



# Lombard Street

May 26, 2009

The collapse of the world's financial markets has resulted in intense examination of how to restructure and reform regulation for banking, securities, insurance, and other parts of the financial services industry. Various regulatory proposals are already being circulated in academic and public policy circles. Governments around the world are considering reforms. The conversation and decisions surrounding these proposals will fundamentally impact how financial services is structured and conducted across the globe throughout the 21st century.

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## From the Editor

This journal is about financial regulation for the 21st century. Much of what we publish focuses on efforts to reform regulations. Some believe the rules themselves helped precipitate or the current crisis. They also believe that it is possible to modify regulations in ways that will help avoid future crises. We examine a few of those issues this month.

John Taylor's *Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis* argues that the Federal Reserve Board botched monetary policy and then mistakenly treated a liquidity problem when it should have been dealing with a crisis in confidence resulting from counterparty risks. Excerpts from this book comprise our first contribution for this issue.

Government efforts to help dig us out of the crisis are controversial and their success uncertain as John Buchman, e-Trade's general counsel, reminds us. He questions whether the Treasury's Public-Private Investment Program can do the job of moving toxic assets off the bank's books.

Professor Emilios Avgouleas, a law professor at the University of Manchester examines the role of disclosure in regulation. He argues that it was mistaken to believe that requiring disclosure would be enough. But he sees an important and growing role for regulation going forward.

Finally, Satya Thallam, at George Mason's Mercatus Center, examines the debate over mark-to-market accounting. He cautions that no accounting approach works well in every crisis.

For more information about contributing to Lombard Street, please contact [info@finreg21.com](mailto:info@finreg21.com)

## Book Excerpt: Getting Off Track

By John B. Taylor, Hoover Institution Senior Fellow and Stanford economist

### How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis

Professor Taylor's contrarian perspective crisis holds that the primary cause of the financial crisis was a botched monetary policy by the Federal Reserve under Alan Greenspan along with government efforts, such as promoting home ownership among the poor.

For Taylor the government is more part of the problem than part of the solution

Professor Taylor's book uses a combination of research and essays to provide an empirical analysis of what went wrong. Looking ahead, he suggests a set of principles to follow to prevent similar misguided actions and interventions.

*Excerpted from Getting off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis, by John B. Taylor, published by Hoover Press, Copyright © 2009*

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#### PREFACE

What caused the financial crisis? What prolonged it? What worsened it dramatically more than a year after it began? Rarely in economics is there a single answer to such questions, but the empirical research I present in this book strongly suggests that specific government actions and interventions should be first on the list of answers to all three. I focus on the period from the start of the crisis through the fall of 2008, when market conditions deteriorated precipitously and rapidly. Simply put, when policy started getting off track—especially when compared with the period of good performance during the previous two decades—financial and economic conditions turned sour.

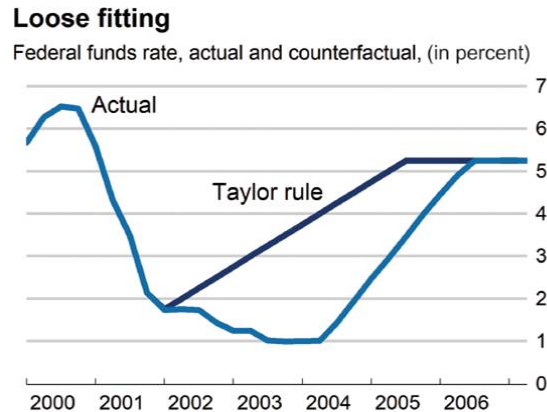
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#### Chapter One: What Caused the Financial Crisis

THE CLASSIC EXPLANATION OF FINANCIAL CRISES, going back hundreds of years, is that they are caused by excesses— frequently monetary excesses—that lead to a boom and an inevitable bust. In the recent crisis we had a housing boom and bust, which in turn led to financial turmoil in the United States and other countries. I begin by showing that monetary excesses were the main cause of that boom and the resulting bust.

Loose-Fitting Monetary Policy (chart, to the right below) was published in *The Economist* magazine in October 2007 as a simple way to illustrate the story of monetary excesses. The figure is based on a paper that I presented at the annual Jackson Hole conference at which central bankers from around the world assembled in August 2007. It examines Federal Reserve policy decisions—in terms of the federal funds interest rate—from 2000 to 2006.

The line that dips down to 1 percent in 2003, stays there into 2004, and then rises steadily until 2006 shows the actual interest-rate decisions of the Federal Reserve. The other line shows what the interest rate would have been had the Fed followed the type of policy that it had followed fairly regularly during the previous twenty-year period of good economic performance.



*The Economist* labels that line the Taylor rule because it is a smoothed version of the interest rate one gets by plugging actual inflation and gross domestic product (GDP) into the policy rule that I proposed in 1992. When he was president of the Federal Reserve Bank of St. Louis, William Poole presented a similar chart, covering a longer period and without the smoothing, in an essay called “Understanding the Fed,” published in the Federal Reserve Bank of St. Louis Review in 2007. The important point is that this line shows what the interest rate would have been had the Fed followed the kind of policy that had worked well during the period of economic stability called the Great Moderation, which began in the early 1980s.

The chart shows that the actual interest-rate decisions fell well below what historical experience would suggest policy should be. It thus provides an empirical measure that monetary policy was too easy during this period, or too “loose fitting,” as *The Economist* puts it. This deviation of monetary policy from the Taylor rule was unusually large; no greater or more persistent deviation of actual Fed policy had been seen since the turbulent days of the 1970s. This is clear evidence of monetary excesses during the period leading up to the housing boom.

The unusually low interest-rate decisions were, of course, made with careful consideration by monetary policy makers. One could interpret them as purposeful deviations from the “regular” interest-rate settings based on the usual macroeconomic variables. The Fed used transparent language to describe the decisions, saying, for example, that interest rates would be low for “a considerable period” and that they would rise slowly at a “measured pace,” ways of clarifying that the decisions were deviations from the rule in some sense. Those actions were thus essentially discretionary government interventions in that they deviated from the regular way

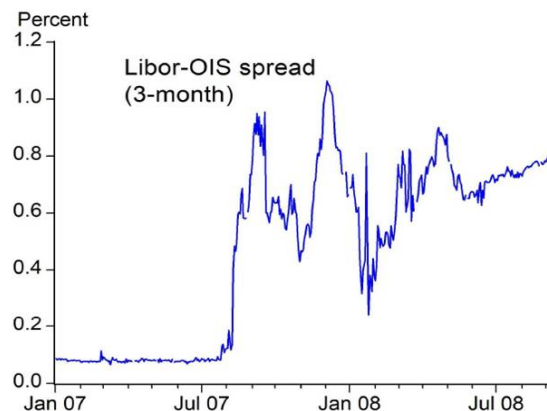
of conducting policy in order to address a specific problem, in particular a fear of deflation, as had occurred in Japan in the 1990s.

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## Chapter Two: What Prolonged the Crisis?

THE FINANCIAL CRISIS became acute on August 9 and 10, 2007, when the money market interest rates rose dramatically. Figure 7 (on right, below) illustrates this using a measure that has since become the focus of many studies. That measure is the spread between the three-month London Inter-bank Offered Rate (Libor) and the three-month overnight index swap (OIS). The OIS is a measure of what the markets expect the federal funds rate to be over the three-month period comparable to the three-month Libor. Subtracting OIS from Libor effectively controls for expectations effects, which are a factor in all term loans, including the three-month Libor. The difference between Libor and OIS is thus due to things other than interest-rate expectations, such as risk and liquidity effects.

If you look at the lower left of the figure on the right, you see a spread of about 10 basis points (0.1 percentage point). If you extended that to the left, you would see a similar level of about 10 basis points. On August 9 and 10, 2007, this spread jumped to unusually high levels and has remained high ever since. In our research on this episode, John Williams and I called the event “A Black Swan in the Money Market” because it appeared to be so unusual. Figure 7 focuses on the first year of the crisis; the worsening situation in September and October 2008 is covered in the next chapter.



In addition to being a measure of financial stress, the spread affects the transmission mechanism of monetary policy to the economy because trillions of dollars of loans and securities are indexed to Libor. An increase in the spread, holding the OIS constant, will increase the cost of such loans and have a contractionary effect on the economy. Bringing this spread down therefore became a major objective of monetary policy, as well as a measure of its success in dealing with the market turmoil.

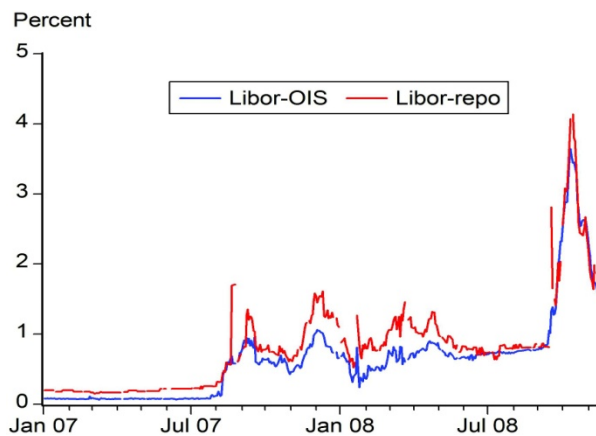
## Diagnosing the Problem: Liquidity or Counterparty Risk?

Diagnosing the reason for the increased spreads was essential, of course, to determining the necessary policy response. If it was a liquidity problem, then providing more liquidity by making discount window borrowing easier or opening new windows or facilities would be appropriate. But if the issue was counterparty risk, then a direct focus on the quality and transparency of the banks' balance sheets would be appropriate, by requiring more transparency, by dealing directly with the increasing number of mortgage defaults as housing prices fell, or by looking for ways to bring more capital into the banks and other financial institutions.

In the fall of 2007 John Williams and I embarked on what we thought would be an interesting and possibly policy-relevant research project to examine the issue. We interviewed traders who deal in the interbank market and we looked for measures of counterparty risk. The idea that counterparty risk was the reason for the increased spreads made sense because it corresponded to the Queen of Spades theory and other explanations for uncertainty about banks' balance sheets. At the time, however, many traders and monetary officials thought it was mainly a liquidity problem.

### Chapter 3: Why the Crisis Worsened Dramatically a Year after it Began

The figure below, using the same Libor-OIS measure of tension in the financial markets as above, shows how dramatically the financial crisis worsened in October 2008. Recall that in our research paper on the subject, John Williams and I called the jump in spreads in August 2007 "A Black Swan in the Money Market."



The October 2008 events were even more unusual. Not only was the crisis prolonged for more than a year, but it worsened, according to this measure, by a factor of four. It became a serious credit crunch with large spillovers, seriously weakening an economy already suffering from the lingering impacts of the high oil price bout and the housing bust. Notice the close correlation in Figure 12 between our measure of counterparty risk and the Libor-OIS

spread, demonstrating convincingly that all along the problems in the market were related to risk rather than to liquidity.

Many commentators have argued that the crisis worsened because the U.S. government (specifically the Treasury and the Federal Reserve) decided not to intervene to prevent the



bankruptcy of Lehman Brothers over the weekend of September 13 and 14. It is difficult to bring a rigorous empirical analysis to this important question, but researchers must do so because future policy actions depend on the answer. Perhaps the best empirical analyses we can hope for at this time are event studies that look carefully at reactions in the financial markets to various decisions and events. Such an event study, summarized below, suggests that the answer is more complicated than the decision not to intervene to prevent the Lehman bankruptcy and, in my view, lies elsewhere.

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**Chapter 4: Why a Black Swan Landed in the Money Market in August 2007**

*The Fed has gone about as if the problem is a shortage of liquidity. That is not the basic problem. The basic problem for the markets is that uncertainty that the balance sheets of financial firms are credible.* —Anna J. Schwartz interviewed in the Wall Street Journal, October 18–19, 2008.

THE FAILURE TO DIAGNOSE the financial crisis early on as mainly due to increased risk rather than to liquidity is a key reason that the policy responses were inappropriate and that the crisis was prolonged, as explained in Chapter 2. As with a medical patient, say with cancer, if you misdiagnose the disease and see it as a digestive disorder, then you will prescribe the wrong treatment. By not attacking or removing the cancer you let it grow, and the treatment for a nonexistent digestive disorder could make the patient even sicker. Ironically, during the Great Depression, a crisis to which the current one is often compared, there was a liquidity shortage, and the Fed did not provide liquidity, as Milton Friedman and Anna Schwartz showed in their Monetary History of the United States. In this crisis the Fed did provide liquidity, but the problem was not a shortage of liquidity—the doctor prescribed the wrong treatment.

A legitimate and important question, however, is whether such a diagnosis was possible early on. In this chapter I examine this question. I explain how one goes about making such a diagnosis in the case of economic illnesses, and I examine some actual diagnoses made in real time in 2007 and 2008, including the one by John Williams and me mentioned in Chapter 2.

Early Signs Signs of severe trouble first flared up on Thursday, August 9, 2007, when traders in New York, London, and other financial centers around the world faced a dramatic and sudden change in conditions in the money markets. Interest rates on mediumterm interbank loans, measured, for example, by the three-month Libor (London Interbank Offered Rate) surged, compared with the interest rate on overnight interbank loans (the federal funds rate), which the Fed targets. The turmoil did not disappear. The term interbank rates did not come down at all and indeed moved up further on Friday. Rates on such term lending seemed to disconnect



from the overnight rate and thereby from the Fed’s target for interest rates. Because interest rates on trillions of dollars of loans and securities are linked to Libor, bringing the spread down became a major concern of policy officials at the Federal Reserve.

After many years of comparative calm, traders, bankers, and central bankers found these developments surprising and puzzling. But that Thursday and Friday of August 2007 turned out to be just the beginning of a remarkably long period of tumult in the money markets, with the difference between the three-month Libor and overnight loans remaining unusually high and volatile, reminiscent of the highly extraordinary events described by Nassim Taleb in his popular book *The Black Swan: The Impact of the Highly Improbable*. But why did that black swan land in the money markets?

Possible Diagnoses Right from the beginning of the crisis, bankers, economists, and others offered various explanations. One explanation, referred to as “counterparty risk,” was that banks became reluctant to lend to other banks because of the perception that the risk of default on the loans had increased and/or the market price of taking on such risk had risen. Lending between banks in the Libor interbank market is unsecured; there is no collateral to claim in the case of a default. Many banks were writing down their loans and securities because they had either been downgraded or were backed by mortgages with delinquent payments or foreclosed properties. Clearly, the continuing decline in housing prices and the slowing economy raised the chances of a further deterioration of banks’ balance sheets. Moreover, the realization of the risks of securities backed by subprime mortgages triggered doubts.

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**Epilogue**

IN THIS BOOK I have provided empirical evidence that government actions and interventions caused, prolonged, and worsened the financial crisis. They caused it by deviating from historical precedents and principles for setting interest rates that had worked well for twenty years. They prolonged it by misdiagnosing the problems in the bank credit markets and thereby responding inappropriately, focusing on liquidity rather than risk. They made it worse by supporting certain financial institutions and their creditors but not others in an ad hoc way, without a clear and understandable framework. Although other factors were certainly at play, those government actions should be first on the list of answers to the question of what went wrong.

To hear a replay of Professor Taylor's recent Webinar on *How Government Caused, Prolonged, and Worsened the Financial Crisis*, [click here](#).

If the link does not immediately take you to the Webinar registration, please scroll down the page.



*John B. Taylor is the Bowen H. and Janice Arthur McCoy Senior Fellow at the Hoover Institution and the Mary and Robert Raymond Professor of Economics at Stanford University. He served as senior economist on President Ford and President Carter's Council of Economic Advisers and as a member of President George H.W. Bush's Council of Economic Advisers. He was Under Secretary of the Treasury for International Affairs from 2001 to 2005 and is currently a member of the California Governor's Council of Economic Advisors.*

Getting off Track can be purchased from [Hoover Press](#).

# Lost in Disclosure: The Limits of Disclosure as a Regulatory Technique in Financial Markets

By Emiliios Avgouleas, Senior Associate Professor, International Financial Law, University of Manchester

Disclosure has been the centerpiece of the regulatory armory since the early 1930s. In an attempt to clean up US markets from abuse, the Roosevelt administration created widespread disclosure regimes for securities issuers and traders by means of the so-called New Deal Statutes: mainly Securities Act 1933 and Securities and Exchange Act 1934. Yet disclosure completed its ascent to the 'regulatory Olympus' in the past twenty five years for reasons that had little to do with the battle against fraud and market abuse.

With the advent of financial liberalization and with the aid of modern finance theory, -- but not with its full endorsement -- policy-makers and regulators came to view financial markets as an agglomeration of rational investors, who make optimal resource allocation and wealth maximization decisions when provided with sufficient information and appropriately structured economic incentives. So all regulators had to do to safeguard efficient markets and help investors was to ensure that a vast volume of pertinent information entered the public domain in any given area of financial market activity. Then, on the basis of all available information, market actors would adjust their investment decisions, trading positions, and strategies to information's content and the market would essentially regulate itself. Thus, no further consideration was usually given to other very important issues, such as the question whether market actors used all of the disclosed information and if so what kind of decisions they took on the basis of abundant supplies of information.

## Disclosure's Ascent and the Perceived Role of Disclosure

Disclosure has been regarded as one of the most potent tools of corporate and financial market regulation for six reasons:<sup>1</sup>

1. By increasing publicly available information, it enables market actors to make informed investment decisions,
2. It improves market efficiency: increased availability of information leads to better pricing of securities and of other financial instruments enhancing allocative efficiency,
3. It reduces the cost of information searches, which, when excessive, is pure social waste in zero sum securities markets;

4. It fosters fair, ethical, and competitive markets, as it obliterates (along with prohibitions of insider dealing) the information advantage that insiders enjoy over outsiders in financial markets,
5. It may help market stability by containing market volatility that is usually caused by limited information regarding the merits or risks of financial products, and
6. It deters fraud; as the much celebrated US Supreme Court Justice Louis Brandeis observed almost nine decades ago, ample provision of information is the best 'disinfectant' of the markets driving out abuse, which may be easily identified under conditions of transparency.

Arguably, some of the aforementioned benefits of disclosure regulation not only are undisputable but also have served multiple causes. For instance, mandatory (securities issuer) disclosure not only has helped to improve the integrity of securities markets, it has also advanced the cause of democratic capitalism by eradicating the information advantages of the established economic elites. However, the above benefits are not the sole reason that disclosure has become the cornerstone of modern financial regulation. And neither is it because it is an inexpensive or non-intrusive regulatory technique. It is both very costly and intrusive for the subject of relevant disclosure requirements, whether a securities issuer or a financial firm. Regardless of context, e.g., periodic issuer disclosure, offer prospectus etc., an army of auditors, lawyers, and compliance officers are assigned the task of processing and verifying disclosable information. Rather disclosure's ascent is due to the pre-eminence of rational choice theory in modern financial regulation.

As a result, based on the rational investor model, modern financial regulation stretched the disclosure paradigm and reliance on self-regulation way beyond its original realm of issuer disclosure and prevention of market abuse to financial services consumer (retail investor) protection and even prudential regulation with mixed results. For example, disclosure was utilized, in lieu of protective regulation (e.g., position limits), as a principal supervisory tool in banking regulation. Under the third pillar of Basle II (market discipline), timely informed rational actors are assumed to be capable to act as supervisors and enforcers of prudential regulation (capital adequacy) rules. This approach left to market self-regulation a crucial and strategic role in preventing institutional collapses and systemic crises. Yet this view was seriously flawed, and the way banking markets have behaved in the course of global financial markets also proved that it was dangerous.

### **Disclosure's Descent**

Given the influence of the rational investor approach in policy-maker, analyst, and regulator thinking, it is not surprising that inadequate disclosure has been widely cited as almost the sole cause of the global financial crisis.<sup>2</sup> As this argument goes, investors had insufficient information regarding the risks involved in structured securities, such as asset backed securities (ABS), collateralized debt obligations (CDOs), and credit default swaps (CDS), the flaws and

limitations of credit ratings, and the impact of excessive executive compensation. Had rational investors been given higher quality information they would have approached structured credit securities with caution and they would not have been overexposed to these markets. Also, well informed capital markets would have punished companies with executive and trader compensation schemes that fostered short-termism, in spite of bringing to them mega-profits.

The inadequate disclosure critique has not, however, been fully endorsed by all analysts of the global financial crisis. A strong minority of commentators have argued that closer examination shows that investors had, in many cases, sufficient information about the risks of their investment strategies and of the financial products used to implement them. Yet market actors could not properly process available information in those cases and adjust their positions to the riskiness of structured credit securities for a variety of reasons. First, due to product complexity, boundedly rational investors failed to understand the mechanics and risks of shadow banking and structured credit securities.<sup>3</sup> Second, because of market players' tendency to herd, responding strategically to other market actors' behaviour, investors did not have the capacity or the desire to use in a rational way the disclosed information and take contrarian positions. Third, the influence of other behavioural factors such as the use of heuristics<sup>4</sup>, and investor overconfidence in times of market euphoria because of abundance of easy credit and rising market prices, meant that investors chose to ignore the warning signals in the disclosed data in favour of over-reliance on credit ratings.<sup>5</sup>

Especially in the context of banking (prudential) regulation, disclosure based market discipline faces severe constraints, due to the very nature of the banking industry, which creates interconnectedness. The existence of the implicit government guarantee gives banking institutions a strong incentive to grow their asset book (loans) and become 'too big to fail.' Obviously, the larger the institution becomes and the more inter-connected, the more likely is that its failure will also drag down other inter-connected institutions necessitating a government bailout. *The Geneva/Goodhart Report on Financial Regulation* calls this risk the 'interconnectedness spillover.'<sup>6</sup> This, in turn, creates a powerful perverse incentive to expand a banking institution's balance sheet, obliterating the restraining power of market discipline.

However, even if it was possible to eliminate moral hazard and fashion appropriate incentives so that bank creditors became effective monitors of banks, in which case extensive market disclosure would have been very useful, market monitoring would still mean little in terms of preventing institutional failures and/or safeguarding systemic stability for two reasons. First, as Martin Hellwig observes in *Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis*, published in November 2008:

Because of systemic interdependence, the individual bank's risk exposure cannot be ascertained by just looking at the bank's assets and liabilities, on balance sheet and off balance sheet. If the bank's asset position involves a certain risk and the bank has hedged this risk by contracting with a third party, the effectiveness of the hedge depends on the third party's ability to fulfill its obligations when needed.

In today's globalized markets, there is no private institution that could possibly have the ability, resources, and access to information to be able to conduct a credit analysis of all other financial institutions, regulated and unregulated. Furthermore, even if such institution existed, the colossal costs of universal monitoring would far exceed the expected benefits. Second, even if a financial institution behaves individually in a prudent way, or even if all financial institutions behave in a prudent, but un-coordinated way, a systemic crisis may not be averted. Especially in the event of a liquidity crunch, even the prudent behaviour of financial institutions can create spillovers that may undermine the stability of the rest, leading to systemic instability. This problem is due to another risk-spillover externality: fire sales.<sup>7</sup>

It is not, therefore, surprising that more recently skeptical voices are raised at the highest level, with the recent March 2009 Turner Review, '*A Regulatory Response to the Global Banking Crisis*' being the leading example.<sup>8</sup> The above findings are not totally lost on global policy makers either. The G20 summit in London placed much more emphasis on protective regulation and the imposition on restrictions on market activities, which were highly implicated in the building up of the crisis, chiefly shadow banking, and focused much less on disclosure and market discipline.

### **What Future for Disclosure?**

The old disclose and self-regulate paradigm in financial markets is dead, no less because of its role in bringing about the current global financial catastrophe. However, this does not diminish the value of disclosure as a regulatory technique, it simply calls for a substantial overhaul of its processes, volume, timing, and format, in order to make it more effective.

Premising banking (prudential) regulation on disclosure and market discipline was a flawed approach that endangered the stability of the global financial system. Disclosure can have an effective role in prudential regulation only as a supplement to strict protective rules that limit the kind of activities an institution may undertake and restrain its risk-taking appetite.

Disclosure still has a great role to play in capital market regulation. In fact, it should be used much more extensively in areas such as short sales regulation, where a comprehensive disclosure regime can be a very effective tool to combat market abuse, rendering unnecessary an autocratic prohibition of short selling.

However, as regards the traditional disclosure paradigm in investor protection regulation, the disclosure conundrum will only be resolved if disclosure rules are subjected to extensive and rigorous empirical and experimental studies. It is possible that such studies will show that, in spite of the existence of extensive disclosure regimes, certain classes of individual investors need to be aided by the introduction of default choices. It follows that the selection of those default choices in financial contracts is a role that should be assigned to an independent public body that is not susceptible to regulatory capture.

**About the author:**

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**End notes**

<sup>1</sup>For an overview of the many studies that provide an economic analysis of the merits and de-merits of disclosure regulation see Emilios Avgouleas, *The Mechanics and Regulation of Market Abuse, A Legal and Economic Analysis* (OUP, 2005), 173-183. The most convincing academic analysis in favor of disclosure regulation are J. Coffee, 'Market Failure and the Economic Case for a Mandatory Disclosure System', (1984) 70 *Virginia Law Review* 717.

<sup>2</sup>*Policy Statement on Financial Market Developments* (The President's Working Group on Financial Markets, March 2008). Steven Schwarcz, 'Protecting Financial Markets: Lessons from the Subprime Mortgage Meltdown' (2008) 93 *Minnesota L. Rev.* 373.

<sup>3</sup>For the limitations that financial product complexity posed for investors' understanding of what was disclosed and the catastrophic consequences of this limited understanding see Steven Schwarcz, 'Regulating Complexity in Financial Markets', Duke Public Law & Legal Theory Research Paper Series No. 217, revised February 26, 2009.

<sup>4</sup>Emilios Avgouleas, 'The Global Financial Crisis, Behavioural Finance and Financial Regulation: In Search of a new Orthodoxy' (2009) 9 *Journal of Corporate Law Studies* 121-157

<sup>5</sup>Markus Brunnermeier, Andrew Crockett, Charles Goodhart, Avinash D. Persaud, and Hyun Shin, 'The Fundamental Principles of Financial Regulation', Geneva Reports on the World Economy 11, January 2009, 20-21.

<sup>6</sup>This externality was first explained in a model in John Geanakoplos and Heracles Polemarchakis, 'Existence, Regularity, and Constrained Suboptimality of Competitive Allocation When the Asset Market is Incomplete' in Heller, Starr, Starrett (eds), *Uncertainty, Information and Communication, Essays in Honor of Kenneth J. Arrow*, Vol. 3, (CUP, 1986).

<sup>7</sup>FSA, 'The Turner Review, A Regulatory Response to the Global Banking Crisis', March 2009.

## Why Banks Won't Sell Legacy Assets without Changes to PPIP

**John Buchman, General Counsel, E\*TRADE Bank**

On March 23, the Treasury Department, the Federal Deposit Insurance Corporation, and the Federal Reserve announced the details of the government's long-awaited Public-Private Investment Program. PPIP, as it has since come to be known, was proposed as a way to help banks rid themselves of their troubled real estate-related loans and securities by selling them to public-private investment funds or PPIFs.

The thinking behind PPIP was that the large overhang of hard-to-value legacy assets on banks' balance sheets was largely responsible for an unprecedented contraction in bank lending and had caused a loss of confidence in banks' financial conditions, essentially closing the capital markets to them. By matching private investments dollar for dollar and providing favorable nonrecourse financing terms for the PPIFs that would purchase banks' legacy assets through an auction process, PPIP was seen as a way to unclog selling banks' balance sheets and narrow the gap between prevailing market prices and the assets' higher intrinsic values, thereby increasing the value of legacy assets remaining on banks' books, improving banks' financial health and getting the flow of credit to the economy moving again.

Many commentators have since voiced support for PPIP as being directionally correct. However, PPIP seems to have more than its fair share of critics, cynics and skeptics. One group argues that the government's proposal, which would let private investors contribute equity equal to as little as eight percent of the purchase price for a pool of legacy assets but receive 50 percent of any profits made by the PPIFs, gives private investors an overly generous subsidy that will lead to excessive gains at taxpayers' expense. A second set of observers believes this subsidy will cause private investors to overbid for banks' legacy assets, thus exposing taxpayers to the possibility of significant losses. And, finally, some experts are predicting that private investors' "unjust" enrichment will result in a political backlash – think "AIG bonuses" – that could lead Congress to retroactively impose TARP-like conditions and much less favorable deal terms on private investors.

All of these mostly "buy side" concerns have some merit, deserve serious consideration, and may warrant modifications to PPIP before the first legacy asset auctions take place. To a large degree, however, they ignore a much more fundamental "sell side" question that will determine whether or not PPIP will be a success: Will banks with legacy assets be willing to sell them at the prices that, through the auction process, PPIFs will be offering to pay?

Some observers say that this is not a serious concern because, if anything, investors are likely to pay more than fair market value for banks' legacy assets due to the generous government subsidies they will be receiving. Others predict that PPIP will not suffer from any shortage of

product since regulators will “lean on” – think Bank of America being pressured to close on its acquisition of Merrill Lynch – banks with large volumes of legacy assets to cleanse their balance sheets regardless of the sales prices offered, even though government officials have said repeatedly that banks will not be required to accept the highest bids in the upcoming PPIP auctions. Still others predict that banks will be willing to dispose of their legacy assets, regardless of the prices offered, just to put their bad asset problems behind them.

Unfortunately, none of these arguments withstands any serious scrutiny.

As an initial matter, the proposed investment structures of the PPIFs make it highly unlikely that private investors will overpay. With up to four-to-one or six-to-one leverage provided by the government’s debt financing, both gains and losses to the investors will be greatly magnified. Also, any tendency to overpay because of the government’s “subsidy” will be more than offset by the fact that, as equity holders with Treasury, the investors will be in a first loss position in the funds. As such, if they pay too much for banks’ legacy assets, they will run a serious risk of losing their entire investments. Accordingly, while investors’ asset bids may be somewhat above currently depressed market prices, their bids will almost certainly be at a discount relative to the legacy loans’ and securities’ perceived “intrinsic” values.

It is also doubtful that banks’ regulators will force the banks to sell their legacy assets at suboptimal prices. Regulators are likely to “recommend” to some banks that they participate in PPIP by offering up all or a portion of their troubled assets for bid, but it is hard to see how banks could or would be required to accept any bid no matter how low the price, especially if the bank would incur a significant loss on the sale. In short, while the regulators may be able to lead their regulated banks to water, they won’t force them to drink.

Will banks sell their legacy assets at below book or for less than their intrinsic values just to unclog their balance sheets? Given how troubled assets are accounted for, the accelerated loss recognition and capital holes that would result from most troubled asset sales, the bids they are likely to receive from PPIFs, and the ability of banks to do better in most cases by just standing pat, PPIP’s chances of success are, at best, uncertain. The following somewhat over-simplified troubled loan and securities examples illustrate these points.

### **Legacy Loans**

As those familiar with bank accounting practices are already aware, a bank accrues for its projected loan losses by establishing a reserve or an “allowance for loan and lease losses” (ALLL), which is the bank’s best estimate the total amount of loan losses it is likely to incur over the ensuing 12 months. Actual loan losses are “charged off” against the bank’s ALLL as they occur, and the ALLL is replenished, usually on a quarterly or monthly basis, by the bank’s taking of provisions, so that at all times the ALLL should be sufficient to absorb one year’s worth of loan charge offs.

In determining a bank's earnings or losses, only the provisions that it takes periodically are an expense deducted from earnings. Loan charge offs, when they occur, are deducted from the ALLL. As such, they have no income statement impact. In practice, however, most banks prefer that their provision expenses at least equal their loan charge offs. Otherwise, if the bank's charge offs exceed its provisions, it might seem that the bank is understating its loan loss-related expenses and is overstating its income.

How, then, is a loss on a particular loan accounted for? In this example, let's say that the bank expects that four percent of its aggregate loan balances will be charged off as losses. Thus, if the bank had a \$100 million loan portfolio, it will have already established an ALLL equal to \$4 million and will have taken a provisions charge against earnings of \$4 million.

### **HFI vs. HFS Accounting Treatment**

The accounting treatment for an individual loan will depend on whether the loan is "held for investment" (HFI) or "held for sale" (HFS). If the bank satisfies the conditions required to demonstrate its intent to keep the loan in its portfolio as a longer-term assets (HFI), it is able to avoid immediate recognizing any losses even though the loan may have declined in value. Conversely, if the bank plans in the near term to sell the loan (HFS), it must periodically mark the loan to market, with any diminution in the value of the loan being charged to earnings. As one can easily imagine, banks prefer that their loans be classified as HFI rather than HFS.

In the case of an HFI mortgage loan with an original principal amount of \$100,000, the loan will already be treated as if it had incurred a loss of \$4,000 since the bank's \$4 million provisions charge is usually spread equally across the bank's entire loan portfolio. So the loan will be carried on the bank's books at \$96,000. As payments on the loan become past due, the loan will be treated as "nonperforming", usually after 90 days, at which point the bank may no longer accrue interest on the loan and must reverse previous interest accruals.

Only after a mortgage loan becomes past due by 180 days or more (or the borrower files for bankruptcy, whichever occurs first) is the bank required to mark the value of the loan on its books to the lower of the loan's cost on its books or the estimated fair market value (LOCOM) of the underlying residential property at the time. The difference between the book value of the loan (\$96,000) and the fair market value of the property is charged off against the bank's ALLL and will reduce the carrying value of the loan accordingly. As noted above, this charge off has no immediate P&L impact; however, in practice, the bank will most likely want to take an offsetting provision charge against its earnings to maintain the ALLL's prior balance.

Assuming that the loan is not modified and it is necessary for the bank to foreclose on the loan and take possession of the mortgaged property as "real estate owned" or REO, the property will thereafter be subject to periodic reappraisals. Subsequent adjustments to the value of the property will be reflected either in the Bank's ALLL or as adjustments to the bank's income depending upon the holding period threshold established by the bank.

## PPIP Implications of HFI Accounting

What are the PPIP implications of the above accounting treatment for HFI loans? Assume again, that private investors are more likely to submit bids for pools of legacy loans that are at some discount to the loans' perceived fair market values than they are to overpay for the loans because the investors will want to maximize their chances of making a profit when they sell the loans or underlying REO properties to other purchasers.

For troubled loans that are not yet 180 days or more past due, banks will face a difficult threshold issue of having to decide whether their solicitation of bids from PPIFs for their legacy loan pools will require a change in the status (and accounting treatment) for the loans from HFI to HFS. If so, then the net result of a bank's submitting a pool of loans less than 180 days past due will potentially be to accelerate its own loss recognition on the loans from an immediate loan write down that will negatively affect current period earnings. (In the case of our hypothetical \$100,000 loan, this expense will almost always be greater than the \$4,000 loss allocation against the loan that would be released or reallocated.)

Similarly, if a PPIF's bid on a bank's pool of under-180-days-past-due loans is accepted and the loans are then disposed of for less than their carrying value, the bank will be required to take an immediate hit to earnings in the form of a loss on sale. Since most banks are hoping that a combination of capital and earnings from other operations will be able to absorb their loan losses, they will be looking to spread out the financial impact of loan losses over a longer period of time rather than accelerate any loss recognition. Selling troubled HFI loans, which are still held on banks' books at or near cost, at a much-reduced price will not be an attractive option for them.

What about over 180 day delinquent legacy loans (and REO) that have already been marked to market? What financial or other incentive might a bank have to sell those loans that have already been either written down or essentially charged off and on which the bank has already taken its earnings lumps?

Three possible scenarios come to mind where the bank may wish to sell loans and property that have already been marked to their current (lower) values: (1) the bank doesn't want to deal with the "hassle factor" of continuing to own, hold and manage the charged off loans and REO; (2) the loans and property are worth more to the third party investor because the investor has either better past due loan collection or OREO property management and sales capabilities than the bank; and/or (3) in the case of REO, the bank thinks property values will continue to fall, and it wants to cut its losses while it still can.

Of these three explanations, the third is the most plausible. But the first two reasons beg the question: Wouldn't it make more sense in both situations for the bank to continue to hold the loans and REO and simply outsource any loan collection or property management and sales to a third party that specializes in these activities in exchange for some split of the profits? At least

the bank would be able to share in any upside potential - funds that might be collected from borrowers who have defaulted on their loans and any profits that might result from REO sales.

### **Legacy Securities**

Similarly, how will the accounting treatment for banks' legacy asset-backed securities influence banks' decisions on whether to participate in PPIP as sellers? Once again, a little accounting background for the uninitiated may be in order. As in the case of loans, troubled securities fall into different categories, each having its own accounting treatment. (For present purposes, I will not discuss securities that are "held to maturity" (HTM), as I am told by my accounting friends that it is very difficult for an owner of legacy securities to meet all of the requirements for HTM status, and that as a result, banks have very few securities on their balance sheets that are so classified.) The two main categories are "trading" and "available for sale" (AFS).

Securities held in a bank's trading account are regularly marked to market, with any gains and losses reflected in the bank's income statement. As in the case of loans more than 180 days past due, a bank's losses on its trading securities are already reflected in the bank's earnings and capital. Consequently, it would not make a great deal of sense for a bank to sell these securities at a discount to fair market value or otherwise unless (1) the bank just wants to tell regulators and the market that it no longer holds any toxic securities on its balance sheet, (2) the bank thinks that the worst is not yet over and that prices for these securities will decline further (due to rising unemployment or additional housing price declines); or (3) the potential private investor has a longer holding period time horizon within which to realize the securities' higher intrinsic values.

A near certainty that prices will decline further below their already depressed levels or the bank's inability to hold the securities for a sufficiently long period of time in order for them to recover in value may be two legitimate reasons why a bank would want to sell its trading legacy securities. However, a bank having legacy securities on its balance sheet per se is no longer the kiss of death that it used to be. If a bank is able to come through its regulator's stress tests with flying colors notwithstanding its legacy securities, there is no regulatory or market imperative for it to sell. Also, banks have available to them various hedging techniques that they can use to limit their exposure to further price declines without having to close out of their securities positions.

### **Available for Sale Securities – Temporary vs. Other Than Temporary Impairments**

The largest accounting category by far for most legacy asset-backed securities held by banks is AFS, and it is for this group of debt securities that the Financial Accounting Standards Board's FAS 115-2, Recognition and Presentation of Other-Than-Temporary Impairments [OTTI], issued on April 7, 2009, will have the greatest impact on banks and their interest in participating in PPIP.

Again, by way of accounting background, when an AFS security declines in value, a bank must make an initial assessment of whether or not the “impairment” is temporary due to market fluctuations or otherwise. If it is temporary and the bank has the ability and intent to hold the security until the security recovers in value, the decline in price/value is charged to “other comprehensive income (loss)” or OCI. For banks, this treatment is one of the closest things to accounting nirvana. The price drop is not reflected in the bank’s income statement; it only reduces the bank’s equity capital for GAAP purposes. Moreover, when calculating the bank’s regulatory capital, OCI is added back in. The net result is that the price decline in a temporarily impaired security will have no adverse effect on either a bank’s earnings or its regulatory capital.

Under the prior accounting rules, once it became apparent to the bank that a debt security’s price decline was due to an OTTI, the bank was required to deduct the entire difference between the security’s amortized cost and its lower fair value from both earnings and capital, reducing both. However, going forward, FAS 115-2 provides for a much more favorable accounting treatment for legacy debt securities that have experienced OTTI. If the bank can demonstrate that (1) it has no present intent to sell the a particular security in question and (2) it will not need to sell the security before it recovers in value, it will only need to recognize for income statement and capital purposes that portion of the security’s decline in price that is credit-related. Price declines due to all other factors, such as the trading markets for the security not functioning properly, will only be charged to OCI, and as such will have no earnings or regulatory capital impact on the bank.

Let’s now take a second, perhaps somewhat extreme, example of an AFS legacy debt security and see whether a bank would have any reason to sell it to a PPIF. Assume that the security has a cost basis of \$100 and an intrinsic value (reflecting credit losses on the underlying assets) of \$80 but can only be sold at a fire sale price of \$20 because of the near-total collapse in the markets for asset-backed securities. Would it make sense for the bank to sell the security for, say, \$70?

In the case of a temporarily impaired debt security, the answer is almost certainly “no”. The sale of the security for \$70 would reverse \$50 of the prior \$80 OCI charge taken, thus increasing the bank’s GAAP capital by \$50. However, this gain would have no impact on the bank’s regulatory capital and would be offset by the bank’s accelerated recognition a \$30 loss that would be both charged to income and deducted from regulatory capital.

Under the new accounting rules announced in April, it is also difficult to see why a bank would sell the same security for \$70 if it were OTTI absent near certainty of future credit losses or price declines or the bank’s inability to hold the security until it recovered in price. Such a sale would prevent the bank from realizing the full \$80 intrinsic value of the security, as measured by the present value of future cash flows on the underlying assets and other factors, and would require the bank to take an immediate additional \$10 charge to its earnings and regulatory capital. (The bank will have already taken a \$20 charge to earnings when the OTTI

determination was made.) This result runs counter to banks' general preference to spread out their losses on loan and securities assets over longer periods of time.

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In short, it may make sense for a small number of banks that are extremely pessimistic about the future of housing prices and the economy to sell now, take their losses, and put their legacy asset problems entirely behind them. But for the vast majority of banks, it will not be financially attractive for them to sell their legacy assets to PPIFs.

### **What If There Is a Capital Hole to Fill?**

There is also one other important but not always acknowledged reason – perhaps the most important reason – why many banks may not wish to participate in PPIP. While the above discussion assumes that banks and their accountants are accurately and reasonably marking their legacy assets to market as required by the applicable accounting rules, it is at least reasonable to speculate that some banks may not be doing so all that “aggressively” because, simply put, they do not have the capital wherewithal to absorb what their actual losses might be. If recognizing the true extent of its losses would create a capital “hole” that would cause a bank to become undercapitalized and subject the bank to more intensive regulatory scrutiny and oversight (or worse), the bank will have an incentive to underestimate the full extent of its loan losses and securities impairments to avoid accelerating the loss recognition that would result from selling its legacy assets.

### **How to Encourage Greater Bank Participation in PPIP**

So what, if anything, can the government do to make it more likely that banks with legacy assets on their books will want to participate in PPIP, and that PPIP will be successful in achieving its worthy objectives? There are no pat answers or simple solutions, but as a starting point, Treasury, the FDIC and the Fed may want to consider the following modifications to the program.

#### **o Clarification of Accounting Treatment for Loans Submitted for Bids But Not Sold**

As an initial matter, in the case of possible legacy loan sales by banks, the government could work with FASB to obtain clarification that when a bank solicits bids for a pool of its legacy loans from PPIFs, a bank's preliminary decision to participate in PPIP and its solicitation of bids from prospective PPIF purchasers would not, by themselves, require a change in the accounting status of the loans from HFI to HFS absent an affirmative decision by the bank to accept the highest bid and sell the loans. In this regard, the government needs to help ensure that a bank testing the waters can still treat its legacy loans as HFI if, for any reason, the bank chooses not to sell. Otherwise, the bank will run the “worst of both worlds” risk of forfeiting the more

favorable HFI accounting treatment for its legacy loans while at the same time still having those loans on its balance sheet.

#### **o Allowing Profit Participation for Selling Banks**

There is already a great deal of discussion (and controversy) as to how any profits made by the PPIFs should be divided between the government/taxpayer and private investors. However, serious consideration should also be given to allowing banks selling their legacy assets to receive a portion of any profits earned by the PPIFs on the legacy loans and securities sold by them in order to further incentivize banks to sell. Such a future revenue share could be a key selling point for banks, especially given that bids made by the PPIFs are likely to be at a discount to loans' fair values and securities' intrinsic values, and legacy asset sales will almost certainly require some accelerated loss recognition by the selling banks. Admittedly, how such a profit share would be structured and whose pocket it would come out of are thorny issues. But there is certainly no magic in PPIFs' profits being split on a 50:50 basis between the government and private investors. Having a profit participation in PPIFs' future legacy asset sales could tilt the balance in favor of banks selling their legacy assets and getting them off their books instead of retaining the assets and simply outsourcing their management to third parties.

#### **o Additional TARP Funds to Fill Any Resulting Capital Holes**

To address what will perhaps be the most frequent reason why banks won't willingly participate in PPIP, Treasury will need to commit to selling banks that if a sale of legacy assets to a PPIF causes the bank to experience a capital shortfall, and the bank is unable to raise additional equity to fill the resulting hole by resorting to the private capital markets, TARP funds will be made available to it to offset any losses that are incurred. Once selling banks are cleansed of their legacy assets, and their capital holes are filled with new equity, they should be well on their way to profitability and returning to financial health such that, in a short time, they will be able to repay their sales-related TARP funds

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As even Secretary Timothy Geithner, Chairman Sheila Bair and other top government officials acknowledge, it is still too early to know whether PPIP will work or not. No one can say for sure whether there is a significant spread between legacy assets' intrinsic or fair values and their currently depressed market prices, one of the key premises on which PPIP is based, or whether this difference is, as one observer commented, "just wishful thinking." And no one can predict with any degree of certainty whether there will be a "sweet spot" where selling banks' target prices and PPIFs' bids intersect such that sales of legacy assets will actually take place once the program is started. Nonetheless, the government can and should take whatever steps it can to overcome the accounting and capital-related reasons why banks will otherwise have little reason to sell their legacy assets to PPIFs at this time. Those steps alone will not ensure PPIP's success, but they will greatly increase the likelihood that selling banks and bidding private

investors will be able to get to “yes”, as Roger Fisher, author of the book on principled negotiation “Getting to Yes”, might have said.

### **About the author**

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# No Easy Answer in Debate over MTM versus HC Accounting standards

Satya Thallam, Mercatus Center, George Mason University

It's probably an indication of this country's wealth that among the many policy controversies that consume our limited attention, accounting rules could ever be one of them.

A few years ago, a proposal from the Financial Accounting Standards Board (FASB) to treat employee stock options as expenses on the corporate income statement drew lots of attention and heavy lobbying from industry. And a few years prior, the much ballyhooed Sarbanes-Oxley Act responded to perceived problems in auditing public companies. So the current furor over mark-to-market (MTM) versus historical cost (HC) rules -- especially in light of the current crisis -- should probably surprise no one.

But the debate has progressed in polemic fits and starts, with adherents on both sides clinging to what may be considered myopic concerns about the role MTM has played or not played in creating the crisis we now find ourselves in. To wit, back in March, the chief accountant of the Securities and Exchange Commission and the chairman of FASB were brought before a subcommittee of the House Financial Services Committee and publicly harangued about their failure to make significant changes to current accounting practices. When the witnesses pushed back that knee-jerk reactions to the crisis could lead to worse policies, members insisted they be given a timetable of less than a month in which MTM would be changed more to Congress' liking.

What the debate could use is an agreement on exactly what accounting regimes can reasonably do, followed by an assessment of how each one accomplishes those goals. Financial crises will continue to occur, but they may not look exactly like this one. And tailoring policies to prevent current problems may setup different future ones. So the best strategy is to set policies according to immutable economic principles. Accounting standards -- from an economic point of view -- ought to accomplish two things: reduce transaction costs and reveal truthful, useful information.

## Transaction Costs and Information Revelation

An apocryphal history tells of English medieval knights determining the flow of traffic. Being predominantly right-handed, the knights tended to ride on the left-hand side of the road in order to have ready access to their weapon should a foe pass the other way. Later Napoleon, being left-handed and something of a megalomaniac, decreed all French territories would travel on the right. Finally the US, being heavily colonized by the French and wanting to cast off any British customs, adopted the right-hand side rule of the road.

Having now laid down our swords, and the car being neither a right-hand or left-hand dominated operation, it's pretty arbitrary which side of the road we drive on – except that you better go along with everyone else.

And so it goes for many of the standards we live by, be they shoe sizes, Internet protocols, or accounting rules. Standards provide coordination among many potential competing ways of doing something. And with respect to this coordinating function, it's almost irrelevant what the standard itself is, so long as everyone understands and follows it. The whole point of a coordinating standard is to minimize transaction costs – the costs surrounding the actual transaction or economic activity you wish to accomplish.

In the example of driving, for instance, one can suppose it would be possible not to have any set rules on which side of the road to drive on (and setting aside that a natural pattern might emerge on its own over time). The transaction for each driver is bypassing each other driver without getting into an accident. In this scenario, each driver would have to continually “negotiate” with every other adjacent driver about which side on which to pass. If you add up all the extra time and effort to get from point A to point B, the sum would be the total transaction costs incurred.

In accounting, coordination around a standard way of reporting means interested parties do not need to continually learn and interpret each company's specific way of presenting information, which minimizes the transaction costs of acquiring information. With or without a standard (and separate from the question of whether it's a good standard or not), the ultimate goal of acquiring useful information is the same. So accounting rules must be judged according to the criteria of how well they minimize the amount of effort necessary to get the information you want.

The other criterion by which accounting rules should be judged is the degree to which they reveal useful information. In auction theory, for example, scholars have devised clever ways to induce bidders to reveal their private, subjective valuation for a given object. The advantage of such innovations in auction design is that sellers can maximize their surplus and the bids themselves are information-rich.

Let's assume for the time being that companies are not systematically attempting to deceive investors and the public, in part because strict accounting and auditing protocols make it difficult, and also because reputational capital is difficult to replenish. So then accounting rules should not so much be devised to tell the truth (whatever that means) but simply to reveal the most useful information. Taken together with the first criterion, investors should be able to use the information presented with as little manipulation or interpretation as possible.

## The Debate

Each accounting regime has its own limitations and advantages. As Arnold Kling pointed out in [The Chess Game of Financial Regulation](#), MTM was itself a response to the long lags and inaccuracy of HC. In the run-up to the Savings & Loan crisis of the late '80s, it was discovered that principals of S&Ls were able to hide the true financial health of their institutions, especially from capital reserve requirements, because loans that began to fail did not show up on the balance sheet as such. As a result, a MTM regime was thought to give the most up-to-date, accurate information on the financial health of an institution. The market transaction price for a given class or type of asset, so the argument goes, is the closest thing we have to a timely and accurate valuation.

But then came the credit crunch of 2007-08. As demand for liquidity suddenly surged, banks were forced to sell off assets into an already declining market. As prices declined, and the market itself became thinner and thinner, MTM created a vicious cycle which many blame for severely exacerbating the crisis. At its lowest point, there simply was no market for certain types of securities which made valuing them nearly impossible under current rules.

So given the desire to minimize transaction costs and maximize the usefulness of information, which regime is preferable?

Broadly speaking, both minimize transaction costs of acquisition as long as they employ the fewest number of exceptions. For example, a few weeks after the recent House Financial Services Committee subcommittee hearing, FASB issued a rule that allows institutions to mark-to-model (as in use an internal valuation method, not based on either MTM or HC) certain assets, as long as they make note of it in their reports and give some guidance about how they went about coming up with those non-MTM and non-HC figures. MTM would still be the default rule. So even assuming investors are able to back out the numbers they really want from those mark-to-model figures, this entails a non-trivial increase in costs because each company's model is different.

As far as usefulness, it's safe to say that investors will only rarely look for someone else's internal model-generated numbers. Investors, in fact, often use their own models to determine the worthiness of a given balance sheet. What then is most useful is data they can input that has been manipulated as little as possible and is based on some uniform reference or standard that applies to everyone (such as a pure MTM or HC regime would require).

A deep academic literature has explored the information-rich nature of market prices, which would seem to score a point for MTM over non market-based standards. But more recent work by Guillaume Plantin (London Business School), Haresh Sapra (University of Chicago) and Hyun Song Shin (Princeton University) demonstrates in a formal way that for the very balance sheet items of banks and insurance companies, MTM leads to suboptimal decisions which ultimately degrades the information value of prices, such as in the case of the downward price spiral in the current crisis. Because markets themselves are not without transaction costs, actual prices do

not reflect the full information that theoretical “perfect world” prices would. Ultimately this reinforces the notion that both regimes (and perhaps all regimes) necessarily involve tradeoffs.

### **Conclusion**

In the light of these economic realities, the debate over MTM versus HC becomes much less clear than many proponents of each would have one believe. It is not clear that one is clearly superior over the other. While MTM was introduced largely to correct certain deficiencies of the previous HC system, MTM itself introduces a new circumstantial problem in certain environments like the current one. The deep-rooted desire to now correct this new problem by returning to HC is understandable. But a rush to do so is ill-advised until additional research and a full accounting (as it were) of the various concerns and tradeoffs is made.

### **About the author**

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