PIPER | SANDLER

November 29, 2023

Basel III Endgame and TLAC: Challenges and Opportunities for Regional and Community Banks and Non-banks

On July 27, 2023, the Federal Reserve, OCC, and FDIC (the Agencies) proposed major changes to the current Basel III capital rules in a highly complex and densely worded 1,089 page notice of proposed rulemaking (NPR) document (commonly referred to as the Basel III Endgame or B3E).[1] Simply stated, this B3E rulemaking has two major elements:

- Replaces the existing Advanced Approaches risk weighted assets (RWA) framework applicable to large banks with a new Enhanced Risk-Based (ERB) framework.
- Requires that banking organizations with $100 billion or more in assets or currently subject to Category III and IV standards calculate their regulatory capital using the more stringent requirements that apply to Category I and II banking organizations.[2]

A third key regulatory change was added on August 29, 2023, when the Agencies also proposed to extend the long-term debt (LTD) and clean bank holding company (BHC) requirements of the existing total loss absorbing capacity (TLAC) rule for all large banking organizations with $100 billion or more in assets. They also proposed to extend the deduction for investment in external LTD debt issued by Category I – IV banking organizations which previously only applied to Category I banking organizations:[3]

Taken together, these requirements would apply to the majority of U.S. banking assets, loans and deposits and dramatically increase regulatory capital requirements for large U.S. banking organizations that could negatively impact the U.S. economy and our competitive position relative to global banking organizations. As a result, the due date for comments on B3E was extended from November 30, 2023, to January 16, 2024.

While regional and community banks will not be required to adopt B3E and TLAC long term debt requirements, the indirect impact of these rule changes on the economy, loan pricing, market liquidity, cost and availability of hedging, operational services, and securitization activity will present many challenges and opportunities for smaller banks and non-banks.

[1] Notice of Proposed Rulemaking. Regulatory Capital Rule: Amendments applicable to large banking organizations and to banking organizations with significant trading activity.   Office of the Comptroller of the Currency, Treasury; Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation. July 27, 2023.

[2] Including inclusion of accumulated other comprehensive income in regulatory capital, more restrictive regulatory capital deductions and stricter requirements for minority interest capital. Also includes counter cyclical capital buffer (if implemented) and supplementary leverage ratio.

[3] Federal Reserve Board Memo. Long-term Debt Requirements for Large Bank Holding Companies, Certain Intermediate Holding Companies of Foreign Banking Organizations and Large Insured Depository Institutions. August 29, 2023.

Financial Services Group

Thomas W. Killian
Managing Director | Investment Banking
+1 212 466-7709
tom.killian@psc.com

Weison Ding
Director
+ 212 466-8005
weison.ding@psc.com

These proposed rules may be revised before final implementation but preliminary thoughts on likely challenges and opportunities for regional and community banks and non-banks include the following:

<u>**Challenges for Regional and Community Banks and Non-banks**</u>

- ***Economic Impact of Higher Large Bank Capital Requirements***: Potential for increased loan losses due to the negative impact on the economy from significant increases in required capital for large banks under B3E.
- ***Loan Pricing Competition on Lower LTV SFR Loans***: Loan pricing competition from large banks subject to B3E who can potentially offer lower loan pricing on single family residential (SFR) loans with lower loan-to-values (LTVs) due to lower RWAs.
- ***Loan Pricing Competition on C&I loans for Public Companies***: Loan pricing competition for C&I loans from large banks subject to B3E who can potentially offer lower loan pricing to publicly traded companies due to lower RWA.
- ***Higher Hedging Costs***: Higher cost of hedging from counterparties subject to revised market risk rules.
- ***Reduced Liquidity and Market Value for UFIs and MSRs***: Reduced liquidity and market value for investments in unconsolidated financial institutions (UFIs) and mortgage servicing assets (MSRs) due to the reduction in permitted investment amount for large banks from 25% of CET1 to 10% of CET1. Currently such restrictions only apply to Advanced Approaches banks but will now apply to all banks with $100 billion or more in assets. Could impact values in the overall mortgage market. (Please see Appendix A and B for the difference in investment in UFIs between the ERB and Standardized Approach)
- ***Higher Costs for Operating Services***: Potential for higher costs for operating services provided by large banks due to the higher RWAs now assigned to such activities under B3E.

<u>**Opportunities for Regional and Community Banks and Non-banks**</u>

- ***High LTV and Cash Flow Dependent SFR Lending***: Focus on serving SFR borrowers with higher LTVs as the Standardized Approach does not penalize higher LTV SFRs with higher RWA; also focus on cash flow dependent loans which are penalized with higher RWA under the ERB approach.
- ***High LTV and Cash Flow Dependent CRE Lending***: Focus on serving CRE borrowers with higher LTVs as the Standardized Approach does not penalize higher LTV or cash flow dependent CRE loans.
- ***LMI Lending***: Consider providing loans to low-and-moderate income (LMI) borrowers who generally have higher LTV loans; such loans would have higher RWAs for large banks under B3E.
- ***C&I Lending to Private Companies***: Bolster lending to private companies that would have higher RWA under the B3E.
- ***Operational Services***: Consider developing capability to offer operational services which have no additional capital allocation for operating risk for banks below $100 billion in asset size.
- ***MSR and UFI Investment***: Consider investing in mortgage servicing assets and UFI debt which are less attractive for large banks under the B3E.
- ***High RWA Lending Under CBLR Framework***: For banks with less than $10 billion in assets, consider switching from Basel III to use the Community Bank Leverage Ratio (CBLR) capital framework (which does not consider RWA in determining required capital) to pursue higher yielding RWA lending.
- ***Credit Risk Transfer Investment***: For non-bank financials, consider investing in credit risk transfer transactions for large banks to reduce RWAs for loans with higher RWA but otherwise generally acceptable credit profile. Perhaps in anticipation of greater use of credit risk transfer transactions by large banks, on September 28, 2023, the Federal Reserve issued FAQs on the requirements for credit risk mitigation transactions to reduce RWAs.[4]

[4] Board of Governors of the Federal Reserve System. Frequently Asked Questions about Regulation Q. September 28, 2023.

These proposed B3E and TLAC rules will directly impact 34 institutions consisting of 26 U.S. top tier BHCs and 8 intermediate holding companies of foreign banking organizations institutions as shown below in Chart A.

Chart A - Large BHCs, SLHCs and IDIs subject to the Basel III Endgame[5]

Financial Institution	CATEGORY	BHC Type	Total Assets ($000)	Total Loans & Leases (Incl HFI & HFS) ($000)	Total Deposits (Incl Dom & For) ($000)	Common Equity ($000)	GRB: Total Equity Capital ($000)
JPMorgan Chase & Co.	I	US Top Tier BHC	3,898,333,000	1,353,689,000	2,379,526,000	289,967,000	317,371,000
Bank of America Corporation	I	US Top Tier BHC	3,153,090,000	1,092,804,000	1,884,601,000	258,667,000	287,064,000
Citigroup Inc.	I	US Top Tier BHC	2,368,477,000	684,230,000	1,274,401,000	190,134,000	209,503,000
Wells Fargo & Company	I	US Top Tier BHC	1,909,261,000	945,292,000	1,354,083,000	161,424,000	180,715,000
The Goldman Sachs Group, Inc.	I	US Top Tier BHC	1,577,153,000	247,506,000	401,436,000	106,074,000	117,277,000
Morgan Stanley	I	US Top Tier BHC	1,169,013,000	266,390,000	345,459,000	90,461,000	99,211,000
The Bank of New York Mellon Corporation	I	US Top Tier BHC	405,248,000	65,807,000	277,637,000	36,128,000	40,966,000
State Street Corporation	I	US Top Tier BHC	284,415,000	35,436,000	213,001,000	21,644,000	23,621,000
Northern Trust Corporation	II	US Top Tier BHC	146,330,654	43,577,043	110,165,940	10,962,371	11,847,231
U.S. Bancorp	III	US Top Tier BHC	668,039,000	377,570,000	518,358,000	46,305,000	53,113,000
The PNC Financial Services Group, Inc.	III	US Top Tier BHC	557,355,743	319,361,277	423,631,125	42,215,375	49,453,957
Truist Financial Corporation	III	US Top Tier BHC	542,707,000	317,112,000	400,024,000	55,167,000	61,840,000
TD Group US Holdings LLC	III	IHC of FBO	511,769,848	192,430,052	330,472,412	53,050,489	53,050,489
The Charles Schwab Corporation	III	US Top Tier BHC	475,204,000	105,500,000	284,435,000	28,593,000	37,784,000
Capital One Financial Corporation	III	US Top Tier BHC	471,434,737	315,522,088	346,016,864	48,822,844	53,668,106
BMO Financial Corp.	III	IHC of FBO	291,082,524	155,810,542	199,456,859	30,712,330	32,087,230
American Express Company	III	US Top Tier BHC	250,587,000	183,394,000	125,894,000	25,740,000	27,324,000
UBS Americas Holding LLC	III	IHC of FBO	196,496,937	99,709,393	104,304,752	19,188,862	24,338,862
Barclays US LLC	III	IHC of FBO	180,856,000	51,871,000	30,082,000	14,832,000	16,448,000
DB USA Corporation	III	IHC of FBO	110,335,000	15,597,000	22,268,000	10,228,000	12,952,000
Citizens Financial Group, Inc.	IV	US Top Tier BHC	225,635,456	150,864,989	178,675,294	20,864,156	22,878,113
HSBC North America Holdings Inc.	IV	IHC of FBO	224,496,230	55,430,994	117,068,182	11,872,272	13,712,272
First Citizens BancShares, Inc.	IV	US Top Tier BHC	213,766,300	133,256,061	146,232,955	19,508,024	20,388,873
Fifth Third Bancorp	IV	US Top Tier BHC	212,967,000	120,702,000	167,671,000	14,428,000	16,544,000
M&T Bank Corporation	IV	US Top Tier BHC	209,124,316	132,441,832	164,128,801	24,185,902	26,196,502
Ally Financial Inc.	IV	US Top Tier BHC	195,704,000	140,549,000	152,835,000	10,501,000	12,825,000
KeyCorp	IV	US Top Tier BHC	187,994,715	116,632,798	144,434,786	10,909,813	13,355,477
Huntington Bancshares Incorporated	IV	US Top Tier BHC	186,649,799	121,455,253	149,119,030	15,988,275	18,482,476
RBC US Group Holdings LLC	IV	IHC of FBO	169,037,881	82,872,036	82,705,194	22,494,565	22,494,565
Santander Holdings USA, Inc.	IV	IHC of FBO	165,653,163	96,435,750	77,462,543	16,949,315	18,449,315
Regions Financial Corporation	IV	US Top Tier BHC	154,218,000	99,379,000	126,800,000	14,441,000	16,100,000
Discover Financial Services	IV	US Top Tier BHC	143,432,247	122,676,278	104,143,550	13,180,457	14,236,327
Synchrony Financial	IV	US Top Tier BHC	112,939,000	97,873,000	78,069,000	13,033,000	13,767,000
New York Community Bancorp, Inc.	IV	US Top Tier BHC	111,229,935	85,920,916	82,674,682	10,490,398	10,993,238

Source: S&P Global; https://www.federalreserve.gov/publications/files/202311-supervision-and-regulation-report.pdf

While these capital increases will only directly impact 34 banking organizations, as of September 30, 2023, such organizations represented:

- **75% of total assets** - $21.7T out of $28.8T of total US. industry assets
- **67% of total loans** - $8.4T out of $12.9T of total U.S. industry loans
- **71% of total deposits** - $12.8T out of $18.1T of total U.S. industry deposits
- **72% of total common equity** - $1.8T out of $2.5T of total industry common equity
- **73% of total capital** - $2.0T out of $2.7T of total industry capital
- **81% of total investment in mortgage servicing assets** - $39.8B out of $49.1B of total industry MSRs.

[5] Category I banking organizations are GSIBs and their IDIs; Category II banking organizations and their IDI subsidiaries are $700 billion in total assets or >= $75 billion in cross-jurisdiction activity; Category III banking organizations and their IDI subsidiaries are >= $250 billion in total assets or >= $75 billion in nonbank assets, short term wholesale funding, or off-balance sheet exposures; Category IV banking organizations and their IDI subsidiaries are >= $100 billion in total assets.

Preliminary estimates from the Agencies indicate that meeting the B3E requirements would necessitate a 16% increase in CET1 capital for all Category I-IV BHCs organizations. The Agencies estimate that total risk weighted assets (RWA) for Category I-IV banking organizations would increase by 20%. In addition, the impacted banks would also need to raise approximately $250 billion in additional long-term debt with $70 billion to meet TLAC requirements and $180 million to meet higher risk weighted asset requirements under the B3E changes.

Many banking industry executives, the American Bankers Association and the Bank Policy Institute have decried the lack of detailed quantitative impact studies (QIS) on the cost of implementation before B3E is finalized. As a result, the original November 30, 2023, due date for comments on the B3E proposal has now been extended to January 16, 2024, when the QIS is scheduled to be released.

Acknowledging these concerns, the FDIC Board only voted 3-2 in favor of publishing the proposed rule while the Federal Reserve voted 4-2 in factor of proceeding with the proposal. Commenting on the dissenting votes, Federal Reserve Chairman Powell outlined three potential areas where further modifications could be considered including[6]:

(i) the calibration of overall and specific capital increases for market and operational risk given the potential costs of increased capital requirements,
(ii) determining the extent to which the proposed rule would exceed the requirements of the Basel Framework applicable to banks in other countries, and
(iii) tailoring of requirements that will now be applicable for banks with total assets between $100 billion and $250 billion to reflect the size and risk of individual institutions.

Given this debate about the breadth and scale of proposed changes, it may be useful to put the proposed B3E and TLAC long term debt requirements into context. As shown below in Chart B, these proposed actions may be viewed as representing a ***regulatory counter response*** to relief granted with the Basel III Simplification and Economic Growth, Regulatory Relief and Consumer Protection Act (EGRRCPA) in 2018. To the extent that U.S. banking organizations will be required to meet higher capital requirements than other Basel jurisdictions, the U.S. banks could be placed at a competitive disadvantage. All the more reason why these rule changes should be carefully considered before implementation. If adopted as proposed, these changes would be fully implemented by July 2028 allowing 5 years until full phase-in. While the phase in period is helpful for regulatory compliance, investors in these large banks will factor in the fully phased in capital requirements into the cost of capital for each institution once the rules are finalized.

<u>Chart B – Timeline of Financial Crisis and Regulatory, Legislative and Accounting Responses</u>

CRISIS	*REGULATORY AND LEGISLATIVE RESPONSE TO CRISIS*	*RESPONSE TO RESPONSE*	*ACCOUNTING RESPONSE TO CRISIS*	*REGULATORY COUNTER RESPONSE TO EGRRCPA AND BASEL III SIMPLIFICATION*
Financial Crisis	Basel III Dodd Frank Act	U.S. Treasury Reports Fed's Basel III Simplification EGRRCPA	Lease Accounting Reserves for Future Losses	Basel III Endgame TLAC
2007 2008	2009 2010 2011 2012 2013 2014 2015	2016 2017 2018	2019 2020 2021 2022 2023	2024 2025 2026 2027 2028
	2010: DFA 2012: Basel III	2016: U.S. Election 2017: U.S. Treasury Core Principals Report; Basel III Simplification 2018: Economic Growth Regulatory Relief and Consumer Protection Act or EGRRCPA (S.2155)	2019: ASC 842 For SEC Filers 2020: CECL For SEC Filers 2021: ASC 842 for public NFP and Private Companies 2023: CECL For All Others	Proposed BIII Endgame and TLAC phase in for full implementation by July 2028

With this overview of the proposed regulatory changes and the banking organizations they will apply to along with the potential challenges and opportunities for regional and community banks and non-banks, we will now provide more detail on the proposed changes, present a hypothetical loan pricing model to show the impact of changes

[6] Statement by Chairman Powell. Joint Press Release Agency request for comment on proposed rules to strengthen capital requirements for large banks. July 27, 2023.

in RWA on required loan pricing, discuss the timeline for implementation of both the Basel III endgame proposals and TLAC requirements, and provide summary commentary on the potential challenges and opportunities for regional and community banks and non-banks.

Key Proposed Changes

Banks and BHCs representing the majority of U.S. banking assets and loans will be subject to the Basel III endgame proposals. Under the current Basel III capital rules there are two approaches: Standardized and Advanced Approaches. The B3E proposal will retain the Standardized Approaches methodology for banks with less than $100 billion in assets but replace the Advanced Approaches methodology with a new Expanded Risk Based Approach (ERB) that would be calculated based on the higher of the standardized total RWAs and the Expanded total RWAs. As required by Section 171 of the Dodd Frank Act, the generally applicable Standardized Approach must serve as a floor for any banking organization's capital requirements. Since the Standardized Approach does not include any operating risk, it is not likely that the ERB RWA will ever be lower than the Standardized RWA for any Category I-IV bank organization. In other words, because the ERB RWA will almost always be higher due to the inclusion of operating risk in total RWA and subject to a 72.5% RWA floor, large banking organizations will be highly incented to lower the risk weighting on credit risk assets by making lower loan to value loans and using credit risk transfer transactions for their loan exposures.

At the risk of over-simplifying, the Basel III ERB Approach will make key changes to the numerator and denominator of the risk weighted capital ratios. These changes include the following:

<u>Chart C - Key Numerator Changes for Large Banks under the ERB Approach:</u>

+	Recognition of AOCI in CET1 capital
+	Reduction from 25% to 10% of CET1 for investment in: DTAs, (net of associated DTLs, mortgage servicing rights, or investment in unconsolidated financial institutions (UFIs) with an overall limit of 15% of CET1 (See Appendix A & B for more details on the Standardized Approach and ERB Approach)
+	Increase in risk weighting for investment in subordinated debt from 100% to 150%
+	Reduction in the amount of minority interest permitted in regulatory capital
+	Elimination of Covered Debt issued by U.S. or foreign GSIBs as a permitted investment
+	Revision of the calculation of total capital to reflect the use of CECL for credit losses
+	Revision of the amount of subordinated debt required to meet Total Loss Absorbing Capacity (TLAC) risk-based requirements and the Single Counterparty Credit Limit (SCCL) requirements because of changes to risk-weighting calculations

Chart D – Key Denominator Changes for Large Banks under the ERB Approach:

- Changes to credit risk weighting for SFR, CRE, small business, consumer and project finance loans for exposures not treated as market risk
- Changes to risk weighting for equity exposures with the option of using the simple risk-weight or revised risk-weight approach for investment funds
- New operating risk exposure measurement using the Standardized Approach for operating risk (Business indicator x an internal loss multiplier)
- Revision to measure for market risk approach or models-based measure using an expected shortfall (ES) rather than value-at-risk (VaR) methodology
- Revision of CVA risk exposures using either the basic approach or Standardized Approach

For large banks, the total RWA calculation will be the sum of RWAs associated with each of the five types of risk including credit, equity, operating risk, market risk and CVA risk less any amount of adjusted allowance for credit losses that is not included in tier 2 capital and any amount of allocated transfer risk reserves.

Among all these changes, the operating risk component of RWA has historically only applied to Category I and II banks and will now apply to Category III and IV banks. The calculation is based on a business indicator (BI) multiplied by an internal loss multiplier using the three-year average of the sum of three components: (i) interest, lease and dividends, (ii) services component, and (iii) a financial component. The operational RWAs are equal to the BI times the internal loss multiplier, with the internal loss multiplier determined by the ratio of average total annual net operating losses to its business indicator. The business indicator loss coefficient increases with scale of operations ranging from 12% to 18%. ***This will clearly cause a substantial increase in RWA for Category III and IV banks who have not previously recognized operating risk as part of their total RWA calculation.***

Currently under the Standardized Approach, the risk weighting for single family mortgages is 50%. The ERB Approach offers potential for lower risk weighted assets based on lower LTV loans and source of repayment. As shown below in Chart E, the RWA for SFR loans with repayment not materially dependent on cash flow range from 40% to 90%. However, the RWAs are significantly higher at 50% to 125% for SFR loans materially dependent on cash flow for repayment. As such, large banks subject to the ERB Approach would be highly incented to focus on providing lower risk weighted loans with repayment not dependent on cash flow.

Chart E – Changes to Residential RWA for Large Banks under the ERB Approach (1) (2)

Description	LTC <= 50%	50% < LTV <= 60%	60% < LTV <= 80%	80% < LTV <= 90%	90% < LTV <= 100%	LTV > 100%
Residential real estate **NOT MATERIALLY** dependent on c ash flow	40%	45%	50%	60%	70%	90%
Residential real estate **MATERIALLY** dependent on c ash flow	50%	55%	65%	80%	95%	125%

(1) Note that PMI is excluded in calculating LTV and banks providing 1st and 2nd lien credit would include both in calculating LTV. (2) When real estate loan finances the purchase of the property, the value would be the lower of cost or appraised value.

For commercial real estate loans, the ERB Approach offers potential for lower risk weighted assets based on lower LTV loans and source of repayment. As shown below in Chart F, CRE loans with repayment not materially dependent on cash flow with loan to cost below 60% would have a minimum risk weight of the higher of 60% or the risk weighing of the borrower. For LTVs greater than 50% but less than 90% the risk weighting would be the RW of the borrower. The risk weighting would be much higher for cash flow dependent loans ranging from 70% to 110% dependent on LTV. Cash flow dependent loans are loans that consider rent and other income as sources of repayment in the underwriting process.

Chart F – Changes to Commercial RE RWA for Large Banks under the ERB Approach

Description	LTC <= 60%	50% <= LTV < 80%	80% < LTV <= 90%
CRE - **NOT MATERIALLY** dependent on cash flow	Min 60% or RW of Counterpary	RW of Counterparty	
CRE - **MATERIALLY** dependent on c ash flow	70%	90%	110%

General corporate exposures under the ERB Approach will be assigned a 100% risk weighting similar to the Standardized Approach. However, investment grade companies with publicly traded securities or with a parent having publicly traded securities would get a lower risk weighting of 65%. This would obviously provide a huge pricing advantage to larger, public traded companies while smaller borrowers would have their loans risk weighted at 100%. Corporate exposures for acquiring or financing equipment with repayment dependent on the asset collateral would have a risk weighting of 100%.

Project finance exposures that have not reached the operational phase would be risk weighted at 130% under the ERB Approach relative to 100% currently under the Standardized Approach. This would obviously negatively impact pricing and availability of credit for infrastructure lending at a time when there is an increased focus on green energy and related projects.

Exposures to U.S. banks are currently risk weighted at 20% under the Standardized Approach. With the ERB Approach, banks would be assigned to one of three buckets ranging from Grade A as well capitalized with a 40% risk weight, Grade B as adequately capitalized with 75% risk weight, and Grade C which is not Grade A or B and would be risk weighted at 150%. Note that there would be significantly reduced risk weighting for exposures of three months or less.

There is significant change in the risk weighting for regulatory retail exposures for revolving lines of credit, student loans, auto loans, and credit cards to individuals or small businesses. Regulatory retail exposures meet certain criteria including: (i) exposure to a natural person or SME but excluding any real estate-related exposure, (ii) qualifies as a transaction exposure, and (iii) does not qualify as any other type of exposure. A regulatory retail transaction exposure is one where the credit balance has been fully paid for the previous twelve months. With this history of satisfactory payment, the risk weighting for transaction exposures is 55% vs 85% for registered retail that is not transaction exposure under the ERB. Note that this risk weighting is less than the 100% applicable under the current Standardized Approach. But exposures that do not quality would be risk weighted at 110%. Unconditionally cancellable revolving exposures receive a 10% risk weighting compared to 0% under the Standardized Approach. This risk weighting of 10% for the undrawn amount of credit card limits will likely incent large banks to limit the size of the credit limits they extend.

The amount of retail exposures that could count as regulatory retail exposures will be limited on an aggregate and granular basis. Aggregate exposure to any single borrower including on and off-balance sheet exposures would be limited to $1 million but only 0.2% of the banking organization's total retail exposures can be comprised of any single obligor. Any exposure that exceeds the single obligor limit would be risk weighted at 110%.

B3E would replace the current market risk capital rule for Advanced Approaches banks with a choice between the Standardized Measure for market risk and, with prior approval from its primary federal banking supervisor, the Models-based Measure. B3E also permits a choice of the Basic CVA Approach which captures the credit spread component and the Standardized CVA Approach which captures both credit spread and exposure components. The Standardized CVA Approach also recognizes hedges for the exposure component.

B3E would replace the Simplified Supervisory Formula Approach (SSFA) with a new framework known as the Securitization Standardized Approach (SEC-SA) which would have several changes: (i) higher p-factor from 0.5 to 1.0, lower RW floor from 20% to 15% for securitization that are not resecuritizations, (iii) higher RW floor for resecuritization exposures, and (iv) modified definitions of other parameters. Nth-to-default credit derivatives would be prohibited.

Hypothetical Loan Pricing Model

Ultimately, the pricing and availability of loans will be a function of the required return on allocated risk-based capital for banks subject to the Standardized Approach and the ERB Approach. Chart G below shows the impact of changes in RWA percentage on required loan pricing to achieve a 12% return on allocated CET1 capital. For this analysis, we have made a few simplifying assumptions including a targeted required CET1 ratio of 7.50%, interest expense of 3% and non-interest expense of 3% to derive the required interest income and loan yield.

Chart G – Impact of Changes in RWA on Required Loan Pricing to Achieve Target ROE

		RWA						
		100%	90%	80%	70%	60%	50%	40%
Risk Weighted Loan Size		$1,000,000	$ 900,000	$ 800,000	$ 700,000	$ 600,000	$ 500,000	$ 400,000
Required CET1	7.50%	$ 75,000	$ 67,500	$ 60,000	$ 52,500	$ 45,000	$ 37,500	$ 30,000
Required return on CET1	12%	$ 9,000	$ 8,100	$ 7,200	$ 6,300	$ 5,400	$ 4,500	$ 3,600
Required pre-tax	25%	$ 12,000	$ 10,800	$ 9,600	$ 8,400	$ 7,200	$ 6,000	$ 4,800
Interest expense	3%	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000
Non-interest expense	3%	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000
Required Int. Income		$ 72,000	$ 70,800	$ 69,600	$ 68,400	$ 67,200	$ 66,000	$ 64,800
Required Loan Yield		7.20%	7.08%	6.96%	6.84%	6.72%	6.60%	6.48%
Difference in Basis Points			12	24	36	48	60	72

For example, if an ERB bank can achieve a reduction in RWA to 70% from 100% it could reduce loan pricing by 36 basis points from 6.84% to 7.20% and still achieve the same 12% return on CET1 capital. Conversely, if a SFR loan was previously risk weighted at 50% but is now classified as cash flow dependent and would be risk weighted at 80%, the loan pricing would need to increase 36 basis points to 6.96% to achieve the same return on required regulatory capital. Of course, every banking organization is different in terms of its targeted returns, cost of funds and non-interest expense but a framework of this type can provide a consistent way to compare returns across the lending book of business. Note that we have not included any changes in loan loss allowance as a result of the change in RWA from the ERB as an individual banking organization's loss reserves are tied to its "through the cycle" loan losses by loan type rather than based on a regulatory change in RWA.

Timeline for Implementation

The Basel III Endgame proposal was announced on July 27, 2023 with a comment period ending November 30, 2023. As previously mentioned, this comment period has now been extended to January 16, 2024, when the QIS is scheduled to be released. It is not clear at this point whether there will be a further extension of the comment period to allow time for more complete review and comment on the results of the QIS. Assuming no changes to the original implementation schedule, the 3-year transition period for the AOCI recognition in CET1 would begin on July 1, 2025 phased in as follows:

Chart H - Numerator Transition Period

AOCI Recognition Phase-In Period	Percentage of AOCI Adjustment in CET1 Capital
July 1, 2025 to June 30, 2026	75
July 1, 2026 to June 30, 2027	50
July 1, 2027 to June 30, 2028	25
July 1, 2028 and thereafter	0

Similarly, assuming no changes to the original implementation schedule, the 3-year transition period for the RWA phase in would begin on July 1, 2025, phased in as follows:

Denominator Transition Period

Chart I – Denominator Transition Period

RWA Phase-In Period	Percentage of Total Expanded Total RWA
July 1, 2025 to June 30, 2026	75
July 1, 2026 to June 30, 2027	50
July 1, 2027 to June 30, 2028	90
July 1, 2028 and thereafter	100

In addition to the three-year phase-in period for the Basel III endgame elements beginning July 1, 2025, there will also be a 3-year phase in period for the adoption of TLAC requirements by banks with $100 billion or more in assets.

Summary and Conclusion

B3E is a highly complex and densely worded rulemaking document that replaces the current Advanced Approaches RWA framework applicable to large banks with a new ERB framework. B3E also requires that banks with $100 billion or more in assets and Category III and IV banks be subject to the same standards as Category I and II banking organizations. In addition, the Agencies also required banks with $100 billion or more in assets to comply with TLAC and clean holding company requirements applicable to Category I and II banking organizations. While these regulatory changes only directly impact 34 banking organizations, they represent the majority of U.S. banking assets, liabilities and equity.

As noted earlier, the Agencies preliminarily estimate that meeting the B3E requirements would require a 16% increase in CET1 for all Category I – IV BHC organizations and total RWAs would increase by 20%. In addition, the impacted banks would also need to raise approximately $250 billion in long term debt to comply with TLAC and higher risk weighting requirements. The lack of a detailed quantitative impact study being completed prior to the due date for comments has pushed back the NPR comment period to January 16, 2024. But even this delay does not allow time for review of the QIS findings prior to submitting comments on the proposed rule changes.

Since the ERB Approach requires a capital allocation for risk weighted assets tied to operating risk while the Standardized Approach does not, ***the ERB Approach will almost always entail higher RWAs and therefore higher capital requirements for large banks***. Recall that Section 171 of the Dodd Frank Act requires that large banks use the most punitive capital regime between the Standardized Approach and the ERB Approach. These banks will be strongly incented to reduce the RWAs on their lending activities by shifting focus to lower risk and non-cash flow dependent loans which have much lower risk weighting. In addition, tor certain lending types that have high RWAs but have relatively predictable and homogeneous credit risk, large banks may find credit risk transfer transactions will be an attractive alternative to lower RWAs. Credit risk transfer transactions will be funded by private equity and non-bank lenders thereby transferring risk outside the banking system.

As large banks shift their lending priorities to lower RWA lending opportunities or perhaps cut back on their operational services, smaller banks and non-banks may have a significant opening to pick up these activities. For example, the Standardized Approach applicable to banks with less than $100 billion in assets entails much less granularity in risk weighting tied to credit risk. As such, small bank lenders would not be penalized for making higher LTV single family loans or cash flow dependent loans, C&I loans to private companies, or project finance loans to operations that have not become operational. For larger credit amounts or more complex credits that are not well suited for regional and community banks, large non-bank lenders will likely find a significant market opportunity to lend.

If the B3E rules are implemented as proposed, there will by many challenges and opportunities for regional and community banks along with non-banks. The details will matter in sorting through the final rules to determine which changes will be made, if any. It is clear that the Agencies want to reduce credit risk and operating risk borne by large banks in the U.S. The question is whether regional and community banks along with non-banks will be able to pick up the lending capacity and operating services capacity to fill the void or whether the U.S. economy and U.S. consumers will suffer as a result.

With this commentary, we have provided a high-level summary of the key elements of B3E and TLAC that are relevant to understanding the potential challenges and opportunities for regional and community banks and non-banks. We have not attempted to provide a summary of all elements of these regulations. For those readers interested in more details, we encourage you to refer to the links below:

BE3: https://www.federalregister.gov/documents/2023/09/18/2023-19200/regulatory-capital-rule-large-banking-organizations-and-banking-organizations-with-significant

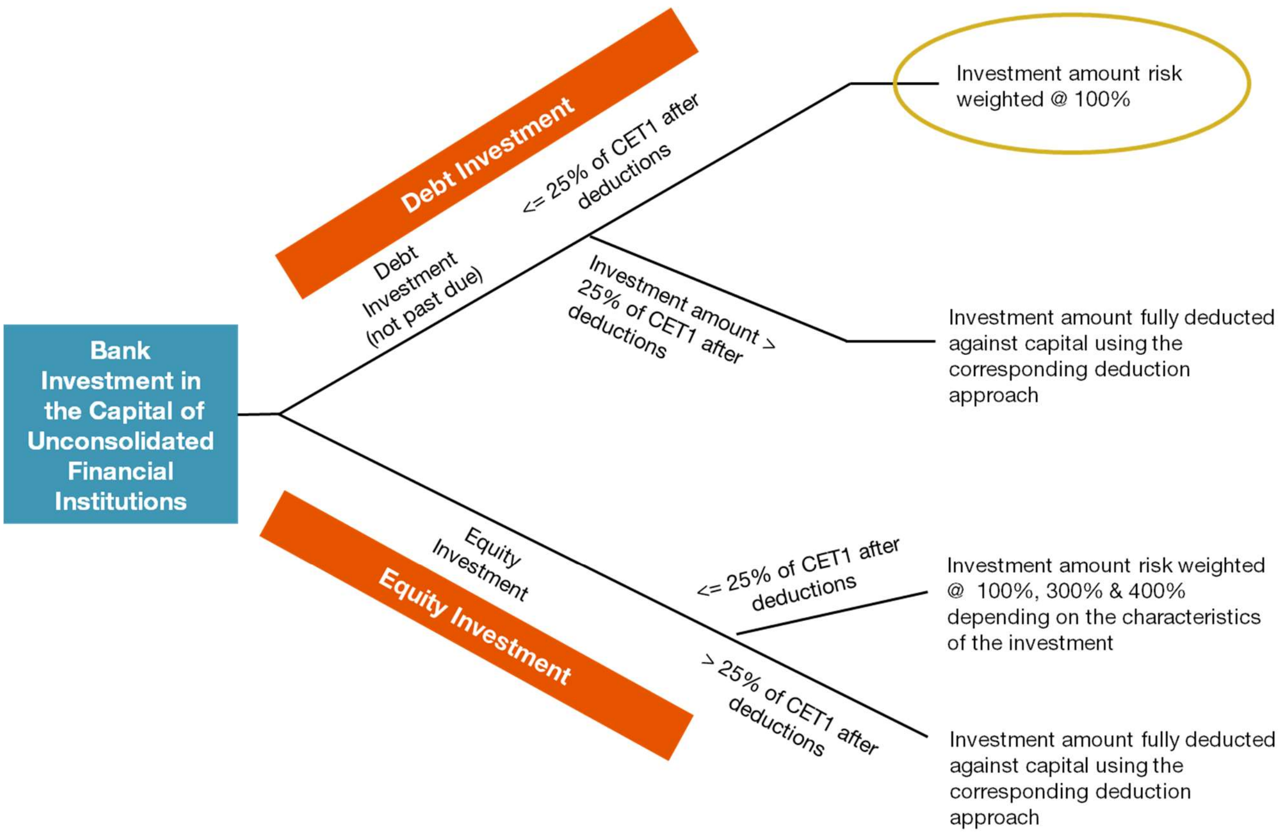
TLAC: https://www.federalregister.gov/documents/2023/09/19/2023-19265/long-term-debt-requirements-for-large-bank-holding-companies-certain-intermediate-holding-companies

Overall, we worry that adopting the B3E proposals and TLAC requirements before there has been proper consideration of the cumulative impact of additional CET1 and long-term debt requirements on the cost and availability of credit for U.S. consumers and businesses may be counter-productive to the laudable regulatory goals of enhancing financial stability and resiliency.

Appendix A

As illustrated below, debt investments in UFIs below the 25% of CET1 aggregate limit will be risk weighted at 100%. Note that this 25% of CET1 is an aggregate limit, combining both debt and equity investments at the bank and BHC level.

Basel III Decision Framework for Standardized Approach AFTER Basel III Simplification* Applicable to Large Banks <= $100 Billion



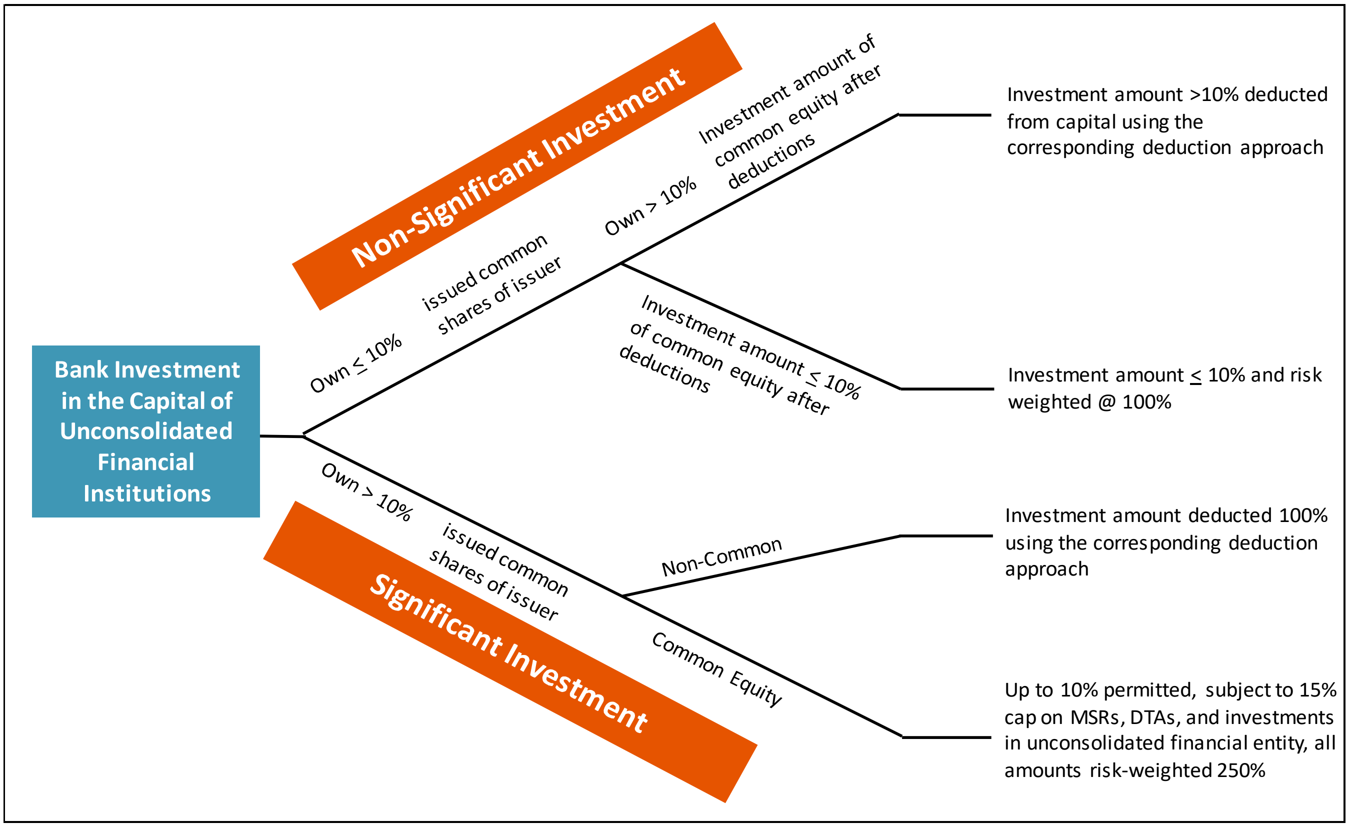
Source: Basel III Simplification Final Rule for Non-advanced Approaches Banks

* ***The aggregate limit on investments in UFIs whether debt or equity is 25% of CET1. Investments in excess of that amount would be deducted against capital using the corresponding deduction approach. Chart E assumes that preferred equity is debt-equivalent equity evaluated the same as subordinated debt at the top branch of the decision tree. All other equity investments would be evaluated through the bottom branch of the decision tree.***

Appendix B

Under the B3E proposal, large banks currently subject to the Advanced Approaches bank capital framework must comply with the original Basel III limits to determine if: (i) the UFI investment was significant or non-significant and (ii) the investment amount was greater than 10% of CET1, and then apply the corresponding deduction approach to deduct any amounts greater than 10% of CET1 from the banking organization's regulatory capital. Note that for non-significant investments where the investment amount was 10% or less of the bank's CET1, the risk weighting would be 100%. For significant investments, non-common investments are deducted 100% using the corresponding deduction approach while equity investments of up to 10% of CET1 are permitted with a risk-weighting of 250%.

Basel III Decision Framework Applicable to Advanced Approaches Banking Organizations



Source: Basel III Endgame Rules Applicable for Category I – IV Banking Organizations.

GLOSSARY TERMS

AACL – Adjusted Allowance for Credit Losses. New term introduced by the regulatory agencies in the final rulemaking NPR on December 21, 2018 for the implementation of CECL. AACL includes only those allowances that have been charged against earnings and retained earnings. AACL amounts would be eligible for inclusion in tier 2 capital for up to 1.25% of risk-weighted assets for banks subject to the Standardized Approach. AACL includes credit allowances for loans, HTM debt securities, net investment in leases, and off-balance sheet exposures (not insurance) but does not include credit loss allowances related to AFS debt securities and purchased credit deteriorated assets (PCD).

Advanced Approaches Banks – Banks with consolidated assets of $250 billion or more or consolidated on-balance sheet foreign exposures of $10 billion or more. The Advanced Approaches methodology would currently be applicable to all banks if classified as a Category I or II bank regardless of size. The proposed B3E framework is proposed to replace the Advanced Approaches framework.

Accumulated Other Comprehensive Income (AOCI) – Consists of accumulated unrealized gains and losses on certain assets and liabilities (such as available for sale securities) that are not included in net income but are included in equity under U.S. GAAP banking. Most banking organizations that are not Advanced Approaches banking organizations have opted out of AOCI and currently exclude most components of AOCI from CET1. The CBLR permits qualifying banking organizations to exclude all components of AOCI from CBLR tier 1 capital. Note that the proposed Basel III Endgame requires that Category I -IV banking organizations cannot opt out of AOCI being included in regulatory capital calculations.

ACL – Allowance for Credit Losses. Term introduced by FASB in ASU 2016-12 and applies to both financial assets and AFS debt securities. Represents an estimate of the expected credit losses on financial assets measured at amortized cost, using relevant information about past events, including historical credit loss experience on financial assets with similar risk characteristics, current conditions, and reasonable and supportable forecasts that affect the collectability of the remaining cash flows over the contractual term of the financial asserts. Difference between current reserve and expected future losses recognized in the period of adoption for GAAP purposes but may be amortized for three years for regulatory capital and accounting purposes.

Basel III Endgame or B3E – Notice of proposed rulemaking for a dramatic change in the U.S. risk-based capital framework applicable to banking organizations with $100 billion or more in assets. Focuses on CET1 capital required for credit, operational, market and credit valuation adjustment risks. Introduces the Enhanced Risk-based Approach in replacement of the Advanced Approaches capital framework. Will be phased in beginning on July 1, 2025 and be fully effective on June 30, 2028.

Basel III Simplification – Applicable to banks with less than $100 billion in assets. Increased the step one cap on permitted investment in MSAs, DTAs, and UFIs from 10% of CET1 capital to 25% and eliminated the step 2 cap of 15%. Allows minority interest to be included for up to 10% of the parent banking organization's CET1, tier 1 or total capital.

Community Bank Leverage Ratio (CBLR) – Qualifying community banking organizations with 9% or more in tier 1 capital to be well capitalized. (see definition of qualifying community banking organization).

Cross Jurisdictional Activity – Defined as the sum of cross-jurisdictional assets and liabilities as reported on the FR Y-15 by holding companies. This requirement replaces the current limit of $10 billion or more in foreign exposure to be considered an Advanced Approaches bank with a $75 billion exposure threshold for cross-jurisdictional activity. Note that this measure does not include the assets and liabilities from positions in derivative contracts.

Cumulative Preferred Stock – CBLR allows cumulative preferred stock to be included as tangible equity. Dividends on cumulative preferred stock are accrued if unpaid. Any unpaid cumulative preferred dividends must be paid before the payment of any common dividends. Historically, only non-cumulative perpetual preferred stock has been included in tier 1 capital. An open issue at this time is whether the preferred stock would have to have a perpetual maturity. We expect this to be resolved in the NPR rulemaking process.

<u>Deferred Tax Assets (DTAs)</u> – Under the CBLR, qualifying community banks would be limited to temporary difference DTAs net of any valuation allowance of 25% or less of CBLR tier 1 capital . Temporary difference DTAs are recognized in one period for financial reporting period but another period for tax purposes. Banking organizations may not be able to fully realize temporary difference DTAs under adverse financial conditions since the ability to realize the temporary difference DTA is dependent on future income.

<u>CET1</u> – Common equity tier 1 capital as defined in the Basel III final capital rules.

<u>Clean Holding Company Requirements</u> – All BHC's subject to TLAC required to meet to clean holding company requirements. This would prohibit such BHCs from issuing short-term debt to third parties, entering into qualified financial contracts (QFCs) with third parties, providing new guarantees that are subject to cross-defaults, having liabilities that benefit from upstream guarantees from a subsidiary or subject to contractual offset against amounts owed to subsidiaries. There is a cap on the amount of covered BHC liabilities that are not long-term and that rank at either the same priority as or are junior to its eligible external LTD at 5% of the sum of the BHC's common equity tier 1 capital, additional tier 1 capital and eligible LTD amount.

<u>Eligible LTD</u> - Similar to the TLAC requirements applicable to G-SIBs, eligible LTD would be defined as debt this is paid in full and issued directly by the entity subject to the requirement, is unsecured, has a maturity great than one year from the date of issuance, has "plain vanilla" features (highly limited acceleration rights), is issued in a minimum denomination of $400,000, and is governed by U.S. law. Principal due to be paid on eligible long-term debt in one year or more and less than two years would be subject to a 50% haircut for purposes of the LTD requirement. Principal due to be paid in less than one year would not count towards the requirement.

<u>Eligible TLAC</u> – Debt and equity issued to third parties that counts as tier 1/tier 2 capital as well as debt that is (i) paid-in, (ii) unsecured, (iii) perpetual or has a remaining maturity of at least 1 year, and non-redeemable by the holder within one year, (iv) must absorb losses prior to "excluded liabilities" in insolvency, without giving rise to compensation claims or legal challenge, (v) subordinated to excluded liabilities, (vi) may be ranked as senior to capital instruments, including tier 2 subordinated debt, and (vii) cannot be hedged or netted in a way that would reduce ability to absorb losses.

<u>Enhanced Risk-Based Approach</u> – One of the major elements of the Basel III Endgame changes to the current Basel III capital rules which replaces the existing advanced approaches risk weighted assets (RWA) framework applicable to large banks with a new Enhanced Risk-Based (ERB) framework. The ERB approach provides a more granular framework for assessing credit risk based on loan LTVs, dependence of cash flow, public vs. private company exposure, single consumer loan concentration, and operational status of project finance loans, among other factors. The total RWA calculation will be the sum of RWAs associated with each of the five types of risk including credit, equity, operating risk, market risk and CVA risk less any amount of adjusted allowance for credit losses that is not included in tier 2 capital and any amount of allocated transfer risk reserves.

<u>GSIB</u> – Global Systemically Important Bank as determined by the Financial Stability Board and updated yearly. The eight firms currently identified as U.S. GSIBs are Bank of America Corporation, The Bank of New York Mellon Corporation, Citigroup, Inc., Goldman Sachs Group, Inc., JP Morgan Chase & Co., Morgan Stanley, State Street Corporation, and Wells Fargo & Company. Source: <u>http://www.fsb.org/wp-content/uploads/2016-list-of-global-systemically-important-banks-G-SIBs.pdf</u>.

<u>Minority Interest Limitation</u> - B3E would require that the minority interest limitations that apply to Category I and I banking organizations also apply to Category III and IV banking organizations. Capital instruments issued by the subsidiary must meet all the eligibility criteria for CET1, AT1 or T2 capital as if it were issued directly by the banking organization. In addition, there is a quantitative limit on the amount of a subsidiary's surplus capital whereby surplus capital attributable to third party investors cannot count towards the parent banking organizations regulatory capital. This is very different from the Standardized Approach which allows recognition of up to 10% minority interest capital.

Mortgage Servicing Assets (MSAs) – Contractual agreement where the right or rights to service an existing single family mortgage are sold by the original lender to another party that specializes in servicing mortgages. Calculated in accordance with the reporting instructions to Schedules RC-M of the Call Report or HC-M of Form FR Y-9C. Under the CBLR, qualifying community banking organizations would be limited to 25% or less of CBLR tier 1 capital invested in MSAs.

Nonbank Assets – For risk classification (I, II, III, IV) purposes, measured as the average amount of equity investments in nonbank subsidiaries.

Off-Balance Sheet Exposures – For CBLR purposes, the total off balance sheet exposure would be calculated as the sum of the notional amounts of: the unused portions on loan commitments (excluding unconditionally cancellable commitments); self-liquidating trade-related contingent items and transaction-related contingent items; sold credit protection in the form of guarantees and credit derivatives; credit enhancing representations and warranties; off balance sheet securitization exposures; letters of credit; forward agreements that are not derivatives contracts; and securities lending and borrowing transactions. Note that the calculation of off-balance sheet exposures for the CBLR does not require that off-balance sheet exposure be converted to on-balance sheet equivalents and assigned the appropriate risk weight. For risk classification (I, II, III, IV) purposes, off-balance sheet exposure is one of the four new risk metrics proposed by regulators as part of the EGRRCPA rework of stress testing, liquidity, and enhanced prudential standards management. This metric applies to holding companies with more than $100 billion in assets and defines total exposure (from FR Y-15) minus total consolidated assets (from FR Y-9C). Total exposure includes a banking organization's on-balance sheet assets plus certain off-balance sheet exposures including derivatives exposures, repo-style transaction, and other off-balance sheet exposures.

Prompt Corrective Action (PCA) – Bank level capital ratios required to maintain well capitalized, adequately capitalized, undercapitalized, significantly undercapitalized, or critically undercapitalized status. With the new CBLR, the regulatory agencies have proposed CBLR ratios associated with each of the PCA categories as follows: well capitalized = greater than or equal to 9.00%; adequately capitalized = greater than or equal to 7.5% but less than 9.00%; undercapitalized = greater than 6.0% but less than 7.5%; significantly undercapitalized = less than 6.0%.

Qualifying Community Bank (for CBLR) – Community banking organizations with 9.00% or more of CBLR tier 1 capital and that meet the following criteria: (i) less than $10 billion of total consolidated assets, (ii) total off-balance sheet exposures of less than 25% of total consolidated assets, (iii) total trading assets and liabilities less than 5% of total consolidated assets, (iv) mortgage servicing assets (MSAs) less than 25% of CBLR tier 1 capital, (v) temporary difference DTAs of less than 25% of CBLR tier 1 capital, and (vi) not subject to any written agreement, order or capital directive.

RWA – Risk weighted assets that comprise the denominator in the risk weighted assets ratio applicable to Basel III.

Step 1 Cap – The limit of no more than 10% of CET1 for investment in MSAs, temporary difference DTAs or unconsolidated financial institutions as defined in the October 11, 2013, Federal Register, Volume 78, No. 198, (pages 62055 to 62072), regulatory adjustments and deductions from common equity tier 1 capital included in the Basel III capital rules.

Step 2 Cap – The combined limit of 15% of CET1 for an investment in MSAs, temporary difference DTAs and unconsolidated financial institutions with investment in any one category not exceeding 10% of CET1. This cap was defined in the October 11, 2013, Federal Register, Volume 78, No. 198, (pages 62055 to 62072), regulatory adjustments and deductions from common equity tier 1 capital included in the Basel III capital rules.

TLAC – Total loss absorbing capacity rules and requirements currently applicable to 8 U.S. GSIBs and 22 foreign GSIBs. With the new August 2023 proposal, the TLAC requirements related to eligible long-term debt, clean holding companies, and the deduction for investment in external LTD debt issued by Category I – IV banking organizations (which previously only applied to Category I banking organizations).

Total Trading Assets – For CBLR purposes, a qualifying community bank is required to have 5% or less of trading assets and liabilities. This indicator is calculated as the sum of exposures in schedules RC of the Call Report or HC of the Form FR Y-9C. This ratio consists of the total trading assets and liabilities dividends by total consolidated assets.

UFIs – Unconsolidated Financial Institutions. Investment in UFIs is currently subject to a two-step cap: (i) 10% of adjusted CET1 (increased to 25% under the Basel III simplification) and (ii) 15% cap of adjusted CET1 for the combination of investment in UFIs, MSAs and DTAs.

Thomas W. Killian *is a Managing Director in the Investment Banking Group at Piper Sandler.*
Previously, he was a Principal of Sandler O'Neill & Partners, L.P. His 40+ -year career in commercial and investment banking includes seven years of commercial banking experience with NationsBank, structuring and arranging leveraged finance transactions; two years with Salomon Brothers, transacting capital markets and advisory assignments for a variety of major corporations; five years with J.P. Morgan, managing financial advisory and capital raising activities for banks and thrifts in the Western region of the United States; 28 years with Sandler O'Neill; and three years with Piper Sandler & Co., advising banks, thrifts, insurance companies, and government agencies on a variety of capital markets, strategic advisory and M&A assignments.

Mr. Killian has managed the successful execution of numerous M&A and capital raising transactions. More recently, he advised the U.S. Treasury on its $9 billion Emerging Capital Investment Program and the FDIC in its resolution of Silicon Valley Bank and Signature Bank. He represented Sandler O'Neill in conferences with the Federal Financial Institutions Examinations Council, the Federal Reserve, and the Federal Deposit Insurance Corporation among others to discuss capital structure, CECL, Dodd-Frank and Basel III related issues. His articles have appeared in Bank Accounting and Finance, U.S. Banker and Modern Bankers, a publication of the Peoples Bank of China. Mr. Killian holds a Bachelor of Science from the University of North Carolina at Chapel Hill, where he was a John Motley Morehead Merit Scholar, and a Masters in Business Administration from Northwestern University's J.L. Kellogg Graduate School of Management.

Weison Ding is a Director in the Institutional Equities Group at Piper Sandler. Previously, he was a Director at Sandler O'Neill & Partners. His career involves advising institutional clients on both public and private investment opportunities within the Financials vertical. Weison Ding holds a Bachelor of Science from the George Washington University.

General Information and Disclaimers

This report has been prepared and issued by Piper Sandler & Co., a registered broker-dealer and a member of the Financial Industry Regulatory Authority, Inc. The information contained in this report (except information regarding Piper Sandler & Co. and its affiliates) was obtained from various sources that we believe to be reliable, but we do not guarantee its accuracy or completeness. Additional information is available upon request. The information and opinions contained in this report speak only as of the date of this report and are subject to change without notice. Contact information for Piper Sandler & Co. and the author of this report is available at www.PiperSandler.com

This report has been prepared and circulated for general information only and presents the author's views of general market and economic conditions and specific industries and/or sectors. This report is not intended to and does not provide a recommendation with respect to any security. This report does not take into account the financial position or particular needs or investment objectives of any individual or entity. The investment strategies, if any, discussed in this report may not be suitable for all investors. Investors must make their own determinations of the appropriateness of an investment strategy and an investment in any particular securities based upon the legal, tax and accounting considerations applicable to such investors and their own investment objective. Investors are cautioned that statements regarding future prospects may not be realized and that past performance is not necessarily indicative of future performance.

This report does not constitute an offer, or a solicitation of an offer, to buy or sell any securities or other financial instruments, including any securities mentioned in this report. Nothing in this report constitutes or should be construed to be accounting, tax, investment or legal advice.