

MARKET VALUE ACCOUNTING: A GUIDE FOR SAFE AND SOUND BANKING?

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In recent years, market value accounting (MVA) has generated a great deal of controversy within the banking community. Public statements on the topic have typically reflected a high degree of polarization, with most bankers and some regulators staunchly opposed to MVA but various other experts strongly favoring it.

And yet, if one looks beyond the headlines to the fine print, it appears that the underlying goals of the two camps are not dissimilar. No one wants to destroy value or cripple the banking industry; everyone (apart, perhaps, from a few special cases of vested interest) favors the disclosure of accurate, cost-effective financial information that is useful in making constructive and responsible regulatory and managerial decisions. The disagreement lies in how to attain this goal.

Advocates of MVA point to shortcomings in the current approach, historical cost accounting (HCA): its inability to reflect changing economic conditions of an individual borrower or of the market as a whole, its obfuscation of the proper time to close a failing institution, and its tendency to encourage "gains trading" and other irrational and destructive managerial behavior. Increased competition, a heavy regulatory burden, the high cost of deposit insurance, and the complexity of the modern banking business lend urgency to this issue.

Opponents counter by reciting objections to MVA: its subjective nature for many bank loans, its misleading conclusions when applied to only part of the balance sheet or to "fire sale" prices, its costly potential for increasing the volatility of reported net worth, and its high cost of implementation. The conflict is further complicated by the lack of a single, precise, universally accepted definition of MVA.

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A major focus of this article is whether voluntary implementation of MVA in banking could be likely to create the conditions for improved safety and soundness. This question arises for several reasons. First, voluntary implementation, if sufficiently prompt, could potentially preempt more rigid regulatory requirements, allowing individual banks greater flexibility in choosing an approach better tailored to their own situations. Second, voluntary implementation could perhaps be designed in such a way as to avoid some of the pitfalls that have plagued several versions of MVA as proposed; for instance, we might consider whether banks could choose to mark the entire bank to market and thereby circumvent the distortions of applying MVA to only part of the balance sheet. Finally, record earnings for the banking industry in 1992 make the present time especially propitious for considering such a transition, given that any change from the status quo is likely to entail some startup costs that could reduce retained surplus.

A parallel premise of the article is that the most constructive feasible outcome may be facilitated by reversing the usual analysis. Rather than working forward from a particular definition of MVA and trying in procrustean fashion to force the world into that definition, why not first try to identify a consensus view of an ideal financial reporting system, and then consider what elements of MVA, HCA, or other mechanisms could come closest to achieving a cost-effective implementation of such a system that is useful to owners, managers, and regulators? This approach could help defuse the emotional rhetoric surrounding the issue, facilitate cooperative rather than adversarial use of the best thinking on both sides, and lead to a safer and sounder banking system in the end. In principle, one can decide later whether the outcome is labelled MVA, HCA, or a hybrid—if anyone still cares.

Driving both questions is the fact that movement toward some form of MVA for banking appears inevitable and has been under way for some time. Federal banking regulators have long required banks to designate a separate trading account for those securities they do not intend to hold to maturity and to mark such securities to market; these requirements were extended in early 1992 to loans and securities “held for sale” and to mortgage-backed securities, zero-coupon bonds, and the like (see Shaffer 1992a). The FDIC Improvement Act of 1991 (FDICIA) requires regulators to develop some method of supplemental reporting of banks’ market value. The Financial Standards Accounting Board (FASB) has adopted some requirements for MVA and is contemplating broader ones. Thus, events are overtaking the debate, and the practical issue is evolving from “MVA vs. HCA” to “what flavor MVA?” These developments make it imperative to

achieve constructive consensus on the issue, and provide an even stronger motive for the banking industry to take the initiative in structuring its own accounting reform.

Aspects of a Useful Approach

Part of the controversy involves the conceptual role of an accounting system, with some opponents of MVA arguing that accounting was never intended to serve as a guide to managerial or regulatory decisions. Two brief comments are in order here.

First, financial information is costly to compile and convey, and therefore any individual piece of information must be beneficial to at least some of its recipients before its release can be cost-justified. If an accounting system is worth designing and implementing at all, it must take a form that is useful to managers, owners, or regulators—and preferably all three. Where there is a conflict among the interests of the three groups, we might expect to see banks adopt an accounting system that is favored by the dominant group. Second, as a matter of practice, owners and regulators do in fact assimilate accounting data into their overall view of an organization and their actions toward it. This reality needs to be kept in mind when designing an accounting system. What, therefore, are the informational needs of these various groups, and how will available information be used?

Bank Owners

Bank owners and managers share many common goals, even in institutions where the owners and managers are for the most part different individuals. They need information to make strategic and tactical choices that are profitable for the bank, particularly in the current environment of a sluggish economy, encroaching foreign and nonbank competitors, and stiffer regulatory requirements as exemplified by FDICIA. Some of them also need information capable of winning the confidence of other investors to raise new capital required under the multinational Basle Accord on Risk-Based Capital.

Net Present Value. Subject to regulatory constraints, owners and managers benefit from any decision that enhances current or future bank profits on net. Put differently, the standard that will determine the long-run financial impact of a decision on the owners and managers is its effect on the bank's expected net present value (ENPV).

This bare conclusion must be modified slightly when owners or managers are risk-averse and a given action has a range of possible outcomes that cannot be completely hedged or diversified away. Capital markets do in fact discount stock prices to reflect such "systematic risk." However, as such discounting illustrates, most uncertainty is a

potentially quantifiable second-order effect while ENPV describes the primary effect. Moreover, analysis of uncertainty must start with the same information needed to impute ENPV, so risk aversion does not alter the preferred accounting system in that respect, even though it may require some extra data or imply somewhat different managerial choices. When comparing MVA and HCA, therefore, it is useful to consider ENPV as a benchmark, even if additional considerations must be brought to bear at some later stage.

An intrinsic link between ENPV and MVA arises because, in an idealized world of perfectly competitive markets, perfect information, and risk-neutral buyers and sellers, the selling price would coincide with the ENPV of the asset or portfolio (Shaffer 1992a, 1992b). Otherwise, an investor could buy or sell the asset and profit from the difference between its price and its present value. Of course, most markets are not ideal, so observed prices may not always correspond to ENPV. Therefore, whenever HCA and MVA give different answers, it becomes necessary to ask which measure more closely approximates ENPV.

If the ENPV of each individual asset and liability were known, the whole bank's ENPV would be known as well. However, it is usually easier to think about ENPV and financial decisions in terms of an individual asset. For example, suppose that a bank has among its assets a security originally worth \$100. Now suppose that interest rates fall, so that the security could be sold for \$105, reflecting the fact that future income is discounted less when interest rates are lower. Should the bank sell and lock in the gain? Or should it continue to hold the security in hopes that interest rates may fall farther, increasing the potential gain? If it sells, what will be the impact on its portfolio liquidity and on its duration gap, affecting its exposure to interest-rate risk? Will the bank be left with all long-term and illiquid loans? And does the security act as a hedge against declines in the ENPV of some other asset held by the bank? These latter considerations may outweigh the immediate incentive to sell; therefore, an ideal set of information to owners and managers would allow them to examine these various tradeoffs.

By contrast, an accounting system that omits or blurs such distinctions could tend to encourage an immediate sale even if it is not truly in the bank's interest. Under HCA, the security's increase in value will not appear on the bank's books unless the security is sold; if investors evaluate the performance of bank management primarily according to historical accounting statements, management would always have an incentive to sell the security. Such sales are termed "gains trading" and, despite being discouraged by regulators, were

common among savings and loan associations in the 1980s (O'Brien 1991) and appear to have affected commercial banks as well (Atkinson 1992; Carey 1992).

In this simple example with liquid securities at least, MVA could correct the incentive problem, leading in the long run to the expectation of a higher market value of the bank (Benston 1989). This effect would benefit owners, leading them to prefer MVA in such cases, as well as reinforcing safety and soundness by encouraging actions that improve the bank's long-run net worth. For these reasons, even some bankers strongly opposed to regulatory use of MVA recognize that "mark-to-market portfolio assessment can be a valuable internal management tool" (O'Brien 1991: 7).

It should be noted that ENPV, properly measured, will not suffer from the distortion of "fire sale" losses or liquidation value that plagues some versions of MVA. Even among market prices, there may be a distinction between the price attainable in a quick, forced sale versus that attainable over a longer period of time. Thus, the legitimate concern over liquidation value need not imply a blanket condemnation of MVA, but rather suggests that care is needed in the proper implementation of any accounting system. For instance, in valuing the mortgage portfolio of a large bank, one might want to observe market prices for similar assets, rather than trying to estimate what the particular bundle could be sold for within a short deadline. Indeed, the FDIC, when it must liquidate a bank, usually sells off the assets slowly enough to receive favorable prices, rather than attempting to sell them all at once.

Agency Problems. Even where an imperfect accounting system does not systematically distort managers' incentives, it may at least permit managers to pursue their own objectives at the expense of owners. For example, owners may want to maximize profits by cutting costs, whereas managers may prefer luxury offices and large staffs, hallmarks of "expense preference" behavior. Indeed, Mark Carey (1992) presents some very preliminary evidence that the sort of gains trading discussed above may constitute a form of expense preference behavior among banks that varies with the degree of control shareholders are able to exert over management. To the extent that managers have access to inside information not readily available to owners, managers enjoy some leeway to take actions that could undermine profits. Economists call this situation an "agency problem," a term deriving from the fact that owners hire managers as agents to act on their behalf (Mester 1989).¹

¹Evidence of expense preference behavior by banks is mixed. Studies by Franklin Edwards (1977), Timothy Hannan (1979), and Hannan and Ferdinand Mavinga (1980) conclude

Whenever an agency problem exists, an important question for public policy is whether the actions at stake merely generate pure transfers from one group to another (for example, from owners to managers) or in addition create inefficiencies such that everyone could be made better off under alternative actions. Society as a whole should care about the latter problem but may or may not care about the former.

It is sometimes difficult to distinguish between inefficiency and pure transfers. For example, although economists usually associate expense preference behavior with deadweight losses, such behavior could also directly benefit a bank's employees and other businesses that provide services to the bank. Some such groups, in addition to managers, would therefore be harmed in the short run by eliminating the inefficiency, even if the overutilized resources could be more productively redirected elsewhere in the long run.

Most forms of agency problems tend to undermine safety and soundness, so that regulators' and owners' preferences would be aligned on this issue. However, there is also a possibility that some managers might be more risk-averse than owners and, given the cloak of an imperfect accounting system, could operate the bank more conservatively than owners would otherwise allow them to do. In such instances regulators would tend to be more aligned with managers.

Ideally, competition in the labor market for managers and in the market for corporate takeovers would minimize agency problems (Grossman and Hart 1981; Schleifer and Vishny 1986). But, in practice, if managerial talent is scarce relative to the number of banks, then the best CEOs may be able to command premiums that could involve (or may appear indistinguishable from) expense preference behavior as well as other actions detrimental to shareholders. Moreover, the mandatory legal separation between banking and commerce constrains the corporate takeover market for banks in the United States, since no nonfinancial firm can enter the bidding; and prohibitions against interstate branching limit the number of banks that can vie for another bank. Market mechanisms may therefore work poorly as a way of solving the agency problem in the U.S. banking industry.

All else equal, owners would prefer an accounting system that provides them with the sort of information they could use to verify

that such behavior exists, while later studies such as by Michael Smirlock and William Marshall (1983) call into question the earlier methods and results. In any case, not all agency problems would necessarily show up as expense preference behavior. Evidence of more general agency problems in banking is presented by Randolph Beatty et al. (1987), Linda Allen and A. Sinan Cebenoyan (1991), John Boyd and Stanley Graham (1991), and Gary Gorton and Richard Rosen (1992). Loretta Mester (1991) likewise finds evidence of agency problems among savings and loan associations.

that managers were running the bank efficiently. Accounting data, even if imperfect, have always constituted a major source of financial information to owners. There is some evidence that bank owners tend to evaluate bank managers on the basis of such publicly reported data even when it deviates from the ideal. For instance, Greg Clinch and Joseph Magliolo (1991) find compensation of bank CEOs to be positively related to a bank's income from certain discretionary transactions that appear beneficial under current (historical) accounting standards but possibly not in terms of the bank's ENPV (and hence its long-run stock price).

The existence of such a pattern points to a need for improving current accounting practices, so that bank owners can better monitor and evaluate the actions of managers; the fact that such a pattern could even be measured suggests that a practical improvement must be technically feasible. Since banks' owners stand to gain from such improvements, they should (by this argument) tend to favor reforms in the direction of ENPV reporting. Banks' managers stand to lose from any such changes as may reduce their opportunities for expense preference behavior, and they therefore might oppose such reforms. Voluntary improvements of the accounting system would then depend on the ability of investors to prevail over the opposing interests of entrenched management. The dearth of voluntary reform to date might suggest that the banking industry suffers from substantial agency problems. However, as discussed below, agency problems are not the whole story.

Bank Regulators

Bank regulators also need to know the true financial condition of a bank in order to be able to initiate corrective actions or, if necessary, to close the bank in a timely fashion before losses mount further. Simply put, the regulators need to know the bank's ENPV. Thus, even though regulatory objectives may sometimes differ from the objectives of a bank's shareholders, the informational needs of regulators and owners coincide.

An extension of the previous example will illustrate this point. Suppose that the security originally worth \$100 now declines in value to \$95, either because interest rates have risen or because the issuer of the bond is perceived to be in greater danger of default. Regulators would need to know this information as part of choosing responsible and socially optimal actions toward the bank. If the bank's accounting system fails to reflect such declines, then a regulator who is constrained by law not to close the bank until the *reported* net worth falls below

some figure (either zero or, under the new policy of Prompt Corrective Action, 2 percent of assets) may find after closure that the actual value of the bank's assets is substantially less than reported, generating higher losses for the deposit insurance fund.

This type of distortion has at least two costly consequences. First, the aggregate cost of deposit insurance will be elevated, leading to the need for higher deposit insurance premiums (and perhaps more intrusive regulation) for all banks. And second, banks using HCA will have an incentive not to sell assets that have declined in value, even though at times it might be in the true interests of owners and managers to cut their losses by selling before the value declines further. Here again, MVA could solve the problem in this simple case, and banks might be likely to support voluntary adoption of MVA under such circumstances.

However, an additional complication surrounding this aspect of accounting is that managers of banks suffering from unreported declines in asset values would have a natural vested interest in resisting any changes that would lead to the full disclosure of those declines. Likewise, owners may wish to conceal declining net worth from regulators and may therefore prefer HCA to the extent that bank closure policies are based on reported accounting data. This factor could be another reason why some bankers, even if advocating MVA for internal bank use, may oppose it for regulatory use.

Such a stance is myopic: if a bank is truly distressed, a distorted accounting system will not change that fact and, indeed, will tend to encourage suboptimal actions that further worsen the bank's condition. Nevertheless, these considerations suggest one reason why owners, as well as managers, might oppose full financial disclosure, even to the extent feasible.

This impediment to accounting reform will be less severe when banks are more strongly capitalized, as they currently are due to a combination of the Basle Accord on Risk-Based Capital and strong profits in 1992. This is another reason why the prospects for voluntary reform look better now than in previous years.

Moreover, it might be possible to coordinate the regulatory closure policy with accounting reform in such a way that owners could become more amenable to such reforms. If a typical failing bank's book value exceeds its ENPV at the time of failure, then applying the current 2-percent closure rule to ENPV would unambiguously tighten the regulatory closure policy on average. If, on the other hand, accounting reform could be carried out with no such tightening, then owners' objections could be reduced and the issue of voluntary implementation again becomes largely an agency problem between owners and

managers, assuming managers retain an interest in trying to conceal negative shocks from shareholders.

The Practical

Accounting systems, by nature, apply to individual components of assets, liabilities, capital, and contingent claims. But the overall concern of owners and regulators is really the aggregate bank, whatever the individual components may show. ENPV may be defined in principle for individual components, but such an approach may fail to incorporate important cross-correlations that can to some extent hedge the balance sheet in various ways (Chirinko and Guill 1991), and may also fail to address the important question of charter value. Thus, in moving from the ideal to the practical, it is necessary to bear in mind the aggregate picture—and a practical program is absolutely essential to any form of implementation, whether voluntary or mandatory.

One aggregate proxy can be dismissed at the outset. Economists sometimes argue that the stock price, multiplied by the number of shares outstanding, gives the best estimate of a firm's ENPV (perhaps discounted by some risk premium). But this approach does not work well for banks. Many banks are not actively traded; and even for those that are, the stock price also incorporates any value of mispriced deposit insurance, a federal policy of "too big to fail," the capitalized value of any local monopoly power exercised by the bank, and other regulatory and market distortions. Some of the changes embodied in FDICIA, including a move toward risk-based deposit insurance pricing and new limitations on "too big to fail," reduce such problems for actively traded banks in competitive markets. Nevertheless, the stock price is unlikely to be the best attainable measure of most bank's financial condition from the standpoint of the regulator or society.

In search of a better alternative, a look at the individual components of a bank's operations is useful. Three questions are relevant for each component: first, whether its ENPV can be easily obtained (for example, from an observed price in a liquid market); if not, whether a simple approximation procedure (market-based or not) can get closer to ENPV than book value; and finally, if neither of these conditions holds, then whether the item is a major component of the balance sheet of many banks. For items satisfying either of the first two conditions, some improvement over HCA is possible; if only the last condition holds, then we might prefer the less costly procedure between HCA and MVA; and if none of the three conditions holds, HCA would be the method of choice for the particular item and we could rely on a *de minimis* argument that this practice would not materially distort the estimate of ENPV across the full balance sheet.

Liabilities

Some liabilities, such as overnight interbank deposits, are effectively carried at market value already, since their short maturity precludes any substantial difference between market and book value. The choice between MVA and HCA would be purely semantic for such accounts. It has been proposed (e.g., Mengle 1990) that the market value of other liabilities with maturities or repricing intervals less than some period (such as a year) could be similarly regarded as equal to book value, as a working approximation.

Some other liabilities, such as large certificates of deposit, trade on active secondary markets and therefore generate an observable price that constitutes a good index of ENPV. MVA is clearly feasible (and, by the considerations discussed in the previous section, beneficial) for such items.

In other cases, it may be possible to compute ENPV directly from cash flow data (see Shaffer 1992a). Such calculations always require knowledge of an account's payment schedule, its effective maturity or repricing intervals, and the likely path of interest rates over time (see Mengle 1990; Morris and Sellon 1991). Thus, when prices are not observed, ENPV accounting requires more data than HCA—but only data that a well-run bank should be tracking anyway. Indeed, if part of the concern is that HCA conveys too little information, we ought to expect that any improvement would require some amount of additional data.

One of the most difficult issues here is how to assess the effective maturity of a bank's core deposits (essentially, demand deposits plus savings accounts). Although their theoretical maturity is zero since they can be withdrawn on demand, there is evidence that such deposits tend to behave like long maturity accounts under normal economic conditions (Flannery and James 1984). Taking account of rollovers, or the influx of new deposits that offset withdrawals in a given period, one might even argue that the effective maturity is infinite.

What has not been adequately measured is how this effective maturity may respond to sudden adverse financial changes in the bank or in the economy. If a bank deteriorates, even its previously stable core deposits may be quickly withdrawn, plunging the bank into a liquidity crisis. A plethora of factors could contribute to such a shift, including not only bank-specific elements such as asset quality, net worth, and probability of failure, but also the regulatory climate and deposit insurance, both of which are outside the control of any individual bank.

George Benston (1989) has proposed that banks carry as an intangible asset the present value of the difference between the actual interest rate paid on core deposits and the market rate typically needed to

attract a like amount of funds. This proposal, while conceptually elegant and market-based, nevertheless requires an independent measure of effective maturity and therefore falls short of solving the central problem. Even so, other research has shown that publicly available data can be combined with rough estimates of effective maturity to yield improved estimates of a depository institution's true value (Simonson and Stock 1991).

Possibly a better approach to valuing core deposits is to use data from branch sales. John Mingo (1992) has compiled such estimates separately for branch sales associated with going concerns versus those associated with failed institutions, finding a substantial differential between the two categories that could be used to quantify the effects of a decline in financial condition. Core deposits make up a substantial fraction of the typical bank's balance sheet (Mengle 1990), so any further improvements in their valuation methods remain potentially important.

Assets

Some assets, such as cash and trading securities, are already carried on banks' books at market value. In recent years, the quarterly Call Reports required of all banks also report both book and market value for investment securities. Straightforward imputation of market value is also possible for a few other assets. However, these categories of assets seldom cause banks to fail.

Loans constitute the primary obstacle to successful MVA for banks. As of 1990, loans comprised 61 percent of all insured U.S. bank assets, even after netting out loan loss reserves (FDIC 1990). Nearly 30 percent of these loans are commercial and are especially hard to value accurately.

Because of credit risk, the ENPV of many loans is less than their book value. In some cases, as with LDC debt, loan sales, and securitized assets such as collateralized mortgage obligations, a secondary market exists—the loans are liquid—and we can observe a market price that should be representative of their ENPV. Such cases usually involve some combination of large borrowers or homogeneous risk characteristics of the assets. For assets without an observable market price, an alternative approach is required.

Perhaps the best current idea for the nontraded portion of the loan portfolio is to use the book value of loans net of some combination of loan loss reserves (or allowance for loan losses) and nonperforming loans (that is, loans that are past due or not being paid according to schedule) as an estimate of the ENPV of loans corrected for credit

risk (see Berger et al. 1991). Adjusting for these factors, which banks already report separately, is a way of valuing the overall loan portfolio without having to look at individual loans.

Federal regulators require all banks to maintain a loan loss reserve (Mengle 1990; Walter 1991). Bank managers add to this reserve each quarter out of current income at levels that are supposed to represent their estimate of future credit losses. In turn, when a loan defaults, that loss is subtracted both from the total loans on the bank's asset statement and from the loan loss reserve.

However, loan loss reserves may not be a good predictor of future loan losses for a given bank, especially since they are set largely at the bank's discretion and are subject to other incentives such as income or tax management goals or conformity to peer group averages (Walter 1991). Among other things, netting the reserves out of reported net worth above some level may encourage a bank to reduce its reserves relative to known risk, especially if the bank has adverse inside information. Under the Basle Accord on Risk-Based Capital, reserves up to a maximum of 1.25 percent of risk-weighted assets may be counted as a component of capital. Banks therefore have some incentive not to reserve above this level; however, they may also have an incentive to increase reserves up to this level if they are in need of additional capital and alternative forms of capital are more costly.

Such behavior not only impairs the accuracy of the regulatory measure of market value but can also directly reduce safety and soundness. Auditors and regulators monitor each bank's loan loss reserve practices to try to contain these incentive problems (Mengle 1990), but this monitoring occurs at intervals longer than those at which a bank is required to file financial reports, and the task is essentially as hard as marking the loans themselves to market.

The amount of nonperforming loans is harder for a bank to manipulate and can be broadly verified by examiners. But nonperforming loan figures are not particularly forward-looking; some delinquent loans are subsequently repaid, while others reflect only the final stages of long-standing problems.

A combination of the two approaches, using both loan loss reserves to embody some forward-looking information and nonperforming loans to reduce the incentive problem, has been shown to forecast future losses and bank failure better than either approach alone (Berger et al. 1991). One simple way of applying this approach is to report loans net of the *maximum* of loan loss reserves or a weighted sum of nonperforming loans. This approach minimizes the distortion in loan loss reserves that can occur between examinations or audits and allows a more accurate measure of capital ratios, which legally

circumscribe many of the regulators' permissible actions toward the bank. And it avoids the need to estimate the ENPV for each loan individually, a very time-consuming and expensive undertaking that also fails to incorporate cross-portfolio hedging. At a minimum, therefore, this approach—which can be construed as a hybrid between MVA and HCA—may represent an improvement over pure HCA.

Putting It All Together

The foregoing discussion suggests that certain practical steps could improve on HCA in meeting the informational needs of bank owners and regulators. At the same time, however, agency problems may leave bank managers resistant to such improvements, and regulatory closure rules might even turn owners against accurate financial disclosure. Careful attention to the interaction between accounting reforms and closure rules can mitigate shareholders' objections; overcoming the agency problem between owners and managers may then be a key to voluntary accounting reform.

How can such reforms best be implemented, taking account of both the new legal requirements for MVA and the valid objections that have been raised against MVA for banks? And what forms of implementation are likely to have the most appeal to banks, thereby qualifying as likely candidates for any voluntary adoption?

One important aspect of a good approach is to begin supplemental reporting of MVA for certain items now, while retaining HCA for "official" purposes until a large enough part of the portfolio has been successfully marked to market. This is the approach embodied in FDICIA and the FASB statements to date. Properly implemented, it serves the interests of bank owners by giving them a clearer picture of their institution's true financial condition, while avoiding many of the pitfalls associated with alternative approaches.

It also has the advantages of minimizing the disruption of the conversion to MVA, spreading the learning and transition costs over time, avoiding the distorted incentives of marking only part of the portfolio to market, and affording flexibility in the pace and direction of further changes. Another advantage of beginning with supplemental reporting is that it gives bankers and regulators a low-cost, low-risk opportunity to identify and correct any unforeseen snags or distortions to incentives related to the new accounting system.

For the part of a bank's loan portfolio that cannot reliably be marked to market, a hybrid valuation reflecting loan loss reserves and nonperforming loans holds promise as a better approximation of ENPV

than HCA. Such a method could be adopted when we progress to the stage of using MVA for more official purposes and could largely solve many problems that arise from marking to market only part of the balance sheet. In the meantime, there is an opportunity to refine this approach and make it as practical and accurate as possible.

A program of this sort could move in the right direction without incurring the costs of a more radical change. It could also improve the information available to regulators, both by supplementing the overall examination ratings and by updating the bank's market-value data more frequently than examinations are conducted. Perhaps more important, it could improve the accuracy of reported capital ratios, which limit many of the legally permissible regulatory actions toward banks. If these benefits lead to a lower cost of deposit insurance, bank owners could eventually participate in such savings, both in terms of reduced deposit insurance premium rates and possibly in terms of a more flexible regulatory environment than we have seen emerge over the past couple of years. Again, these factors would favor the voluntary adoption of some form of MVA by banks.

One caveat should be noted for smaller banks. MVA may be more feasible for large banks than for small banks, both technically and financially. Large banks tend to specialize in making large loans to large borrowers. Such loans tend to be liquid and can often be marked to market (see Nakamura 1993). Large banks also tend to have the in-house expertise needed to carry out the requisite calculations for MVA without incurring substantial additional expenses. However, accurate, detailed MVA across the balance sheet may not be feasible for smaller banks. As discussed above, small loans to small borrowers tend to be illiquid and cannot be marked to market with precision because of information about the borrower that only the bank knows. Small banks, moreover, may be less able to afford the fixed cost of establishing and maintaining the data flows and analysis needed to impute market value.

Further, small banks are often closely held, making the agency problem less severe and thereby lessening their need for accounting reform. The net impact of this factor is ambiguous, though, since the lack of a severe agency problem also suggests that any reform beneficial to owners is more likely to be implemented.

Finally, many small banks are not actively traded, reducing the effectiveness of market discipline even with accurate disclosure, and thereby diminishing the likely benefits of accounting reform. Therefore, the prospect of beneficial accounting reform—especially on a voluntary basis—may be somewhat slimmer for small banks than for large banks; but their need for reform is also less urgent.

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MARKET VALUE ACCOUNTING

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Sherrill Shaffer has written a very interesting and timely paper. I want to place my comments in the context of general-purpose financial reporting. As Shaffer notes, there are many users of financial statements in addition to regulators, in particular, creditors and shareholders, who must make investment decisions and evaluate management. Managers are also users.

Regulators have the power to require additional information over and above what typical third-party users can demand, and have the power to limit, control, or forbid certain activities that other users cannot. Subject to the laws of the land, they can define capital computations and set required amounts as they deem fit. Although bank regulators have some of the same information needs as users in general, they may have a different mission. Further, the issue of market value accounting (MVA) is broader than banks, and I would like to keep my comments general.

Some Background

The MVA issue is not new. Prior to 1938, banks carried their investment portfolios at market value. Further, our current model is not entirely a historical cost model, but rather, a mixed attribute model. For example, trading activities are reported at market value, investments in equity securities are carried at market value or the lower of cost or market value, and assets held for sale are reported at the lower of cost or market value. Some specialized industries use MVA as their basic model, e.g., brokers and dealers in securities, pension plans, and mutual funds.

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The current debate is triggered by a number of interrelated concerns, events, and constituencies:

- The savings and loan crisis and concerns about other segments of the financial services industry;
- Changes in the environment—volatility; deregulation and re-regulation; increase in computing power and speed of communication; explosion of new financial products, services, and activities; and growth in international activities and competition;
- The focus of the government and its agencies—Congress (e.g., the FDIC Improvement Act), the Securities and Exchange Commission (SEC), General Accounting Office (GAO), and bank regulators;
- General concerns about the adequacy, consistency, relevance, and completeness of our current financial reporting model, and the perception of abuses such as gains trading and asset impairment issues.

These developments have led to the involvement of accounting standards setters. In the United States that is, of course, the Financial Accounting Standards Board (FASB), but standards setters all over the world are working on projects on this issue. For example, the International Accounting Standards Committee (IASC) Exposure Draft on financial instruments permits comprehensive MVA for financial instruments as an allowed alternative. My comments here primarily focus on the United States.

FASB Project on Financial Instruments

The FASB is currently addressing financial reporting of financial instruments. The FASB's project is a long-term, multi-part undertaking that could be the most complex project it has ever addressed. It was added to the board's agenda in 1986 for a variety of reasons. One reason it was added is that those involved in the financial markets face a "new reality" characterized by volatility, deregulation, new financial instruments and products, increased competition, securitization, increased buy and sell activity of a variety of instruments, hedging, asset/liability management, global markets, new technology, growth in off-balance-sheet derivative instruments, new regulatory capital rules and other changes in regulation. Further, those involved in the financial markets can no longer be neatly categorized as commercial banks, investment bankers, industrial companies, insurance companies, and so forth. The lines have become blurred and the distinctions less meaningful.

In such an environment, the current accounting model for financial instruments (with its inconsistencies, voids, and patches) is probably not as useful or relevant as in earlier times. The logic behind different accounting by enterprises in different industries is less and less persuasive and there is increasing evidence that some of the existing accounting conventions are difficult to apply in practice.

The FASB is working on its project in segments. While the FASB will address a variety of key issues in its project, the pieces that relate to MVA are as follows:

The FASB Statement 107 on disclosure. Effective in 1992, it requires entities to disclose the market (or fair) value of most of their financial instruments (assets, liabilities, on- or off-balance-sheet).¹ It does not require disclosure of nonfinancial instruments, such as intangible assets, although this can be done voluntarily. Statement 107 represents a watershed point in the evolution of financial reporting but does not change actual measurements on balance sheets.

FASB exposure draft on accounting for debt and equity securities. This part of the project is being dealt with on an accelerated basis to resolve a current problem in practice (the so-called "investment versus trading" controversy). It is limited in scope, focusing on accounting for one asset category—securities. The exposure draft continues our mixed-attribute model, with accounting based on intent, but could lead to more investment securities being carried at market value. This project has generated the most controversy and press coverage.

FASB exposure draft on accounting for impairment of a loan. This part of the project is also being dealt with on an accelerated basis to resolve inconsistencies within the financial services industry. Although sometimes characterized as such, the exposure draft is not really about MVA per se but proposes to require a present value (discounting) approach to measuring impaired loans from a credit risk perspective. It does not address unimpaired (collectible) loans.

In addition, over the longer run, the FASB will examine broader recognition and measurement questions that deal with all financial instruments (assets and liabilities whether on- or off-balance-sheet). Ultimate resolution of the issues and timing are unknown at this point. The FASB's November 1991 Discussion Memorandum covers 10 primary issues, 50 issues, and 30 subissues. The board is currently working on hedge accounting questions that would affect balance sheet and income statement treatment of hedging instruments. It will move on to other issues in the future. MVA is a very contentious

¹"Market value" and "fair value" are used interchangeably.

matter—not only in the United States, but other countries as well. There are strong feelings on all sides of the issue.

A Conceptual Viewpoint

From a conceptual viewpoint, some positive things can be said about MVA, and they are generally consistent with Shaffer's analysis.

General-purpose financial statements are vehicles for communicating financial information concerning a business enterprise and they should provide relevant, reasonably reliable, and cost-effective information that assists users (principally investors and creditors) in making decisions. Users of financial statements are most interested in information that will help them in making informed judgments about future cash flows of an enterprise. These general beliefs lead some to the conclusion that the overall objective of financial statements should be to communicate information concerning the financial position of a business enterprise—the nature and *value* of its economic resources, the claims of creditors against the resources and the residual interest of owners in those resources, all at a specified date—and the changes in the nature and value of those resources, claims and interest for a specified period. Under that view, a value-based accounting system for financial instruments would attain that objective better than a historical-cost-based system.

Financial statements should communicate information concerning the future cash flows of the resources of a business. Some believe that the value of an enterprise's financial resources is more relevant to users of financial statements in meeting that objective than the historical or amortized cost of those resources. The value of financial instruments can be viewed as the most recent measure of the present value of future cash flows—a focus of analysis by users. Shaffer makes a similar point.

The role of financial reporting is not to value the enterprise as a whole (that is, the role of the stock market and the investor). Rather, its role is to recognize and measure individual assets and liabilities owned or owed by the enterprise and to help users with their functions. We should not confuse the role of financial reporting and the role of the user of financial statements. These views are fully consistent with the FASB's conceptual framework.

A Practical Perspective

Let me take a look at the accounting controversies that might be lessened or removed if we were to move to fair value accounting,

from a practical perspective. Many of these controversies go beyond financial instruments and focus on transactions involving all long-term assets and liabilities, and, in part, respond to the impact of inflation, which we ignore today in our accounting model.

Consider the following examples (and there are more):

Accounting for business combinations. Fair value accounting would significantly reduce the differences between purchase and pooling-of-interests accounting for mergers and acquisitions. Accounting for goodwill would still be an issue.

Exchanges of nonmonetary assets. Our difficult-to-apply existing principles in this area would no longer be needed. The arbitrary percentages and definitions would be gone and the pressure to achieve gain recognition in marginal transactions would vanish.

Joint-venture formations. Questions of the necessary conditions to achieve step-up of contributed assets to fair value and gain recognition would not be present.

Hedge accounting. Issues of when to mark-to-market and when to defer gains and losses would be resolved. However, issues related to anticipated transactions would remain.

Debt extinguishment and troubled debt restructurings. Under fair value accounting, there would be no need to enter into in-substance defeasances to trigger a gain or force a conclusion that a restructuring involves troubled debt.

Leveraged buyouts and recapitalizations. Fair value accounting would reduce or eliminate the need for many of these transactions which are designed to achieve recognition of value increases inherent in a company's assets but for which no credit is given under historical cost accounting.

Accounting for investment securities. In some respects, this is part of the reason for discussion of this topic. Does it make sense for a transaction to trigger a gain or loss regardless of when the underlying change in value took place? Should it be possible to avoid a loss simply by not entering into a transaction? A gain or loss is just a phone call away. Further, MVA could eliminate a troublesome aspect of our current model of basing accounting on potentially changing management intent in response to a dynamic environment.

A couple of points should be made about these examples. First, MVA does not solve all of the problems associated with these transactions, but in many cases the transactions would not need to take place in the first place. To the extent transactions are eliminated or can be made less complex, transaction costs, sometimes incurred primarily to achieve either recognition of value enhancement or gains, would be minimized, thus increasing the efficiency of businesses.

Second, while some practical problems would be solved with a MVA model, new ones would arise. Examples include developing methods for determining market value; concerns about reliability, comparability, and volatility, particularly if done piecemeal. If MVA were to be limited to financial instruments, concerns would arise about nonfinancial assets (e.g., core deposit intangibles, mortgage servicing rights, intangibles related to credit card customer relationships); and cost of implementation. Valuing liabilities presents some special challenges, such as whether an entity's own creditworthiness should be a factor in the valuation process.

Need for Input of Users

It is important that we obtain the input of users of financial statements because in a sense, that is what financial reporting is all about. In a study sponsored by the Association of Reserve City Bankers (1992), users indicated that they were very supportive of supplementing existing financial statements with fair value disclosures of financial instruments but were generally negative about adopting MVA as the primary basis for preparing financial statements. There are concerns about reliability and volatility. Apparently past volatility may not be useful to users in predicting the future.

A position paper entitled "Financial Reporting in the 1990s and Beyond" (1992) prepared by the Association for Investment Management and Research, the professional organization for the nation's financial analysts, investor advisors, and portfolio managers, stated the following:

Any imminent change to "mark-to-market" accounting is not welcomed by the majority of financial analysts. They would not be happy to see historic costs removed from the financial statements. They are not convinced that there would be an increase in relevance sufficient to offset the reduction in reliability of the new data. Others disagree and are anxious to see and use market values in their work. In fact, the spectrum of opinion among analysts on the subject is so broad that it cannot be represented succinctly. Furthermore, it varies depending on the extent to which mark-to-market accounting would apply. Some would approve of it for financial instruments or some financial instruments, but not for tangible or other intangible assets. There is agreement, at least within the Financial Accounting Policy Committee, that marketable equity securities should be reported at market and that the disclosures of market values of financial instruments required by *Statement of Financial Accounting Standards 107* will provide potentially useful information without any corresponding loss of other data.

More work needs to be done to further understand external users' needs and views. Although the needs of external users should be the focus, we also need to understand whether fair value information would be useful to managers of companies. Some financial institutions tell us they use the information in managing their business, compensating employees, etc.; others say they do not. Information actually used to manage an enterprise might also be useful to external users.

Some Additional Thoughts

Statement 107 is a good experiment. It could answer such questions as: Is it feasible to develop fair value data? Is the information useful, reliable, relevant, comparable? Disclosure (versus actual accounting) is a good place to start and seems consistent with Shaffer's views.

The FASB needs to complete its projects on investments in securities and loan impairment on a timely basis. Significant uncertainty exists under the existing accounting literature (the Security Exchange Commission is requiring restatements) and we need to reduce the uncertainty for all involved. The FASB's final statements need to be operational (as free as possible from ambiguity and second guessing) and should be consistent with the "new reality" of financial markets. We need a private-sector solution to these controversial issues.

It is probably unlikely that U.S. standards setters will go much further on MVA in the near term (i.e., beyond disclosures). We are likely to continue our mixed attribute model for a while, with some additional items being carried at fair value. Neither the SEC nor the FASB has been pushing on areas beyond investments in securities and measuring asset impairments, but we must continue to monitor domestic and international developments.

We need to be careful about the arguments concerning economic consequences of changes in accounting standards. Standards setting is supposed to be neutral—not trying to influence and discourage a particular activity or favor or discriminate against a particular industry or group. Ideally, financial reporting should fairly report the impact of decisions made and not cause a particular transaction to be done or not be done. Shaffer makes a similar point about investment portfolio accounting.

Really a Broader Question

The broad issue of fair value accounting generally arises in a discussion with respect to whether today's financial statements are sufficiently relevant. That is, are today's so-called historical cost-based financial statements useful to users—usually defined as investors and

creditors—for making investment and credit decisions? To be sure, the criticisms of today's financial reporting do not rest solely—or in some cases even primarily—on concerns about the need to move toward MVA. Issues such as disclosures about risks and uncertainties, more prospective information and even information with respect to performance measures and benchmarking are among a whole series of questions that have been raised with respect to the adequacy of financial reporting today. The entire area is currently under study by the American Institute of Certified Public Accountants' (AICPA) Special Committee on Financial Reporting.

Others also have raised increasing concern about the relevancy of financial statements more generally and the concern focuses, at least in part, on the need to move toward market value in accounting. For example, organizations in the United Kingdom have issued five reports since 1975 addressing concerns about financial reporting.² While each study reached somewhat different conclusions, there was a consensus that annual reports are no longer useful to most users and a fundamental need exists for information about an entity's total wealth, the change in wealth for the period being reported and the reasons for that change.

The American Accounting Association (1990) has issued a report of the Committee on Accounting and Auditing Measurement. In that report the committee states:

The defects of the present historical cost accounting systems are examined and are found to be formidable. In particular, it results in an income figure that cannot be relied on to maintain capital, however capital is defined, nor to distinguish good business decisions from bad ones. We are therefore led to the need for an income number that reflects changes in value more readily than earnings now does; and this in turn points to the wider use of current values in financial statements.

In a number of documents leading up to the formation of the Special Committee on Financial Reporting, the AICPA also focused on the perceived lack of relevance of historical cost financial statements. For example, in a "Report of the Future Issues Committee" the AICPA (1988) stated, "Financial reports are losing their significance because they are not future-oriented and do not provide value-based information."

In a similar fashion the AICPA (1990) concluded in its "Symposium on Financial Reporting and Standard Setting" that

²"The Corporate Report" (1975); "Making Corporate Reports Valuable" (1988); "Melody P.I.C Annual Report" (1990); "The Way Forward" (1990); "The Future Shape of Financial Reports" (1991).

financial reporting must change. In order to remain relevant, its value-based and forward-looking information content must be enhanced. This may require a gradual reengineering of the model.

Clearly, one of the AICPA's strategic thrusts for the future is to redesign financial reporting to make it more relevant, understandable, and beneficial to users. As Phillip Chenok (1992) stated:

Alternatives to current financial reporting design should be considered and value-based, future-oriented information introduced into the process. Should appropriate and worthwhile alternatives not be considered, financial reporting could lose its significance and accountants their relevance.

Conclusion

In conclusion, the goal of financial reporting is to help users perform their role of valuing companies and assessing their prospects. Based on what we know, it would seem that information about the market value of individual assets and liabilities should be useful, particularly for financial instruments. But the issue may be more complicated. Perhaps the real questions are: When is market value information helpful in meeting the goal and when is it not? When is MVA (versus disclosure) useful? And when is disclosure alone sufficient?

We need to learn more about the answers to these questions. If fair value information is useful, it probably is a good strategy to adopt an evolutionary approach to changes in accounting standards, starting with disclosure, like Statement 107. Any changes in balance sheet measurements should (1) be as equitable as possible (assets and liabilities) so that reporting of an enterprise's overall position is most meaningful; (2) be useful to users of financial statements; and (3) give consideration to the need for a level playing field across industries and international concerns (e.g., harmonization of accounting standards). We also need to be sensitive to cost-benefit considerations—i.e., the cost to develop the data versus the benefit to users. We need to be flexible with regard to methods for determining value information. And for some assets, liabilities, and off-balance-sheet items, amortized cost-traditional accrual accounting may be a practical surrogate for market value and still provide relevant information.

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