

Competing explanations of the Minsky moment: The financial instability hypothesis in light of Austrian theory

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Abstract This paper evaluates the Minsky hypothesis. I discuss the Austrian theory of the business cycle against his theory, from the perspective of the theory and with reference to the current crisis. Minsky offers some of the theoretical details of speculation during the boom phase, which is a positive feature of his hypothesis and allows us to see more clearly how the recent financial crisis played itself out, but in the end his cycle theory remains incomplete. The Minsky moment—a feature of the recent housing bubble—is something that the Austrian theory of the cycle is already fit to explain.

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The current macroeconomic crisis has launched much discussion and a host of theoretical and empirical papers that seek to explain its origins. But Colander et al. (2009, p. 251) report that

The confinement of macroeconomics to models of stable states that are perturbed by limited external shocks, but that neglect the intrinsic recurrent boom-and-bust dynamics of our economic system, is remarkable.... This is even more surprising given the long academic legacy of earlier economists' study of crises, which can be found in the work of Walter Bagehot (1873); Hyman Minsky (1986); Charles Kindleberger (1989) and Axel Leijonhufvud (2000), to name a few prominent examples. This tradition, however, has been neglected and even suppressed.

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The Post Keynesian tradition, and in particular Minsky's theory of the general instability of capitalism, has now earned a long overdue recognition. Post Keynesians argue the current crisis demonstrates that Minsky's financial instability hypothesis has come to roost. We have finally witnessed, they report, the Minsky moment (Papadimitriou and Wray 2008a, b). This should help satisfy the complaint of Colander and his co-authors above. But they do not mention the contributions of the Austrian School, which also has developed a dynamic theory of the boom-and-bust cycle, beginning with Mises's 1912 treatise, *The Theory of Money and Credit*. This surprises. The article has seven authors, yet none among them acknowledge an Austrian theorist.

The Austrians, like the Post Keynesians, remain on the margins of the mainstream. The recession provides occasion to critically evaluate the Minsky hypothesis from the Austrian perspective. I shall take the opportunity to discuss the Austrian theory of the business cycle against the work of Minsky, from the perspective of theory and with reference to the current crisis. I argue that Minsky's theory focuses on the latter stages of the boom and overlooks the role that money plays in initiating the cycle by distorting relative prices within the capital structure. Minsky offers some of the theoretical details of speculative financial projects during the boom phase, which is a positive feature of his hypothesis and allows us to see more clearly how the recent financial crisis played itself out, but in the end his cycle theory remains incomplete. The so-called Minsky moment—a feature of the recent housing bubble—is something that the Austrian theory of the cycle is already fit to explain. At the end of the paper I discuss his call for Big Players, the very same organizations that are responsible for the recession.

1 Creative destruction as inherent instability: Schumpeter

I would like to begin by acknowledging some "common ground" between Minsky and the Austrians—specifically, the work on entrepreneurial innovation by Minsky's Harvard thesis advisor, Joseph Schumpeter.

We are all aware of Schumpeter's explanation. The economy, he assumes, already enjoys complete coordination. Enamored with Walrasian theory, Schumpeter suggests that the economy can be considered to be in a state of general equilibrium. Production plans repeat themselves; so do the plans of capitalists, workers, consumers. Prices do not change. Entrepreneurs merely earn standard rates of return. By the nature of the equilibrium, all economic profit opportunities are dried up, so something must change for the awareness of new profit opportunities, the appearance of new entrepreneurial knowledge, and the incentive to act upon that knowledge.

It is an exogenous source of change. Schumpeter finds a way to acknowledge the disequilibria and rough-and-tumble dynamics of capitalism by pushing a new profit-seeking entrepreneur into the general equilibrium setting. He argues entrepreneurial innovation and the recombination of capital goods disturb equilibrium (1961, pp. 128–56). Entrepreneurs will display bold "leadership" capacity, they will "blaze new trails," they will innovate in ways that offer new and previously unforeseen capital combinations and, if their expectations that guide their decisions are correct, entrepreneurs will enjoy economic profit and set the economy into disequilibrium. The entrepreneurial leap from equilibrium to disequilibrium represents modern

capitalism's "creative destruction" (1976, pp. 81–86). Other imitators might soon rush in. We cannot determine, *a priori*, if entrepreneurial imitation will initially push markets further away from equilibrium, or if imitation provides an immediate process back toward a general equilibrium state.

As a description of modern capitalism, Schumpeter's ideal types (boldness, creativity, leadership, etc.) offer some clues about the systemic rationality encouraged and developed within the institutions of a modern monetary economy. His "creative destruction" thesis, his metaphor that the entrepreneurial faculty, though rational and calculating, is "at the same time a child and a victim of economic development," offers a provocative description of the unforeseen and unintended results of entrepreneurial re-combinations of capital and its role in long run growth (1961, p. 154). The growth path itself is never stable. Equilibrium disturbed, Schumpeter suggests, might very well represent a period of instability before the new equilibrium, itself potentially unstable, evolves.

Presumably. But as a matter of pure theory, Schumpeter's general equilibrium model does not satisfy. It is *ad hoc*—the entrepreneurial disturbance is merely assumed. His entrepreneurial innovator plays a strictly exogenous role, a kind of *deus ex machina* who comes from nowhere to get the dynamics, Schumpeter's story, moving along. The dynamic is the interesting part; indeed, the dynamic is the whole story. But Schumpeter never bothers to explain how this process reverses itself. Is there any kind of corresponding dynamic? How does this bold entrepreneur, or his imitators, ever lead us back, if even unintentionally, toward general economic equilibrium? Schumpeter does not explain.¹

2 A contemporary theory of creative destruction: The financial instability hypothesis

A Post Keynesian, Minsky himself departs from his professor. He rejects the idea that capitalism tends toward something like general economic equilibrium, let alone can ever enjoy such a state. The system is non-ergodic. He prefers to borrow Joan Robinson's substitution of general equilibrium for "periods of tranquility" (2008b, p. 197), and with good reason. Capitalism does have its periods of well-coordinated long run growth, which need not be squeezed into the Walrasian model, with its tight prior commitments and barter-money contradictions. The Austrian School agrees with this particular point.

Schumpeter's impression upon Minsky is undeniable (although it is curious that Minsky does not cite Schumpeter in any of his three books): capitalism is necessarily and inherently unstable. Its success behaves as a destabilizing force. Capitalism sows its own "seeds of destruction" (2008a, pp. 59, 77, 126). The periods of tranquility—relative stability—are merely transitory (2008b, p. ix), the "good times induce

¹ The Austrian School's criticism is well known among readers of this journal and need not be repeated here. Israel Kirzner's work on the equilibrating nature of entrepreneurial profit seeking—in the realm of pure theory—offers the most well-developed argument, although it has not been without Austrian School critics. I am tempted to offer a litany of citations to Kirzner's work, but I shall simply suggest Kirzner (1999). Boudreaux (1994) counters Kirzner's previous arguments with an Austrian defense of Schumpeter.

balance sheet adventuring" (2008b, p. 48). "Therefore, in a capitalist economy that is hospitable to financial innovations," Minsky argues, "full employment with stable prices cannot be sustained, for within any full-employment situation there are endogenous disequilibrium forces at work that assure the disruption of tranquility" (2008b, p. 199). This might fit well with Schumpeter's notion of innovation in the form of new combinations of capital—today new combinations of financial capital, too—as Minsky specifically addresses financial innovations. And it is a reasonable, contemporary interpretation of Schumpeterian creative destruction; new leveraging possibilities, derivatives, asset-backed securities, adjustable rate mortgages, and the like are intricately tied to the housing bubble and its demise. Whether or not the instability was endogenous is, in large part, the concern of this paper.

In his pure theory, Minsky's entrepreneurs and money managers, unlike Schumpeter's, are endogenous; they are not merely assumed to enter and disrupt a Walrasian equilibrium from the outside, as it were. In this way, I believe Minsky tries to break out of the Walras-Schumpeter general equilibrium box, so much criticized in Rothbard's (1987) paper. Minsky avoids starting the story within the box; he wisely avoids Schumpeter's equilibrium language, assumes a non-ergodic system, but allows for "good times" that characterize relatively tranquil periods. So in this way, his story does not begin within the traps of Walrasian equilibrium, in the Schumpeterian sense, nor in the model of the neoclassical synthesis.²

But there is a fly in the ointment. Minsky offers no discussion of how the period of tranquility itself emerges. Perhaps he understands that market processes vastly coordinate of production and consumption plans, that this is indeed an empirical truth. Perhaps. But he neither offers nor cites any theory of entrepreneurship that explains this underlying feature of a dynamic economy. By rejecting the neoclassical model, and observing periodic downturns and crises, he dismisses the coordination principle. Here, then, Minsky faces the same charge leveled against Schumpeter. Both of them assume what must in the first case be explained: how any ordering of plans can occur at all in a *dynamic* decentralized monetary economy based upon exchanges of private property rights, before those very same entrepreneurs alter the spontaneously evolved pattern.

Minsky observes that tranquility is often followed by a boom, which then, of course, often leads to a bust and contraction. As a Keynesian, he maintains that

² Minsky's Post Keynesian reasoning is clearest in the following:

The crisis—in economic theory—has two facets: one is that "devastating logical holes" have appeared in conventional theory; the other is that conventional theory has no explanation of financial crises. The logical flaw in standard theory is that it is unable to assimilate capital assets and money of the kind we have, which is created by banks as they finance capital asset production and ownership. The major propositions of neo-classical theory, which are that a *multi-market full-employment equilibrium exists* and that *this equilibrium will be sought out by market processes*, has not been shown to be true for an economy with capital assets and capitalist financial institutions and practices (1982, p. 91).

The financial instability hypothesis is an alternative to the neoclassical synthesis, i.e., to today's standard economic theory. It is designed to explain instability as a result of the normal functioning of the capitalist economy. Instability of financial markets—the periodic credit crunches, squeezes, and debacles—is the observation. The theory is constructed so that financial instability is a normal functioning internally generated result of the behavior of a capitalist economy (1982, p. 92).

aggregate demand is unstable, leading to the boom and bust cycle, and that its key component, aggregate investment, serves as the culprit. The popular interpretation of Keynes gets it wrong here. It fails to appreciate Keynes's attempt to create a disequilibrium business cycle theory, which the financial instability hypothesis tries to resurrect (2008a, pp. 55–62). The gross business investment function and its interest elasticity (itself tied in part to general liquidity preference and an exogenous supply of money) do not capture capitalism's essential financial institutions. It is a laughable IS–LM capitalism, not the capitalism of Wall Street.³ Minsky offers his own rebuttal—financial practices and disturbances must underlie investment disturbances.

Better stated, Minsky pushes aside Hicks–Hansen and the neoclassical synthesis and develops a Post Keynesian route by offering an investment theory of the business cycle backed by a finance theory of investment. Financial instabilities generate gross business investment instabilities, which in turn create swings in aggregate demand and movements away from full employment. Changes in financial practices and optimism—rather than monetary disequilibrium—are the fundamental source of capitalism's boom and bust cycle.

Hence Minsky's financial instability hypothesis: The decentralized monetary economy cannot, unhampered, land on a full employment equilibrium; nor can the traditional fine-tuning policy of the neoclassical synthesis.⁴ The financial and investment-aggregate demand instability, as evidenced in significant business cycle episodes, are inherent within the financial institutions of modern capitalism itself (1982, pp. 59–70, 90–161; 2008b, p. 194–196).⁵ Minsky concludes that the free market system is necessarily flawed because the financial institutions which have evolved and are now essential to today's "Wall Street" capitalism—the ones that are insolvent today—are themselves the source of instability (2008b, pp. 134, 320, 329). I take this to undergird his provocative claim that "stability itself is destabilizing" (1982, p. 101; 2008a, p. 11). The period of tranquility is really but a mirage. (If Minsky were a Marxist, I would say his period of tranquility contains

³ "Whereas classical economics and the neoclassical synthesis are based upon a barter paradigm—the image is of a yeoman or a craftsman trading in a village market—Keynesian theory rests upon a speculative-financial paradigm—the image is of a banker making his deals on a Wall Street (2008a, p. 55 cf. pp. 70 and 127; also cf. 2008b, pp. 111–114, 132–133).

⁴ Minsky departs from his other professor here—Abba Lerner—and his notion of fine tuning through functional finance.

⁵ This claim is neither new nor original. Hilferding made similar, albeit Marxist, arguments back in 1910. See his *Finance Capital* (1981), for example pp. 239–248. Minsky does not cite or acknowledge Hilferding's work, which perhaps may be explained because Minsky's Post Keynesian work differs in substance compared to Hilferding. With Marx, Hilferding argues that capitalist crises inherently result from disproportions between consumption, variable capital, and surplus value. Capitalism's "anarchy of production" leads to necessary imbalances and therefore inevitable crises, crises that can only be resolved by destruction of capitalist markets (including of course financial markets) in favor of comprehensive economic planning. Minsky, we shall find, does not call for comprehensive planning. Instead, like another one of his professors, Oskar Lange, Minsky seems to favor a kind of market socialism, or more precisely a "mixed economy," and with Keynes calls for a socialization of investment (2008a, pp. 162–165; cf. 2008b, pp. 349–350, 367). I should note that Hilferding's analysis, the above notwithstanding, does seem to provide some support for free banking. On this specific issue, see Horwitz (1994). On the other hand, Wray (2009, pp. 810) briefly discusses Hilferding's analysis of the early rise of complex financial institutions and trusts in light of the Minsky hypothesis and his call for the involvement of government institutions to avoid financial crises.

not only the seeds of its own destruction but it does so by harboring a dialectical contradiction.)

It is all about money and finance: Money buys goods, goods buy money, but goods do not buy goods. Clower's famous slogan was developed to question the IS-LM neoclassical synthesis and Walrasian theory in general, which cannot break beyond barter assumption. Minsky takes a step ahead of that model so that we might add "money buys money," because firms that borrow cash today agree to contracts that establish a dated stream of future cash payments—liabilities tomorrow (cf. 2008b, p. 224).

In Minsky's view, the ability and incentive to take on debt, to commit oneself to enjoying borrowed investment monies today for a promised stream of cash outlays (principal plus interest) tomorrow, the incentive to form financial arrangements and financial innovations to expand investment based exclusively on expectations, cause capitalism's inherent instability as financial institutions evolve toward greater complexity. Private corporations both establish debt and purchase debt from other corporations and from the government itself. They make financial commitments—debt contracts—during the "good times" of only apparent stability and often find that their profit streams justify, *ex post*, their debt obligations. That same justification, that confirmation of previous expectations and investment-output plans (perhaps even better-than-expected earnings), encourages reappraisal. It causes profitable firms to take on more debt, and in remarkably new forms, such as high-risk leveraging, as yesterday's profits lead to today's revised profit-seeking plans.

2.1 Details: Hedge finance, speculative finance, and Ponzi finance

The financial instability hypothesis suggests that three kinds of debt financing funnel through the business cycle, each becoming more concentrated depending upon the current state of the economy and its place within the cycle: hedge, speculative, and Ponzi finance (1982, pp. 25–29, 105–106; 2008b, pp. 230–233).

Hedge finance amounts to a traditional type of debt finance. The firm buys present monies (loanable funds) with a contractual promise to pay monies in the future—a clear and dated stream of principal plus interest payments. With hedge finance, the firm fully expects its revenue stream will more than cover promised cash outflows on the debt liabilities. These expectations extend through all the future commitments on liabilities. Creditors (commercial banks, for example) expect the same from their asset flows returning from their debtors.

Speculative finance is fundamentally different. Although the sought-after expected revenues are assumed to sufficiently cover the firm's cash outflow commitments on its debt, near-term revenues are expected to fall short of at least some of the firm's near-term cash outflows on its debt (near term being days, weeks, or months). Minsky insists that banks (with less than 100% reserve requirements) are necessarily engaged in speculative finance, the modern commercial bank being "the prototypical speculative financial organization."⁶

⁶ Minsky (2008b, p. 231). This speculative component to the structure of any given bank, let alone the entire banking system, is precisely Rothbard's (2007) criticism.

Ponzi finance is a variant of speculative finance. But here the firm not only expects that its near-term flows of cash revenues will fall short of its cash liability commitments. Finance costs exceed cash flowing into the firm's income account. To continue operating, the firm must borrow to meet its near-term debt commitments. In short, the firm plans to take on more debt, to commit itself to more liability payment contracts to others, in order to cover its already-existing near-term cash outflow obligations. To forge ahead, the Ponzi-financed firm must bet on higher asset values and/or declining interest rates.

These forms of finance are most clearly developed in Minsky (2008b, pp. 230–233). The debt obligations are just that—specified contractual commitments designed, on the one hand, to reduce exposure to uncertainty. At this margin, the debtor largely knows what is expected of him throughout the life of the liability contract. As a profit seeker, on the other hand, he cannot possibly know the level (positive or negative) of his net revenue. He acts upon expectations and waves of optimism formed under ignorance and uncertainty and is likely to assume higher levels of risk.

Under hedge finance, then, cash revenue flows (not, by any means, necessarily *net* revenues) are expected to exceed debt obligation outflows, both current and long term. This excess cash, as it were, provides a relatively strong margin of safety. It reduces, but surely does not eliminate, the firm's exposure to risk and uncertainty. The more conservative the firm's revenue projections, the greater the safety net against risk of default. *Cet. par.*, should the expectations be correct, hedge finance as such does not represent a problem for the debtor or creditors. Nor does it represent the potential for systemic economic instability, because the ability to meet one's contractual obligations under hedge financing (at least under fixed interest rates) is unaffected by outside changes in other market interest rates.⁷ Speculative and Ponzi financing provide the source of financial instability (and, recall above, instability of the aggregate investment function and therefore unstable aggregate demand).

For the firm engaged in speculative finance, cash revenue inflows are clearly expected to fall short of its debt obligation outflows on at least some of the near-term debt payments—a kind of short-financing on his near-term commitments. Speculative finance, as such, cannot continue over the long haul, perhaps not even the middle term, and the entrepreneur or money manager knows that. Firms engaged in speculative finance must hope that market conditions improve cash revenue flow and/or they plan to refinance and reorganize firm debt in the longer term. The latter serves as the safety margin: the firm is speculating on the expectation that refinancing will be available should the firm be on the brink of missing its payments. This "safety margin" is, of course, much weaker than the safety net that undergirds the hedge financing firm, the risk exposure is greater. Ponzi finance differs in the sense that the firms cannot meet near-term obligations except by increasing liabilities so that again, Ponzi financing cannot, nor can it be expected to, continue indefinitely. While all firms are exposed to market uncertainties in general, Minsky points out that both the speculative and Ponzi debtors are heavily exposed to unexpected developments in financial markets in a way the hedge debtors are "impervious to such changes" (2008b, p. 231; cf. 1982 pp. 25–29).

⁷ Although, I should add, changes in market rates would affect realized economic profits, considering that this alters the opportunity costs of particular investment plans.

Any unexpected increase in interest rates or decrease in asset prices—both of which we witnessed as the bubble broke—can lead to speculative and Ponzi defaults and a systemic collapse of financial institutions to the extent that debt contracts are more heavily weighed outside the traditional hedge-financed contracts.

2.2 The Minsky “cycle”

Let us note in advance the temporal and dynamic nature of the capital structure, and its distortions through the credit cycle, are analytically inconsequential. In a model that stresses the idea that money buys money, this surprises. The hypothesis underplays the Fed’s manipulation of the money supply, which causes system-wide changes in interest rates and relative prices, and temporarily rewards riskier investments.

Instead, the Minsky cycle develops in the following way (1982, pp. 65–67). During the initially tranquil period of economic growth, existing debts and debt practices are confirmed *ex post*. They are “validated” as entrepreneurs find that the debt-financed investment paid off. Firms, Minsky insists, will believe it worthwhile to weigh more heavily toward debt-financed investment. “Tranquility” is unlike equilibrium in the sense that investment, production, and consumption plans do not simply repeat themselves. Debt instruments will not automatically replicate themselves through time. There is always an incentive to do better, and that incentive tends toward much riskier investments. Investors are now inclined to relax their safety margins as their expectations become more optimistic. Not only entrepreneurial debtors, but creditors, now in the early stages of what Minsky considers a boom cycle, will also tend to lower their risk and uncertainty safety nets as their expectations turn more optimistic. New business plans are backed by new combinations of financial contracts and debt instruments. Successful debtors beget successful creditors, whose own financial portfolios are validated by *ex post* results. Leveraging, as we have witnessed during the housing bubble, becomes more common and at extraordinarily high levels of risk.

The second round: success breeds aggressiveness. Uncertainty still exists—it can never be removed—and creates even greater system fragility. As this boom phase becomes unleashed, entrepreneurs and their creditors become more aggressive and speculative. During the bubble, speculative and Ponzi-financed money managers went on an overly optimistic feeding frenzy as leveraging skyrocketed from the traditional 10:1 to a staggering 30:1 ratio. Securitized assets as a ratio of outstanding bank loans grew from 25% in 2000 to 45% in 2006. The rewards were plenty as derivative market values increased 400% between 2000 and 2006. The theory suggests that *ex post* success ushered in a new *ex ante* formation of even more optimistic expectations, encouraging financial organizations to bank upon even better returns which, from their perspective, were quite rational.

The period of the market’s apparent tranquility and stability encouraged innovative debt practices and speculative excesses and unrecognized system fragility evolved. For this reason, Minsky insists capitalism is unstable in an “upward” direction. The confirmed and positively fulfilled expectations during well-coordinated times (my words here, not his) must eventually generate financially speculative problems and cause effective demand failure, so that the unhampered

market process cannot settle upon a full-employment equilibrium (1982, p. 66; 2008a, p. 162; 2008b, p. 199, 319). The housing bubble and mortgage market meltdown seem to provide the best confirmation of his theory.

A sudden series of missed expectations, especially defaults in our case, throws the financial system into turmoil and confusion. Aggressiveness, likely peppered with hubris, collapses into failure. A handful of substantial errors, such as the significantly sized default affecting Bear Sterns and then Lehman Bros. can—and did—unleash a quick, systemic, and detrimental domino effect: the turning point, the bust phase of the cycle.

2.3 The Minsky moment

Money buys money in increasingly complex and bewildering ways under finance capitalism, creating financial instabilities. During the tranquil period, firms do change their plans, hoping to improve their positions in the market; by Minsky's apparent use of the word "tranquility," firms are at least mildly successful in their operations (we experience "good times" in the overall economy, whatever that really means), they are encouraged by the ex post results *not* to simply repeat plans through the next period. (That would merely represent something more akin to an equilibrium with standard rates of return, I suppose. Minsky wants none of that.) But why should their psychology change? Would not firms in disequilibrium make marginal adjustments as the results validate the specific plans that they had pursued? Not in the financial instability hypothesis. Here, the emergence of profits would encourage money managers to take great leaps forward in their investments, to consider adopting more risky bets in favor of perhaps even better times ahead.

This is, for lack of a better label, the pre-Minsky moment. Financial success raises (not confirms, but raises) optimism and encourages hedge debtors to now consider speculative finance. Speculative debtors enjoying ex post profits—the "validation" of the practices and expectations, as Minsky often says—leads firms to turn more speculative and perhaps consider Ponzi finance. Profitable Ponzi enterprises remain encouraged to continue through the near term once again. The scales of finance in general tip more toward the aggressive, risky, and increasingly fragile. Any "equilibrium" now (were we to use such a term) becomes globally unstable. The financial instability hypothesis claims that the good times characterized by economic growth encourage more aggressive financial risk-taking and, unintentionally, systemic instability. Unhampered, or combined with lax regulatory practices, it sets the seeds of its own demise.

Again, a slip here, an unexpected turn there, a missed forecast, a rise in interest rates or a few large defaults can break the back of any number of speculative and Ponzi enterprises. This is precisely what occurred in the latter stages of the housing bubble. Should a hedge-financed firm's revenues fall short of expected revenues, for example, its actual revenues might very well fall short of its contractual cash payments on its liabilities. Breaking below their safety margins, hedge units can—and did—suddenly find themselves acting as speculative firms. Should interest rates unexpectedly rise, should margins be squeezed, speculative firms would be forced to engage in Ponzi finance—not because better times have arrived, but for the opposite reason. During the bubble, speculative and Ponzi-financed firms, once "banking" on

the expectation that they will be able to refinance their debt at better terms, suddenly lost that opportunity. A significant slip—Bear Sterns—sends the financial order into crisis without the intervention of “Lender of Last Resort” and “Big Government” institutions. Even though, in our case, the Fed stepped in to save Bear Sterns, the shock brought Lehman Bros. down and, against the advice that Minsky would have given, the Fed never intervened. The rest was inevitable. We had reached the Minsky moment. The financial boom during the early to mid-2000s turned into a financial bust. Minsky’s theory is prescient (2008a, p. 112; cf. 2008b, p. 193):

A boom once started lives a precarious life. It depends upon realization of optimistic expectations about yields, so that capital gains accrue to investors in debts and shares as well as to investors in capital assets. From a multitude of possible causes—rising wages or production costs, feedbacks from rising interest rates to the value of older long-term debt, the high cost of refunding previous debt—a large number of units can be forced to try to raise cash at the same time by taking advantage of the liquidity that some of their assets are presumed to have, i.e., by attempting to sell “liquid” assets. Furthermore, for some units the burden of debt in the form of cash commitments can become so large that they are forced to sell or pledge capital assets to acquire cash to meet debt commitments.

3 Critique

“Financial instability is a fact,” says Minsky, “and any theory that attempts to explain the aggregate behavior of our economy must explain how it can occur” (1982, p. 18). I agree with Minsky, and the hypothesis is consistent with many of the facts, which in general are not in dispute. And I agree further that the neoclassical synthesis—the Hicks–Hansen world of IS–LM models, so much studied by Post WWII, GI-Bill students of economics, and the set of theoretical spectacles that guided the attention of the Council of Economic Advisors—has remarkably few principles to explain our current crisis. It cannot even explain the non-neutrality of money. Minsky’s hypothesis is rich in the sense that it focuses on institutional and financial details that should embarrass much of the mainstream.

3.1 Debt deflation

Two cheers for Minsky. But is there a third?

The hypothesis does not explain, or misidentifies, the source of the boom phase. A theory of a systemic discoordination ought to be founded upon, or at least acknowledge, a theory of system-wide coordination. (To explain the sick, as it were, we should first explain and understand the healthy and only then examine the source of emergence of disease within the body.) How does Minsky start in the period of tranquility without explaining how the economy can enjoy a coordinated state at all? Although I have accepted, for the purpose of this paper, Joan Robinson’s “tranquility” alternative, Minsky himself does not explain economically how tranquility emerges at all and, as a parallel to

Schumpeter, he simply assumes that the state of a robust market system must, by its very nature (2008b, p. 324), sprout speculative and Ponzi enterprises and fragile financial markets, destabilize the investment function, and launch effective demand failures. There seems to be a mere razor's edge separating the pre-Minsky moment from the Minsky moment itself. In short, it seems like the financial instability hypothesis collapses the Minskian "boom" into the Minsky moment without explaining the so-called period of tranquility (unless by tranquility and good times he really means we are always in a phase with an inevitable bust on the horizon, even if it has taken decades to reach it).

This becomes clearer once we realize the crucial role Fisher's (1933) work plays in the financial instability hypothesis. In addition to Keynes, of course, Minsky's theory is "derived," he says, from Fisher's theory of debt deflation (2008b, p. 192). Fisher argued, essentially, that debt-financed over-investment and over-speculation causes the boom and corresponding deflation. "In short," Fisher argues, "the big bad actors are debt disturbances and price-level adjustments" Continuing, "the debt disease and the price-level disease (or dollar disease) are, in great booms and depressions, more important causes than all others put together." He points to "over-confidence" being the problem when it "beguiles its victims into debt" (1933, p. 341). The "starter" is the "opportunities to make unusually profitable investments" (p. 348).

The process must reverse itself. In this view, economic contraction leads to price-level deflation and debt liquidation, which causes distress selling, rapid decline in profits, and bankruptcy. Bankruptcies engender further "pessimism and loss of confidence," declines in overall demand and income, and growing unemployment. Indebted households lose their ability to meet loan payments. Banks refuse to lend and instead build up reserves, which furthers price deflation as the process continues to swirl downward (1933, p. 342).

But neither Minsky nor Fisher acknowledges in the boom phase how the Fed's monetary expansion and manipulation of interest rates ignite the boom and "optimism" in the first place. Garrison (2003) observes that Fisher's work, along with modern macroeconomic theory in general, fails to explain the initial cause of business cycles. If my analysis of Minsky is correct, we can add him, too, to the list. Minsky argues that it is always an endogenous process of destruction during times of economic growth and over-speculation (1982, p. 102, 226).

3.2 Theories of coordination and discoordination

In fact, he tips his hand. Minsky (2008a, p. 57) follows Keynes's attempt to "make the anomaly the ordinary," the anomaly being the Great Depression.⁸

By rejecting general equilibrium, however, Minsky also questions market clearing and market coordination. He seems to equate (with Paul Davidson and others of the School), market clearing with convergent and stable Walrasian equilibria, and rejects the former with the latter.⁹ And yet he employs something like the clearing-

⁸ Which further supports Horwitz's (1989) argument that Keynes offers only a particular theory of the macroeconomy, as opposed to a general theory.

⁹ There's no need to develop my argument here; the point was debated years ago. See Prychitko (1993) and Davidson (1993).

coordination feature of market processes to then demonstrate their "inherent instability," particularly "upward." Minsky ultimately uses "tranquility" or a well-coordinated market process as a mere foil against which he inserts his financial instability story. Modern finance capitalism is always teetering on the point of financial collapse, even if it has taken several decades to reach this final point.

3.3 Optimism

Austrians have long argued that psychological explanations of the business cycle carry no weight.¹⁰ The notion of "optimism," another continuing influence of Keynes and Fisher here, undergirds Minsky's theory. It seems to me that the financial instability hypothesis rests on this unexamined assumption and views the cycle launched more on the social-psychological plane rather than the economic. A shift in investor psychology explains the disruption of the period of "tranquility," one that encourages the participants of the "good times" to launch risk-loving and unsustainable debt practices. In short, confidence leads to overconfidence and instability, and eventually all bets are off as the crash sets in.

Can we apply this to the bubble? Why did the psychology of the market change in 2002? Nobody can give precise answers. Is there something organic about the early rise in asset prices and profits in 2002 that launched wildly optimistic changes in the mind, and therefore herding behavior and more adventuresome debt practices? Was the cause predominantly psychological, or was it primarily monetary? The exponential price trend in the housing market from 2002 to 2006 does offer some clues, of course. But did optimism cause rising asset prices, or did rising asset prices cause greater optimism, or both? In any case, we are left with the more fundamental economic question of price adjustment in general.

Perhaps Minsky and his followers would reply that I am making too much out of the psychological assumption. Why bother to measure somehow the changes in optimism? Maybe we just know it when we see it. We have obviously seen it during the bubble. But Austrian theory suggests that while generalized optimism can make matters worse, it is a product of a macroeconomic, system-wide boom, not its root cause.

¹⁰ Mises (1928, p. 101):

[P]sychological and other related theories of the crisis amount to nothing more than tracing one unknown factor back to something else equally unknown.

Hayek (1975 [1939], p. 14):

Every explanation of economic crises must include that entrepreneurs have committed errors. But the mere fact that entrepreneurs do make errors can hardly be regarded as a sufficient explanation of crises. Erroneous dispositions which lead to losses all round will appear probable only if we can show why entrepreneurs should all make mistakes in the same direction. The explanation that this is just due to a kind of psychological infection or that for any other reason most entrepreneurs should commit the same avoidable errors of judgment does not carry much conviction. It seems, however, more likely that they may all be equally misled by following guides or symptoms which as a rule prove reliable.

3.4 Price level vs. relative price adjustments

Wray (2009) tries to show that Minsky's theory explains the collapse of the housing bubble and the waves of failure among investment banks (but now with the added theoretical support of Hilferding and especially Veblen). However, if Post Keynesians were to maintain that optimism is really not an important assumption, then just what did cause the system-wide contagion of entrepreneurial and financial errors, errors that went beyond debt contracting problems and caused intertwined rounds of unexpected losses among producers further removed from the housing industry? Why did so many hedge, speculative and Ponzi enterprises rise—and then fall—all at once? Greenspan's monetary injections played no role in starting the bubble? Then precisely why did the financial system choke by biting more than it could chew?

The Fed's monetary policy is not considered the fundamental source of the crisis but of potential stability. Both Minsky and Wray argue that the Fed's lender of last resort capacity serves as a Big Government apparatus that provides a financial safety net and serves to reduce fragility in financial markets, and thereby helps stabilize capitalism. We shall save that debate for later.

Post Keynesians are not aware of the Austrian discussion of how expansionary monetary policy launches systemic and disruptive change.¹¹ Is not money's impact on relative prices a serious issue? Relative price adjustment plays no role in the theory.¹² There is no distinction among different prices of consumer goods and different prices of producer goods within the structure of capital itself. All this is lost in the Keynesian–Post Keynesian aggregate model. (In this way, the Fed's role in the cycle is only discussed in its safety-net policies and its response to price-level deflation, that being the chief concern of the Bernanke Fed as well.) The focus on price-level deflation during the bust phase is the source of Minsky's concern with debt deflation. The model assumes that the fall in investment launches aggregate demand failures, which express themselves through price-level effects, the kind that necessarily leads to the problems addressed by the Fisherian debt-deflation notion. It cannot grasp the fact that relative prices change among consumer goods and higher-order producer goods. Some prices rise and some fall during *both* phases of the cycle. During a recession, particularly, the prices of

¹¹ Minsky (2008b, pp. 126–28) critically discusses the neoclassical interpretation of the quantity theory of money and its explanation of how monetary changes can lead to economic problems in the short run before the price level fully adjusts. "Thus in the neoclassical view 'outside' disturbances are responsible whenever the performance of the economy is unsatisfactory. The usual villains are the monetary system and the government.... In particular, any inquiry into what goes wrong in the monetary system need look no further than the behavior of the quantity of money.... Too much is either ignored or posited out of consideration" (p. 126). I agree particularly with the last statement. The aggregate modeling of Keynesian, neoclassical, and Post Keynesian theory alike ignores the entire issue of money's impact on the structure of production. Garrison (2001, pp. 224–29) argues, for example, that Friedman's dismissal of Austrian business cycle theory in light of the results of his plucking model misses the point: he fails to understand the Austrian's non-aggregated theory of capital. So, too, the Post Keynesians.

¹² In his restatement of the financial instability hypothesis, Minsky clearly articulates that the model "is rooted in two sets of prices... those of current output, which reflect short run or current considerations, and those of capital assets which reflect long run expectations" (1982, p. 102).

higher-order producer goods tend to fall more quickly compared to the prices of lower order and consumer goods. This "deflation" and the move toward greater liquidity is part of the correction process as it adjusts the economy toward monetary equilibrium. Efforts by the central bank to prop up the general price level by re-inflating the supply of money not only hampers the re-adjustment process within the capital structure, it unwittingly aggravates any debt-deflation problems in the long run.¹³

At its most fundamental level, then, the financial instability hypothesis does not understand the role played by relative price adjustments within a complex and intertwined capital structure; it denies the Austrian theory of entrepreneurship and the informative and coordinating role of prices established in the market. It remains unaware of Austrian business cycle theory, to which we now turn.

4 The Austrian explanation of the business cycle

4.1 Coordination and growth

The financial instability hypothesis claims realized profits unleash a specific kind of optimistic over-leveraging that ignites the boom. In the Austrian theory, by contrast, the boom itself unleashes growing optimism among investors, yet this "optimism" is not an explanatory variable.

It is a credit theory of the cycle. The business cycle is created by an injection of credit that encourages changes in debt contracts, yes, but more importantly, credit injections that encourage specific investment plan adjustments financed by the newly issued debt contracts. New capital combinations emerge thanks to more loanable funds available at lower interest rates. In particular, the increase in credit must be the type that any *ex post* "validation" of debt and investment decisions is enjoyed short-term, is unsustainable, and must eventually frustrate expectations and plans once the additional money continues to work its way through the capital structure. In short, the central bank's injection of credit on a massive scale initially lowers the costs of (financial) capital among profit-seeking firms, and provides the false signals and illusory safety margins that might encourage significantly more speculative and Ponzi financing.

This is the lesson of the housing bubble and demise. The "Minsky moment," I shall now argue, is indeed a feature of the current recession, but one that the Austrian theory of the business cycle is already fit to explain. The financial instability hypothesis examines only one aspect of the cycle—the period at the height of the boom phase. As I have said earlier, Minsky's period of "tranquility" and especially the "good times" seem to be a condition already within if not near the end of the boom phase itself.

Now, without examining the Fed's manipulation of the money supply, the financial instability hypothesis fails to consider the difference between two types of credit flowing into banks, a distinction that Mises developed well before the Great

¹³ See, for example, Rothbard (1972, pp. 21–25), but note that he downplays the costs of deflation.

Depression itself (1980, pp. 296–299; 1928, pp. 101–105). In Mises's language, "commodity credit" represents those loanable funds that are created by a lowering of consumer time preference and funneled into the banking system through a genuine increase in saving. By genuine increase in savings, we mean household saving and consumption preferences have changed at the margin, so that the increased cash savings—the planned decrease in some current consumption expenditures—flow into the banking system without any additional injections of credit by the nation's central bank. To Mises, borrowing from Wicksell, the so-called natural rate of interest has fallen.

This type of adjustment of consumer plans, and coordination with those of the producers, works and sustains through the long haul. It encourages firms to engage in the production of higher-order goods—to finance new and, from a systemic viewpoint, more timely investment projects, as the fall in the natural rate of interest is transmitted through a compact group of relative price signals, the market rates of interest. The fall in interest rates encourage increased production of goods of a higher order; the *ex ante* profitability estimates calculated by entrepreneurs appear stronger compared to the profit estimates of the producers of specific lower-ordered consumer goods. This structural change of plans, initially altered by household saving and consumption desires, now temporally matched by decreased production of some consumption goods and increased production of higher-ordered goods, represents market process coordination through time. Austrian theory allows us to appreciate this critical link between saving and investment. The so-called period of tranquility, if we wish to use it at all, is explained by this process. Keynesian and Post Keynesian theory deny it.

The process need not be forced into the straightjacket of Walrasian equilibrium theory. Whether or not we call this a period of intertemporal equilibrium, robust and sustainable market coordination, tranquility or what have you, there is no reason to believe, with Minsky, that firms *in general* will eventually misread revenue flows, interest outlays, and relative price signals. This period represents an orderly process of change in saving, consumption, and production plans through time.

4.2 The boom

Now in this case we had an increase in Mises's so-called commodity credit. The increase in cash savings, channeled through banks, does indeed make more credit available, which is evidenced by the decline in interest rates. It has real effects and alters relative prices and entrepreneurial plans.

This differs from the central bank's planned (though certainly not fully controlled) injection of "circulation credit," again in Mises' language.¹⁴ This inflow of money is non-neutral—circulation credit affects the structure of interest

¹⁴ I would not normally use these "commodity credit" and "circulation credit" terms. They are now rare in the contemporary Austrian literature. I believe, however, that they are instructive when considered against Minsky's debt theory of the cycle. Minsky focuses on debt, not credit, let alone these two different types of credit.

rates and relative prices in general. Circulation credit is established as money is channeled into the system through the central bank rather than increased savings from households. The central bank—the Fed in our case—essentially creates and circulates credit “out of nothing” by printing more money, engaging in the purchase of government bonds on a massive scale, or monetizing the debt. With respect to open market operations, as every student of the neoclassical synthesis learned, this would reduce interest rates as well (unless the IS curve were horizontal or rational expectations conditions of the Lucas variety are assumed to hold), but with one significant difference. The supply of money is not coordinated with the demand for money at the current structure of prices.¹⁵ Monetary disequilibrium occurs, which must therefore alter the saving–investment link. The fall in market interest rates is not—and during our housing bubble was not—initiated by a change in household saving and consumption plans, and therefore the flow of funds available for debt finance did not reflect a decrease in the so-called natural rate of interest. The monies were made available through the powerful and disruptive policies of the Fed itself.

The Fed’s reduction of interest rates in general, engineered by reducing the federal funds rate from over 6% in 2001 to an unprecedented low of 1% by 2004, was clearly an artificial rate reduction in the sense that consumers’ time preferences between present and future consumption had not been reduced (certainly, at least, not by that much) during those years. Instead, the interest rate reduction represented the Fed’s change of plans, in part an extension of the government’s push toward “the ownership society,” which was independent of and in this case contradicted the planned marginal discounting that households signaled to businesses. But the financial instability hypothesis does not recognize any of this—it considers it a small matter. The hypothesis discusses the indebtedness of firms and their leveraging practices while slighting the credit injections that led to the inflationary and more aggressive liabilities contracting in the first place.

Injections never flow into the economic system equally and simultaneously.¹⁶ Some banks and other financial organizations will sell the Fed more bonds than others, many would not sell at all. Some banks will therefore get their hands on cash for credit sooner, or greater, than others. Some will lower their rates more swiftly than others. Some banks will extend short-term loans to other banks. In short, any number of adjustments can happen. In the Austrian view, credit injections have a specific impact at different times and in different sectors of the economy; it is non-neutral, the relative prices of both consumer and producer goods will, and in our case

¹⁵ Horwitz sums it up nicely: “In monetary disequilibrium, the monetary system becomes a source of disequilibrium in the loanable funds market by distorting the signals generated in the process of turning time-preferences into the supply and demand for loanable funds” (2000, p. 74). This in turn creates discoordination within the capital structure, which critically relies upon the information provided by market interest rates to coordinate timely production projects with the saving and consumption plans of consumers. For more on the monetary equilibrium and disequilibrium concept, see Horwitz (2000, pp. 65–103) and Garrison (2001, pp. 231–43).

¹⁶ Friedman’s “helicopter” metaphor, therefore, while perhaps theoretically pragmatic, is a totally misleading approach to the explanation of a business cycle and its financing. Minsky, too, had wisely rejected this metaphor.

have, changed. Austrian theory recognizes that firms which are interest-sensitive and temporally higher in the capital structure will face lower market rates of interest and revise their present value and cost calculations. Their efforts to calculate profit and loss—their attempts to handle uncertainty by forming judgments about expected revenues and current and future cost estimates—will be affected as those expectations of prices and asset values change. Lower interest rates lead firms to expect new, or larger, profits on longer-run capital-intensive investments, investments on goods further removed from final consumer goods, thanks to the change in discounted values of outputs and inputs.

Let us see how this applies to our current crisis. The housing bubble developed between 2001 and 2006 when the Fed lowered the federal funds rate and government agencies (through the Community Investment Act and other devices) encouraged and targeted credit toward the housing industry in particular.¹⁷ During those years, credit-induced demands for new homes caused a doubling of their values—an historically unprecedented event. The housing industry, of course, is a latticework of timely production projects and draws a wide variety of specific (yet complementary) higher-ordered inputs into the housing market. Too many to list in detail, but such resources obviously included real estate, lumber, iron ore and its shipments, copper and wiring, PVC materials, and so on. Equally important, it included skilled and unskilled labor in these and other industries, as well as the financial sector itself. Higher relative prices and wages, salaries, and bonuses attracted millions—today the cyclically unemployed—into the housing and finance industry and away from sectors that would have maintained jobs without Fed-generated interest rate reductions. The Fed-induced credit expansion prior to 2006 altered the saving–investment link and had real consequences that influenced relative prices in such a way that the change in prices—not the price level—mislead workers, firms, and investors.

From the perspective of Austrian theory, the Greenspan Fed's inflation—expanding the supply of money greater than its demand—inevitably led to mistakes within the capital structure as it encouraged firms to launch projects that failed to match, over time, the saving and consumption plans of households. Adding more fuel to the fire, expectations of relative price increases—home and other asset prices—encouraged firms and money managers to assume remarkably higher levels of risk. The financial instability hypothesis gets that right. But optimism and irrational exuberance emerged because the relative price distortion process *itself* encouraged a wide variety of new capital combinations—both physical and financial—of the very type that cannot be sustained without further monetary injections and imbalances. Upcoming and unforeseen losses, systemically emerging in 2007, would eventually invalidate net revenue estimates and multi-period planning. This type of “growth” was surely unstable in an upward direction, but the

¹⁷ Taylor's (2009a, 2009b) work clearly shows that the injection ignited the housing boom when, in 2002, the fed funds rate started falling below the Taylor rule. Ahrend, Courméde and Price (2008) demonstrate in their empirical study of Taylor-rule deviations and housing bubbles in OECD countries that the same held true. This evidence is robust and supports the Austrian theory.

boom and bust lies not in the evolution of complicated and mind-boggling financial innovations themselves but rather in the Fed's powerful flows of credit into those markets.

Austrians argue that this boom phase was primarily caused by significant monetary disequilibrium and must inevitably lead to the correction, a bust. The Fed's credit injections unwittingly created the instabilities that the Minsky hypothesis predicts. Again, the hypothesis did get something quite correct: investment banks launched incredible new practices which encouraged unprecedented levels of risk-taking. But I cannot follow the argument that growth *per se* is unstable and serves as the source of a potential financial collapse. Instead, the Fed's attempts to control and manipulate the money supply and target interest rates—largely geared toward Bush's notion of "the ownership society"—created fundamental macroeconomic instability.

It seems to me the financial instability hypothesis reverses cause and effect on this key issue. Firms in the higher order goods industries enjoyed short-run profits, some at magnificent levels, which temporarily validated their production and investment plans. They formed brighter expectations as real estate prices grew exponentially while the Fed continued to inflate until the fed funds rate bottomed out at 1%, which actually unearthed for a time negative real interest rates. In short, the fall in interest rates and the rising real estate price trend encouraged much greater speculation and the shift toward Ponzi-type finance schemes—precisely what the Minsky hypothesis predicts. Businesses in the favored industries—housing in our case—bid up the prices of inputs, which in itself would deliver reduced profits in their economic calculations, but as long as the prices for their own outputs rose at a higher rate compared to wages and other resource prices, the signals encouraged further malinvestment. Firms embraced leveraging and pushed on toward (or fell into) Ponzi finance during this period, especially those closest to the action—the investment banks. Minsky got that right, too. But Austrian theory explains how that is coupled with the Fed's monetary expansion, which altered calculations as prices and expectations adjusted upward to the continuing flow of credit and explosive growth in value (although we all know now—if we did not know then—that securitized assets had no clear way to be assessed and priced).

4.3 The bust

At the peak of the bubble, not only investment bankers, but higher-order producers as well, suddenly came up against a brick wall—the ultimate scarcity of capital. Clearer market signals finally came to light in 2006 as home values dropped and the waves of defaults signaled the beginning of the breakdown, the correction. Speculative and Ponzi investors—which included house-flipping investors and, by surprise, everyday homeowners—were dramatically squeezed from all sides. Money managers no longer acted in a fog to determine the market values of securitized assets. They suddenly began to receive clearer market signals: a growing number of their assets were worthless. The general malinvestment during the housing bubble, the systemic misdirection of investments, resources, and labor during the housing upswing, necessarily unleashed this process of

correction. The Fed's attempt to monetize and sustain the bubble contained the seeds of its own destruction.

The recession is the correction. Falling prices of housing, and tremendous losses within the industry, served to expose the fact that significant malinvestment had occurred. Unfinished homes—Las Vegas provides a dramatic example—further clarifies the remarkably wasteful use of capital during the boom. We can clearly see, just as the Austrian theory predicts, that malinvestment was systemic. Projects much higher up the capital structure, such as the expansion plans within the North American iron mining industry, were curtailed or put on hold. Workers who had enjoyed extra income by the attraction of double time shifts in this and other complementary industries, and depended upon additional sources of income to meet their mortgage obligations, now found themselves back to working at former pay scales—if they were lucky enough to retain their jobs. Their hedge- and speculative-financing of their own homes, too, were shown to be an unfortunately wasteful use of their own resources. Defaults on subprime and adjustable rate mortgages were inevitable.

The breaking of the housing bubble appeared as a sudden and chaotic failure not only to money managers but also to workers and firms throughout the economy, up and down the capital structure. To news media, economic pundits, even many if not most economists themselves, it appeared as a surprising and disorderly turn of events. Corrections always do.

5 Big players

5.1 Can the big government/big bank approach stabilize the economy?

To fight the potential for recessions—to prevent “It” from happening again—Minsky (and Post Keynesians generally) have long called for policies that engineer and change the mix of components in aggregate demand: aggregate shares of consumption and government spending should be increased while simultaneously decreasing the share of private gross business investment, all geared to minimize the impact of disruptions with the financial sector. This approach, they claim, can reduce uncertainty and fundamental instability by constraining and reducing the influence of profit-seeking investors in general, and speculative and Ponzi financing enterprises in particular. A host of “Big Government” programs would serve as stabilizers and safety nets should problems appear.

Let us consider some specifics. Minsky said that the American economy avoided the breakdown for some 50 years thanks only to the stabilizing forces of Big Government, which, he argued, are necessary especially in our era of money-manager capitalism. By “Big Government” he meant interventions that provide floors to constrain capitalism's fundamental instability, consisting of, for example, massive and automatic deficits (in Keynes's sense) (2008b, p. 36) and FSLIC, FDIC, and the Fed behaving most significantly in their lender of last resort capacities (2008b, pp. 42–52, 54–57, 358–365). This would ward off, he argued, effective demand failures by stabilizing financial instability and thus gross business investment instability. He saw the lenders of last resort working effectively to reduce default risk (2008b, p. 41), as the Fed and

other powerful organizations would work to absorb the risks of speculative and Ponzi enterprises (2008b, pp. 43, 359). He also appealed to organizations akin to the RFC (2008b, p. xii), the CCC, and WPA (2008b, pp. 345–349, 368). Following Keynes, he urged the socialization of investment.¹⁸

We are now well into the realm of normative political economy. I shall simply suggest that these recommendations fail to acknowledge the moral hazards associated with a panoply of lender of last resort institutions and employer of last resort programs, the political incentives toward massive budget deficits, the lack of incentives to efficiently and effectively manage trillions of dollars geared toward expenditures on “socialized” investments, let alone the inherent lack of knowledge among interventionists who, no less than their profit-seeking counterparts, cannot possibly escape the dark forces of time and ignorance.

Of course, barring socialized investment, we have had programs of these types long before the housing boom. Wray (2009), echoing Minsky, labels the Pre-Greenspan Fed period the “Big Government/Big Bank” era, the seeds of which were sprouted long ago under Roosevelt’s New Deal. Wray argues that our recession today stems in large part because the country broke with some of those institutions in favor of what he labels the “Big Government/Neoconservative” regime. “Deregulation” and the shift towards “free markets” in an age of money-manager capitalism, we now hear, created the conditions for the bubble and bust. This slants toward *post hoc ergo propter hoc* reasoning, and it surely misinterprets the past decade as a return toward an unhampered market economy. In my view, Wray confuses ideological rhetoric and political blabber with institutional fact.

5.2 The destabilizing role of big players

Minsky (2008a, p. 55) once said that “Keynes without uncertainty is something like Hamlet without the Prince.” I will add that normative political economy without uncertainty and moral hazard is like Atlas Shrugged without John Galt. It misses the entire point of the story.

“Big Government” organizations that are supposed to stabilize an unstable economy are also “Big Players,” a concept that Koppl (2001) has carefully

¹⁸ His justification should be heard in some detail:

The fundamental dilemma in economic organization is how to preserve the vitality and resilience of decentralized decisions without the instability accompanying decentralized financial markets. Keynes’s solution—the socialization of investment—may be a way of attenuating, although not eliminating, financial instability by removing the financing of the most capital-intensive processes and expensive capital assets from private debt markets. The substitution of government for private financing of capital-intensive investment, along with limitations on the liability structure of private business, could decrease the domain of instability of a capitalist economy (1984, p. 86).

Later he became all the more optimistic:

As socialization of the towering heights is fully compatible with a large, growing, and prosperous private sector, this high-consumption synthesis might well be conducive to greater freedom for entrepreneurial ability and daring than is our present structure. The high-investment, high-profits policy synthesis is associated with giant firms and giant financial institutions, for such an organization of finance and industry makes large-scale external finance easier to achieve.... A policy strategy that emphasizes high consumption, constraints upon income inequality, and limitations upon permissible liability structures, if wedded to an industrial-organization strategy that limits the power of institutionalized giant firms, should be more conducive to individual initiative and individual enterprises than is the current synthesis (2008a, pp. 164–165).

developed. By definition, Big Players enjoy the discretionary power to influence markets while being immune from the profit and loss, reward and punishment process, in whole or in part. In our case, the Fed is the exemplary Big Player. By using its discretionary power to increase the supply of money greater than its demand, the Fed influences not only the market for loanable funds, it also influences and disturbs plans within the entire structure of production. That is the argument of my whole discussion above.

Big players create big unintended consequences as they, too, act only under conditions of uncertainty and ignorance. The Greenspan Put (now evolved into the Bernanke Put) serves as a stark example. By announcing in the midst of the housing bubble that speculative investment banks could retain their extraordinarily high profits and count on the possibility of a loss-floor, those firms evolved into Big Players themselves. They placed higher bets as the discipline of profit and loss—especially loss in this case—was systematically weakened. The unintended consequences behind the Put—the moral hazard—became all too clear. Their waves of failure beginning in 2007 were a direct result of adjusting their speculative and Ponzi-financed plans in light of the monetary expansion and the promises made by the Greenspan Fed.

In the meantime, Fannie Mae and Freddie Mac, on paper “private” enterprises, but enjoying the comfort of government sponsorship and backing, clearly served as Big Players that caused their own moral hazards. Backing about 50% of the nation’s mortgage-backed securities—guaranteeing their principle and interest—and acting as a middleman in the process, Fannie and Freddie unwittingly encouraged further rounds of speculative and Ponzi-financed investment.

Fannie and Freddie, of course, were directly linked to the Community Investment Act. There is some debate over the role played by the CRA in the bubble, but Leibowitz (2008) makes a strong case. The CRA complemented the Fed’s assistance to create “the ownership society” by requiring banks to allocate Fed-injected mortgage credit towards historically at-risk applicants at unprecedentedly favorable terms. Low- or no-down payments became the standard here and the subprime market flowered. Lack of credit history raised little concern. Fannie and Freddie allowed income source requirements to be relaxed, which now included a whole host of government entitlements, second jobs, and overtime work. And, as I discussed above, those temporary income benefits were enjoyed by hundreds of thousands of workers who were misdirected into sectors that enjoyed only temporary and unsustainable expansions. The correction in the capital structure led to a correction in the subprime mortgage market.

But we live in a world of uncertainty. This was all unforeseen by the Big Players and, unfortunately, by the little ones, too. Be that as it may, Countrywide was praised and considered the exemplar in the subprime market.¹⁹ What of the Big Three ratings agencies? White’s (2009) study of Moody’s, Standard & Poors, and Fitch demonstrates that they, too, far from being “free market” firms, enjoyed restrictive

¹⁹ In 2000, Fannie Mae reported that “Countrywide tends to follow the most flexible underwriting criteria permitted under GSE and FHA guidelines. Because Fannie Mae and Freddie Mac tend to give their best lenders access to the most flexible underwriting criteria, Countrywide benefits from its status as one of the largest originators of mortgage loans and one of the largest participants in the GSE programs,” quoted in Leibowitz (2008, p. 10). Leibowitz also discusses how another Big Player—the Boston Fed—played an encouraging role in the subprime market (pp. 7–10).

barriers to entry and oligopoly power with powerful incentives to bless prime and subprime mortgage packages with AAA ratings.

While this new market exploded, homeowners sat in front of their TVs and watched how the strategies of housing speculators generated extraordinary returns. We had evolved into the "Flip This House" era which, as I told my students back then, was yet another clear indicator that we were well into an unsustainable housing bubble.

6 Conclusion

We can call this optimism, if we wish—it was certainly over-speculation—but the source was primarily monetary, launched and backed by efforts of Big Players within government and within financial markets as well. The claim that the housing bubble, and the financial collapse that ensued, was a product of inherent instabilities of "free market" capitalism carries little weight.

This paper challenges the financial instability hypothesis; it is well beyond the scope to propose solutions to the present recession. The hypothesis does examine the speculative forces within financial markets in ways that standard theory does not. But if the hypothesis is supposed to explain business cycles, can Wray and other followers of Minsky find examples of macroeconomic booms and busts that were not caused by monetary disequilibrium? The financial instability hypothesis does not provide a general theory of the cycle. It offers instead a particular theory of financial market breakdowns in the post-Great Depression era.

Caught up in aggregate models, the hypothesis—like mainstream macroeconomics as a whole—does not examine and appreciate money's influence on the relative prices of consumer goods and especially those further up the line in the capital structure. The hypothesis emphasizes uncertainty, but assumes that interventions designed to reduce systemic risk can actually do so. It calls for Big Players, but it does not understand their unintended consequences. While criticizing the best laid plans of "deregulation," it embraces the best laid intentions of further regulation.

But make no mistake. I believe we are likely to witness more Minsky moments in the future, especially if Big Players remain enmeshed within financial markets and the monetary order. In that economy, in *our* economy, "stability" is indeed destabilizing upward, particularly when the good times are caused by the inflationary policies of the nation's central bank.

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