## Some Fair Values are Fairer than Others and Few if Any are True Values

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The recent public debate about whether fair-value (mark-to-market) accounting should be suspended or modified to ease the financial crisis reflects a widespread misunderstanding about measurement and its limitations.

It also raises concerns as to whether regulators, rating agencies, counterparties and others who base critical decisions on capital ratios or other ratios computed using fair-value estimates are adequately prepared to gauge the reliance they should place on these estimates and able or willing to temper their conclusions accordingly. These concerns are particularly problematic for those who adhere to the widespread misconception that financial institutions' assets have true economic values and that the SEC's and FASB's decision to allow companies to base fair value estimates on present value computations rather than fire sale prices will result in true values.

The American Bankers Association and several prominent public figures who favor suspending mark-to-market accounting argue that auditors are forcing financial institutions to write down assets to fire-sale prices that are considerably below their "true values," decreasing their regulatory capital and triggering collateral calls, lower credit ratings and ultimately financial distress. The SEC, FASB, CFA Institute, Center for Audit Quality and others counter that fair values are needed to ensure the transparency investors require to allocate capital efficiently.

Both arguments have considerable merit, which probably explains why the SEC and FASB clarified how companies should interpret what is meant by an active market when applying the fair-value accounting standard that requires companies to base fair-value estimates on market prices from orderly active markets whenever possible(FASB 157). When there is not an orderly active market, which the SEC and FASB agree is the current situation, companies should base fair-value estimates on the discounted cash flow model.

Many vocal opponents of mark-to-market accounting incorrectly believe the discounted cash flow model produces true economic values, which suggests a pervasive lack of understanding about how to gauge the reliance placed on related fair-value estimates. To be sure, going

forward the fair-value estimates based on the model will be fairer than the ones based on fire-sale prices, but some will likely be considerably fairer than others and true values are wishful thinking. My primary goal here is to present a framework for qualitatively assessing the reliance that should be placed on reported fair-value estimates, with the hope it will motivate others to create empirical assessments.

When assessing the reliance of fair-value estimates, regulators, rating agencies, investors and others who use them (users)need to understand the measurement objectives behind the numbers, the measurement techniques companies employ to try to meet these objectives, and, most importantly in the current reporting environment, the confidence they should attribute to the techniques' inputs.

A pervasive argument by those who favored suspending or modifying mark-to-market accounting was that companies should report assets' "true" values, which they interpreted to be the present value of the expected future cash flows associated with the assets, discounted at the appropriate risk-adjusted rates.

While the discounted cash flow technique is the gold standard for valuation, the idea that it can be used to determine true values is completely misguided for two fundamental reasons. First, the present value model can be used to estimate "value in use" and fair value in situations where these measurement objectives are qualitatively and quantitatively different. For example the present value associated with Intel using one of its patents (value in use) will likely be significantly greater than the present value of another company using it and thus with its opportunity cost (fair value). Which is the true value? Second and more pertinent to financial assets, the fair value of an asset is defined to be the "price" the asset could be sold for in an orderly transaction. However, prices and values are generally not the same. Value is subjective and, in particular, objective expert evaluators using the discounted cash flow model often attribute different present values to the same asset.

An evaluator's assessment of the present value of an asset is based on the evaluator's expectations about the asset's discounted future cash flows. These expectations are conditional on the information available to the evaluator and on the way he or she uses this information to predict future cash flows and related risks. More generally, the expectations associated with any measurement technique are subjective. Over the past fifty years or so, Warren Buffet's valuations of assets have undoubtedly exceeded the prices he paid for them

either because he had superior information or, more likely, because he used information better than other market participants.

Thus, "true" economic values could only exist if everyone had similar expectations about the future because they used the same information in the same way. And even then, the truth would change continually as new information became available. Considering the tremendous uncertainty associated with the current financial crisis, it is safe to say that expectations about future cash flows diverge greatly and any attempt to predicate arguments on true values is baseless. This does not mean other arguments by those who opposed mark-to-market accounting can be easily dismissed. In fact, one hypothesis worthy of investigation is that financial institutions feel pressured to report fair-value estimates below what they would otherwise report because of risk aversion on the parts of chief financial officers, audit committees, and external auditors arising from regulations, enforcement actions, and litigation associated with the accounting scandals in the early 2000's.

Centering arguments and analyses on true values is a special case of the broader dysfunctional practice of fixating on point estimates without specifying the level of confidence that should be attributed them. This is where accounting intersects with statistics. Prior to using a reported number, users need to know what the number aims to measure – its measurement objective – and then they need to determine their level of confidence that the number meets this objective. Readers schooled in basic statistics will recognize that what I am saying here is users need to determine the width of the confidence interval associated with the reported point estimate.

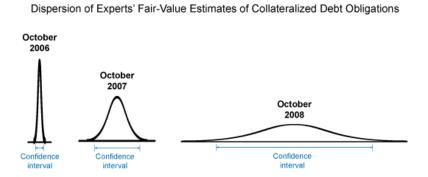
Common sense and statistical theory both dictate that conclusions should be more guarded when the confidence in the numbers supporting them decreases significantly. This means that to the extent regulators, rating agencies, and counterparties decide that the width of the confidence intervals associated with fair-value estimates have increased recently, they should be more reluctant to conclude that financial institutions are in financial distress or otherwise cannot meet their future obligations when regulatory capital decreases because assets are marked to lower fair value estimates.

One way to qualitatively gauge the confidence levels associated with fair-value estimates is to begin by imagining how objective experts' estimates would be dispersed and then consider how this dispersion affects and is affected by uninformed and opportunistic estimates.

This hypothetical dispersion of objective experts' fair-value estimates largely depends on the availability and comparability of benchmark data (market prices, historical measures for the same asset, or current measures for similar assets), the availability of measurement techniques, and the uncertainty associated with their inputs.

When estimates are based on current market prices of identical assets, the dispersion of objective experts' estimates depends largely on the volume of orderly and informed trades on the measurement date, or on other market characteristics reflected in bid-ask spreads. For example, there was essentially no dispersion in experts' estimates of the fair values of collateralized debt obligations (CDOs) in 2006 because identical securities were widely traded in arms length transactions with relatively low bid-ask spreads.

When CDOs began to trade less frequently in 2007, the dispersion of objective experts' fair value estimates increased as the bid-ask spreads on identical and similar assets widened. By October 1, 2008, when the markets for identical and similar CDOs were mostly nonexistent, experts' estimates could no longer be based solely on market prices. Absent regulatory guidelines, the dispersion of objective experts' estimates would have increased dramatically as they began applying the subjective assumptions discussed earlier about the expected future cash flows.



The width of objective experts' confidence intervals defines a playground of opportunities for dishonest managers to misrepresent themselves as objective experts while opportunistically selecting numbers that meet their self interests. This is a classic adverse selection scenario where "bad" managers can credibly portray themselves as "good" managers. Additionally, objective experts' confidence intervals also define the areas where honest managers who lack the requisite expertise can make honest mistakes.

Faced with the possible distortions associated with these opportunities, standard setters and regulators try to reach a balance that permits objective experts as much measurement latitude as possible without unduly creating opportunities for manipulation or honest mistakes. They also require disclosures that permit users to qualitatively gauge the confidence they should attribute to reported estimates. This is precisely what FASB statement 157 and related authoritative guidance does by classifying fair-value estimates as levels 1-3 and by providing detailed guidelines for determining when and how to use market information to estimate present values classified as level 3 estimates.

Level 1 estimates are "fairer" than level 3 estimates in that they are associated with much narrower confidence intervals. Still, notwithstanding the FASB's efforts, given the high degree of uncertainty in the economy, it is reasonable to conclude that the confidence intervals associated with reported estimates will be pretty wide for some time, allowing plenty of opportunities for opportunistic reporting and honest mistakes. These wide confidence intervals, which result from uncertainty in the marketplace associated with a dearth of predictive information, reflect and partly contribute to our current crisis of confidence.

This does not mean fair-value accounting should be suspended. Doing so will surely increase outsiders' uncertainty about the related assets' future cash flows, which will further depress their estimates of the assets' fair values and delay a recovery. However, it does mean that placing the same reliance on 2006 and 2008 fair-value estimates is highly problematic: the 2006 estimates were much fairer than the 2008 ones. Similarly, holding auditors' opinions regarding fair values to the same standards in 2008 as 2006 is unreasonable.

Likewise, blaming fair value accounting and more specifically the SEC and FASB for the current crisis is irresponsible given the stakes. Good arguments can be made regarding the relative merits of using the fair value measurement objective in certain decision contexts rather than the value-in-use or adjusted-historical-cost objectives. A public discussion about the merits of these alternative measurement objectives would be particularly beneficial for non-financial institutions. However, fair values and value in use are the same for CDOs and closely related for loans. Thus, the focus on fair values is appropriate in the current crisis, especially if those who use the numbers appropriately gauge the reliance they should place on them.