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The *Other Side* of FAS 159: Valuing Non-Demand Core Deposits

The Fair Value Option for Financial Assets and Financial Liabilities (FAS 159) permits financial institutions to apply fair value measurements to a wide range of financial assets and liabilities. Recent discussions in banking literature, however, are overwhelmingly asset-centric, an unusual outcome in light of the neutrality of FAS 159 with respect to the valuation of financial assets and liabilities. This article demonstrates that there is substantial value in focusing on the liability side of the balance sheet when considering FAS 159 election, especially regarding a certain class of indeterminate maturity deposits.

Fair value measurements of typical contractual maturity liabilities, such as certificates of deposit and FHLB wholesale funding, are largely straightforward. For indeterminate maturity deposits, the situation is more complex. FASB specifically excludes from the allowable set of financial liabilities demand deposits held in banks, thrifts, and credit unions. A standard contractual clause in NOW, savings, and MMDA accounts, however, defines balances in these categories as not *on demand*. Hence, these deposits, with appropriate quantification of their underlying term-related behaviors, qualify for fair value treatment under FAS 159 as financial liabilities.

Valuing non-demand core deposits in FAS 159 applications has significant advantages. The initial valuation typically defines a positive one-time increment to earnings. Ongoing changes in values contribute to earnings stability as changes in core deposit values offset contemporaneous changes in asset side values. Contrary to general consensus (based on an asset side only focus), FAS 159 can be a stabilizing factor with respect to financial institution earnings performance.

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Conceptual Background. The balance sheet is composed of assets and liabilities with contractual or indeterminate maturities. Valuations of contractual maturity instruments, in most cases, hold few controversial elements, although in cases other than actively traded investments, Level 2 or Level 3 valuations apply. (Three levels of valuations are recognized in FAS 157/159. Level 1 values are from prices obtained directly from active markets. Level 2 values are based on current valuations of similar financial instruments. Level 3 values are dependent on financial modeling that employs unobservable inputs and institution specific assumptions.) The specialized assumptions used for some contractual maturity balance sheet categories (e.g., prepayments on loans) need to be quantified at high levels of institution specific precision.

Indeterminate maturity instruments on both sides of the balance sheet require special consideration. For loans, expected term-related behaviors need to be established to provide a basis for fair value calculations. This can be accomplished in the same manner as for non-demand core deposits.

For indeterminate maturity deposits, the non-demand nature of the categories under review must first be established because demand deposits are specifically excluded from FAS 159 valuations. This is readily done by examining the contract language governing account withdrawals. NOW, savings, and MMDA contracts normally include a *reservation requirement* embedded in the fine print. This specifies that the financial institution reserves the right to require a seven-day notice of withdrawal on interest-bearing accounts. It is this contract clause that explicitly defines these balances as non-demand.

With that enabling definition in hand, the term-related dimensions of the non-demand core deposits must next be determined. As the contract provides no guidance as to effective term, this requires analyzing historic depositor behaviors and forecasting future runoff as the basis for calculating average life. This process sets statistically determinate maturities for non-demand core deposits, overcoming their contractual indeterminacy.

Non-demand core deposits (excluding high-rate premium categories) are normally low-cost and long-term sources of funding in banks, thrifts, and credit unions. For their given term, they are much less expensive funding than wholesale funds with comparable terms. Because of this, initial FAS 159 fair value measurements normally produce fair values less than book values. The difference can be taken as an adjustment to earnings at the point of election. Subsequent revaluations (e.g., quarterly) produce changes in non-demand core deposit fair values as discount rate and rate paid changes interact over time. The changes in fair values create adjustments to earnings in each period.

The initial earnings' impact of valuing non-demand core deposits recognizes their embedded economic advantage compared to wholesale funds. This is not a form of *own credit worthiness* as practiced by some FAS 159 adopters in regards to their own debt instruments. The advantage rather reflects the value that depositors place on the non-rate value proposition represented by the deposits in question (i.e., the service, convenience, and product dimensions of the deposit relationship). A portion of the advantage may also reflect the time involved with closing the account. There is no sleight of hand involved; the economic advantage implied by fair value lower than book value for non-demand core deposits is based on sound fundamentals.

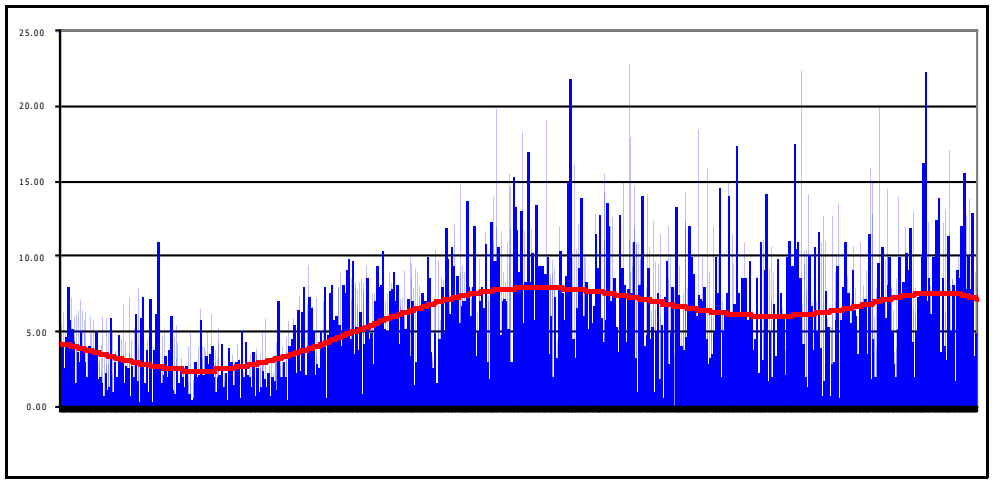
Changes in non-demand core deposit fair values affect earnings each time they are recalculated. These changes, however, are normally expected to be in a direction that offsets concurrent changes in asset-side fair values. (Changes in non-demand core deposit fair values will be an offset to asset-side fair value changes as long as discount rates vary by a greater degree than rates paid. This is essentially a sure bet.) Net FAS 159 adjustments to earnings are thus muted if non-demand core deposit valuations are included in the election. This crucial financial management positive needs to be recognized in the debate over FAS 159 and fair value accounting in general.

That core deposit fair values are normally less than book values (i.e., there is an embedded premium in these balances) and that fair values (and premiums) are sensitive to changes in interest rate environments are not just theoretic concepts. Rather, there is clear evidence of these behaviors in the historic record of their closest analog, premiums paid on branch transactions. Exhibit 1 presents branch premium data for the period. Premiums are positive in all but one case (not charted for display clarity) and premiums are higher in periods of higher interest rates and vice versa. The conclusion: Valuations of non-demand core deposits as financial liabilities *as per* FAS 159 have a solid basis in broad market-based outcomes.

Current Field Experience: Non-Demand Core Deposit FAS 159 Valuations. There is a limited amount of current field experience with FAS 159 valuations of non-demand core deposits. Evidence, to date, supports

Exhibit 1

SNL Branch Premiums: All Regions



Note: Red bars indicate periods of higher interest rates. Data include DDA and CD balances less that $100 k

the value claims above (i.e., fair values are less than book values and fair values vary across time as interest rates change). It also provides important insights into the earnings implications of FAS 159 fair value measurements of non-demand core deposits.

Exhibit 2 presents outcomes for non-demand core deposit FAS 159 valuations for reference. Data are for personal categories only to simplify the display. Premiums are rounded, not actual, values to respect confidentiality. The premiums presented are fully representative, however, of the favorable difference between fair value and book value by category in each period.

Exhibit 2

Indicative FAS 159 Non-Demand Core Deposit Premium Valuations

	12/31/06	03/31/07	06/30/07	09/30/07	12/31/07	03/31/08
NOW	6.50%	6.65%	6.70%	6.15%	5.50%	4.05%
Savings	7.00%	6.85%	6.90%	6.35%	5.65%	3.25%
MMDA Low	3.75%	3.85%	3.95%	3.25%	2.25%	1.95%
MMDA High	1.25%	1.35%	1.30%	1.15%	0.45%	0.75%
W Avg Premium	3.93%	4.00%	4.02%	3.60%	2.85%	2.19%

Note: Values are approximate mid-range outcomes of limited observed experience
Rates paid, interest rates, and yield curve shape changed over the period
Constant mix of 25% NOW, 15% savings, 20% MMDA Low, and 40% MMDA high is assumed

The benign interest rate environment from year-end 2006 to mid-2007 is reflected in the minimal premium variations. The steep reductions in short-term interest rates first seen in the 09/30/07 valuations push down premiums in that period. This effect accelerates at year-end and 03/31/08, owing to additional short-term interest rate cuts but only limited repricing. That repricing anomaly was owed to the unusual demands made on deposit markets in those periods by the *mortgage zombie* institutions, large mortgage banking-oriented institutions whose access to wholesale funds was shut off due to credit concerns. Relief is expected in mid-2008, as deposit pricing has recently moved closer to equilibrium and interest rate reductions have moderated.

Exhibit 3 presents hypothetical earnings adjustments associated with the premiums reviewed above. The initial valuation creates a one-time significant adjustment to earnings. This recognizes the economic advantage embedded in the institution's non-demand core deposits, which reflects the favorable depositor valuations of the non-rate value proposition attached to these funds.

Adjustments to earnings at subsequent valuation

Exhibit 3

Indicative FAS 159 Non-Demand Core Deposit Earnings Adjustments

	12/31/06	03/31/07	06/30/07	09/30/07	12/31/07	03/31/08
NOW	1,625,000	1,662,500	1,675,000	1,537,500	1,375,000	1,012,500
Savings	1,050,000	1,027,500	1,035,000	952,500	847,500	487,500
MMDA Low	750,000	770,000	790,000	650,000	450,000	390,000
MMDA High	500,000	540,000	520,000	460,000	180,000	300,000
Total Adjustment	3,925,000	75,000	20,000	-420,000	-747,500	-662,500

Note: Values are based on mid-range premium outcomes, assuming no growth in a $100 million portfolio
Constant mix of 25% NOW, 15% savings, 20% MMDA Low, and 40% MMDA high is assumed
Adjustment at 12/31/06 is hypothetical election date. Adjustments after that are changes in value.

points (here quarterly) reflect changes in premium values over time that derive from the interactions of varying rates paid and discount rates (all other value inputs, total portfolio balances, and category mix are held constant for simplicity). The almost constant interest rate environment from year-end 2006 to mid-2007 drives the limited earnings adjustments in those periods. The steep reductions in short-term interest rates beginning in 09/30/07 and continuing through 03/31/08 result in adverse earnings adjustments, with the highest adjustment levels seen at year-end and 03/31/08. As noted above, this is expected to change. Recent deposit-market data suggest pricing is moving towards equilibrium in relation to more stable interest rates and, as a result, smaller earnings adjustments are expected by mid-2008.

There are several important points to make about the data presented in Exhibits 2 and 3. First, the initial FAS 159 valuation provides a significant positive earnings adjustment. This is fully justified; it appropriately quantifies embedded value in the balance sheet that, heretofore, was unrecognized. Second, even across one of the most unusual periods in interest-rate and deposit-pricing history, the periodic adjustments to earnings arising from varying FAS 159 valuations of non-demand deposits are not unduly large. Finally, those variations are simultaneously being offset (all or in part) by earnings adjustments from changing valuations in assets. The net is potentially positive to earnings stability, although the specifics of the balance sheet will decide that.

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The Necessity of Contingency Funding Plans

The formulation of plausible liquidity stress scenarios dictates that action plans need to be formulated in order to mitigate the potential downside risk resulting from the manifestation of the stress scenario. This article investigates how a contingency funding plan (CFP) can be formulated and applied in managing liquidity risk for a bank under conditions of stress.

Contingency Funding Plans. A contingency funding plan is required as part of a comprehensive liquidity risk management program. All banks should develop and maintain contingency funding plans. A CFP is a comprehensive cash flow projection and funding plan that forecasts funding needs and funding sources under various market scenarios. It should represent the bank's best estimate of potential balance sheet changes that may result from a liquidity or credit event.

A contingency funding plan is required as part of a comprehensive liquidity risk management program.

Banks should have contingency plans in place that address early warning signals of a potential liquidity crisis. The CFP should contain the strategy and tactics used in normal business scenarios to prevent the escalation of any liquidity concerns. Furthermore, it should highlight possible strategies for dealing with different levels of severity and types of liquidity stress events that may cause liquidity shortfalls. CFPs are linked to specific stress-testing scenarios. It is not uncommon to establish a CFP for each stress-specific scenario that highlights the proposed actions for accessing liquidity under a specific scenario. Banks should have a contingency plan in place that clearly directs the strategy of how to handle liquidity crises, which should include the procedures to follow to attempt closing liquidity shortfalls in emergency situations. The CFP should, therefore, address two major questions:

- Does management have a strategy for handling a crisis?
- Does management have procedures in place for accessing funds in an emergency?

Management Strategy. The most critical component of the CFP is the one dealing with managerial coordination. The CFP needs to spell out the procedures to ensure that the information flows of precise and accurate decision-quality information to senior management remain timely and uninterrupted. A clear division of responsibility must be set out to ensure that all personnel understand exactly what is required of them during a period of liquidity strain or a stress event. Policies and procedures and clear divisions of roles and responsibilities must be established for liquidity events to avoid any confusion or a lack of coordination and clarity during times of stress.