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Special Issue: The Current Financial Crisis

Financial Crisis: What Went Wrong?

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Financial markets around the world continue to suffer from declining asset values, heightened concerns about risk, lack of available credit, and prospects for a global economic slowdown. The speed with which this crisis developed surprised many observers. Nonetheless, the seeds of the current financial crisis have been apparent for some time. In this article, I discuss several direct causes of this crisis and describe how these causes interacted to create the conditions for a severe financial meltdown.

An obvious starting point for this discussion is the U.S. residential mortgage market. In this context, the current crisis began as part of the late stages of a fairly typical credit cycle. In such a cycle, lenders gradually relax lending standards during the course of an economic expansion as they pursue increasingly risky and less creditworthy borrowers to sustain the expansion. In the typical cycle, credit quality eventually suffers, bank loan losses mount, and lenders subsequently contract the availability of credit. These kinds of credit-cycle swings are common and often have accentuated business cycle fluctuations.

In the current crisis, several factors combined, in a sort of financial "perfect storm," to turn a typical credit cycle into a major financial calamity. First is the worldwide availability of credit and liquidity. For more than a decade, monetary authorities around the world have provided an accommodating monetary policy that has supported an enormous global financial expansion. In the U.S., for example, the growth rate of the monetary aggregate known as M2 has been almost 30 percent higher in the past 12 years than it was in the prior 12 years. Moreover, the Fed funds rate, the interest rate banks charge each other for overnight loans, has averaged more than 250 basis points lower since 1996 than between 1984 and 1996. This expansionary policy stance has helped to fuel rising asset prices, including tech stocks in the 1990s and, more recently, housing-related assets.

Second, U.S. financial markets have faced declining (or disappearing) levels of regulatory oversight. During the past decade, politicians of both parties supported efforts to deregulate financial markets, limit enforcement of existing regulations, or eliminate regulations altogether. These efforts enabled development of whole classes of financial

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In this special issue

The Role of Mark-to-Market Accounting in the Current Financial Crisis

Jeffry L. Davis

Since joining Economists Incorporated, Jeffry L. Davis has worked on numerous matters involving insider trading, securities fraud, damages, and antitrust issues. Previously he was Director, Economic and Policy Research at the Securities and Exchange Commission.

In recent months a fairly obscure accounting policy, usually referred to as mark-to-market accounting or fair value accounting, has been tarred by a number of prominent parties as a significant contributor, if not a major cause, of the unfolding financial crisis in this country. William Isaac, former Chairman of the FDIC, for example, has charged that the mark-to-market rule forces firms to value their assets at "unrealistic, fire-sale prices." In fact, he claims that this rule is the primary cause of the crisis. The Emergency Economic Stabilization Act of 2008 clarified the Security and Exchange Commission's (SEC's) authority to suspend mark-to-market accounting and ordered it to study the issue.

In brief, the mark-to-market accounting rule requires public companies, including banks, to value certain assets (such as mortgage-backed securities) at their current market values, that is, at values that could be realized by selling the assets on the valuation dates. On its face, such a rule does not sound controversial. After all, what better value exists than a current market value? Mr. Isaac and others, however, argue that current market values in a financial crisis are not good measures of the economic value of the assets because the market values are unrealistically depressed due to "temporary impairment."

It is beyond the scope of this brief article to draw any conclusions about the role of the mark-to-market rule in precipitating or contributing to the current financial crisis. Instead it will identify the key issues concerning this rule and explore briefly how they might be resolved. A good starting point is to consider the purpose of accounting, which is to provide the necessary information to business owners, investors, and lenders to permit them to make sound economic decisions. To accomplish this purpose, accounting must accurately portray the economic value of the assets held by a company.

The mark-to-market rule was intended to serve this purpose; whether it in fact does so is at issue. The critics of the rule argue that in a crisis the rule fails to serve this purpose because current market values are distorted. The distortion arises because liquidity has dried up so much that there are few sales and the sales that do occur are made at distressed prices by companies that must sell. Other companies that hold the same or similar assets must then value those assets based on the distressed sale prices, even though they may have no intention of selling the assets in the near future. Under this scenario, it is argued, current market values do not reflect true economic values.

This argument, if true, does not explain why liquidity would dry up in the first place, but it may explain why the mark-to-market rule may exacerbate a liquidity crisis once begun. It suggests, therefore, that easing of the rule in a crisis might help prevent the crisis from worsening. Of course, if the rule is to be suspended in a crisis, what rule should take its place? How should firms value their assets in a financial crisis to better reflect true economic values.

Mr. Isaac and others have suggested allowing firms to use discounted cash flow analysis to value assets in a financial crisis. Discounted cash flow analysis is a cornerstone of modern finance and none can deny that, properly done, a discounted cash flow analysis would produce a good estimate of the economic value of an asset. Unfortunately, it could be difficult to reach a consensus on the proper way to do a discounted cash flow analysis in a financial crisis. The sticking point would be agreeing on the proper discount rate to use in conducting the analysis.

To conduct a discounted cash flow analysis, the projected cash flows over the life (or holding) of the asset must be discounted at an interest rate that accurately reflects the riskiness of those cash flows. The less certain are the projected cash flows that will be realized, the greater the discount rate must be.

Choosing the appropriate discount rate is not always easy even in so-called normal times. The challenge is much greater in a financial crisis. If firms are allowed to use their discretion in choosing a discount rate, this may bring into question the reliability and comparability of the accounting results reported by public companies. And, if this results in undermining public confidence in the reported accounting results, the proposed cure may further contribute to the crisis.

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Auctions For Mortgage-Backed Securities

Sudip Gupta

The Emergency Economic Stabilization Act (EESA), which was enacted in October 2008, included a plan to buy mortgage-backed assets from troubled financial institutions. The U.S. Government likely would buy those assets through some form of auction. This note discusses the dynamics and the pitfalls associated with various types of auctions.

The EESA calls for the Treasury to buy mortgage-backed securities to provide liquidity for troubled financial institutions thus alleviating the credit crisis. The Government would later sell the securities, hopefully recapturing most of its initial expenditure. Because the Government is buying instead of selling, the auction would be called a reverse auction.

Auctions could be either open or sealed bid. In an open bid auction, bidders continuously submit bids and can see the previous bids of other bidders. This form of auction is more dynamic than a sealed bid auction, where bidders submit their bids simultaneously in a sealed envelope. Dynamic open bid reverse auctions work best when the objects for sale all have the same value to the sellers. They could fail miserably in a case such as this, where the various mortgage-backed securities vary widely in terms of their underlying value.

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For example, suppose The Government announces it will buy securities with a certain total face value at a certain percentage of their face value. It begins by offering 100% of the face value and determines what volume of securities is offered to it at that price. As very few if any mortgage-backed securities are worth their face value, The Government will likely be offered many more securities than it wants to buy. It can then lower the share of the face value it will pay until the volume of securities that it is offered falls to the level that it wants. The problem with this method is that the securities that would be offered for sale would be those with the least value. The Government would end up buying only the worst of the mortgage-backed securities.

A partial solution to this problem would be to classify the underlying securities into separate categories and have a separate auction for each category. The Government would

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start the auction at a separate reference price for each category, that price, and then progressively lower the price until the supply equals demand for that category. Determining those reference prices, however, would be very difficult. One possibility would be to run a preliminary auction to determine the reference price.

Because sellers know that the first-stage auction will affect prices in the second-stage auction, however, they may bid strategically to raise price in the first stage. Thus, the second-stage reference prices should be below the first-stage prices.

Alternatively, the Government could ask bidders to specify the price, given as a percent of face value, at which they are willing to sell their assets and then buy assets with the lowest specified prices until it has acquired the face value of assets that it wants. One question would be whether each successful bidder should receive the price specified in its bid or whether all bidders should receive the same price. While paying a uniform price may seem less desirable, as some successful bidders would have been willing to accept less, it has the advantage of encouraging low bids. Paying uniform prices, however, may allow large bidders to have undue influence on the market clearing price and may increase the chance of collusion. If a uniform price system is used, it may be advisable to increase competition by opening the auctions to a wider range of sellers. For example investors like Warren Buffet may be allowed to bid as well as financial institutions.

The Government is on the verge of spending large sums for mortgage-backed securities. How it designs the auctions through which is acquires those securities will have significant implications for the cost of that program to the taxpayer and perhaps for the success of the stabilization program itself.

Twin Crises: in Public Confidence and in the Housing Market

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The underpinnings of the financial crisis of 2008 in the United States and globally have been linked to a variety of potential factors. Possible causes that have been discussed in the press include the liberal lending policies of Fannie Mae and Freddie Mac to low income households, similar policies linked to the Community Reinvestment Act, the investment of banks in mortgage-backed securities and collateralized debt obligations (CDO's), significant counterparty risk involved with credit default swaps in the absence of a clearing house, the dependence of European banks on short-term lending markets, and, in general, a significant mismatch between income and steeply rising housing prices in many areas of the country which led to the demand for option adjustable rate mortgages (ARMS) and other non-traditional types of mortgages. While the financial crisis was rooted in issues such as these, the crisis would not have grown to its current magnitude if the public had not become increasingly anxious and lost confidence in the financial markets.

The public lost confidence in the financial system largely because so many financial institutions, such as Lehman Brothers, AIG, and Bear Stearns, collapsed with little warning. Such unanticipated failures caused consumers to doubt the quality of the information that they were receiving. Although markets continued to be efficient in rapidly incorporating news into the stock prices, the quality of the news was dubious. Was the top management misinformed in the months prior to their collapse? Did they not understand the risk involved in their holdings of mortgage-backed securities or the counterparty risk involved in credit default swaps? Or was information withheld from the public? For example, Lehman Brothers' conference call to investors on September 10, five days prior to its bankruptcy, did not suggest the disastrous nature of its condition. Moreover, investigators are examining whether Lehman accurately valued its commercial real estate holdings on its balance sheet, as well as whether it accurately portrayed the auction-rate securities that it sold to investors.

As the crisis proceeded, it became clear that banks did not trust each other, and the public did not trust banks. Indeed, the collapse of Washington Mutual, which became the largest bank failure in U.S. financial history, was precipitated by rapid withdrawals by investors—$16.7 billion in deposits over 9 days—while IndyMac's collapse over the summer was precipitated by depositor withdrawals of $1.3 billion over two weeks. Wachovia experienced increased pressure to obtain a buyer when, on September 26, customers withdrew $5 billion in deposits over the course of the day. Following the collapse of Lehman Brothers, the three month

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dollar LIBOR—a key rate at which banks lend to each other—skyrocketed and, several weeks later, reached as high as 4.82%. The spread of the three month LIBOR over the three month Treasury bill rate reached 464 basis points, one of the largest spreads in history. These high rates were a result of banks' mistrust of each other as borrowers. The high rates themselves made banks reluctant to borrow, and credit markets froze. The commercial paper market, which involved short-term debt issued by companies to meet payroll, etc.—also contracted since few institutions were willing to buy commercial paper because of fears of default. During the week ending October 1, the commercial paper market contracted by the largest amount since the Federal Reserve began tracking it in 2001. Even companies with a limited involvement in the finance sector, such as AT&T, were forced to borrow at higher rates as the public's and the banks' concerns over the rapid failures of institutions extended beyond the financial sector. The increase in rates caused problems for firms reliant on commercial paper as a source of short-term funding.

In order to work, any policy intended to eliminate the credit crisis would have to restore confidence. The Paulson plan, as originally understood when it passed, did not contain many of the key measures to restore confidence that were later undertaken. Indeed, when the original $700 billion asset repurchase plan, in which the government would purchase mortgage-backed securities from financial institutions through auctions, was finally passed on Friday, October 3, the Dow Jones fell by 157 points. By the end of the following week, the Dow had fallen by 18.2%—its worst weekly decline in history.

Fortunately, markets responded more favorably to steps taken the following week. The US and European governments announced greater protection of consumer deposits at banks, guarantees on money market funds, sovereign guarantees on bank debt, purchases by the U.S. government of commercial paper issues, and FDIC guarantees in the U.S. on loans made by banks to each other. Markets responded very favorably because these measures protected banks and the public from the rapid collapse of other banks. Indeed, on the day that the European governments agreed to guarantee the loans that banks made to each other, European markets staged a historic rally and the S&P 500 rose 11.6%, which was its biggest one day gain since the Depression. These particular measures were not as directly linked to the mortgage-backed securities as the original Paulson plan, nor as the proposed measures to restructure mortgages or to buy mortgages, but rather was more of a solution for the other, non-housing crisis—the crisis in confidence.

In many ways, the crisis in confidence is a crisis in the quality of information reaching consumers and, as such, parallels the informational challenges facing consumers during the corporate scandals of 2002 involving companies such as Enron, WorldCom, and Tyco. In those crises, as in this one, complicated financial instruments, which the average consumer did not understand, were a major cause. This crisis, however, is even more severe because it involves the financial institutions with which most consumers do business. As long as financial institutions collapse with little warning, consumers will worry about the quality of the information that they have been receiving. Tighter regulations, such as Sarbanes Oxley, in the wake of Enron have helped in this regard, but more needs to be done. In the meantime, the market and the banks are likely to respond to policies that will protect them in the event that a key financial institution collapses without warning. The US and the global economy are facing twin crises now, and, hopefully, despite the significant financial costs, these crises will provide us with a positive legacy of more transparent information flows and greater oversight.

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Mark-to-Market Accounting

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On September 30, 2008, the SEC and the Financial Accounting Standards Board responded to the criticisms of the rule by issuing new guidance on mark-to-market accounting. In issuing its new guidance, the SEC recognized the problems posed by disorderly and inactive markets and made allowances for greater use of "internal assumptions," but it was careful to insist on "clear and transparent disclosures" of those judgments. In short, the SEC action offers clarification to firms on the use of their discretion but attempts to avoid abuse by requiring disclosure of the exercise of that discretion. It remains to be seen whether this action will be viewed as too little or too much.

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instruments and investment vehicles that are largely or completely unregulated, and encouraged financial institutions to increase leverage and bear more risk.

Third, the pace of financial innovation has accelerated significantly in recent years, as finance professionals have adopted increasingly complex quantitative methods to design and develop new securities and to measure and manage risk. One area where this quantitative expertise was applied is in the development of new asset-backed securities. For example, while financial instruments backed by residential mortgages are not new, the variety and complexity of such mortgage-backed securities grew rapidly during the past decade. Mortgage-backed securities now offer a dizzying array of "tranches" or payment patterns in which mortgage cash flows are sliced and diced in creative ways. Similar financial innovation and securitization also has occurred with other types of consumer debt, such as credit cards, as well as with corporate debt.

The confluence of these various forces can be demonstrated by reference to housing and mortgage markets. Lenders aggressively marketed loans to potential borrowers, offering low teaser rates, increasingly lax documentation requirements, and small or no down payments. Consumers, driven by the prospect of unlimited growth in property values and easy credit terms, purchased ever more expensive homes. Lenders discounted the risks of questionable lending practices because they could easily sell loans to underwriters of mortgage-backed securities, thereby passing along the risk. Securitizers further transferred the risks of these loans to a global market of investors eager to purchase asset-backed securities. Finally, in the absence of meaningful regulatory oversight, few if any warnings were issued or heeded regarding the systemic risks posed by these activities.

Favorable conditions in financial markets were sustainable as long as the cash flows feeding these new and various kinds of securities were uninterrupted. The slump in U.S. housing markets that began in 2007, however, exposed the vulnerability of enormous quantities of mortgage-related assets. As housing values declined and foreclosures rose, the cash flows supporting trillions of dollars of such securities declined dramatically or disappeared altogether. Holders of these securities, including major financial institutions in the U.S. and abroad, faced crippling margin calls on leveraged positions or were forced to recognize substantial losses in their portfolios. In some instances, such as Bear Stearns, the losses exceeded capital reserves, and the companies declared bankruptcy or were acquired at fire-sale prices.

How will this financial crisis resolve itself? With respect to mortgage-backed securities, the underlying cash flows come from pools of residential mortgages. While the U.S. government has proposed purchasing billions of dollars of underwater mortgage-related assets, the values of these securities will only recover as the bottom of the housing slump is reached, foreclosures decline, and mortgage cash flows and values return to more "normal" levels. That situation has not yet occurred. Cash flows from other types of securitized assets are similarly uncertain as economic conditions continue to deteriorate worldwide. Moreover, heightened concerns about counterparty risk have added to uncertainty and frozen many credit markets, including interbank markets. U.S. and foreign governments are proposing policies to provide liquidity, financial guarantees, or otherwise attempt to place a floor under the values of many types of financial assets and to unlock credit markets. The success of these efforts remains to be seen.