hearing on the rescue of Continental Illinois, Comptroller of the Currency C. Todd Conover stated that federal regulators would not allow the 11 largest “money center banks” to fail. This was a new regulatory principle, and within moments it had a catchy name.

Representative Stewart McKinney of Connecticut responded, “We have a new kind of bank. It is called ‘too big to fail’—TBTF—and it is a wonderful bank.”  p. 37.

Just as Bernanke thought the spillovers from a housing market crash would be contained, so too policymakers, regulators, and financial executives did not understand how dangerously exposed major firms and markets had become to the potential contagion from these risky financial instruments. As the housing market began to turn, they scrambled to understand the rapid deterioration in the financial system and respond as losses in one part of that system would ricochet to others.

By the end of 2007, most of the subprime lenders had failed or been acquired, including New Century Financial, Ameriquest, and American Home Mortgage. In January 2008, Bank of America announced it would acquire the ailing lender Countrywide. It soon became clear that risk—rather than being diversified across the financial system, as
government refinancing corporation, which would take over the business and break it up into parts that can survive in the market and parts that cannot generate profits. p. 368

had been thought—was concentrated at the largest financial firms. p. 22

Thain thought that was more than the assembled executives would be willing to finance and, therefore, Thain believed Lehman would fail. If Lehman failed, Thain believed, Merrill would be next. So he had called Ken Lewis, the CEO of Bank of America, and they met later that day at Bank of America’s New York corporate apartment. By Sunday, the two agreed that Bank of America would acquire Merrill for $29 per share, payable in Bank of America stock. p. 335

In October, Wachovia struck a deal to be acquired by Wells Fargo. Citigroup and Bank of America fought to stay afloat. Before it was over, taxpayers had committed trillions of dollars through more than two dozen extraordinary programs to stabilize the financial system and to prop up the nation’s largest financial institutions. p. 23

TARP would wind up costing about $29 billion, mostly owing to the bailout of the automakers General Motors and Chrysler and the mortgage modification program. p. 400.
4. Psychology in Minsky’s Perspective

Minsky argued that financial crises are endemic to capitalism, and therefore unavoidable. I would argue that he is probably correct, and that history supports his view, certainly the out of sample events that occurred after his death. I would also argue that the key forces leading to instability are largely psychological, but that Minsky lacked the behavioral vocabulary to identify most of the key psychological phenomena involved.

4.1 Excessive Optimism

In 1986, when Minsky’s book on economic instability was published, behavioral economics and behavioral finance were in their infancy. Therefore, it is hardly surprising that specific psychological concepts play little role in his discussion, although he certainly alludes to the role of psychology. In this regard, the term he uses to encapsulate psychological concepts appears to be “euphoria.” To see how he uses the term in context, consider the following quotation:

[S]uccess breeds a disregard of the possibility of failure; the absence of serious financial difficulties over a substantial period of time leads to the development of a euphoric economy in which the increasing short-term financing of long positions becomes a normal way of life.” p. 237

This quotation suggests that Minsky’s use of euphoria closely corresponds to the notion of excessive optimism in the behavioral approach, also known as irrational exuberance. Excessive, or unrealistic, optimism involves biased probabilities in which the likelihood attached to favorable events is too high and correspondingly the likelihood attached to unfavorable events is too low. Minsky’s point about the absence of serious financial difficulties leading to a euphoric economy can be understood as the “hot hand effect” in which an economy which has recently been hot will continue to be hot. Notably, the psychology literature documents the existence of a predisposition towards being excessively optimistic (Weinstein, 1980).

Minsky’s quotation just above involves his concern about the dangers of mismatching maturities, and financing long-term assets with short-term liabilities. A key aspect of these dangers involves Ponzi finance, whereby full repayment of principal and interest only occurs if there is sufficient price appreciation on the underlying asset, which a bubble threatens. That is why Minsky favors hedge financing, meaning financing in which the underlying cash flows generated by the asset, rather than price appreciation, provide the means of paying promised interest and repayment of principal. With this in mind, consider the following quotation from Minsky, which again uses the term euphoria.

… For things to go wrong with a hedge unit, something first had to go wrong someplace else in the economy—unless the hedge characteristics of the initial financing were based upon unrealistic euphoric expectations with respect to costs, markets, and their development over time… p. 233.
In this passage, Minsky is effectively stating his view that risks associated with hedge financing tend to be systematic rather than idiosyncratic, unless expectations feature unrealistic optimism.

Foote, Gerardi, and Willen (2012) document excessive optimism about housing prices, describing how many decision makers correctly understood the consequences attached to a decline in housing prices, but failed to appreciate its likelihood or severity.

Excessive optimism is but one of the psychological phenomena that impacted economic decisions in the leadup to the financial crisis. To round out this section, I describe other phenomena that played key roles in the development of the financial crisis, which I discussed in previous work (Shefrin, 2010). The phenomena in question include overconfidence, aversion to a sure loss, confirmation bias, representativeness, (Kahneman, 2011), and aspiration based risk taking (Lopes, 1987).

### 4.2 Overconfidence

The primary effect of overconfidence on financial decision tasks is the underestimation of risk. In this regard, consider the following excerpts from the FCIC report:

The CDO machine had become self-fueling. Senior executives—particularly at three of the leading promoters of CDOs, Citigroup, Merrill Lynch, and UBS—apparently did not accept or perhaps even understand the risks inherent in the products they were creating. p. 188

The greatest losses would be experienced by big CDO arrangers such as Citigroup, Merrill Lynch, and UBS, and by financial guarantors such as AIG, Ambac, and MBIA. These players had believed their own models and retained exposure to what were understood to be the least risky tranches of the CDOs: those rated triple-A or even “super-senior,” which were assumed to be safer than triple-A-rated tranches. p. 129

But it would become clear during the crisis that some of the highest leverage was created by companies such as Merrill, Citigroup, and AIG when they retained or purchased the triple-A and super-senior tranches of CDOs with little or no capital backing. p. 135

### 4.3 Aversion to a Sure Loss

Aversion to a sure loss is the tendency to be risk seeking in the domain of losses. In this respect, consider how the FCIC describes the framing of the decision task at Fannie Mae as the firm began to lose market share.
In 2005, while Countrywide, Citigroup, Lehman, and many others in the mortgage and CDO businesses were going into overdrive, executives at the two behemoth GSEs, Fannie and Freddie, worried they were being left behind…

“The risk in the environment has accelerated dramatically,” Thomas Lund, Fannie’s head of single-family lending, told fellow senior officers at a strategic planning meeting on June 27, 2005. In a bulleted list, he ticked off changes in the market: the “proliferation of higher risk alternative mortgage products, growing concern about housing bubbles, growing concerns about borrowers taking on increased risks and higher debt, [and] aggressive risk layering.”

“We face two stark choices: stay the course [or] meet the market where the market is,” Lund said. p. 178

Fannie Mae chose to accept the risk of meeting the market where the market was, and subsequently went into receivership after making record losses.

4.4 Confirmation Bias

Confirmation bias is the tendency to overweight information that confirms one’s existing view, but to ignore information which disconfirms that view. The following excerpt illustrates:

And Merrill continued to push its CDO business despite signals that the market was weakening. As late as the spring of 2006, when AIG stopped insuring even the very safest, super-senior CDO tranches for Merrill and others, it did not reconsider its strategy. p. 204

4.5 Representativeness

Representativeness is the tendency to place excessive emphasis on stereotypes when making judgments. The following excerpt pertains to the contrast between the stereotypic proportions of subprime mortgages in the CDOs and the CDOs for which AIG was selling protection.

Told by a consultant, Gary Gorton, that the “multisector” CDOs on which AIG was selling credit default swaps consisted mainly of mortgage-backed securities with less than 10% subprime and Alt-A mortgages, [AIG executive Gene] Park asked Adam Budnick, another AIG employee, for verification. Budnick double checked and returned to say, according to Park, “I can’t believe it. You know, it’s like 80 or 90%.” Reviewing the portfolio—and thinking about a friend who had received 100% financing for his new home after losing his job—Park said, “This is horrendous business. We should get out of it.” p. 200
4.6 Aspiration Based Risk Taking

Aspiration based risk taking highlights the role of aspiration levels on risk tolerance. The following passage from the FCIC illustrates how being below aspiration can induce high tolerance for risk.

When Dow Kim became co-president of Merrill Lynch’s Global Markets and Investment Banking Group in July 2003, he was instructed to boost revenue, especially in businesses in which Merrill lagged behind its competitors. Kim focused on the CDO business; clients saw CDOs as an integral part of their trading strategy, CEO Stanley O’Neal told the FCIC. Kim hired Chris Ricciardi from Credit Suisse, where Ricciardi’s group had sold more CDOs than anyone else.

After Ricciardi left, Kim instructed the rest of the team to do “whatever it takes” not just to maintain market share but also to take over the number one ranking, former employees said in a complaint filed against Merrill Lynch. p. 202

5. Reaction to Minsky’s Work

Reaction to Minsky’s work has been mixed. The main institutional support for his approach has been the Levy Institute at Bard College, with Ford Foundation funding, which has long been hosting Minsky conferences. These conferences have attracted distinguished speakers such as Joseph Stiglitz, Janet Yellen, Gillian Tett, and Henry Kaufman (who wrote the foreword to the republished version of Minsky’s book in 2008).

Among this last group, Yellen was explicit about the contributions of Minsky’s work to understanding the financial crisis, describing lessons for central bankers (Yellen, 2009). At that time, she was President and Chief Executive Officer of the Twelfth District Federal Reserve Bank, at San Francisco. In October 2010, she took office as Vice Chair of the Board of Governors of the Federal Reserve System, and simultaneously began a 14-year term as a member of the Board.

Although Yellen’s article suggests that Minsky’s ideas have had some influence at the Fed, The Economist (July 7, 2010) describes only fleeting references to his work in a staff paper upon which Fed Chair Ben Bernanke based one of his speeches. Notably, in that speech, Bernanke did not cite Minsky by name nor did he cite Minsky in a follow up speech in April 2012. In this regard, the April 2012 speech summarized what Bernanke had previously described as one of the major lessons he learned from the financial crisis, namely the fact that the Fed needed to place regulation on an equal footing to monetary policy. Of course, Minsky had recommended doing so decades earlier; see again his comments about “money supply blinders” in Section 3 (failure of financial market regulation).
As with its American central bank counterpart, the Bank of England is aware of Minsky’s work, but in its exploration of alternative approaches to regulation appears not to have made explicit use of his ideas. To be sure, the Bank of England focuses on issues related to excessive leverage and risk at the heart of the Basel accords, but without explicit attention to Ponzi finance in the context of the Minsky dynamic (Haldane, 2012).

Krugman (2012) explains why he himself will “never be a true Minskyite in Keen’s sense.” Keen is Steve Keen who developed a formal model of Minsky’s ideas (Keen, 1995) which he has updated (Keen, 2012). Krugman is critical of Keen’s model, arguing that the assumptions are unclear and not compelling. To be sure, Minsky did not develop a complete model of his framework, although he did model a few components. Nevertheless, most of Minsky’s ideas were expressed qualitatively rather than mathematically.

The absence of a clear mathematical model might well be an important reason why Minsky’s ideas have been underappreciated. Most economic methodology is quantitative in nature. Economists tend to build on each others’ work. Minsky might not have provided enough concrete ideas upon which to build, especially for graduate students studying with him whose work would need to be accepted in peer reviewed journals.

Viewed as a meme, Minsky’s ideas appear to be non-contagious, in the sense of Lynch’s contagion theory (Lynch, 1996): Contagion theory explains how ideas, such as religious principles, capture “hosts,” meaning people who accept the ideas and propagate them.

The failure of Minsky’s ideas to capture hosts seems quite widespread among policy makers, economists, and the media. There is no mention of his name in the FCIC report. Searches for his name in the websites for NPR and PBS come back empty. The Wall Street Journal, which did use the term “Minsky moment” (Lahart, 2007) and is quoted on the jacket cover of the reprint of his book, only mentions Minsky in ten articles between 1987 and 2012. Of these, half occurred before the financial crisis, and only two appeared after the Lehman bankruptcy in September 2008. Although some economists cite Minsky (Field, 2011), most in both the Keynesian camp and the neoclassical free market camp tend not to cite him. A prominent example is Reinhart and Rogoff (2009), a major work on economic instability. Even Minsky’s former teaching assistant, journalist Justin Fox, wrote critically about some of his ideas in an article for Time magazine (Fox, 2009).

To be sure, Minsky did not consider himself to be either Keynesian or neoclassical. Indeed, he was quite critical of both groups, which given the sociological structure of academic communities and the manner in which academic research is done, might explain why he failed to impact his contemporaries in a major way. He criticized neoclassical economists for their belief that markets were self-correcting, and he criticized Keynesians for omitting some of Keynes’s insights about the contribution of the financial sector to economic instability.

Akerlof and Shiller (2009) discuss behavioral macroeconomic elements in the financial crisis, choosing Keynes’s term “animal spirits” as the title of their book. Keynes used the
term “animal spirits” to describe decisions to take action that stem from intuition and instinct rather than rational calculation. Although Akerlof and Shiller do cite Minsky several times, they appear only to do so in the endnotes. Therefore, their book does not convey Minsky’s overall perspective on the cause of economic instability.

I would point out that many policy makers, economists, and media editors would disagree with Minsky’s policy recommendations, or what he called reforms. Minsky had strong opinions, although the opinions he held about diagnosing the causes of financial instability were stronger than his opinions about the appropriate remedies.

Minsky’s reforms feature four categories: fiscal, employment, industrial, and financial. In respect to fiscal policy, he advocated running a large enough public sector so that fiscal deficits could offset dramatic decreases in aggregate demand in the private sector. At the same time, Minsky cautioned against the public sector becoming too large. He also recommended abolishing the corporate income tax, because he thought that the tax deductibility of interest encourages excessive leverage. In respect to employment policy, he advocated having public employment programs in place to keep employment from plummeting. Minksy’s model for employment policy was the collection of programs from the New Deal: Civilian Conservation Corps, National Youth Administration, and Works Progress Administration. In respect to industrial policy, he advocated having measures in place to keep systemically important firms from becoming too large, therefore too big to fail. In respect to financial policy, he advocated having the Fed play a more active role in financing at the discount window, so as to keep tabs of the growth in speculative and Ponzi financing.

The FCIC report is an interesting document, featuring a majority position is very much in line with Minsky’s perspective, and a minority position which argues that excessive government intervention in the mortgage market, through Fannie Mae and Freddie Mac, was largely responsible for the financial crisis. Almost surely, the authors of the minority report would reject Minsky’s perspective on the root causes of economic instability.

The concept of self-interest is at the heart of modern economics, and perceived self-interest drives the behavior of policy makers, economists, and media editors as much as it drives the behavior of investors and corporate managers. Academics have intellectual capital to protect.

For Minsky’s perspective to gain widespread acceptance, it is not enough that the position he articulated be correct. Confirmation bias is very strong. Minsky’s critique of both Keynesians and neoclassicists is such that members of both major camps would need to accept evidence disconfirming their views.

Those with neoclassical leanings will be reluctant to accept the views of a thinker who advocates strong government intervention to mitigate the dynamic underlying economic instability, especially his recommendation for an activist employment policy. Those with Keynesian leanings will be reluctant to accept the views of someone who contends that Keynesians misunderstood Keynes and developed models that were too accommodating.
of neoclassical elements. Both camps are prone to reject the idea that economic stability is impossible in a modern capitalist economy; and Minsky chided policy makers and the economists who advise them for suggesting otherwise. A similar remark applies to the media, whose private interests feature sensation seeking and controversy, as that is what sells. Minsky’s pill might be hard to swallow for many: Confirmation bias will lead many patients to spit out their Minsky pills.

Simon (1955) told us that full optimization is typically unattainable, and that instead we should employ sensible satisficing heuristics that are good enough. Gigerenzer (2008) told us to develop heuristics that are fast and frugal, meaning heuristics that are easy to implement and rely on small amounts of information. Perhaps what economic policy makers need are fast and frugal Minsky-based heuristics focused on limiting excessive leverage, excessive mismatching of assets and liability maturities, and excessive Ponzi finance. Haldane (2012), which focuses on fast and frugal heuristics for leverage and risk, is a good start.

6. Conclusion

The global financial crisis provided a dramatic out-of-sample test of Hyman Minsky’s ideas. He might not have had a well developed formal theory or a sophisticated econometric model; however, he did have a deep insight into the forces that generate economic instability and bring about financial crises. Despite all this, his insights are yet to be fully exploited.

Going forward, the question will be how to pursue an agenda that fruitfully applies Minsky’s insights. For those insights to be useful, self-interested users will need to see how Minsky’s ideas will best serve their interests. Part of the challenge will be intellectual and the rest will be psychological, as confirmation bias is very strong. In this last regard, we would be well to remember that it is because of the psychological issues that Minsky emphasized that the economic system is inherently unstable, and that crises are unavoidable. Nevertheless, what we can do is find “humane” ways, to use his term, that mitigate their impact.
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Fox, Justin, 2009. “Hyman Minsky Didn’t Have All the Answers,” *Time magazine*, September 15.


