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I. Introduction

The accounting for debt securities under U.S. Generally Accepted Accounting Principles (GAAP) is a "mixed measurement" approach. Under this approach, the applicable measurement basis is largely determined by management's intent to hold or sell an investment, rather than on the characteristics of the instrument itself.[2] Held-to-maturity (HTM) debt securities are those that management has the positive intent and ability to hold to maturity; such securities are reported on the balance sheet at *amortized cost.*[3] In contrast, debt securities that will be sold in the near future ("trading" securities) and those that are available-for-sale (AFS) are reported at *fair value*.[4]

This accounting approach has been widely debated since its adoption in 1993, following the savings-and-loan (S&L) crisis in the 1980's. According to the Financial Accounting Standards Board (FASB), at the time of adoption, many banks argued that amortized cost is more relevant for debt securities. Their reason was that it focuses on the decision to acquire the asset, the long-term earning effects of that acquisition, and the ultimate recoverable value of the asset. In contrast, proponents of fair value argued that it provides more relevant information to assist investors, creditors, and other users of financial statements in evaluating the performance of a firm's investment strategies.[5]

The March 2023 collapse of Silicon Valley Bank (SVB) and related events have renewed the amortized cost vs. fair value debate. For example, the Chartered Financial Analyst (CFA) Institute and others recently questioned whether HTM accounting allowed SVB to paint an unclear picture of its financial condition, and, therefore, should be eliminated or modified (see Peters [2023], Mauer [2023], and Steinhardt [2023]).

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[2] The GAAP for debt securities is presented in FASB Accounting Standards Codification (ASC) Topic 320, *Investments — Debt Securities* ("ASC 320").
[3] The *amortized cost* basis is the amount at which a financing receivable or investment is originated or acquired, adjusted for applicable accrued interest, accretion, or amortization of premium, discount, and net deferred fees or costs, collection of cash, writeoffs, foreign exchange, and fair value hedge accounting adjustments. (FASB ASC *Master Glossary*)
[4] *Fair value* is defined as the price that would be received to sell an asset in an orderly market transaction (FASB ASC 820, *Fair Value Measurements*). It is also referred to as "market value."
[5] FASB ASC 320, Appendix A paragraphs 39-43.

Separately, a study by Kim et al. (2019) suggests that banks may begin classifying *more* securities as HTM as they become subject to the "advanced approach" for calculating regulatory capital.[6]

In this note, I examine three potential options for addressing the concerns related to HTM accounting. First, I consider the elimination of the HTM classification. Second, I consider keeping the HTM classification but further restricting its use. Finally, I consider an option that would require banks to include unrealized gains and losses on HTM debt securities when calculating certain regulatory capital.

The rest of this note proceeds as follows: Section II provides some historical context on the mixed measurement accounting approach for debt securities. Section III discusses some potential options for HTM accounting, and the potential benefits and challenges associated with those options. I conclude in Section IV.

II. History of the Mixed Measurement Accounting Approach

The mixed measurement accounting approach has been debated for decades. Regarding this debate, Shaffer (2011) notes the following:

- Proponents of the approach argue that it provides the flexibility required to reflect the business purpose for holding an asset or liability. For example, it is argued that assets held for collection of cash flows should be measured at amortized cost (since it is the method that most closely reflects the underlying economics of the strategy), while assets that are held for the purpose of realizing market gains should be measured at fair value.
- Critics of the approach argue that multiple measurement bases often lead to more complex and detailed rules. Additionally, the ability to choose a measurement basis or trigger the recognition of a gain or loss through the decision to sell an asset provides opportunities for financial engineering and earnings manipulation. Another key criticism is that the option to measure the same or similar instruments under different measurement bases creates a lack of consistency and transparency.

The measurement basis for an asset or liability will often impact a bank's GAAP equity.[7] Morris et al. (1991) observe that a strength of amortized cost (a.k.a. *historical cost*) accounting is that it results in equity balances being appropriately adjusted to reflect changes in credit quality.[8] As credit conditions deteriorate,

[6] Under the Basel III capital standards, "advanced approach" banks must include most elements of accumulated other comprehensive income (AOCI) when calculating regulatory capital. AOCI is a component of a firm's GAAP equity that includes gains and losses on AFS debt securities, pension plans, and hedging transactions.
[7] The term "GAAP equity" is used in this paper to describe total stockholder's equity, as measured under U.S. GAAP. It includes various components, including retained earnings, common stock, preferred stock, etc.
[8] Debt instruments measured at amortized cost are subject to some form of impairment review that can result in the recognition of an allowance for credit losses (ACL).

a bank will typically increase its allowance for credit losses, which reduces retained earnings. However, Morris et al. (1991) also noted that a weakness of amortized cost accounting is that it does not result in equity balances being adjusted for changes in interest rates (since the bank's assets and liabilities are not measured at fair value). Therefore, they conclude that fair value accounting generally results in a more accurate measure of equity, as investments in debt securities include exposure to both credit and interest rate risk.

The banking industry's accounting for investments in debt securities was heavily scrutinized following the S&L crisis of the late 1980's, and then again after the SVB failure in 2023. I discuss both episodes next.

The S&L Crisis

Prior to the S&L crisis, many institutions measured their investment securities at amortized cost. Epstein (1993) argued that this accounting practice resulted in financial statements that often did not reflect economic reality, thus making it difficult to evaluate the economic condition of the S&L institutions.

In 1991, the Chairman of the U.S. Securities and Exchange Commission (SEC) Richard C. Breeden expressed some concerns with the S&L industry's accounting practices for debt securities. Breeden (1991) found that during the crisis, many S&L institutions were able to leverage historical cost (i.e., amortized cost) accounting to conceal material fluctuations in security valuations. He also noted that many firms managed periodic earnings by engaging in "gains trading," which involved selling securities that had risen in value and realizing those gains immediately in income, while continuing to hold and carry at amortized cost those securities that have fallen in value.[9]

Furthermore, Breeden (1991) also questioned the appropriateness of relying on management's current intent as an indicator of future business decisions, as management has a continuing obligation to reassess the most productive use of its assets. This point remains particularly relevant given the long economic lives of mortgage-backed securities and other common bank investments. He noted that the business and economic environments in which financial institutions operate can change significantly during those periods, which may last up to thirty years. The resulting uncertainty of a bank's future needs gives rise to the risk of a HTM securities portfolio becoming "tainted," which occurs when an institution's subsequent investment strategies are inconsistent with their original intent (e.g., when a security classified as HTM is

[9] On this point, he concluded that firms were able to manipulate their financial results via the accounting rules to obscure the extent of troubled institutions and the magnitude of their industry's problems. Also, he suggested that reporting securities at market value (i.e., fair value) would address these issues by providing a clearer picture of a firm's financial position and mitigating the incentive for a firm's management to sell or retain investments for reasons of accounting treatment rather than business utility.

subsequently sold).[10] Such an occurrence can trigger adjustments that can significantly impact a bank's GAAP equity and regulatory capital measures.

Rather than take a side in this debate, the FASB included a mixed measurement approach for securities in ASC 320, which was issued in 1993.[11] When developing this approach, the FASB attempted to address concerns received from many banks that requiring fair value accounting for all securities would (1) ignore a firm's buy-and-hold strategy while instead focusing on the effects of irrelevant market transactions and events, and (2) create an accounting mismatch between financial assets reported at fair value and financial liabilities reported at amortized cost.[12] As a result, ASC 320 provides bank management with considerable latitude in choosing the measurement basis for an investment, as it is primarily based on their intent to hold or sell the security. This choice can materially impact several important measures of bank capital, including accumulated other comprehensive income (AOCI), tangible common equity (TCE) and the Common Equity Tier 1 (CET1) capital ratio.[13]

The SVB Failure

The SVB failure in March 2023 has renewed the amortized cost vs. fair value debate, as 43 percent of SVB's total assets was comprised of HTM debt securities at the end of 2022.[14] In accordance with GAAP, SVB included the fair value of its HTM portfolio on the balance sheet as a parenthetical disclosure. The firm was not required to adjust its asset balances or regulatory capital measures to account for the portfolio's \$15 billion of unrealized losses.[15] The firm would not have been required to recognize these losses unless the assets had been sold.

As the firm's liquidity position worsened, on March 8th, SVB announced that it had sold substantially all its AFS securities portfolio for a \$1.8 billion loss. As reported by Vivian et al. (2023), this abrupt sale drew concern from investors regarding the firm's ability to hold its HTM securities, which had declined significantly in value in 2022. Following the sale announcement, Moody's downgraded SVB's outlook to

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[10] Under GAAP, sales of HTM securities may call into question (or "taint") the institution's assertion that it has the intent and ability to hold the remaining portfolio to maturity. Once a HTM portfolio is considered tainted, the remaining securities must be transferred to the AFS category. Since AFS securities are carried at fair value, the transfer of tainted HTM securities results in an immediate unrealized holding gain or loss being recorded in equity (AOCI) on the date of transfer. (FASB ASC 320-10-35-10).

[11] Upon issuance, the accounting standard was known as Statement of Financial Accounting Standards (SFAS) 115. It was later codified as ASC 320.

[12] ASC 320, Appendix A paragraphs 29-43.

[13] TCE, also known as "tangible capital" is defined as total GAAP equity (including AOCI) minus intangible assets. CET1 is an international measure of regulatory capital that was published by The Basel Committee following the 2007-2009 global financial crisis. CET1 capital includes a firm's common equity, retained earnings, and (in certain cases) AOCI. A firm's CET1 capital ratio equals CET1 divided by its risk-weighted assets (RWA).

[14] Based on information presented in SVB's consolidated balance sheet as of December 31, 2022.

[15] Per the Call Report Instructions for Schedule RC (item 26.b), the unrealized gain or loss on a debt security equals the difference between the security's amortized cost and fair value.

negative, which stirred widespread investor and depositor panic, fueled by social media. SVB ultimately failed and was taken over by the FDIC on March 10th.

In the wake of SVB's failure, some have questioned whether GAAP enables financial institutions to "hide" the market losses on debt securities. For example, a hypothetical sale of SVB's HTM portfolio to meet rising liquidity demands would have wiped out up to 95% of the firm's TCE.[16] While SVB's accounting and disclosure practices met the minimum GAAP requirements, Peters (2023) argues that the extent of the HTM market losses was not clearly presented in their financial statements.

III. Some Potential Options for HTM Securities Accounting

SVB's collapse illustrates the potential risk that a disproportionate HTM portfolio (relative to a bank's total assets) can pose to a firm's safety and soundness.[17] The HTM classification is generally not permitted if an institution believes it may be required to sell a security for liquidity or other reasons.[18] Therefore, in times of rising interest rates, a firm facing liquidity stress may be forced to choose between (1) borrowing funds at high interest rates, if possible, or (2) reducing their TCE and/or CET1 capital potentially below acceptable levels by tainting the HTM portfolio.

It is important to consider whether changes are needed to GAAP and/or regulatory capital requirements to address these risks, especially considering that banks are actively increasing their HTM portfolios. Indeed, Granja (2023) notes the HTM portfolios of U.S. banks grew from $2 trillion to $2.75 trillion in 2022, while their overall holdings of securities remained constant at $6 trillion.[19] Importantly, Granja (2023) observes that banks that made these transfers during 2021 and 2022 were more likely to have lower regulatory capital ratios, higher uninsured deposits, and higher exposure to interest rate risk. This trend could accelerate if more banks become subject to the requirement to include AOCI in their CET1 capital calculations, as the U.S. banking regulatory agencies recently proposed.[20]

Considering these trends, and SVB's failure, we next discuss three options for potentially addressing the noted concerns with HTM accounting.

[16] Based on information presented in SVB's consolidated balance sheet as of December 31, 2022.
[17] The magnitude of this risk may vary depending on the duration of the assets in the portfolio and other factors.
[18] Ernst & Young (2022). *Financial Reporting Developments – Certain Investments in Debt & Equity Securities*, page 18.
[19] This increase included $0.9 trillion of AFS securities that were transferred to the HTM category.
[20] See, Office of the Comptroller of the Currency, Federal Reserve System, and the Federal Deposit Insurance Corporation (2023).

Option 1 – Eliminate the HTM classification.

Peters (2023) argues that the existing mixed measurement approach should be eliminated, and fair value accounting should be required for all investments in debt securities. The FASB has previously expressed its view that such an approach would provide financial statement users with a more timely, transparent, and representative depiction of a firm's exposure to risk from securities and other financial instruments based on how they are utilized in a firm's business model.[21] From a safety and soundness perspective, fair value accounting generally results in a preferable measurement of a bank's regulatory capital, as it is not impacted by management's current intent to hold or sell debt securities.

However, eliminating the HTM classification may present several challenges for financial institutions. Morris et al. (1991) note that many banks have historically opposed the increased usage of fair value accounting because it results in higher capital volatility. This increased volatility is viewed as harmful because it contributes to a higher cost of capital and increases the likelihood of bank failure.[22]

Additionally, Bank Policy Institute Staff (BPI [2023]) note that eliminating the HTM classification would further skew a bank's balance sheet, as securities would be measured at fair value while most liabilities (including deposits and most long-term debt) would continue to be measured at amortized cost. Measuring liabilities at fair value on the balance sheet to align with the securities may present many substantial challenges for banks. For example, BPI (2023) noted that deposits can be difficult to evaluate because of the deposit franchise intangible asset.

Finally, many smaller community banks would be particularly challenged by the elimination of the HTM classification, as it may result in:

- Potential inconsistencies between a bank's investment strategies and the accounting treatment. Community banks with predominantly longer-term, buy-and-hold investment strategies may be required to reflect the impacts of market gains and losses that would not likely be realized in their financial statements if fair value accounting is required.[23]
- Increased liquidity risk during periods of market stress. For example, smaller regional and community banks may seek funding provided by the FHLBs during periods of stress, as observed by Berry (2023) during the recent bank liquidity crisis.[24] Eliminating the HTM classification may

[21] FASB (2010).
[22] Morris et al. (1991) and Pozen (2009).
[23] American Banker (2009).
[24] Federal Reserve Bank of Kansas City (2023) observes that financial institutions that utilize Federal Home Loan Bank (FHLB) advances as a funding source are increasingly classifying securities as HTM to minimize the risk that market losses recorded in AOCI will restrict their borrowing capabilities. FHLB regulations restrict new advances to banks with negative TCE balances.

increase the likelihood of these firms losing access to this funding should fair value losses result in their TCE becoming negative.[25]

Option 2 – Further restrict use of the HTM classification.

U.S. GAAP currently restricts the HTM classification to securities that management has <u>both</u> the positive intent and ability to hold until maturity. The classification may not be used for securities that a firm (1) intends to hold for only an indefinite period, or (2) believes it may be required to sell for liquidity or other reasons.[26] A firm's *intent* to hold a security may be substantiated by considering its historical experience, such as past sales and transfers of HTM securities.[27] However, it is unclear what metrics or qualitative criteria (if any) are considered to substantiate a firm's *ability* to hold securities to maturity.

Additional authoritative guidance may ensure that banks do not increase their liquidity risk by classifying a disproportionate amount of assets as HTM. This could include regulatory guidance that potentially restricts a HTM portfolio to a certain percentage of total securities or total assets. Ideally, this guidance would improve the safety and soundness of banks by providing them with the means to substantiate their assertion that they are able to hold their investments to maturity.

However, as with eliminating the HTM classification, further restrictions may increase the likelihood that a bank with unrealized portfolio losses is unable to access funding provided by the FHLBs during periods of stress. Such restrictions may also increase capital volatility and heighten the accounting mismatch between securities and financial liabilities.

Option 3 – Require banks to include unrealized gains and losses on HTM debt securities in CET1 capital.

This option would not eliminate or restrict a bank's ability to classify debt securities as HTM. Rather, it would require firms to include the unrealized gains and losses on their HTM investments when calculating CET1 capital. This would effectively eliminate the linkage between a security's accounting classification and its regulatory capital treatment. As a result, a firm's CET1 ratios would not be impacted by management's intent to hold or sell individual positions. This change may improve safety and soundness by reducing the incentives for certain firms to classify disproportionate amounts of securities as HTM. It would also nullify any negative impacts on CET1 capital that the tainting of a HTM portfolio may cause.

However, this option would not eliminate the incentive to classify securities as HTM to reduce volatility in TCE. In addition, the inclusion of market gains and losses on HTM securities in CET1 capital may

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[25] This increased risk may be mitigated if firms effectively manage the effects that changing fair values have on TCE, perhaps through hedging practices. For example, firms that actively hedge the interest rate risk associated with their fixed-rate AFS investment securities may reduce the negative impact that rising interest rates have on TCE.
[26] FASB, generally
[27] ASC 320-10-25-3

penalize banks with predominantly buy-and-hold portfolio strategies. These firms may have to hold additional capital to cushion against losses due to short-term market movements that may never be realized. The effects of this additional capital could be especially punitive during periods of rising interest rates. Unlike with AFS securities, banks would not be able to hedge their HTM portfolio's exposure to rising interest rates without being subject to potentially significant earnings volatility (due to the unfavorable accounting treatment of such hedges).[28]

IV. Conclusion

Financial institutions are actively increasing their HTM portfolios in the current rising rate environment, and the SVB episode illustrates how a bank's safety and soundness can be impacted by this practice. SVB applied HTM accounting to a disproportionate amount of its investments, which impaired its ability to meet unexpectedly large liquidity demands.

Further increases to HTM portfolios are likely if more banks are required to include AOCI in their CET1 capital calculations. Therefore, guidance from the banking regulatory agencies may be necessary to reduce liquidity risk and mitigate the impact that portfolio "tainting" may have on a firm's TCE and regulatory capital. While requiring fair value accounting for all debt securities may accomplish these goals, it may also present substantial challenges and generate unintended consequences, particularly for community banks. Therefore, it may be preferable for the regulatory agencies to instead issue guidance that allows firms to better substantiate their ability to hold investment securities to maturity, particularly during periods of liquidity stress.

[28] Under GAAP, institutions may elect to apply "hedge accounting" to mitigate the earnings impact of derivative instruments used for hedging purposes. However, this favorable accounting treatment is not permitted when/if derivatives are used to hedge against market losses on HTM securities. (Since the securities is to be held-to-maturity, GAAP argues that there should be no exposure to market losses) Therefore, any fair value changes associated with derivatives used to hedge HTM securities are recorded entirely in earnings.

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