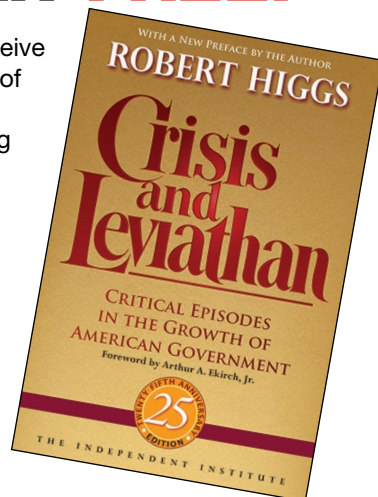


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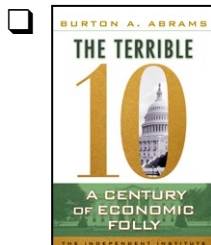
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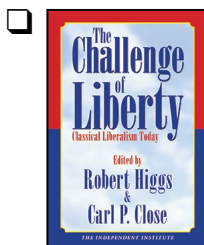
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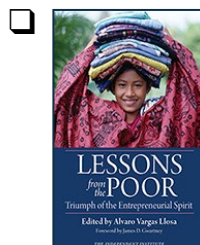
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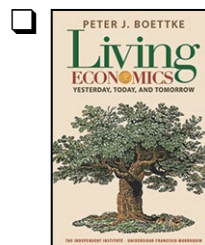
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Alchemy Leveraged

The Federal Reserve and Modern Finance

◆

ROGER W. GARRISON

Kevin Dowd and Martin Hutchinson's *Alchemists of Loss: How Modern Finance and Government Regulation Crashed the Financial System* (2010) is a standout among a spate of books that deal with the origins of the worst financial crisis since the Great Depression. The strength of this book owes much to its attention to multiple time horizons. A perilous confluence of long-run trends, short-sighted regulatory schemes, monetary policy, and destabilizing investment strategies brought the economy to its knees. The book's subtitle features two key aspects of the story (modern finance and government regulation). The introductory chapter points a finger at Keynesian economics. Chapter 7 factors in the long-run trend away from "old partnerships" and toward "managerial capitalism," and chapter 11, "Loose Money," gives due emphasis to the central bank's role in the episode.

The authors' backgrounds make them well qualified to assemble the pieces of the puzzle in a revealing way. Kevin Dowd offers a classical-liberal perspective on macroeconomic policy and specifically on central banking. His extensive writings on free banking (for example, Dowd 2000) suggest that a thorough *d*ecentralization of the banking business is essential to enduring macroeconomic stability. Martin Hutchinson is a seasoned investment banker turned financial journalist. His firsthand, nuts-and-bolts knowledge of twenty-first-century financial markets undergirds his broader perspective on modern finance.

Roger W. Garrison is professor of economics at Auburn University, Auburn, Alabama.

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Business Cycle Theories in Perspective

Since the earliest years of economics as a distinct discipline, economists have taken a special interest in the economy's ups and downs. Thomas Malthus worried about economywide gluts that he believed to be characteristic of Adam Smith's system of natural liberty. J. B. Say reasoned those worries away—to his own satisfaction and to that of many others. But business cycles persisted, and Karl Marx held that booms and busts of increasing severity are inherent in the capitalist system. Cyclical movements of various durations came to be associated with Joseph Kitchen (three to five years), Clement Juglar (seven to eleven years), and Nikolai Kondratieff (forty-five to sixty years). Joseph Schumpeter ([1939] 1964) conceived of a composite cycle made up of Kitchen, Juglar, and Kondratieff components.

Ludwig von Mises ([1912] 1953) drew on British and Swedish monetary theory, combined it with Austrian capital theory, and argued that business cycles are essentially monetary in origin. F. A. Hayek (for example, Hayek [1935] 1967) developed the Austrian theory in the years just before the rise of Keynesianism. Monetary factors are causal, according to the Austrians, either in the sense of initiating an ultimately unsustainable boom or, if the initiating factor is newly perceived investment opportunities, in the sense of facilitating a protracted departure from sustainable growth. In typical episodes, as both Mises and Hayek came to recognize, monetary expansion is in play in both senses. The problem, however, is not the mere existence of a medium of exchange; the Austrians and others have long seen money as essential to the smooth functioning of a market economy. The problem is money as managed by a central bank.

It can justifiably be claimed that the Austrian theory of the business cycle represents a high-water mark—if not *the* high-water mark—in business-cycle theory. Dowd and Hutchinson lamentably do not explicitly incorporate the Austrian theory into their own understanding of boom and bust or even mention this theory. Neither Mises nor Hayek appears in the book's index. Though many of the book's passages more than hint at an Austrian storyline, the authors rely explicitly on monetarist theory, which features the quantity theory of money (more accurately rendered as the “quantity-of-money theory of the price level”). Focusing on the money supply, the economy's total output, and the overall price level, Milton Friedman (for whom there are ten references in the book's index) reconstructed the quantity theory and gave it some empirical and political legs. Rechristened “monetarism” in the late 1960s, Friedman's macroeconomics demonstrated empirically that a monetary contraction can send a faltering economy into deep depression. And he eventually made some headway in the political arena on the basis of his proposed “monetary rule” to be observed by the central bank (about which I say more later).

If the Austrian theory was the high-water mark of business-cycle theory, then surely Keynesian theory, which prevailed over Austrian theory largely on political grounds, was the low-water mark. For John Maynard Keynes, there are no viable

market mechanisms that can keep the economy on a healthy course, macroeconomically speaking. Market economies are instead buffeted about by “animal spirits” that rule in the economy’s investment sector and by fetish-driven hoarding behavior that robs money of its coordinating powers. Keynes’s suggested long-run fix entails reforms in the direction of centralized economic decision making. For the short run, he argued for fiscal and monetary policies designed to stabilize an otherwise directionless and sometimes out-of-control market economy, allowing time for suitably centralized institutions to be put in place. Dowd and Hutchinson rightly identify the enduring dominance of Keynes’s short-run thinking as fundamental to our understanding of the past seven decades of macroeconomics history. In the policy arena, central banks understandably never embraced antiactivist Austrian theory, and monetarist thinking prevailed only fleetingly (around 1979–82) and in a degraded and politically corrupted form.

Theories of the business cycle put forth in their most general form—that is, with the label “The *X* theory of *Y*”—are often considered suspect or even rejected out of hand because of the monocausality that such labeling seems to imply. At the risk of oversimplification, we can say that the Austrian theory is a “credit expansion theory of the unsustainable boom” and that the monetarist theory is a “monetary contraction theory of recession or depression.” These two very different theories reflect the fundamentally different questions that the theories are intended to answer. In the context of the Great Depression, the Austrians asked, “How could the seemingly good times during the 1920s have gone bad?” Shifting their focus from the 1920s to the 1930s, the monetarists asked, “Why were the bad times experienced in the 1930s so awfully bad?”

The simplification here allows us to draw a sharp distinction between Austrian and monetarist perspectives on business cycles. Actually applying either of these theories to a particular cyclical episode, however, requires a full accounting of the economic circumstances in which the episode occurs. In summary terms, we must recognize that centralized credit expansion turbocharges whatever interest-sensitive activities are going on at the time. As my colleague Leland Yeager puts it, “Each cyclical episode is a unique historical event.” True enough, but my attention to the central bank as turbocharger helps to keep separate the particulars and the commonalities of the different cyclical episodes.

Contemporaneous financial innovations and housing policies as well as the cumulative effects of long-run trends, such as those in the distribution of income and the structure of capital ownership, can be critical in explaining why the most recent cyclical episode is worse than or different from earlier ones. The merits of *Alchemists of Loss* lie largely in the authors’ account of the multifaceted circumstances that gave the 2008 financial crash its particular character.

In my judgment, for reasons I explain in subsequent sections, the book would have been even more satisfying had it been based squarely and explicitly on the Austrian theory rather than on the monetarist theory.

A Long-Run Trend: Income Redistribution

The cumulative effect of income redistribution brought about by estate taxes and progressive income taxes dating from the Great Depression is integral to Dowd and Hutchinson's framing of the 2008 financial crisis. Over the past three-quarters of a century, wealth has been siphoned from prominent business and industrial families and distributed to low-income households and others. Here the authors tell a credible story, giving special attention to the particular "others" whose incomes have spiked in recent years. It is left to the reader to appreciate fully the heavy dose of irony in the idea that the tax-driven downward redistribution of incomes has helped set the stage for a financial crisis.

The irony, of course, is that one of the most commonly held beliefs about the Great Depression is that the economy's poor performance was attributable in large part to a *market-driven upward* distribution of income. Keynes, having been influenced by the late-nineteenth-century writer John A. Hobson, gave some credence to this idea. As output and incomes rise, the gap between consumer spending and income (that is, saving) becomes increasingly difficult to fill with investment spending. This "spending gap" is all the more troublesome to the extent that income is increasingly skewed toward the wealthy, whose "marginal propensity to consume" is much lower than that of wage earners. Though Keynes gave Hobson's idea some analytical legs, the supposed "maldistribution" of income had already become a prominent focus in popular writings, such as Frederick Lewis Allen's *Only Yesterday: An Informal History of the 1920s* (1931). It gained still more attention when coupled with Alvin Hansen's 1938 presidential address to the American Economic Association, in which he introduced what came to be called the "stagnation thesis." According to Hansen (1939), just as the saving–investment gap was widening, the possibilities for further technological advancement were dwindling. (The very notion of a yawning "gap" that somehow must be "filled" undoubtedly had rhetorical appeal for those who were favorably disposed to government intervention and collectivization.)

Even Henry Simons, seen at the time as a defender of *laissez-faire*, claimed that "the case for drastic progression in taxation must be rested on the case against inequality—on the ethic or aesthetic judgment that the prevailing distribution of wealth and income reveals a degree (and/or kind) of inequality which is distinctly evil or unlovely" (1938, 18–19). The idea that a government-engineered downward redistribution of income could in seventy years contribute importantly to a distinctly unlovely financial crash would not have occurred to those who took their cue from Keynes and Hansen or even from Simons.

As Dowd and Hutchinson make clear, the redistribution of wealth and income away from business and industrial families meant the demise of the "old partnerships" and the rise of "managerial capitalism." It meant the separation of ownership and control. In an earlier time and without the limited liability that virtually defines the

modern corporation, the owners of large-scale industrial and business concerns had plenty of “skin in the game.” They had a strong incentive to watch the bottom line, all things considered, and they were in it for the long run. Individual businesses, both large and small, could rise and fall with changing circumstances, but for the economy as a whole the underlying concern for preserving capital value over the long run translated into a degree of macroeconomic stability. Precisely this critical source of stability has been continuously eroded over the years by the federal tax code and regulatory schemes.

So with the atrophy of the partnership form of business enterprises, the incentives to maintain long-run profitability have been continuously weakened. It follows, almost as a corollary, that the window for exploiting short-run profit opportunities at the expense of long-run viability has been continuously widened. Managerial capitalism has given rise to a whole class of traders in securities markets and especially in derivatives markets who get in and out of markets in pursuit of short-run gains. The opportunity for these cumulative short-run gains would not have been available (or would have been available on a much smaller scale) had it not been for the absence of “old partnerships” whose vigilance and long-run perspective would have provided an effective counterbalance.

This aspect of Dowd and Hutchinson’s storyline rings true. It is well known among economists (although Keynes had it backwards) that the economy’s public sector is governed by short-run considerations, whereas the private sector is guided by the longer-run considerations. A similar contrast can be made between the nature of the incentives that dominate in a system of managerial capitalism (short run) and the nature of the incentives that govern in a system of “old partnerships” (long run).

Further, Dowd and Hutchinson’s insights about the significance of income redistribution dovetail nicely with the classical-liberal and libertarian view of government intervention. More often than not, the actual consequences of the government’s efforts to redistribute income are opposite to the supposed intentions. Though intended to stabilize the economy by narrowing the gap between consumption spending and income, income redistribution has actually contributed to the economy’s *instability* by giving more play to upper-level managers and traders, who have much shorter time horizons than do members of the old partnerships.

In this vein, the authors might have drawn support from Joseph Schumpeter. In dealing with the issue of tax-based income redistribution, Schumpeter argued that the system of taxation should not violate “the organic conditions of a capitalist economy, including high premia on industrial success and all the other inequalities of income that may be required in order to make the capitalist engine work” ([1942] 1950, 384).

Critics of Dowd and Hutchinson might argue that their attention to the government’s efforts to redistribute income is unwarranted because the economy’s actual income distribution—as measured, say, by the Gini coefficient—has moved in the opposite direction, toward greater income inequality. (Since the late 1960s, the Gini

coefficient has risen from 39 to 47, where zero represents complete income equality and 100 represents the opposite extreme.) But once again Dowd and Hutchinson's insights conform with the general libertarian view of government regulation. In trying to redistribute income from high-income earners to low-income households, the government may have succeeded only in redistributing income from investors who are in it for the long run to managers and traders who are in it for the short run. The primary beneficiaries of the redistribution are not the low-income households, but rather the "others" mentioned earlier—namely, the managers and traders whose astronomical bonuses help to account for the upward movement in the Gini coefficient.

Dowd and Hutchinson's discussion of the trend toward shorter-run perspectives in the financial world is introduced with reference to the Depression-era writings of Adolph A. Berle and Gardiner C. Means (1932). This hard-left duo saw the separation of ownership and control as a major flaw in the capitalist system—here, as in hard-left literature generally, taking "the capitalist system" simply as "the existing system." But the nature of the problem of this separation was not lost on even the earliest defenders of capitalism. Dowd and Hutchinson quote from Adam Smith's *Wealth of Nations* to document his strongly negative view of joint-stock companies. With managers of other people's money in control, "[n]egligence and profusion must always prevail" (2010, 140). Here, Smith is focusing squarely on the joint-stock companies' incentive effects. In the early stages of the development of securities markets, these perverse-incentive effects may well have been a first-order problem.

Almost two centuries later F. A. Hayek focused on the knowledge problem and took a moderate view of the corporate form of ownership:

Though there may be no difficulty in widely dispersing ownership of well-established enterprises among a large number of owners and having them run by managers in a position intermediate between that of an entrepreneur and that of a salaried employee, the building up of new enterprises is still and probably always will be done mainly by individuals controlling considerable resources. New developments, as a rule, will still have to be backed by a few persons intimately acquainted with particular opportunities; and it is certainly not to be wished that all future evolution should be dependent on the established financial and industrial corporations. (1960, 319–20)

Though not at all denying the perverse-incentives problem, Hayek is clearly concerned with the differences in the sorts of knowledge that are likely to be possessed by corporate managers and by owner-entrepreneurs. The corporate manager, being more nearly "the man on the spot," can act on the basis of his knowledge of the particular circumstances of time and place, but only the owner-entrepreneur can create a new enterprise or reset the direction of an old one on the basis of some vision of future economic conditions.

Modern Finance

Hayek's moderate view of the separation of ownership and control pertains significantly to a period during which securities markets were well developed but before the advent of "modern finance." Dowd and Hutchinson date the origins of modern finance to a theorem that Franco Modigliani and Merton Miller introduced in 1958, demonstrating the underlying equivalence of debt financing and equity financing, and to Harry Markowitz's ground-breaking work (a 1952 University of Chicago Ph.D. dissertation) that formalized the relationship between risk and rate of return. Modern financial theory became operational during the 1960s in the form of the Capital Asset Pricing Model (CAPM) and allowed for significant leveraging in the 1970s after Fischer Black and Myron Scholes extended the approach to the pricing of options. Still later developments in information technology and the strategic placement of computer hardware gave rise to flash trading, putting CAPM-based trading strategies on steroids.

Outside the context of booms and busts, modern financial theory can be the basis for an overall gain to society. Apart from flash trading, which appears to have no socially redeeming features, trading on the basis of a comprehensive assessment of alternative investment portfolios allows the risks that are inherent in a market economy to be borne by those who are most willing to bear them. A risk/rate-of-return assessment more generally can help tailor an investment portfolio to an individual's risk preferences. The problem, as Dowd and Hutchinson point out, is that the risks that the CAPM takes into account do not include *systemic* risks. The risk metric that was widely adopted in the 1990s, called "Value-at-Risk" (VaR), quantifies the riskiness of a particular portfolio—*on the assumption that the market as a whole is stable*. With this metric, you may assure yourself, for example, that you have a 95 percent chance that this portfolio will suffer no greater one-day loss than the calculated VaR (Dowd and Hutchinson 2010, 113). But what if the market as a whole *is not* stable? And what if the use of the CAPM, the reliance on the VaR, and the proliferation of derivatives serve to leverage both short-run profits and the market's instability?

It is as if we were pondering a house of cards but focusing on only one particular card—this card being analogous to a particular investment portfolio. What are the chances that it will waffle or even fall—but without there being, either as cause or as effect, a collapse of the whole structure? In the context of structural stability, the CAPM can guide the owner of the portfolio to a short-run realized gain. And as short run follows short run, the gains are cumulative. As explained earlier, there can even be even net gains to the economy, providing the house of cards itself is stable. But employing the CAPM in the context of structural instability in the form of booms and busts is another story.

My reading of *Alchemists of Loss* suggests that the government's efforts to redistribute income downward and the consequent separation of ownership and control have degraded the economy's overall performance and that practitioners of

modern finance, operating in a cycle-prone economy, have taken full advantage of the separation, further degrading the economy's overall performance and redistributing income upward. Making matters even worse, practitioners of modern finance, in taking advantage of booms, have added to the boom's strength and with the help of still further government interventions have increased the boom's duration.

But modern finance is not the cause of boom and bust. That all-too-familiar cyclical pattern of good times followed by bad predates modern finance by centuries and, even as a matter of the cycle's internal logic, has to be explained in terms of a more fundamental economywide disturbance. In the view of classical liberals, the market economy is not a house of cards. The economy is not inherently cycle prone, but it can be rendered so by the centralization and politicization of the business of banking.

The Central Bank

Although Dowd and Hutchinson do not deal head on with the Federal Reserve and its expansionary bias until chapter 11, "Loose Money," they clearly recognize that the Federal Reserve (the Fed) is fundamentally responsible for triggering and fueling artificial booms. In chapter 13, "Bubble, Bust, and Panic," they write: "Monetary policy, *the principal institutional cause of the crisis*, has been neither improved nor reformed, and the highly dangerous policy of loose money has continued with a vengeance" (2010, 322, emphasis added). Together, chapters 11 and 13 paint a vivid picture of boom and bust in which excessively low interest rates entice investors to increase their borrowing and encourage would-be savers to consume instead (2010, 265–67). With saving and investment out of sync, the economy is driven off track in the upward direction and then eventually goes bust. In the aftermath, the Fed, returning to its low-interest-rate stance in an effort to hasten recovery, is more likely to create still another unsustainable boom.

This is my reading—and, I suspect, many others' reading—of the authors' perspective on the Fed's role. It rings true and underlies all of the other aspects of their story. The one frustrating aspect of this book, mentioned earlier, is that the authors talk Hayek but cite Friedman. It was Ludwig von Mises and F. A. Hayek who emphasized that newly created money enters the economy through credit markets and impinges first on interest rates. The artificially lower interest rates distort the pattern of prices, causing resources to be misallocated in the direction of interest-rate-sensitive investments, such as early-stage production and durable capital (including housing). At the same time, the low rates induce overconsumption (the flip side of reduced saving). The clash between the future-oriented investment spending and present-oriented consumption spending eventually puts an end to the artificial boom and reveals the significance of the fact that the VaR of modern finance does not take systemic risk into account.

In contrast, Milton Friedman saw these interest-rate effects as negligible. He trivialized any resource misallocations brought about by the Fed's monetary

injections as “first-round effects”—that is, effects that the market reverses in short order. His restatement of the quantity theory of money (Friedman [1956] 1969a) did entail a pro forma equation that includes the interest rate, but only as a minor variable affecting the demand for cash balances. That is, the interest rate plays a marginal role on the money side—the left side—of the equation of exchange ($MV = PQ$, where M = money supply, V = money’s “velocity,” or annual rate of circulation, P = price level, and Q = total output), but no role at all on the output side. In contrast, the Austrians emphasize the interest-rate-induced allocation effects *within* Friedman’s output aggregate. A depressed interest rate, more specifically, induces—at the economy’s peril—the overexpansion of the interest-rate-sensitive components of Q .

Even more significant, Friedman argued over the years that there is no empirically discernible relationship between booms and subsequent busts. Drawing on research that he had done nearly three decades earlier, Friedman (1993) reintroduced his “plucking model,” which depicts the economy’s total output as falling below trend (being “plucked” downward) at random intervals and to various degrees. To Friedman, this temporal pattern suggested a bust–boom sequence—which is to say, a contraction and subsequent recovery. He was wholly dismissive of the entire class of business-cycle theories that treat boom and *subsequent* bust as a logical and chronological sequence. In a related interview, he indicated that the lack of evidence for a supposed boom–bust sequence stands as a “decisive refutation of von Mises [*sic*]” (Hammond 1992, 102).

According to Friedman, the 1920s “were, in the main, a period of high prosperity and stable economic growth” (Friedman and Schwartz 1963, 296). Moreover, as announced by the chapter title containing this claim, this decade marked “the high tide of the reserve system.” Friedman showed little interest in the economics of the upper turning point that marked the end the 1920s expansion, focusing instead on the relationships that account for the subsequent descent into deep depression. His memoirs are to the point. Summing up his and Anna Schwartz’s study of the years 1929–33, he wrote: “We demonstrated . . . that the Fed was largely responsible for converting what might have been a *garden-variety recession*, though perhaps a fairly severe one, into a major catastrophe” (Friedman and Friedman 1998, 233, emphasis added). For Friedman, the key question was, “How did a bad situation get worse?” He found that tracking the movements in the money supply (M), the price level (P), and total output (Q) was useful in this regard. Those aggregates are not well suited for dealing with the prebust period. And changes in the temporal *pattern* of prices before the downturn (or after) did not figure importantly in his research.

My making the claim that Friedman’s monetarism does not fit Dowd and Hutchinson’s story probably warrants a short digression with an eye to the standard textbook renditions of monetarism. What about the short-run/long-run Phillips curve analysis, commonly attributed to Friedman (and independently to Edmund Phelps)? This business-cycle scenario is based largely on Friedman’s presidential address at the 1967 meeting of the American Economic Association (Friedman

[1968] 1969b), in which he details a boom–bust story. A booming economy moves northwestward along a downward-sloping short-run Phillips curve, increasing the inflation rate, reducing the unemployment rate below its “natural” level, and boosting output. Significantly, it is the increasing inflation rate, in textbook renditions of this Phillips curve story, that causes the increase in employment—and hence in output. Employers quickly take advantage of the easily perceived spread between the not-yet-increased wage rates and the inflated output prices. They hire more workers, bidding wage rates up, and produce more output. Only later do the workers, who have for a time been supplying more labor for a higher *nominal* wage rate, realize that their *real* wage rate has actually fallen. They then withdraw the inflation-induced increment of the labor supply, and the unemployment rate reverts to its “natural” level. The reversion constitutes the bust and leaves the inflated economy at its preboom level of employment and output. Pointing to the rise of prices and nominal wages and the rise and fall of employment and output, Friedman argues that the *long-run* Phillips curve is actually vertical; inflation can affect the economy’s real variables only temporarily.

Textbook writers and even many self-identified monetarists have taken this short-run/long-run Phillips curve analysis to be the monetarists’ account of the market mechanisms that cause a money-induced boom to go bust. Much more plausibly, however, Friedman’s presidential address was intended only as immanent criticism of the views held by his Keynesian-oriented contemporaries. Many saw the Keynes-inspired downward-sloping Phillips curve as an enduring trade-off between inflation and unemployment, a virtual menu of policy choice for left-leaning politicians willing to put up with inflation in order to reduce unemployment and for right-leaning politicians willing to put up with unemployment in order to reduce inflation. Friedman’s message was simply that there is no long-run trade-off.

The common textbook rendition of the short-run Phillips curve dynamics actually clashes both with the empirical record and with a fundamental proposition of monetarism. The low unemployment rate during the boom depends on wage rates lagging behind rising output prices. This sequence would mean that *real* wage rates are relatively low during the boom. But the notion of low real wages during credit-induced booms has no empirical support. (In the Austrian view, the artificially cheap credit increases investment, increases the demand for labor, and hence increases the real wage rate. In fact, these higher real wages are in large part responsible for the political popularity of credit-induced booms.)

Not long after Friedman offered his criticism of the Phillips curve as a menu of choice, he set out ten fundamental propositions of monetarism (Friedman 1970), which included the proposition that a monetary expansion causes quantities (output and, as a virtual prerequisite, employment) to increase *first* and prices only *later*. With this sequence, of course, it cannot be the rising prices that, being differentially perceived by employers and employees, are responsible for increased employment and output. Friedman actually finessed the issue of “quantities then prices” versus

“prices then quantities” in his presidential address, portraying the latter as an extra boost during a later phase of the adjustment process. But it was exclusively the “prices then quantities” sequence that became the standard textbook version, formalized by Robert E. Lucas Jr. as a monetary misperception theory of the business cycle. In any case, the “quantities then prices” understanding, which Friedman favored, is evidently not strong enough to show up in his highly aggregative monetarist framework as an empirically verifiable boom–bust sequence.

The Housing Bubble

Piecing together material from early and late chapters in *Alchemists of Loss*, we see that the federal government’s push toward more widespread home ownership, especially among lower-income families, is a long-term trend with a twenty-first-century crescendo. Dating from Herbert Hoover’s “Own Your Own Home” campaign (Dowd and Hutchinson 2010, 185) and Roosevelt’s National Housing Act of 1934, which created the Federal Savings and Loan Insurance Corporation, home ownership has been artificially—politically—favored. Fannie Mae (1938) and Freddie Mac (1970), by means of their de facto loan guarantees, became the heavy lifters. During the Carter administration, mortgage lending was deliberately extended in the direction of low-income, high-risk borrowers by the Community Reinvestment Act of 1977, a critical piece of legislation that was strengthened in 1985 and again in 1999. During the George W. Bush administration, federal guidelines on mortgage-lending practices were relaxed further (allowing teaser loans and no down payments), and the gates were opened wide even to borrowers with the shakiest credit histories. Compounded by the ongoing development of the techniques of modern finance, the short-run profitability and long-run unsustainability of the housing market were leveraged to the hilt.

Unsound as these policies were, they were not the *principal* cause of the financial crisis. Again, Dowd and Hutchinson are right in identifying the expansion-prone Federal Reserve as the principal institutional cause. Had the Fed provided no fuel for the boom, federal housing policy, though perverse, would not have been unsustainable. The mortgage market would have had to compete with all other markets for the funds that savers provided. There would have been a continuing bias in favor of the mortgage market, and the ongoing rate of foreclosures would have been higher. House prices would have been higher (because houses and mortgage loans are complements), but they would not have been high and rising. Practitioners of modern finance would have paid due attention to the higher VaR, which would have reflected the expectation of an ongoing higher foreclosure rate.

Conversely, had the federal government not enacted legislation and created institutions that rigged mortgage markets so as to increase home ownership, credit expansion by the Fed would nonetheless have created an artificial boom, which inevitably would have ended in a bust. Some of the overabundance of loanable funds

would have found its way into the housing sector (because that sector is interest-rate sensitive), but without any legislative or regulatory bias toward that sector, the Fed-injected funds would also have found their way into other interest-sensitive sectors of the economy.

Although Fannie, Freddie, and related federal legislation are not the principal cause of the crisis, they do account for the particular character of the preceding boom and hence for the particular character of the subsequent bust. The terms *boom* and *bubble* are often used interchangeably in the literature on business cycles. It may be preferable, however, to use *boom*—or more specifically *artificial boom*—to refer to the credit-induced simultaneous expansion to various degrees of different interest-sensitive sectors of the economy and to use *bubble* to refer to the artificial boom’s most dramatic manifestation. Which sector reveals itself as the bubble depends on the circumstances in which the credit expansion occurs. As indicated earlier, artificial booms entail a turbocharging of whatever else is going on at the time.

The dot-com crisis of the 1990s occurred because a credit expansion took place during a time when technological innovations associated with the digital revolutions created a strong demand for investment funds in that sector. The housing crisis in 2008 occurred because a credit expansion took place during a time when the federal government was pushing hard for increased home ownership for low-income families. We understandably identify these different cyclical episodes (the dot-com crisis, the housing crisis) with “what was going on at the time.” The common denominator, however, is the Fed’s propensity to expand credit.

At this point, we might ask, “Will the real Alchemist please stand up?” Dowd and Hutchinson identify the alchemists as the architects of modern finance. An appendix to chapter 4, “Theoretical Foundations of Modern Finance,” profiles eleven “leading financial alchemists,” including Franco Modigliani and Merton Miller, who argued the irrelevance of the debt-equity structure; Harry Markowitz, who wrenched modern portfolio theory into existence; as well as Myron T. Scholes, Fischer Black, and Robert Merton, who devised and refined an options-valuation equation.

However, the true alchemist surely is the Federal Reserve. It doesn’t turn lead into gold, but with gold out of the picture, it turns nothing at all into money to lend. Its credit expansion is the sine qua non of the unsustainable boom. In this light, we see that the practitioners of modern finance are engaged in leveraging alchemy and that the architects of modern finance are credited for inventing the lever.

Blueprints for Reform

In the penultimate chapter, Dowd and Hutchinson present “a blueprint for reform”—in one key instance offering alternative, second-best measures in implicit recognition that sweeping reforms at the most fundamental level lack political feasibility. Adopting nineteenth-century financial systems as their model, they recommend abolishing the “big financial regulatory bodies,” such as the Securities and Exchange

Commission and the Federal Deposit Insurance Corporation, as well as the big mortgage-loan guarantors, Fannie Mae and Freddie Mac. On these fronts, they offer no second-best measures.

For dealing with our cycle-prone monetary institution, however, they offer two levels of reform. Their first-best proposal is refreshingly radical and consistent with the overall spirit of the book. It obviously reflects the extensive work that Dowd has done on the theory and practice of free banking: “Our first choice environment is one with a commodity standard, free banking (no central bank) and financial *laissez-faire*, restrictions on the use of the ‘limited liability’ corporate form, and the most limited government” (Dowd and Hutchinson 2010, 390). This bold recommendation is immediately followed by a brief segue to a much milder reform proposal—one whose merits are questionable not only for being so mild (relative to their first best), but also for virtually guaranteeing further boom–bust episodes.

According to its own mission statement, as spelled out on its Web site, the Fed currently is to conduct “the nation’s monetary policy by influencing the monetary and credit conditions in the economy in pursuit of maximum employment, stable prices, and moderate long-term interest rates.” In practice, “maximum employment” is taken to mean “full employment,” which allows for 5–6 percent unemployment, and “stable prices” is taken to mean a 2 percent inflation rate. (Although the central bank has no policy tools for controlling *real* long-term interest rates, stable prices will keep the *nominal* long-term rates only moderately higher than the real long-term rates.)

Dowd and Hutchinson note that in the 1980s Fed chairman Paul Volcker (1979–87) managed the central bank as if it had only a single mission: stable prices. Volcker let the unemployment rate and interest rates do what they would and brought down the rate of monetary expansion, reducing the inflation rate from a double-digit level to the low single digits during the first few years of his tenure. Recognizing that credit for this feat goes to the man and not to the institution, Dowd and Hutchinson recommend “Volckerizing” the Federal Reserve by replacing its multiple objectives with “a single overriding objective: the formation of monetary policy to achieve and maintain stability of the general price level.” To increase the Fed’s autonomy, they recommend “removing the requirement for the Fed chairman to report personally to Congress” and “moving the Fed headquarters physically . . . [to] St. Louis, an agreeable, geographically central location and bastion of monetarism” (2010, 391–92).

Volcker can rightly be seen as heroic relative to his predecessor, G. William Miller (1978–79), whose woefully misguided policies led to that period’s double-digit inflation. But maintaining price stability, whether defined as 2 percent inflation or 0 percent inflation, is a one-size-fits-all policy that in commonly occurring circumstances can result in a boom–bust episode. The booms that occurred during the 1920s and the 1990s illustrate this conclusion. Both decades saw genuine growth spurts. Innovations during the 1920s in chemicals, automobile production, home appliances, processed foods, and much else provided enhanced profit opportunities,

which in turn increased the demand for business loans. Under a system of true *laissez-faire*, the increased borrowing would have caused interest rates to rise, allocating the economy's limited investment funds (that is, available savings) to the most viable undertakings. The increased output subsequently would have put downward pressure on prices, resulting in a mildly decreasing price level, which is simply the arithmetical result of particular prices falling in the face of changed market conditions. The absence of monetary expansion in the face of real economic growth entails a benign deflation (Selgin 1997). In terms of the equation of exchange $MV = PQ$, P would have fallen as Q rose. This outcome, however, was preempted by an "accommodating" Fed. Its credit expansion during the 1920s countered the upward pressure on interest rates, causing investment spending to be higher than the market itself would have allowed, given the actual savings available for lending; and the new money lent into existence percolated through the economy, countering the downward pressure on prices. Hayek was more than skeptical about the Fed's policy during the 1920s, which he referred to in the title of his uncompleted Ph.D. dissertation as "an artificial stabilization of purchasing power" (qtd. in Kresge 1994, 7), and in a related article he warned against "the proposal for a pure stabilization of the price level" ([1925] 1994, 20)—that is, against "Volckerization." Maintaining price-level stability required credit expansion, turbocharging the genuine boom and causing the "Roaring Twenties" to have a substantially louder roar than the underlying economic realities justified. This account of that boom–bust episode, which draws from the Austrian theory and not from the monetarist theory, is nonetheless consistent with Dowd and Hutchinson's understanding of how a credit expansion leads to a bust.

The same was true for the 1990s, a decade during which the digital revolution and widespread adoption of Internet usage sparked an investment boom. In part, the boom was real. As in the 1920s, however, the upward pressure on interest rates attributable to higher investment demand was countered by the downward pressure exerted by credit expansion. With market forces and credit expansion exerting opposing forces on both interest rates and the inflation rate, unemployment fell below its natural rate without other macroeconomic metrics experiencing much change. Hailed as the "New Economy," meaning that credit expansion did not lead to price-level inflation, the decade was just another episode in which the Fed overrode the market forces that would have produced a mild price-level deflation. Paralleling the experience of the 1920s, the underlying genuine dot-com boom turbocharged by credit expansion eventually ended in the dot-com bust.

The lead-up to the 2007–2009 recession presents us with an interesting variation on a theme. The unique aspect of this boom–bust episode involves the nature of the nonmonetary aspect of the boom and the resulting movements of interest rates. Rather than there being an underlying genuine boom, there was an underlying housing-market distortion—directly attributable to Fannie Mae and Freddie Mac and to home-buyer-friendly legislation and federal guidelines on mortgage lending. So unlike what happened during the episodes of the 1920s and 1990s, interest rates

in this latest episode were affected on the loan market's supply side. The risk component of mortgage-lending rates was artificially reduced (that is, transferred to the public at large) by loan-market intermediaries, making risk-adjusted mortgage loans artificially cheap. This intervention by itself would have drawn investment funds away from other sectors of the economy into the housing sector. Had the Fed not expanded credit in this circumstance, the distortion of credit allocation and resource allocation would have been limited—not to say made trivial—by the market. In many cases, there would have been a significant redistribution effect from the public at large to home buyers, and in other cases, depending on the mortgage contracts' particulars, there would have been foreclosures, undoubtedly with some spillover effects.

The fact that the Greenspan Fed adopted a loose-money stance in the wake of the dot-com bust and well into this century's first decade was a game changer. This accommodation freed the housing sector from having to draw investment funds from other sectors. It fueled an economywide boom—with the housing bubble, leveraged by the practitioners of modern finance, being its most dramatic aspect. In one important respect, the Fed found itself in uncharted waters. Rather than *countering* an *upward* pressure on interest rates, as in the earlier episodes, it *compounded* the *downward* pressure. With interest rates at historic lows from mid-2003 to mid-2004, the mismatch between saving and the temporal pattern of investment was doubly strong. It was another episode of turbocharging, but this time it was primarily the ongoing distortion of housing markets that was being turbocharged. The boom's unsustainability could not have been in doubt in the eyes of those who adopted an Austrian view. And the fact that the bubble was doubly artificial provided a strong hint about the difficulties inherent in the subsequent recovery.

A Volckerized Fed would not have served the economy well during this most recent boom. The relatively mild rate of inflation was consistent with an unemployment rate that fell to subnatural-rate levels (that is, below 5 percent in the final throes of the boom) and a corresponding high level of output. A Fed chairman whose exclusive focus was on price stability could only remain agnostic about a coming downturn, claiming weakly, as Alan Greenspan repeatedly did, that you don't know you're in a bubble economy until the bubble bursts.

Moreover, Volckerization could not have been achieved in this most recent episode by Friedman's monetary rule, according to which the growth rate of the money supply should be fixed at some low single-digit value. Such a rule would require that there be a meaningful money-supply target, such as M1 or M2, at which the Fed could take aim, and a predictable relationship between the targeted money-supply aggregate and the price level. Volcker himself was the last Fed chairman who enjoyed that circumstance. After implementation of the Depository Institutions and Monetary Control Act of 1980, the meaningfulness of the various M's and the predictability of the M-P relationship began to fade and were gone by 1987, when Greenspan assumed the chairmanship. Hence, even if Greenspan had asked, "What would Volcker do?" he could not have gotten an answer applicable to his own circumstances.

Neither could the Greenspan Fed have achieved a low inflation rate directly by adopting the price level itself as its target. The feedback about hits and misses would have occurred with much too long a lag to make that strategy viable. During Greenspan's tenure, the actual sequence of policy moves evolved into an implicit interest-rate rule that took into account both expected inflation and the unemployment rate. Adherence to the so-called Taylor Rule (a quantified latter-day Keynesian rule) continued until mid-2003, when the excessively low interest rates (even by the Taylor Rule standard) and escalating real-estate prices removed all doubt about the boom's unsustainability.

A. Summary View

Dowd and Hutchinson's narrative is built around the idea that loose-money booms lead to busts. That very idea makes their arguments Austrian centric rather than monetarist centric. Friedman offers his plucking model as evidence that the dominant sequence borne out by the data is a bust–boom sequence rather than a boom–bust sequence.

Time and again Dowd and Hutchinson point to downwardly distorted interest rates and long-term investments as key to our understanding of loose money's perverse effects. This emphasis, of course, is the Austrian element. Friedman downplays allocation effects of the rate of interest and casts the interest rate as only a minor determinant of the demand for money.

Dowd and Hutchinson see the Greenspan Fed's loose-money policies as an essential element in the story of housing-led boom and subsequent financial crisis. On the occasion of Greenspan's retirement from the Federal Reserve, Friedman penned a piece for the *Wall Street Journal* with the title "He Has Set a Standard" (2006). The fact that Greenspan's reign had seen only mild inflation was evidently enough for Friedman to credit him for doing the right thing, despite the absence of a viable monetary rule.

Dowd and Hutchinson's recognition that their analysis is more Austrian than monetarist might have led them to omit the call for Volckerization and for the Fed's move to St. Louis. Their sound judgment that the central bank is the principal institutional cause of booms and busts should have led them to stick with their first-best recommendation of monetary decentralization.

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