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BUSINESS VALUATION & FINANCIAL ADVISORY SERVICES

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NOVEMBER 2022

Bank Watch

ARTICLES

Community Bank Loan Portfolios Have Unrealized Losses Too

AND

Bond Portfolio Update

In This Issue

Community Bank Loan Portfolios Have Unrealized Losses Too

Fixed income is undergoing one of the deepest bear markets in decades this year. There has been a lot of discussion surrounding the impact of rising rates on bank bond portfolios and bank stocks as rising rates have resulted in large unrealized losses in bank bond portfolios. My colleague, **Jeff Davis**, provides an update to his **previous commentary** on the topic based on third quarter Call Report data on page 4 of this newsletter.

If subjected to mark-to-market accounting like the AFS securities portfolio, most bank loan portfolios would have sizable losses too given higher interest rates and wider credit spreads; however, unrealized "losses" in loan portfolios do not receive much attention because there is not an active market for most loans unlike most bonds that populate bank portfolios. Further, accounting standards do not mandate mark-to-market for loans other than those held-for-sale.

While the trend in loan portfolio fair values is harder to examine given the lack of data, the following charts provide some perspective based on a survey of periodic loan portfolio valuations by Mercer Capital. To properly evaluate a subject loan portfolio, the portfolio should be evaluated on its own merits, but markets do provide perspective on where the cycle is and how this compares to historical levels.

Fair value is guided by ASC 820 and defines value as the price received/paid by market participants in orderly transactions. It is a process that involves a number of assumptions about market conditions, loan portfolio segment cash flows inclusive of assumptions related to expected prepayments and expected credit losses, appropriate discount rates, and the like.

The fair value mark on a subject loan portfolio includes two components – an interest rate mark and a credit mark. The interest rate mark is driven by the difference in the weighted average discount rate and weighted average interest rate of the subject portfolio. The discount rate that is applied to a subject loan should reflect a rate consistent with the expectations of market participants for cash flows with similar risk characteristics. The credit mark captures the risk that the borrower will default on payments and not all contractual cash flows will be collected.

Since the end of 2021, rising market interest rates have been the predominant factor driving the change (i.e., reduction) in loan portfolio fair values. As shown in Figure 1, the median interest rate mark for our data sample has fallen from a modest 0.55% premium at December 31, 2021 to a 5.65% discount as of September 30, 2022. While bank earnings benefit from a higher rate environment and net interest margin expansion, it takes time for the increase in market rates to be passed on to customers via higher loan rates and for lower, fixed-rate loans to roll out of the portfolio. In talking with Mercer Capital clients and in our loan portfolio valuation practice, so far it seems that banks have been unable to fully pass on the increase in rates to loan customers.

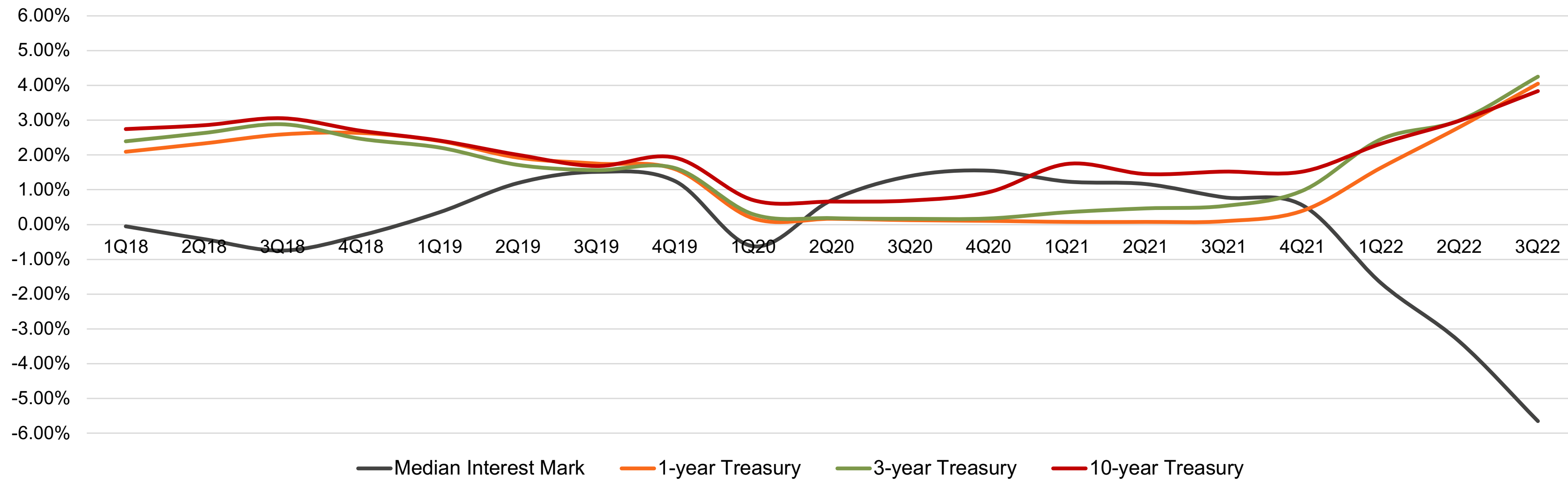
WHAT WE'RE READING

Minutes from the FOMC's meeting earlier this month indicate the pace of **rate increases** may slow following four consecutive 75 basis point hikes this year.

Republican Patrick McHenry is set to chair the House Financial Services Committee following mid-term elections, and Banking Exchange **reviews** the potential implications for banks.

The Treasury Department released a **report** this month calling for more **oversight of bank-fintech partnerships**, noting compliance with consumer protection laws as an area where more regulatory supervision is needed.

Figure 1: Trends in Interest Rate Marks

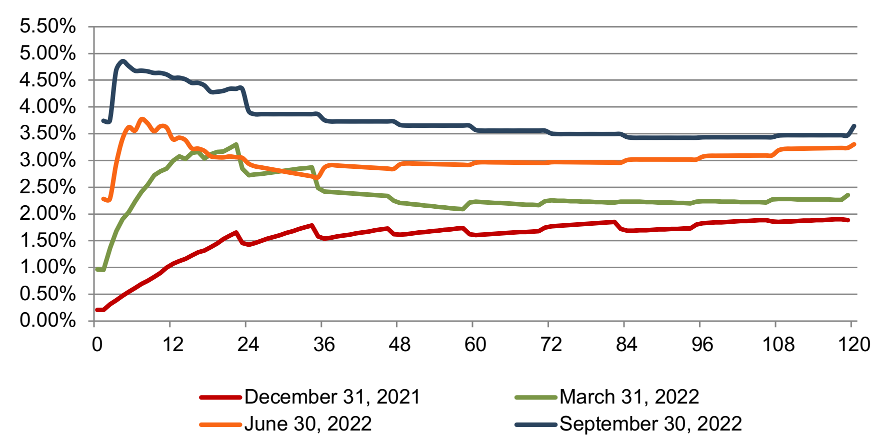


Sources: Mercer Capital & Federal Reserve Statistical Release H.15

The shift in the valuation adjustment attributable to interest rates reflects an increase in market interest rates. Figure 2 depicts the LIBOR forward curve at December 31, 2021, March 31, 2022, June 30, 2022, and September 30, 2022. Relative to December 31, 2021, forward LIBOR rates have increased 66 bps to 394 bps on average with the largest increases occurring for periods ranging from 1 to 12 months following the valuation date.

Term Range	Change in Forward Rate 12/31/2021 - 9/30/2022
1 - 12 Mos.	3.94%
13 - 24 Mos.	3.00%
25 - 36 Mos.	2.25%
37 - 60 Mos.	2.03%
61 - 84 Mos.	1.79%
85 - 120 Mos.	1.63%
121 - 240 Mos.	1.34%
241 - 360 Mos.	0.66%

Figure 2: LIBOR Forward Curve



Source: Bloomberg

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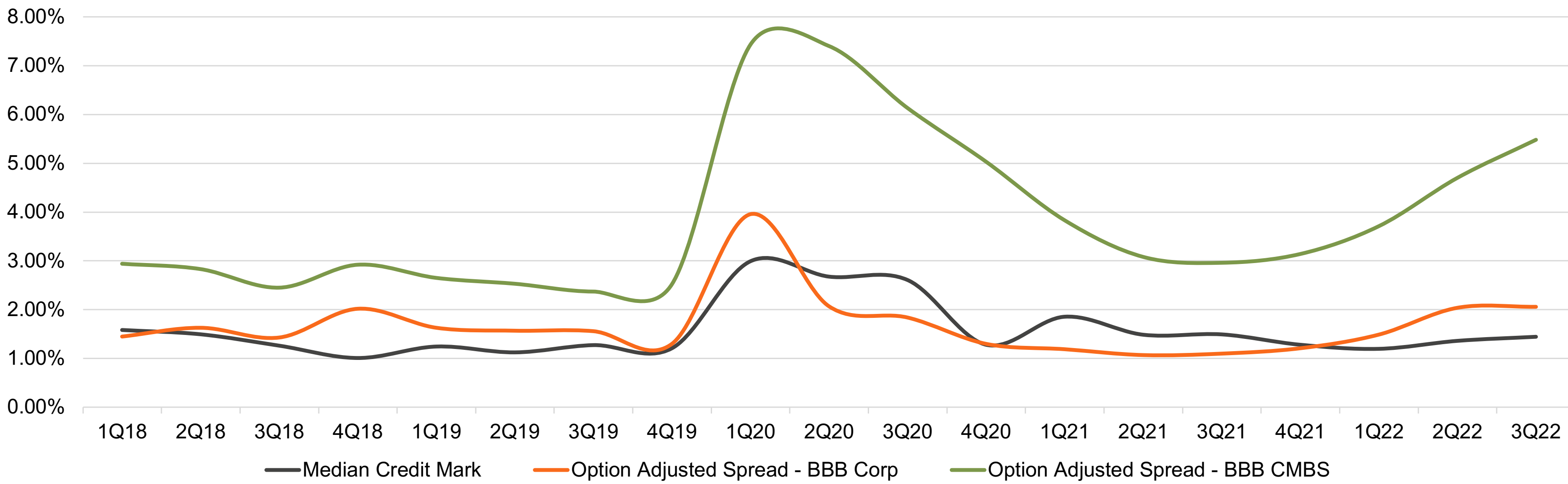
Figure 3: Trends in Credit Marks



Source: Mercer Capital & Bloomberg

Figure 3 depicts the trend in the credit mark for our data sample relative to credit spreads. Credit spreads provide perspective on a number of factors, including where the credit cycle has been and where we may be headed.

Over the period shown in Figure 3, credit marks peaked at the start of the pandemic given the uncertainty and expectation of higher losses on loan portfolios. Credit marks trended down from the March 31, 2020 peak through the first quarter of 2022, as did banks' loan loss provisions, as credit quality remained stable. While credit quality continues to remain strong, both credit spreads and credit marks have ticked up in 2022 with the weakening economic outlook and concerns that the Federal Reserve's tightening interest rate policy may trigger a sharper downturn in economic activity.

Mercer Capital has extensive experience in valuing loan portfolios and other financial assets and liabilities including depositor intangible assets, time deposits, and trust preferred securities. Please contact us if we can be of assistance.

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Bond Portfolio Update

The U.S. bond market is undergoing its worst bear market in decades. Barclays U.S. Aggregate Bond Market Index produced a total return of negative 14.5% through September 30, 2022 and negative 16.0% through November 8, 2022. Excluding coupon income, the year-to-date loss was 17.2% which speaks to how low coupon income is given the nominal difference between price change and total return.

As shown in the figure below, U.S. commercial banks have suffered unrealized losses in their bond portfolios equal to roughly 10% of the cost basis of both AFS and HTM classified portfolios as of September 30, which compares to a price reduction of 15.6% in the Barclay's index as of quarter end.

The less-worse performance by U.S. banks likely reflects less duration than the index, which has an effective duration of 6.25 years and weighted average maturity of 8.25 years. Our observation is that for the most part outsized losses among U.S. banks reflect an outsized position in municipals and/or MBS. The index composition is heavily skewed to U.S. Treasuries and U.S. Agency obligations given the heavy issuance of government backed debt the past 15 years or so.

While management and directors at most banks are unhappy with their bond portfolios, institutional investors have taken a more nuanced view of the impact of rising rates based upon the tenor of third quarter earnings calls and the reaction of most stocks upon the release of earnings. Rising rates have supported bank earnings even though fixed-rate loan and bond portfolios are slow to reprice as floating-rate loans have repriced and banks have lagged deposit rates.

Investor concern is more focused on liquidity risks. Some (or many) banks eventually may have to raise deposit rates sharply to stem outflows and/or fund loan growth because selling bonds is not a viable option given the magnitude of unrealized losses that if realized will reduce regulatory capital.

Our prior commentary on bank bond portfolios following the release of the first and second quarter Call Reports can be found **here** and **here**.

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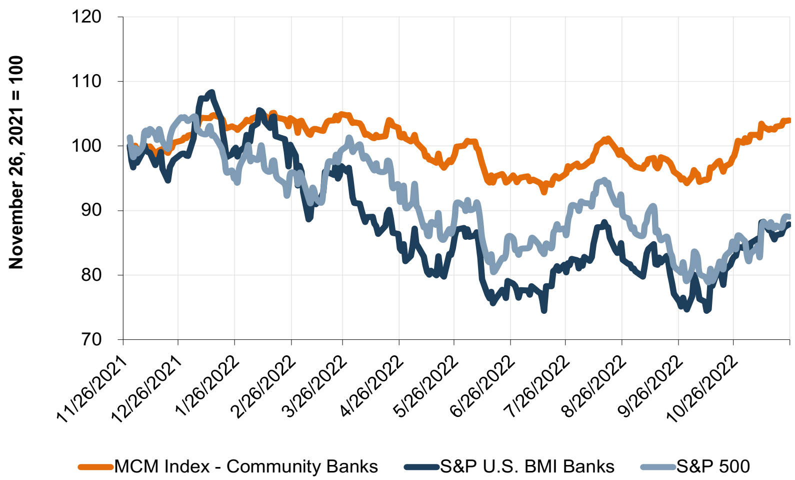
Asset Size	# of Banks	Average Assets ($Mil)	Lev Ratio (%)	Tier 1 Capital (%)	AFS SEC/ Assets (%)	AFS Gain / (Loss)		HTM Sec/ Assets (%)	HTM Gain / (Loss)	
						Cost (%)	T1 Capital (%)		Cost (%)	T1 Capital (%)
> $250B	12	$1,061,112	7.8%	14.3%	15.1%	-8.1%	-20.1%	14.8%	-11.9%	-28.0%
$100B - $250B	17	$171,071	9.3%	13.4%	12.4%	-9.5%	-16.3%	8.5%	-11.8%	-17.2%
$10B - $100B	100	$26,497	9.7%	14.3%	17.2%	-10.9%	-23.2%	6.4%	-11.5%	-11.9%
$3B - $10B	194	$5,339	10.4%	14.4%	16.6%	-10.9%	-21.8%	4.2%	-10.5%	-11.3%
$1B - $3B	503	$1,681	10.6%	16.3%	17.6%	-10.9%	-24.3%	3.5%	-8.3%	-7.3%
$500M - $1B	661	$699	10.5%	16.4%	21.0%	-10.2%	-26.6%	2.9%	-7.1%	-7.1%
$100M - $500M	1,995	$253	11.2%	18.5%	23.0%	-9.9%	-27.8%	3.0%	-6.2%	-8.4%
< $100M	712	$60	17.7%	46.2%	23.6%	-7.4%	-22.8%	4.6%	-5.0%	-10.3%

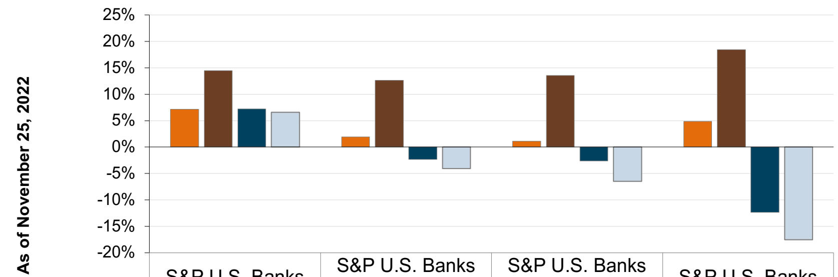
Mercer Capital's Bank Group Index Overview



Source: S&P Capital IQ Pro.

Return Stratification of U.S. Banks

by Market Cap



	S&P U.S. Banks Market Cap Under $250 Million	S&P U.S. Banks Market Cap Between $250 Million - $1 Billion	S&P U.S. Banks Market Cap Between $1 Billion - $5 Billion	S&P U.S. Banks Market Cap Over $5 Billion
Month-to-Date	7.17%	1.93%	1.13%	4.88%
Quarter-to-Date	14.48%	12.61%	13.57%	18.43%
Year-to-Date	7.21%	-2.33%	-2.63%	-12.34%
Last 12 Months	6.60%	-4.06%	-6.47%	-17.54%

Source: S&P Capital IQ Pro.

	Total Return				Regional Index Data as of November 25, 2022					
	Month-to-Date	Quarter-to-Date	Year-to-Date	Last 12 Months	Price / LTM EPS	Price / 2022 (E) EPS	Price / 2023 (E) EPS	Price / Book Value	Price / Tangible Book Value	Dividend Yield
Atlantic Coast Index	2.4%	7.0%	-4.1%	-4.2%	10.7x	10.1x	8.1x	131%	146%	2.7%
Midwest Index	4.8%	12.0%	5.8%	8.4%	9.9x	9.9x	9.1x	113%	145%	3.0%
Northeast Index	2.7%	10.4%	5.2%	7.1%	8.9x	9.4x	8.2x	131%	137%	2.9%
Southeast Index	0.8%	7.5%	5.0%	5.3%	9.8x	10.5x	9.7x	130%	137%	2.7%
West Index	5.1%	13.1%	0.4%	3.0%	10.2x	10.3x	8.7x	120%	138%	2.5%
Community Bank Index	3.4%	10.3%	2.3%	4.0%	9.7x	9.9x	8.8x	128%	140%	2.9%
S&P U.S. BMI Banks	4.3%	17.6%	-10.8%	-12.1%	na	na	na	na	na	na

Source: S&P Capital IQ Pro.

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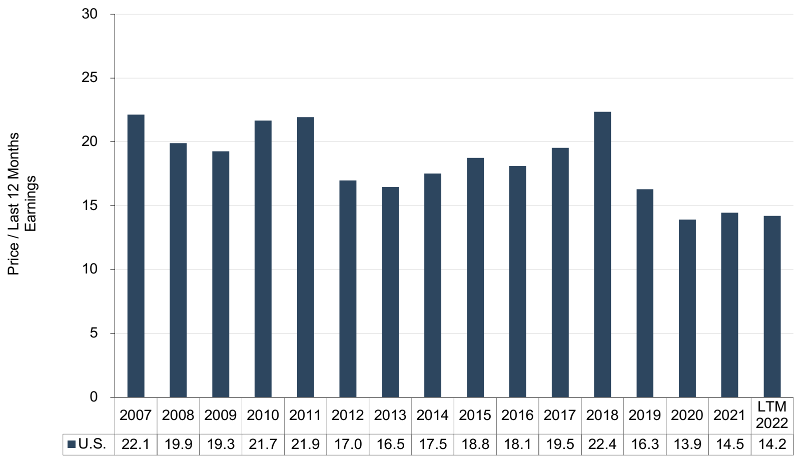
Median Price/Earnings Multiples

Target Banks' Assets <$5B and LTM ROE >5%

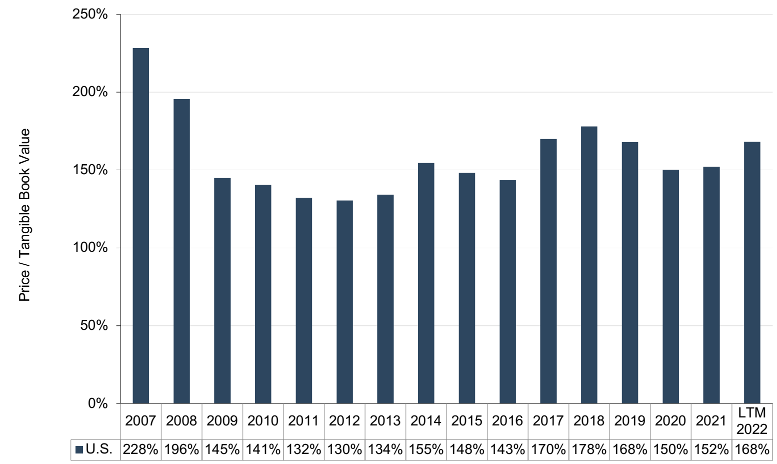


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	LTM 2022
U.S.	22.1	19.9	19.3	21.7	21.9	17.0	16.5	17.5	18.8	18.1	19.5	22.4	16.3	13.9	14.5	14.2

Source: S&P Capital IQ Pro.

Median Price/Tangible Book Value Multiples

Target Banks' Assets <$5B and LTM ROE >5%

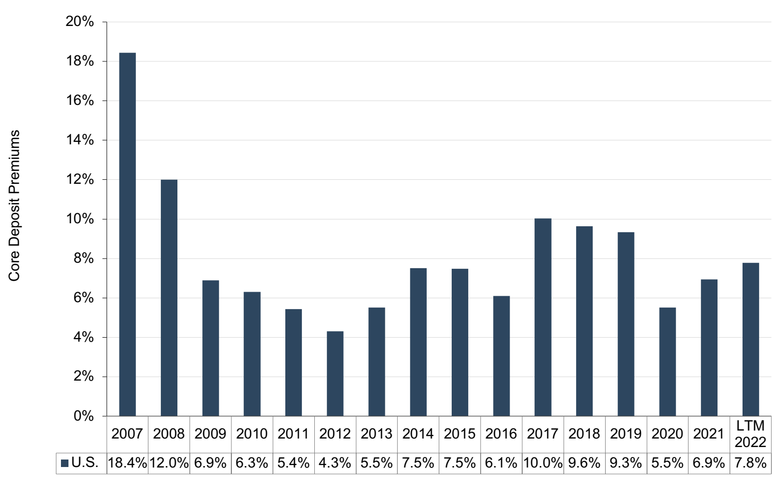


	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	LTM 2022
U.S.	228%	196%	145%	141%	132%	130%	134%	155%	148%	143%	170%	178%	168%	150%	152%	168%

Source: S&P Capital IQ Pro.

Median Core Deposit Premiums

Target Banks' Assets <$5B and LTM ROE >5%



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	LTM 2022
U.S.	18.4%	12.0%	6.9%	6.3%	5.4%	4.3%	5.5%	7.5%	7.5%	6.1%	10.0%	9.6%	9.3%	5.5%	6.9%	7.8%

Source: S&P Capital IQ Pro.

Median Valuation Multiples for M&A Deals

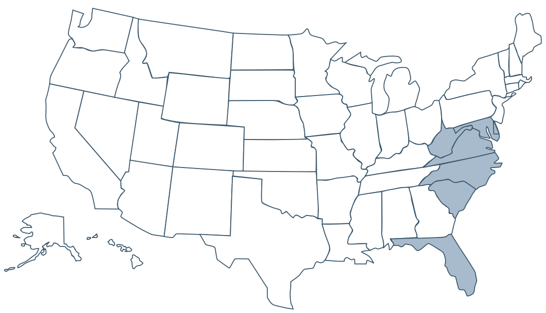
Target Banks' Assets <$5B and LTM ROE >5%, 12 months ended November 25, 2022

Regions	Price / LTM Earnings	Price/ Tang. BV	Price / Core Dep Premium	No. of Deals	Median Deal Value ($M)	Target's Median Assets ($000)	Target's Median LTM ROAE
Atlantic Coast	13.8x	195%	9.6%	13	117.7	608,600	9.9%
Midwest	14.2x	157%	7.8%	53	84.0	212,761	9.7%
Northeast	12.6x	123%	3.3%	7	60.7	442,468	9.3%
Southeast	14.2x	172%	6.9%	18	102.6	333,421	10.9%
West	15.1x	189%	9.8%	14	82.1	367,929	12.4%
National Community Banks	14.2x	168%	7.8%	105	94.7	290,026	10.2%

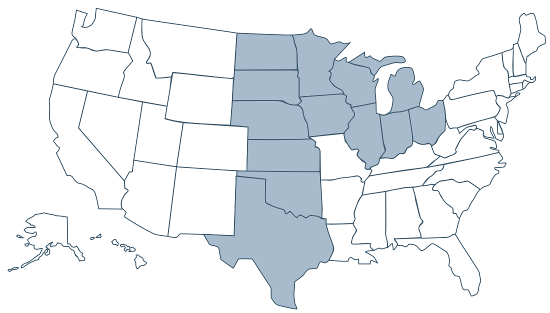
Source: S&P Capital IQ Pro.

Mercer Capital's Regional Public Bank Peer Reports

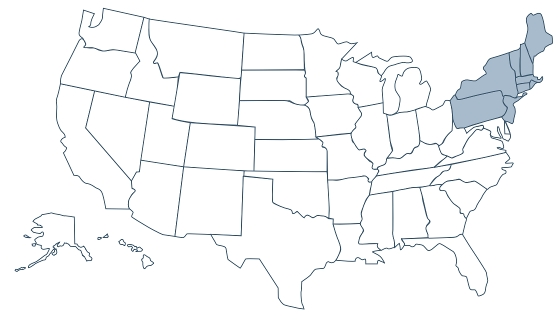
Updated weekly, Mercer Capital's Regional Public Bank Peer Reports offer a closer look at the market pricing and performance of publicly traded banks in the states of five U.S. regions. Click on the map to view the reports from the representative region.



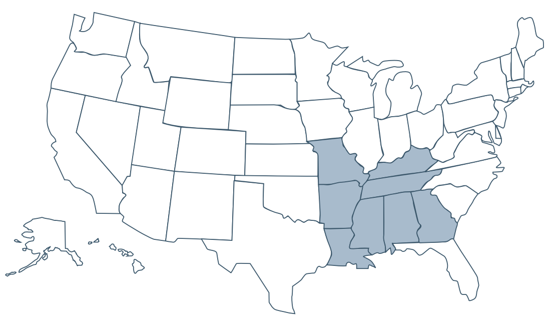
Atlantic Coast



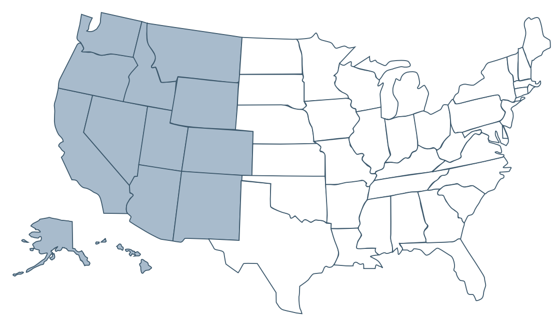
Midwest



Northeast



Southeast



West

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Mercer Capital assists banks, thrifts, and credit unions with significant corporate valuation requirements, transaction advisory services, and other strategic decisions.

Mercer Capital pairs analytical rigor with industry knowledge to deliver unique insight into issues facing banks. These insights underpin the valuation analyses that are at the heart of Mercer Capital's services to depository institutions.

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- Financial reporting for banks
- Goodwill impairment
- Litigation support
- Stress Testing
- Loan portfolio valuation
- Tax compliance
- Transaction advisory
- Strategic planning

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