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Working Paper No. 662

The Financial Crisis Viewed from the Perspective of the "Social Costs" Theory

by

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ABSTRACT

This paper examines the causes and consequences of the current global financial crisis. It largely relies on the work of Hyman Minsky, although analyses by John Kenneth Galbraith and Thorstein Veblen of the causes of the 1930s collapse are used to show similarities between the two crises. K.W. Kapp's "social costs" theory is contrasted with the recently dominant "efficient markets" hypothesis to provide the context for analyzing the functioning of financial institutions. The paper argues that, rather than operating "efficiently," the financial sector has been imposing huge costs on the economy—costs that no one can deny in the aftermath of the economy's collapse. While orthodox approaches lead to the conclusion that money and finance should not matter much, the alternative tradition—from Veblen and Keynes to Galbraith and Minsky—provides the basis for developing an approach that puts money and finance front and center. Including the theory of social costs also generates policy recommendations more appropriate to an economy in which finance matters.

Keywords: Hyman Minsky; Kapp; Galbraith; Veblen; Coase; Theory of Social Costs; Efficient Markets Hypothesis; Money; Finance; Social Efficiency; Social Provisioning; Shadow Banks; Financial Innovation; Casino Capitalism; Securitization; Deregulation; Self-Supervision

JEL Classifications: B14, B15, B22, B52, E3, E12, E40, E42, E50, E51, E52, G14, G21

This paper will look at the causes and consequences of the current global financial crisis, largely relying on the work of Hyman Minsky, although analyses by John Kenneth Galbraith and Thorstein Veblen of the causes of the 1930's collapse will be used to show similarities between the two crashes. K.W. Kapp's theory of social costs will be contrasted with the recently dominant efficient markets hypothesis to provide the context for analyzing the functioning of financial institutions. It will be argued that rather than operating "efficiently," the financial sector has been imposing huge costs on the economy—costs that no one can deny in the aftermath of the collapse of the economy.

INTRODUCTION

Mainstream economists have developed theories in which financial markets are "efficient," pricing financial assets according to fundamental values. Indeed, if finance is efficient in the manner described by orthodoxy, it does not even matter. This is a logical extension of the neoclassical conclusion that markets efficiently allocate real resources to the financial sector. In the form of rational expectations it led to the conclusion that no individual or regulator could form a better idea of equilibrium values than the market. This led to Chairman Greenspan's famous excuse for not intervening into the serial bubbles that preceded the global financial crisis that began in 2007. And it was this theory that provided the intellectual underpinning of the behavior of market participants as well as regulators that led to the current crisis in financial markets.

Yet, it is clear that financial "markets" did not "efficiently" price assets. The continuing crisis makes it clear that "finance" does matter. This is now recognized by virtually all observers. However, most policymakers are simply focused on "getting finance flowing" again—as if we just need to take a big plunger to a blocked financial toilet—and on ensuring that asset prices more correctly reflect fundamental values. No fundamental changes are required—we just need to "make markets work." This paper will argue that the orthodox approach to finance is useless because the market metaphor is particularly inapplicable to finance. Ronald Coase argued that while free markets might be the most efficient form of economic organization, the majority of economic transactions take place outside the market, which calls into question the role of markets

as the organizing structure of capitalism. Thus, following the example previously set by Keynesians and Institutionalists, even Coase leaves an opening for institutions, including the state, in formulating rules and providing regulation and supervision. These institutions will not arise endogenously out of market processes; they must be imposed on the market. One could go even further and argue that the market, itself, is an institution created and regulated through human agency.

These objections are even more relevant to the sphere of finance. At the most basic level, banking is concerned with building a relationship that allows for careful underwriting (assessing creditworthiness) and for ensuring that payments are made as they come due. Long-term relations with customers increase the possibility of success, by making future access to bank services contingent upon meeting current commitments. Further, within the bank itself, a culture is developed to provide and enforce rules of behavior. Relations among banks are also extra-market, with formal and informal agreements that are necessary for mutual protection—banks are often forced to "hang together, or all will be hung separately" because of the contagion effects of runs on their liabilities.

Further, social policy promoted the use of bank liabilities as the primary means of payment. This is not something that arose naturally out of markets. A well-functioning payments system requires par clearing—the US's long and sordid history of nonpar clearing by "free" banks stands out as singularly unsuccessful. For that reason, par clearing was finally ensured with the Federal Reserve Act of 1913, which created a central bank for the United States whose original primary purpose was to ensure par clearing of bank demand deposits. However, there was a glitch in the system because the Fed's role was limited to lending to solvent banks against good assets. Hence, the payments system collapsed in the 1930s, when runs on banks returned as depositors rightly feared insolvent banks would never make good on their promises. For that reason, Congress created the Federal Deposit Insurance Corporation (FDIC) to "insure" deposits (with similar guarantees on deposits at thrifts and some other types of institutions). This effectively eliminated runs on banks (although later runs returned on other types of bank liabilities, such as brokered CDs).

The combination of access to the Fed as lender of last resort, par clearing, and deposit insurance provided very cheap and stable sources of finance for banks. In addition, Regulation Q limited interest on deposits (set at zero for demand deposits) to keep interest costs down. Banks could charge fees to handle deposit accounts. All of this made it possible for banks to operate the payments system while shifting most costs to consumers and government. Further, because these bank liabilities are guaranteed, bad underwriting leads to socialization of losses as the FDIC makes the deposits good. Clearly, operation of the payments system has not been left to "free markets."

While it now seems natural for banks to run payments through nominally private banks, there was no reason to combine lending (predominately commercial lending) and the payments system in this manner. An alternative arrangement would have been to separate the two—with the government operating the payments system as a public good (for example, through a postal savings system) and banks focusing on underwriting loans while financing positions in assets by issuing a combination of short-term and long-term liabilities. If these were not the basis of the payments system, there would have been no reason for the bank liabilities to maintain par—nor even any reason for them to circulate. Bad underwriting would first hit equity holders and then would reduce the value of the liabilities. Losses would not be automatically socialized. There might then have been some discipline on banks to do good underwriting.

Of course, Glass-Steagall did segregate a portion of the financial sector from the payments system: investment banks were allowed freer reign on the asset side of their balance sheets, but they could not issue deposits. Their creditors could lose. Creditors were protected mostly by the Securities and Exchange Commission (SEC)—which provided regulations primarily on the "product" or liability side. Investment banks (and other nondeposit taking financial institutions) were largely free to buy and hold or trade any kinds of assets they deemed appropriate. They were required to "mark-to-market" and to provide reports to creditors. Other than rather loose rules requiring them to ensure that the products they marketed were "suitable" for those who purchased them, it was expected that "markets" would discipline them. As we will see, that did not work, even for the less-protected institutions that did not have bank charters. And when the financial

system collapsed, the remaining investment banks were handed charters so that they could access the payments system.

Over the past half century, there has been a trend toward reducing relationship banking in favor of supposedly greater reliance on "markets." This is reflected in the rise of "shadow banks" that are relatively unregulated, that in many cases are required to "mark-to-market," and that have successfully eroded the bank share of the financial sector. It is also reflected in the changing behavior within banks, which largely adopted the "originate to distribute" model that is superficially market-based. This shift was spurred by a combination of innovation (new practices that were not covered by regulations), competition from shadow banks with lower costs, and deregulation (including erosion of and finally repeal of Glass-Steagall). It also reflects the changing views on the efficacy of markets. However, the move to increase reliance on markets is more apparent than real. As we shall see, the new innovations such as asset backed securities (ABS) actually increased institutional linkages even as they reduced the free market competitive pressures imagined by orthodoxy. And the prices to which asset values are marked reflect neither "fundamentals" nor "markets"-rather, they result from proprietary models developed (mostly) in-house and thus reflect the culture and views of teams working within institutions.

At the same time, these trends reduced "social efficiency" of the financial sector, if that is defined along Minskyan lines. Minsky (1992a) always insisted that the role of finance is to promote the "capital development of the economy," defined as broadly as possible. Minsky would agree with Institutionalists that the definition should include enhancing the social provisioning process, promotion of equality and democracy, and expanding human capabilities. Instead, the financial sector has promoted several different kinds of inequality as it captured a greater proportion of social resources. It has also promoted boom and bust cycles, and proven to be incapable of supporting economic growth and job creation except through the promotion of serial financial bubbles. And, finally, it has imposed huge costs on the rest of society, even in the booms but especially in the crises.

Indeed, the continuing attempts to rescue the financial sector (especially in the United States) have laid bare the tremendous social costs created by the way finance

dominates the economy. If anything, the various bailouts have actually strengthened the hands of the financial sector, increasing concentration in a small number of behemoth institutions that appear to control government policy. Meanwhile the "real" economy suffers, as unemployment, poverty, and homelessness rise, but policymakers claim we cannot afford to deal with these problems. Their only hope is to gently prod Wall Street to lend more—in other words, to bury the rest of the economy under even more debt. The rescue of Wall Street displaces other fiscal policy that would lead to recovery.

What I am arguing is that the financial sector has not been operating like a neoclassical market. In spite of the rhetoric that deregulation improved efficiencies by replacing government rules with market discipline, markets have not and cannot discipline financial institutions. Rather, we reduced regulation and supervision by government that was supposed to direct finance to serve the public interest. This was replaced by self-supervision for private profit that generated huge social costs. Financial institutions do not even pursue "market" interests (of shareholders, for example). Instead, they have been largely taken over by top management with personal enrichment as the goal.

KAPP'S THEORY OF SOCIAL COSTS, APPLIED TO THE FINANCIAL SECTOR

Along with other Institutionalists, Kapp developed the notion that market competition does not lead to socially efficient allocations of resources. Instead, competition promotes pursuit of private profit in a manner that shifts costs to society. Kapp (1950: 14) offered the following definition: "The term social costs refers to all those harmful consequences and damages which third persons or the community sustain as a result of the productive process, and for which private entrepreneurs are not easily held accountable." This goes beyond the neoclassical use of the term "externality," although the two concepts share the belief that costs are shifted. However, unlike neoclassical theory, Kapp saw this phenomenon as the normal result of competition in a pecuniary society (Swaney and Evers 1989). There is no tendency for a "free market" economy to generate an efficient allocation of resources. Leaving to the side the possibility that an economy really could

operate as a "free market," the allocation will not be efficient because much of the costs will be shifted to society while the benefits accrue to entrepreneurs.

Kapp's theory of social costs is particularly relevant to developing an understanding of the situation. Above we have discussed the policies that have led to the operation of the payments system by nominally private institutions. The costs of poor underwriting are shifted to society because we guarantee bank liabilities. In addition, poor underwriting means that bad loans were made. In some cases these loans enabled borrowers to command resources that were used in socially costly ways—for example, to finance partially completed but substandard or otherwise unwise real estate developments that must be bulldozed. While market discipline is supposed to lead to good underwriting, for reasons explored further below, it did not.

The operation of the modern financial institution directly imposes other costs, such as predatory mortgages that strip homeowners of their equity. This is not an unintended consequence—it is the business model behind subprime and Alt-A mortgage lending. But there are many other social costs. When the homeowner loses her home to foreclosure, social costs are imposed on neighbors (depreciating property values), on local public services (caring for vacant property, as well as homeless people), on retailers, and on the tax base. The foreclosure process, itself, increases these costs as mortgage servicers often have an incentive to prolong procedures until the total cost of foreclosure equals the expected sales price of the house—leaving no value for those holding the mortgage backed securities (MBS). Again, this is not an untended consequence—it is profitable behavior (Wray 2008a).

There are also many aggregative effects arising from the extensive and often unknown linkages among financial institutions. For example, downgrading the credit of a monoline insurer generates downgrading of insured MBSs. Holders of MBSs often pledge them to obtain finance—when MBSs are downgraded collateral must be supplied (alternatively, a bigger "haircut" is applied, meaning the holder obtains less finance against the pledged MBSs). The ratings of holders of MBSs are also downgraded. Effects continue through the system as payments on credit default swaps (CDS—issued as a sort of "insurance" on MBSs and other debts) are triggered, which inevitably impact counterparties and counter-counterparties. The layering of debts upon debts adds to the

linkages. The ratio of debts-to-GDP has reached 500%—meaning that each dollar of income is precommitted to servicing five dollars of debts, not just the mortgage but the securities, the collateralized debt obligations (CDOs that resecuritize the MBSs), and the CDOs squared and cubed. To that we can add the rest of the derivatives, including swaps, which totaled between \$60 and \$70 trillion globally at the time of the crash. Finance is layered, with complex and unknown linkages and commitments, and with huge but uncertain implications for the economy.

As another example, after the dot-com bubble collapsed, pension funds and other institutionally managed funds looked for possible investments that would not be correlated with stock prices. It was found that commodities prices had historically been uncorrelated. As a result, financial institutions like Goldman Sachs, as well as researchers from the Pension Benefit Guarantee Corporation, pushed pensions to diversify into commodities. Since holding commodities is costly, money managers went into the commodities futures markets (buying futures contracts for one to four month delivery of commodities; the contracts would be "rolled" on the delivery date). If commodities prices rose, the contracts would be sold at a profit (since they had locked in a price). Huge flows of managed money poured into the commodities market, driving up futures prices. Since commodities spot prices are normally set by the closest futures price, there was a vicious cycle: managed money drove up futures prices, which drove up spot prices, which caused more speculative fervor in commodities. Meanwhile, grain and oil prices were driven up, hurting consumers and leading to starvation around the world. In other words, speculative finance (mostly by pension funds, which accounted for 85% of the speculative money in futures contracts) created huge social costs (for details, see Wray [2008b]). And when commodities prices collapsed, that created other social costs for farmers and others who had invested based on the belief prices would remain high.

It is tempting to include the social costs of a "misallocation" of credit by financial institutions—say, too much housing was built but not enough daycare centers (or too much investment in corn farming and not enough in wind farms). We must be careful, however. While it is true that resources required for construction are limited (at least at a point in time) so that the sector could have been fully employed in residential construction leaving insufficient resources to build daycare centers, finance itself is not a

limited resource. We can have as much or as little of it as we want. Finance is really just a system of credits and debits, keystroke entries on computerized balance sheets. It is conceivable that human resources employed in the financial sector could have been fully tapped-out handling mortgages so that no one was left to arrange finance for new daycare centers. That, however, seems to be implausible. For years the "best and the brightest" had been flowing into Wall Street and devoting their energies to innovations that increased the layering and leveraging precisely because there was excess capacity in the sector. As a result, we got far more finance in the aggregate than we needed. To be sure, it was "misallocated" in the sense that much of it was not contributing to Minsky's "capital development of the economy." But that was almost certainly because the rewards to individuals were biased toward the activities actually pursued.

In recent years an extreme form of market fundamentalism has been applied to the financial sector—the efficient markets hypothesis. Asset prices should reflect "fundamentals." Indeed, financial markets are said to be so efficient that they do not matter. According to the Modigliani-Miller theorem, it does not matter how a firm finances its activities—own funds, debt, or equity are equivalent. With efficient financial markets, resources get efficiently allocated.

There are a number of traditions that have attempted to reject the self-adjusting vision of the system. Keynes, of course, had doubted that vision at least since his essay on the end of laissez-faire. Others (including Veblen, Kapp, and Minsky) within the Institutionalist tradition all share a similar framework of analysis that rejects the notion of an equilibrium-seeking system, and sees money and finance as the major source of problems with capitalist systems—the pecuniary interests dominate. Minsky called this a "preanalytic vision" of the operation of the financial markets and their role in directing the evolution of the economic system. In contrast to the "efficient markets" approach, this preanalytic vision concerns decision making in a system whose dynamics are not equilibrating, indeed, in which rational behavior by individuals leads to systemically irrational results. This goes beyond the acceptance of "radical uncertainty," as in Shackle's approach or in the Austrian approach. Instead, as Minsky put it, "agents in the model have a model of the model" but they know their models are wrong. Their behavior

is based on a model they know to be incorrect and thus subject to revision; when their model changes, they change their behavior.

In Minsky's financial instability hypothesis uncertainty is the result of engaging in commitments to make future financial payments with financial receipts that are uncertain because they, too, will occur in the future. In turn, those future receipts will not be forthcoming unless at that future time there is a willingness to enter into additional financial commitments (since spending in the future will determine future receipts). Hence, what one does today depends on what one expects others to do today, as well as into the future. Since commitments made in the past may not be validated today, and those made today may not be validated tomorrow, movement of the system through time need not be toward equilibrium. Minsky argued instead that behavior will change, based on outcomes, in such a manner that instability will be created. For example, a "run of good times" (in which expectations are at least met) will encourage more risk-taking, which increases financial leveraging that creates more risk. While many accounts of Minsky's work focus on the behavior of nonfinancial firms (as in the investment decision of a manufacturing firm), Minsky argued that behavior within financial institutions also evolves with innovations that stretch liquidity.

This provides an endogenous, rational explanation of the possible volatile behavior of asset prices, which is not self-equilibrating. Indeed, financial crises are usually the result of the impact of decisions taken within organized financial institutions—outside the market process—on the balance sheet stability of financial institutions. The "run of good times" leads to changes of the rules of thumb guiding practice within financial institutions, leading decision makers to test the limits of acceptable practice. Minsky's theory explains the evolution of the balance sheet positions of financial institutions and the impact on financial markets through financial layering. In particular, financial institutions find it rational to increase leverage, and rising leverage plays a crucial role in the financial instability hypothesis

Minsky's theory argues that the endogenous process of profit-seeking innovation will be not only a source of instability, but also make it difficult, nay, impossible to design financial reform proposals that produce financial stability. The search for such regulations only makes sense within a theory of self-adjusting equilibrium—where

"getting prices right" is all that is necessary. In an evolutionary theory of innovation and instability the concept of stability and the regulations that would be required are completely different. It requires a completely different view of the operation of financial institutions.

We can think of this tendency for financial fragility to rise as a result of financial sector innovation (responding to profit opportunities) as a tendency to impose ever greater costs on society. Some of these costs result directly from normal business procedure; we might call this taking advantage of customers (examples are explored below). But other, greater, social costs are created through the aggregative effects as bubbles are created and then as they burst. Literally trillions of dollars of wealth can be wiped out, leading to mass unemployment and deep and long recessions. In other words, it is not simply a shifting of costs but creation of social costs as the by-product of profitseeking behavior. And to a great extent, these social costs are not offset by any social benefits. It would be difficult to maintain that there was any social benefit from the creation of subprime hybrid ARMs (adjustable rate mortgages with very low "teaser" rates that would rise to very high levels after two or three years). As Swaney and Evers put it: "Over time, then, social costs multiply not so much as the result of unfortunate, accidental side effects of economic activity, but more as the result of incentives within the economic system itself. In short, social costs are predictable, endogenous outcomes, as well as exogenous accidents" (Swaney and Evers 1989: 12). These results are not due to mistakes, irrationality, or mispricing—bursting of the real estate bubble, mass foreclosures, rising homelessness, and a long period of unemployment were the foreseeable outcome. We know that the traders within financial firms as well as raters within the big ratings agencies fully expected defaults to explode and the system to collapse. They simply believed they would be able to get out before that happened.

In the next two sections we will quickly review the transformation of the financial system as fragility rose; we then look at specific examples of the social costs that resulted from "innovative" financial practices.

THE TRANSFORMATION AWAY FROM BANKING TO MONEY MANAGERS

Early last century, Hilferding identified a new stage of capitalism characterized by complex financial relations and domination of industry by finance (Hilferding 1981). He argued the most characteristic feature of finance capitalism is rising concentration which, on the one hand, eliminates "free competition" through the formation of cartels and trusts, and on the other, brings bank and industrial capital into an ever more intertwined relationship (Hilferding 1981: 21–22). Veblen, Keynes, Schumpeter, and, later, Minsky also recognized a new stage of capitalism: for Keynes, it represented the domination of speculation over enterprise, for Schumpeter it was the command over resources by innovators with access to finance, while Veblen distinguished between industrial and pecuniary pursuits.

By the 1870s, plant and equipment had become so expensive that external finance of investment became necessary. External finance, in turn, is a prior commitment of future gross profits. This creates the possibility of default and bankruptcy—the concerns of Minsky—while at the same time it opens the door for separation of ownership from control. From this Keynes derives the "whirlwinds of optimism and pessimism" addressed by chapter 12 of his *General Theory* (attributed to the precariousness of valuing firms based on average opinion), while Veblen's analysis points to management's manipulation of the value of business capital. Schumpeter's view was obviously more benign, as his "vision" of markets was much more orthodox, but he still recognized the central importance of finance in breaking out of a "circular flow"—where money merely facilitates production and circulation of a given size—through finance of innovation that allows the circular flow to grow. With the rise of finance capitalism, access to external finance of positions in assets was necessary. This fundamentally changed the nature of capitalism in a manner that made it much more unstable.

Veblen designated the early 20th century version of capitalism the "credit economy," where it is not the goods market that dominates, for "[t]he capital market has taken the first place...The capital market is the modern economic feature which makes and identifies the higher 'credit economy' as such" (Veblen 1958: 75). By "capital" Veblen means the "capitalized presumptive earning capacity," "comprised of usufruct of

whatever credit extension the given business concern's industrial equipment and goodwill will support" (Veblen 1958: 65). This is contrasted to "effective industrial capital," the aggregate of the material items engaged in industrial output. Goodwill can be collateralized and thereby increase divergence between values of industrial and business capital (Veblen 1958: 70). When presumptive earning capacity rises, this is capitalized in credit and equity markets, thus, access to credit fuels capitalized values, which fuels more credit and further increases the discrepancy between industrial and business capital values in a nice virtuous cycle. The "putative earning-capacity" is subject to fluctuation and manipulation because it "is the outcome of many surmises with respect to prospective earnings and the like; and... they proceed on an imperfect, largely conjectural, knowledge of present earning-capacity and on the still more imperfectly known future course of the goods market and of corporate policy" (Veblen 1958: 77).

Increasing the discrepancy between business and industrial capital is the prime motivation driving the "business interest" of managers--- "not serviceability of the output, nor even vendibility of the output," but rather "vendibility of corporate capital" (Veblen 1958: 79). They are "able to induce a discrepancy...by expedients well known and approved for the purpose. Partial information, as well as misinformation, sagaciously given out at a critical juncture, will go far...[i]f they are shrewd business men, as they commonly are..." (Veblen 1958: 77-8). Recall Keynes's famous warning: "the position is serious when enterprise becomes a bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done" (Keynes 1964: 159). While Veblen agrees there is uncertainty and speculation involved, he emphasizes the likely success of pecuniary initiative in manipulating stock values, even denying that "business interest" faces much uncertainty: "the certainty of gain, though perhaps not the relative amount of it, seems rather more assured in the large-scale manipulation of vendible capital than in business management with a view to a vendible product" (Veblen 1958: 82). While manipulation does carry risk, it is "not so much to the manipulators as such, as to the corporations...[and to] the business men who are not immediately concerned in this traffic" (Veblen 1958: 82–3).

As John Kenneth Galbraith (2009) makes clear, stocks could be manipulated by insiders—Wall Street's financial institutions—through a variety of "pump and dump"

schemes. Indeed, the 1929 crash resulted from excesses promoted by investment trust subsidiaries of Wall Street's banks. Since the famous firms like Goldman Sachs were partnerships, they did not issue stock; hence they put together investment trusts that would purport to hold valuable equities in other firms (often in other affiliates, which sometimes held no stocks other than those in Wall Street trusts) and then sell shares in these trusts to a gullible public. Effectively, trusts were an early form of mutual fund, with the "mother" investment house investing a small amount of capital in their offspring, highly leveraged using other people's money. Goldman and others would then whip up a speculative fever in shares, reaping capital gains. However, trust investments amounted to little more than pyramid schemes (the worst kind of what Minsky called Ponzi finance)-there was very little in the way of real production or income associated with all this trading in paper. Indeed, as Galbraith showed, the "real" economy was long past its peak-there were no "fundamentals" to drive the Wall Street boom. Inevitably, it collapsed and a "debt deflation" began as everyone tried to sell out of their positions in stocks—causing prices to collapse. Spending on the "real economy" suffered and we were off to the Great Depression.

For some decades after WWII, "finance capital" played an uncommonly small role. Memories of the Great Depression generated reluctance to borrow. Unions pressed for, and obtained, rising compensation—allowing rising living standards financed mostly out of income. In any case, government guaranteed mortgages and student loans (both at relatively low interest rates)—so most of the household debt was safe, anyway. Jimmy Stewart's small thrifts and banks (burned during the Depression) adopted prudent lending practices. The Glass-Steagall Act separated investment banks from commercial banks, and various New Deal reforms protected market share for the heavily regulated portions of the financial sector. Military Keynesianism provided demand for the output of industry, often at guaranteed marked-up pricing. Low debt, high wages, high consumption, and big government promoted stability.

The 1960s and 1970s saw the development of an array of financial institution liabilities circumventing New Deal constraints as finance responded to profit opportunities. After the disastrous Volcker experiment in monetarism (1979–82), the pace of innovation accelerated as many new financial practices were adopted to protect

institutions from interest rate risk. These included securitization of mortgages, derivatives to hedge interest rate (and exchange rate) risk, and many types of "off balance sheet" operations (helping to evade reserve and capital restraints). Favorable tax treatment of interest encouraged leveraged buy-outs to substitute debt for equity (with the takeover financed by debt that would be serviced by the target's future income flows). Another major transformation occurred in the 1990s with innovations that increased access to credit and changed attitudes of firms and households about prudent levels of debt. Now consumption led the way as the economy finally returned to 1960s-like performance. Robust growth returned, now fueled by private deficit spending, not by growth of government spending and private income. All of this led to what Minsky called money manager capitalism.¹

While many point to the demise of Glass-Steagall separation of banking by function as a key mistake leading to the crisis, the problem really was the demise of underwriting. In other words, the problem and solution is not really related to functional separation but rather to erosion of underwriting standards that is inevitable over a run of good times when a trader mentality triumphs. If a bank believes it can offload toxic assets before values are questioned, its incentive to do proper underwriting is reduced. And if asset prices are generally rising on trend, the bank will be induced to share in the gains by taking positions in the assets. This is why the current calls by some for a return to Glass-Steagall separation, or to force banks to "put skin in the game" by holding some fraction of the toxic waste they produce are both wrong-headed.

Minsky argued that the convergence of the various types of banks within the umbrella bank holding company and within shadow banks was fueled by growth of money manager capitalism. It was also encouraged by the expansion of the government safety net, as Minsky (1992b: 39) remarked: "a proliferation of government endorsements of private obligations." Indeed, it is impossible to tell the story of the current crisis without reference to the implicit guarantee given by the Treasury to the mortgage market

¹ Minsky (1996) defined it as follows: "Capitalism in the United States is now in a new stage, money manager capitalism, in which the proximate owners of a vast proportion of financial instruments are mutual and pension funds. The total return on the portfolio is the only criteria used for judging the performance of the managers of these funds, which translates into an emphasis upon the bottom line in the management of business organizations."

through its GSEs (Fannie and Freddie), through the student loan market (Sallie), and even through the "Greenspan Put" and the Bernanke "Great Moderation"—that gave the impression to markets that the government would never let markets fail. In the aftermath of the crisis, the government's guarantee of liabilities went far beyond FDIC-insured deposits to cover larger denomination deposits as well as money market funds, and the Fed extended lender of last resort facilities to virtually all financial institutions (with bailouts also going to auto companies, and so on). This really was a foregone conclusion once Glass-Steagall was gutted and investment banking, commercial banking, and all manner of financial services were consolidated in a single financial "big box" superstore with explicit government guarantees over a portion of the liabilities. It was always clear that if problems developed somewhere in a highly integrated system, the Treasury and Fed would be on the hook to rescue the shadow banks, too.

By the 1990s the big investment banks were still partnerships so they found it impossible to directly benefit from a run-up of the stock market, similar to the situation in 1929. An investment bank could earn fees by arranging initial public offerings for startups, and it could trade stocks for others or for its own account. This offered the opportunity to exploit inside information, or to manipulate the timing of trades, or to push the dogs onto clients. But in the euphoric irrational exuberance of the late 1990s that looked like chump change. How could an investment bank's management get a bigger share of the action?

In 1999 the largest partnerships went public to enjoy the advantages of stock issue in a boom. Top management was rewarded with stocks—leading to the same pump-anddump incentives that drove the 1929 boom. To be sure, traders like Robert Rubin (who would become Treasury secretary) had already come to dominate firms like Goldman. Traders necessarily take a short view—you are only as good as your last trade. More importantly, traders take a zero-sum view of deals: there will be a winner and a loser, with the investment bank pocketing fees for bringing the two sides together. Better yet, the investment bank would take one of the two sides—the winning side, of course—and pocket the fees and collect the winnings. Why would anyone voluntarily become the client, knowing that the deal was ultimately zero-sum and that the investment bank would have the winning hand? No doubt there were some clients with an outsized view of their

own competence or luck, but most customers were wrongly swayed by investment bank's good reputation. But from the perspective of hired management, the purpose of a good reputation is to exploit it for personal gain—what William Black (2005), calls control fraud.

Before this transformation, trading profits were a small part of investment bank revenues—for example, before it went public, only 28% of Goldman's revenues came from trading and investing activities. That is now about 80% of revenue. While many think of Goldman and JP Morgan (the remaining investment banks since the demise of Lehman, Bear, and Merrill, which all folded or were absorbed) as banks, they are really more like huge hedge funds, albeit very special ones that now hold bank charters, granted during the crisis when investment banks were having trouble refinancing positions in assets—giving them access to the Fed's discount window and to FDIC insurance. That, in turn, lets them obtain funding at near-zero interest rates. Indeed, in 2009 Goldman spent only a little over \$5 billion to borrow, versus \$26 billion in interest expenses in 2008—a \$21 billion subsidy thanks to its access to cheap, government-insured deposits. The two remaining investment banks were also widely believed to be "backstopped" by the government—under no circumstances would they be allowed to fail—keeping stock prices up. However, after the SEC began to investigate some of Goldman's practices, that belief was thrown into doubt, causing share prices to plummet.

In some ways, things were even worse than they had been in 1929 because the investment banks had gone public—issuing equities directly into the portfolios of households and indirectly to households through the portfolios of managed money. It was thus not a simple matter of having Goldman or Citibank jettison one of its unwanted trust offspring—problems with the stock or other liabilities of the behemoth financial institutions would rattle Wall Street and threaten the solvency of pension funds and other invested funds. This finally became clear to the authorities after the problems with Bear and Lehman. The layering and linkages among firms—made opaque by over-the-counter derivatives such as credit default swaps—made it impossible to let them fail one by one, as failure of one would bring down the whole house of cards. The problem we now face is that total financial liabilities in the United States amount to about five times GDP (versus 300% in 1929)—so that every dollar of income must service five dollars of debt.

That is an average leverage ratio of five times income. That is one (scary) way to measure leverage, for as Minsky (1992b) and Mayer (2010) argue, this is, historically, the important measure for bank profitability—which ultimately must be linked to repayment of principle and interest out of income flows.

Another measure, of course, is the ratio of debt-to-assets. This became increasingly important during the real estate boom, when mortgage brokers would find finance for 100% or more of the value of a mortgage on the expectation that real estate prices would rise. That is a trader's, not a banker's, perspective because it relies on either sale of the asset or refinancing. While a traditional banker might feel safe with a capital leverage ratio of 12 or 20—with careful underwriting to ensure that the borrower would be able to make payments—for a mortgage originator or securitizer who has no plans to hold the mortgage what matters is the ability to place the security. Many considerations then come into play, including prospective asset price appreciation, credit ratings, monoline and credit default swap "insurance," and "overcollateralization" (markets for the lower tranches of securities).

We need not go deeply into the details of these complex instruments. What is important is that income flows take a back seat in such arrangements, and acceptable capital leverage ratios are much higher. For money managers, capital leverage ratios are 30, and reach up to several hundred. But even these large numbers hide the reality that risk exposures can be very much higher because many commitments are not reported on balance sheets. There are unknown and essentially unquantifiable risks entailed in counterparties—for example, in supposedly hedged credit default swaps in which one sells "insurance" on suspected toxic waste and then offsets risks by buying "insurance" that is only as good as the counterparty. Because balance sheets are linked in highly complex and uncertain ways, failure of one counterparty can spread failures throughout the system. And all of these financial instruments ultimately rest on the shoulders of some homeowner trying to service her mortgage out of income flows—on average with \$5 of debts and only \$1 of income to service them. As Minsky argued, "National income and its distribution is the 'rock' upon which the capitalist financial structure rests" (Minsky 1992b, part III: 2). Unfortunately, that rock is holding up a huge financial

structure, and the trend toward concentration of income and wealth at the top makes it ever more difficult to support the weight of the debt.

BANKING ON CRISIS? THE RISE (AND END) OF "CASINO" CAPITALISM

In the modern era, it is not enough to put together Ponzi pyramid schemes or to sell trash to gullible customers. While investment banking today is often compared to a casino, it is not really fair. A casino is heavily regulated and, while probabilities favor the house, gamblers can win 48% of the time. When a firm approaches an investment bank to arrange for finance, the modern investment bank immediately puts together two teams. The first team arranges finance on the most favorable terms for their bank that they can manage to push onto their client. The second team puts together bets that the client will not be able to service its debt. Legally, even brokers do not currently have a fiduciary responsibility to take their client's best interests into account when selling them assets. Magnetar, a hedge fund, actually sought the very worst tranches of mortgage backed securities, almost single-handedly propping up the market for toxic waste, that it could put into CDOs sold on to "investors" (I use that term loosely because these were suckers to the "nth" degree). It then bought credit default insurance (from, of course, AIG) to bet on failure. By 1998, 96% of the CDO deals arranged by Magnetar were in default-as close to a sure bet as financial markets will ever find. In other words, the financial institution often bets against households, firms, and governments-and loads the dice against them—with the bank winning when its customers fail.

In a case recently prosecuted by the SEC, Goldman created synthetic CDOs that placed bets on toxic waste MBSs. (Goldman agreed to pay a fine of \$550 million, without admitting guilt, although it did admit to a "mistake.") A synthetic CDO does not actually hold any mortgage securities—it is simply a pure bet on a bunch of MBSs. The purchaser is betting that those MBSs will not go bad, but there is an embedded CDS that allows the other side to bet that the MBSs will fall in value, in which case the CDS "insurance" pays off. Note that the underlying mortgages do not need to go into default or even fall into delinquency. To make sure that those who "short" the CDO (those holding the CDS) get paid sooner rather than later, all that is required is a downgrade by credit rating agencies.

The trick, then, is to find a bunch of MBSs that appear to be overrated and place a bet they will be downgraded. The propensity of credit raters to give high ratings to junk assets is well-known, indeed assured by paying them to do so. Since the underlying junk is actually, well, junk, downgrades are also assured. Betting against the worst junk you can find is a good deal—if you can find a buyer to take the bet.

The theory behind shorting is that it lets you hedge risky assets in your portfolio, and it aids in price discovery. The first requires that you've actually got the asset you are shorting, the second relies on the belief in the efficacy of markets. In truth, these markets are highly manipulated by insiders, subject to speculative fever, and mostly over-thecounter. That means that initial prices are set by sellers. Even in the case of MBSs—that actually have mortgages as collateral—buyers usually do not have access to essential data on the loans that will provide income flows. Once we get to tranches of MBSs, to CDOs (squared and cubed), and on to synthetic CDOs we have leveraged and layered those underlying mortgages to such a degree that it is pure fantasy to believe that markets can efficiently price them. Indeed, that was the reason for credit ratings, monoline insurance, and credit default swaps. CDSs that allow bets on synthetics that are themselves bets on MBSs held by others serve no social purpose—they are neither hedges nor price discovery mechanisms.

The most famous shorter of MBSs is John Paulson, who approached Goldman to see if the firm could create some toxic synthetic CDOs that he could bet against. Of course, that would require that Goldman could find clients willing to buy junk CDOs. According to the SEC, Goldman let Paulson increase the probability of success by allowing him to suggest particularly risky securities to include in the CDOs. Goldman arranged 25 such deals, named Abacus, totaling about \$11 billion. Out of 500 CDOs analyzed by UBS, only two did worse than Goldman's Abacus. Just how toxic were these CDOs? Only five months after creating one of these Abacus CDOs, the ratings of 84% of the underlying mortgages had been downgraded. By betting against them, Goldman and Paulson won—Paulson pocketed \$1 billion on the Abacus deals; he made a total of \$5.7 billion shorting mortgage-based instruments in a span of two years. This is not genius work—an extraordinarily high percent of CDOs that are designed to fail will fail.

Goldman never told investors that the firm was creating these CDOs specifically to meet the demands of Paulson for an instrument to allow him to bet against them. The truly surprising thing is that Goldman's customers actually met with Paulson as the deals were assembled—but Goldman never informed them that Paulson was the shorter of the CDOs they were buying! While Goldman admitted it should have provided more information to buyers, its defense was that: a) these clients were big boys; and b) Goldman also lost money on the deals because it held a lot of the Abacus CDOs. In other words, Goldman not only withheld crucial information but it is also sufficiently incompetent to buy CDOs that it let Paulson put together with the explicit purpose of betting on failure. That is exploitation of reputation by Goldman's management—Black's control fraud: top management enriches itself at the expense of the firm.

In the AIG bailout by the government, \$12.9 billion was passed-through to Goldman because AIG provided the CDSs that allowed Goldman and Paulson to short Abacus CDOs. So AIG was also duped, as was Uncle Sam. I would not take Goldman's claim that it lost money on these deals too seriously. When Hank Paulson ran Goldman, it was bullish on real estate; through 2006 it was accumulating MBSs and CDOs including early Abacus CDOs. It then slowly dawned on Goldman that it was horribly exposed to what was turning out to be toxic waste. At that point it started shorting the market, including the Abacus CDOs it held and was still creating. Thus, while it might be true that Goldman could not completely hedge its positions so that it got caught holding junk, that was not for lack of trying to push risks onto its clients. The market crashed before Goldman found a sufficient supply of buyers to allow it to short everything it held.

Previously, Goldman helped Greece to hide its government debt, then bet against the debt—another fairly certain bet since debt ratings would likely fall if the hidden debt was discovered. Goldman took on US states as clients (including California, New Jersey, and nine other states), earning fees for placing their debts, and then encouraged other clients to bet against state debt—using its knowledge of the precariousness of state finances to market the instruments that facilitated the shorts.

To be fair, Goldman is not alone—all of this appears to be common business procedure. In early spring 2010 a court-appointed investigator issued his report on the failure of Lehman. Lehman engaged in a variety of "actionable" practices (potentially

prosecutable as crimes). Interestingly, it hid debt using practices similar to those employed by Goldman to hide Greek debt. The investigator also showed how the prices by Lehman on its assets were set—and subject to rather arbitrary procedures that could result in widely varying values. But most importantly, the top management, as well as Lehman's accounting firm (Ernst&Young), signed off on what the investigator said was "materially misleading" accounting. That is a go-to-jail crime if proven. The question is why would a top accounting firm as well as Lehman's CEO, Richard Fuld, risk prison in the post-Enron era (similar accounting fraud brought down Enron's accounting firm, and resulted in Sarbanes-Oxley legislation that requires a company's CEO to sign off on company accounts)? There are two answers. First, it is possible that such behavior is so widespread that no accounting firm could retain top clients without agreeing to overlook it. Second, these practices may be so pervasive and enforcement and prosecution thought to be so lax that CEOs and accounting firms have no fear. I think that both answers are correct.

In the latest revelations, JPMorgan Chase suckered the Denver public school system into an exotic \$750 million transaction that has gone horribly bad. In the spring of 2008, struggling with an underfunded pension system and the need to refinance some loans, it issued floating rate debt with a complicated derivative. Effectively, when rates rose, that derivative locked the school system into a high fixed rate. Morgan had put a huge "greenmail" clause into the deal-they are locked into a 30-year contract with a termination fee of \$81 million. That, of course, is on top of the high fees Morgan had charged up front because of the complexity of the deal. To add insult to injury, the whole fiasco began because the pension fund was short \$400 million, and subsequent losses due to bad performance of its portfolio since 2008 wiped out almost \$800 million-so even with the financing arranged by Morgan the pension fund is back in the hole where it began but the school district is levered with costly debt that it cannot afford but probably cannot afford to refinance on better terms because of the termination penalties. This experience is repeated all across America—the Service Employees International Union estimates that over the past two years state and local governments have paid \$28 billion in termination fees to get out of bad deals sold to them by Wall Street (See Morgenson 2010).

CONCLUSION

I believe all of these examples demonstrate the points made above about social costs while demonstrating the fallacy of the efficient markets hypothesis. First, the financial sector is not operated as a "market"—at least one as conceived by neoclassical economics. Second, it does not seek equilibrium, rather, it evolves toward fragility. Third, competition among financial institutions does not promote the public interest, rather, it creates costs and shifts them to society. Fourth, management of financial institutions have increasingly adopted practices that enrich themselves—control fraud—not only at the expense of customers but also at the expense of the reputation of the firms. In other words, the shifting of costs is in part onto the firms, themselves—many of which did not survive the crisis (and many more will fail).

It is hoped that the current crisis will lead to a transformation of the economics discipline, similar to the creation of Keynesian economics during the Great Depression. This one, however, should pay more attention to the role that institutions play in organizing the economy while at the same time placing more emphasis on social costs and on orienting financial institutions to serve the public purpose. The idea that private pursuit of profit is sufficient to guide financial institutions to further the capital development of the economy has been discredited. Indeed, since there is nothing that is "scarce" about finance, this area is the most ill-suited to the application of neoclassical theory based on the notion of scarcity. And by its very nature, banking needs to be based on relationships, not on the sort of one-off exchanges imagined by orthodoxy.

Finally, Kapp's theory of social costs provides a strong rebuff to the orthodox belief that redirecting finance so that it is more "market oriented" will improve its "efficiency"—in fact, trying to inject more "market" into financial institutions greatly increased social costs.

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