



**State Treasurer of Ohio
Ohio Pooled Collateral System (OPCS)**

April 7, 2017

OPCS Background

OPCS

- The Ohio Pooled Collateral System (OPCS) allows for participating Financial Institutions (FI) to pool collateral for Ohio Public Unit's (PU) deposits.
- The Treasurer of State (TOS) is the sole administrator and monitor of the program.
- FI's will chose to 1) participate in the pooling method (OPCS) collateralizing at 102% or a rate set by the Treasurer in rule or 2) not participate in OPCS and collateralize all public entities with specific pledge method at 105%.

OPCS Stakeholders

- TOS: Treasurer of State – charged with the creation and implementation of the Ohio Pooled Collateral System
- Financial Institutions (FI): Banks that are qualified public depositories in Ohio
- Build Banks: Six banks that have volunteered to assist TOS with the creation of the system
- Public Units (PU): Local Governments in Ohio (i.e. Cities, Townships, Counties, Villages, Special Districts)
- Trustees: entities approved by the Ohio Department of Commerce as Collateral Trustees or entities approved as Collateral Trustees in the Ohio Revised Code

Monitoring Responsibility

- **Specific Pledge Method**

Responsibility for monitoring the FI's compliance falls solely on the public entity who is required to maintain a record of all securities pledged at all times.

- **Pooling Method**

TOS is responsible for monitoring the FI's collateral levels and compliance. The FI will be required to electronically report to the OPCS. The FI may choose any eligible and approved collateral trustee and pledge a single pool of collateral through OPCS for all of the FI's uninsured Ohio public entity deposits.



Benefits of OPCS

- Centralized collateral monitoring will save time and resources for local governments by shifting the administrative burden for managing pledged collateral to the Treasurer of State.
- Provides administrative benefits for financial institutions by streamlining the processing and management of pledged collateral.
- Guards against fraud since the TOS will be able to see all pledged collateral compared to the total amount of public deposits at a financial institution.
- OPCS does not impact a local governments ability to select which eligible institution will hold its deposits.



Public Unit Responsibilities

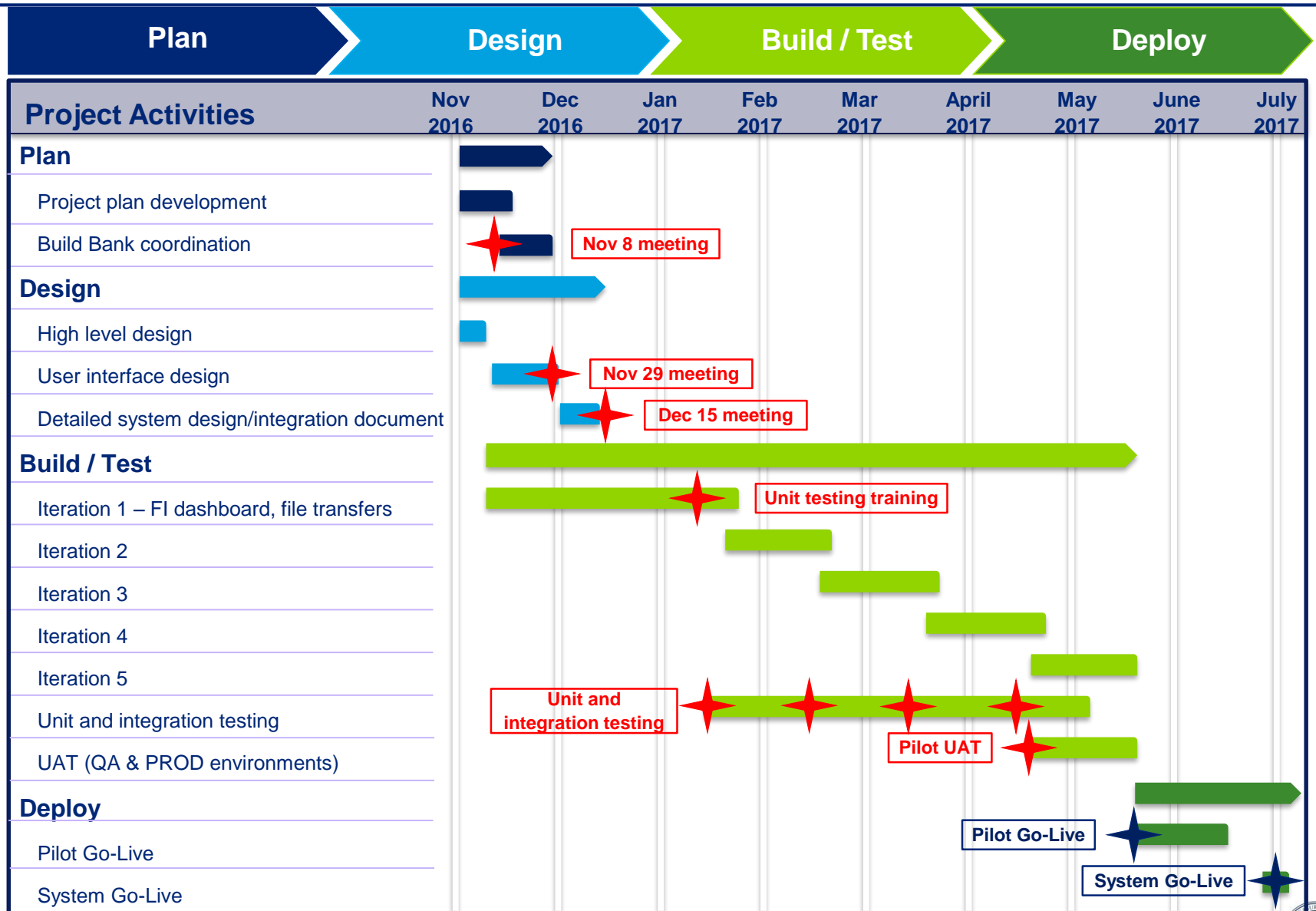
Public Units will Participate in OPCS Using the Following Methods:

- The Treasurer of State will provide market pricing of all collateral and publish the reports on the OPCS portal.
 - Public Units will be responsible for reviewing and monitoring the reports posted, verifying the accuracy of reports of their itemized deposits, and reporting any discrepancies to their financial institution.
 - Public Units will mutually agree to communication prompts with their financial institution to notify the financial institution of any atypical changes in deposits within a reasonable time prior to the change.
- The Treasurer of State will provide OPCS access to the public units.
- Public units shall periodically certify account details, including deposit balances, and contact details are correct, in accordance with the schedule set by the Treasurer of State.
- Public Units may negotiate a public unit negotiated collateral requirement for individual accounts with their financial institution, which may be higher than the statutory collateral requirement or the reduced collateral floor as applicable.



Overview

Project Timeline

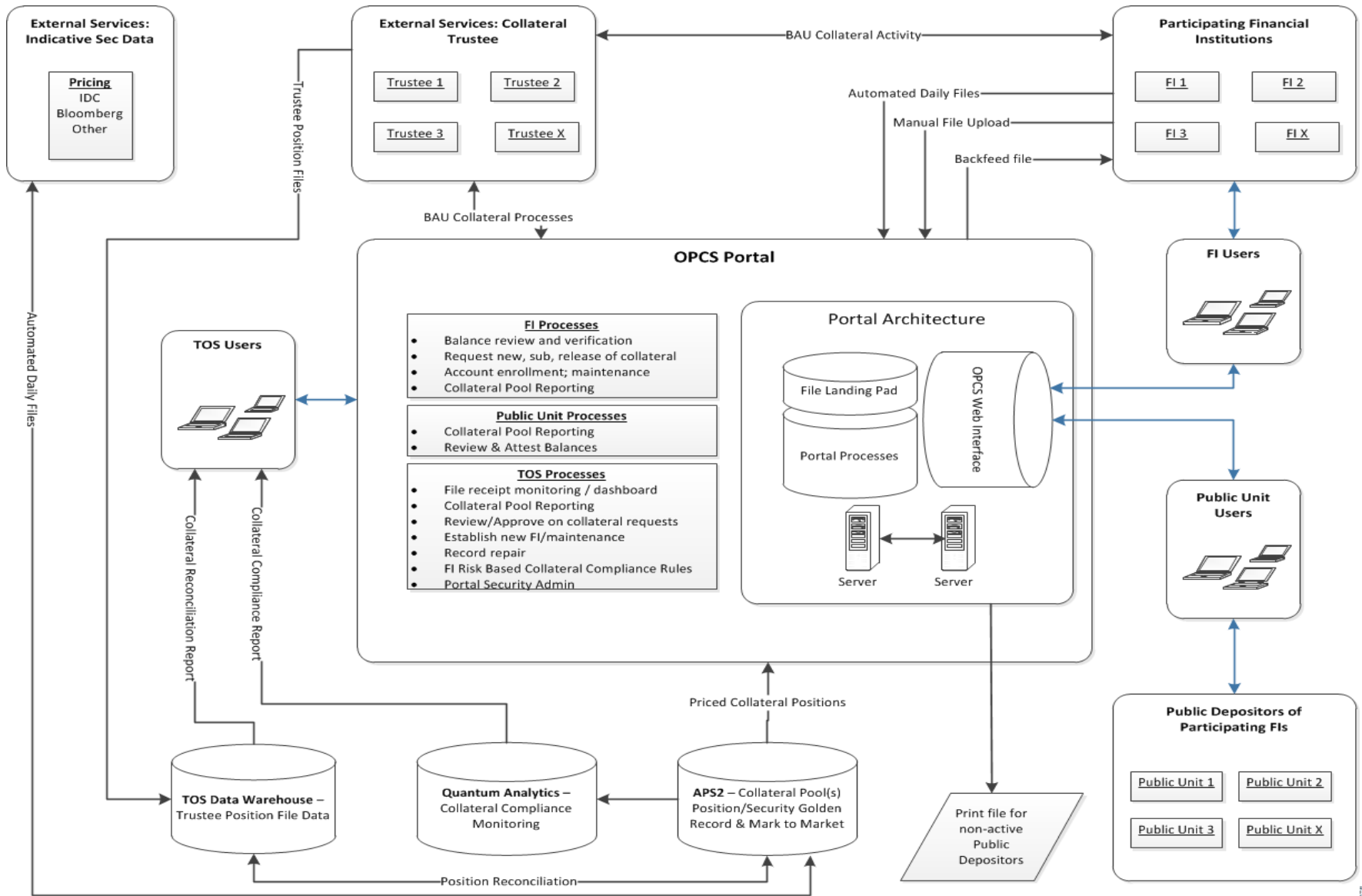


Legend:

- Key Build Bank Milestone
- Key HMB Deliverable



Possible System Architecture



SCALE Model

Model Objectives

The Treasurer's Office is using the following objectives when drafting the Model:

- Be stringent, but fair
- Be transparent, objective, and externally reproducible – be predictable
- Only use data for evaluation from externally and publically available sources, no additional data requested from FIs
- Evaluate a FI's micro-economic condition, as well as its relative position to Ohio, regional, and national peer groups
- Evaluate and take into account macro-economic issues impacting the banking sector
- Recognize and risk account when external market data elements are unavailable for a FI

The model does not imply, create, or construe the Treasurer's Office as a de facto ratings agency



Components

SCALE Components

Sensitivity to Risk is the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a bank's earnings or economic capital.

Capital Adequacy is a measurement of a bank to determine if solvency can be maintained due to risks that have been incurred as a course of business.

Asset Quality evaluates risk, controllability, adequacy of loan loss reserves, and acceptable earnings; and the effect of off-balance sheet earnings and loss.

Liquidity is what a bank requires if funding is interrupted and the bank must still be able to meet certain obligations, i.e. the bank's ability to repay depositors and other creditors without incurring excessive costs.

Earnings determine the ability of a bank to increase capital (through retained earnings), absorb loan losses, support the future growth of assets, and provide a return to investors.



Component and Composite Score System

A FI will receive a score for each of the five SCALE Components which will in turn be used to determine the SCALE Composite score.

SCALE Component Ratings

The SCALE Component scores are assigned based on a 1 to 5 numerical scale:

- A “1” score indicates strong individual and peer based performance relative to the institution’s size, complexity, and risk profile.
- A “5” score indicates a low level of individual and peer based performance relative to the institution’s size, complexity, and risk profile.

SCALE Composite Rating

The SCALE Composite rating generally bears a close relationship to the SCALE Component ratings but is not derived by an average of the SCALE Component ratings:

- The Composite score is based on the weight the SCALE model assigns to each Component.



Component Score Concepts

- Unlike the CAMELS rating system in place with Federal regulators, each SCALE Component score is solely determined mathematically. This ensures objective and reproducible analysis is applied consistently across all participating FIs.
- A FI's Component score is determined through evaluation of both required variables ("Required Variable") and influencing variables ("Influencing Variable").
- A Component score is calculated by a FI's individual and peer group based performance against Required Variables and Influencing Variables.
- A FI cannot score higher than 1.00 or lower than 5.00.



Peer Grouping

SCALE benchmarks FIs to their peer groups to evaluate Component variable relative performance against an individual FI's peer group mean. The SCALE peer grouping ("Peer Group") is based on a modified version of the federal uniform bank performance reporting (UBPR) peering rules.

Rule Based Collateral participating FIs are grouped into one of six OPCS Peer Groups based on the FI's asset size and other characteristics. None of the six Peer Groups differentiates between commercial and savings banks types. Peer Groups are still under review and are subject to change.

Peer Group #	Asset Class	GSIB*	Approximate # in Peer Group Sample**	Approximate # in Ohio
Group 1	> \$10 billion	Yes	8	4
Group 2	> \$10 billion	No	100	14
Group 3	> \$3 billion, < \$10 billion	No	185	14
Group 4	> \$1 billion, < \$3 billion	No	440	13
Group 5	> \$100 million, < \$1 billion	No	390	125
Group 6	< \$100 million	No	390	60

* Global systemically important banking organizations (GSIB) have been designated as such. Currently there are eight U.S. firms identified as GSIBs.

** All Ohio FIs in each peer group are included in the Peer Group Sample.



Component Scoring - Review

It is anticipated, but not finalized, the following calculation methodology will be used to calculate Component scores.

Each variable will be calculated for every FI applying for a Reduced Collateral Floor. The result will first be compared to the benchmark determined for the variable and then compared to Peer Group FIs to calculate its Standard Deviation (SD).

	Initial Component Score:		1.0
Step 1. Bench Mark Comparison	A. Required Variable	Pass: Fail:	+0 Component Score = 5.0
	B. Influencing Variable	Meets: Does Not Meet:	+0 +0.25
Step 2. Standard Deviation (SD) from Peer Group	SD between 1.0 and 2.0:		+0.25
	SD > 2.0:		+0.50
Final Component Score :			Add results of each calculated variable to initial component score



Reduced Collateral Determination

- FIs who apply for and are approved for a reduced collateral floor by meeting the application requirements will be granted an initial State Collateral Floor of 50%.
- FIs who apply for and are not approved for a reduced collateral floor will remain on the State Collateral Floor of 102%.
- FIs who do not apply for a reduced collateral floor will remain on the State Collateral Floor of 102%.
- Simplified component scoring methodology.
- The Treasurer's Office is considering including a secondary evaluation organization as an additional data point to complement SCALE.



Reduced Collateral Floor Application Requirements - Review

- A SCALE Composite and Component score of 2.25 or less for the current quarter;
- A SCALE Composite and Component average score of 2.25 for the past five quarters;
- Have no concerning sensitivity, capital, asset, liquidity, or earnings trends for a rolling 3 year period;
- Be in good standing with government regulators with respect to their deposit business;
- Not be a de novo bank as reported by the FDIC;
- Have no more than 30% of total assets comprised of Ohio public deposits; and
- The Treasurer's Office has not detected any adverse macro-economic or bank sector indicators or trends.

FIs that fail to meet these requirements will not be approved for a reduced collateral floor and their collateral requirement will remain at the statutory level of 102%



Macro-Economic Monitoring

The Treasurer's Office will be utilizing macro-economic monitoring protocols to identify potentially emerging economic concerns that might require an overall OPCS program level collateral call for participating reduced collateral FIs.

Macro-economic Indicators

- Smoothed U.S. Recession Probability Index:
 - Government generated leading indicator that tracks four monthly variables;
 1. Nonfarm payroll employment,
 2. Index of industrial production,
 3. Real personal income excluding transfer payments, and
 4. Real manufacturing and trade sales.
 - Negative trend is defined as three consecutive months of smoothed probabilities above 80%.
- 10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity:
 - Market generated statistic that evaluates the spread between interest rates on 10-year U.S. Treasuries and 2-Year U.S. Treasuries.
 - Negative trend is defined as a one month instance of a negative spread observation.
- Both of these variables are produced and are publically available via the St. Louis Federal Reserve's website with Federal Reserve Economic Data ("FRED"): <https://fred.stlouisfed.org/>



Regional Economic Monitoring

The Treasurer's Office will be utilizing banking sector monitoring protocols to identify potentially emerging economic concerns that might require an overall OPCS program level collateral call for participating reduced collateral FIs.

Regional Economic Indicators

- The Treasurer of State will monitor an Ohio-specific leading economic indicator, the leading index for Ohio as produced by the Federal Bank of Philadelphia, in which a negative trend is defined a negative percentage observation instance occurring in three consecutive months.



Bank and Economic Monitoring Action Steps

If a negative FI or macro-economic trend is determined, the Treasurer's Office may, at their sole discretion, implement a specific FI, Peer Group or OPCS wide collateral call via the Bank Monitoring and/or Economic Monitoring escalation process.

Active

- FI's statutory collateral requirement
- Determined by OPCS rules and implemented upon approval

Action 1

- Additional 0-10% to statutory collateral requirement (not to exceed 102%)
- ≤90 days to meet increased collateral requirement

Action 2

- Additional 10-25% to statutory collateral requirement (not to exceed 102%)
- ≤60 days to meet increased collateral requirement

Action 3

- Statutory collateral requirement increased to 102%
- ≤30 days to meet increased collateral requirement



SCALE – Component Values

Component	Variable	Variable Type	Variable Lower Limit	Variable Upper Limit	SD Impact
Sensitivity	De Novo Flag	Required	Pass	Pass	N/A
	Operating Assets	Required	70.00%	99.00%	Positive & Negative
	Test for Restart Stress	Required	Nominal	Nominal	N/A
	FHLB Advances-to-Assets	Required	0.00%	15.00%	Positive
	Publically Traded Test	Influencing	Yes	Yes	N/A
	Operating Efficiency	Influencing	N/A	85.00%	Positive
	Long-term Assets/Total Assets	Influencing	0.00%	50.00%	Positive
	At-Risk Market Assets to Lending Ratio	Influencing	0.00:1	0.50:1	Positive
	Loans and Commitment Exposure Leverage	Influencing	0.00%	100.00%	Positive
	Lending Support from Deposits	Influencing	\$1.00	N/A	Negative
	Institutional + Misc Lending to Total Lending	Influencing	0.00%	15.00%	Positive
	Riciprocal Adjusted Brokered Deposits to Total Deposits	Influencing	0.00%	10.00%	Positive
	Foreign Deposits to Total Deposits	Influencing	0.00%	10.00%	Positive
Cost of Funds Test	Influencing	N/A	N/A	+1.00 SD or less than Peer Group	

Component	Variable	Variable Type	Variable Lower Limit	Variable Upper Limit	SD Impact
Capital Adequacy	Common Equity Tier 1 Ratio (CET1)	Required	4.50%	N/A	Negative
	Tier 1 Leverage Ratio	Required	5.00%	N/A	Negative
	Tier 1 to Risk Weighted Assets Ratio	Required	6.00%	N/A	Negative
	Risk Based Capital to Risk Weighted Assets Ratio	Required	10.00%	N/A	Negative
	Tangible Common Equity Ratio	Required	6.50%	N/A	Negative
	Supplemental (T1+T2) to RWA Ratio	Required	8.00%	N/A	Negative
	Supplemental T1 Leverage Margin	Required	2.00%	N/A	Negative
	Risk Based Capital Growth Rate	Influencing	0.00%	N/A	Negative



SCALE – Component Values

Component	Variable	Variable Type	Variable Lower Limit	Variable Upper Limit	SD Impact
Asset Quality	Risk Adjusted Return on Economic Capital (RAROC)	Required	-1.00%	N/A	Negative
	Net Interest Margin Annualized (NIMY)	Required	2.00%	N/A	Negative
	Texas Ratio	Required	0.00%	30.00%	Positive
	Basel II: Credit Benchmark – PD Rating Method 1 & 2	Required	BBB- or better	N/A	N/A
	Weighted Average Maturity	Influencing	1.5 Years	10.0 Years	N/A
	Economic Capital at Risk Greater than Tier 1 Capital	Influencing	0.00:1	2.50:1	Positive
	Loss Given Default	Influencing	N/A	75.00%	Positive
	Exposure at Default (EAD)	Influencing	0.00%	100.00%	Positive
	Defaults vs. Provisions	Influencing	0.00%	100.00%	Positive
	Gross Defaults	Influencing	N/A	N/A	0.50 SD or Less
	Troubled Lending as % of Total Lending	Influencing	0.00%	20.00%	Positive
Loss Provisions to Adjusted Loans	Influencing	N/A	100.00%	Positive	
1 Year Loan Growth/Decline	Influencing	0.00%	N/A	Negative	

Component	Variable	Variable Type	Variable Lower Limit	Variable Upper Limit	SD Impact
Liquidity	30-Day Operational Liquidity Ratio, via Cash Flows	Required	100.00%	N/A	Negative
	Balance Sheet Nominal & Stress Scenario Test	Required	Pass	N/A	N/A
	On Hand Liquidity to Average Assets Ratio	Influencing	5.00%	N/A	Negative
	Loss Absorption Capacity Margin for Uninsured Deposit Counterparties	Influencing	5.00%	N/A	Negative
	1-Year Short Term Debt Service Test	Influencing	1.00:1	N/A	Negative
	Short-term Liabilities/Total Assets	Influencing	0.00%	5.00%	Positive
	Non-core Deposits to Total Liabilities	Influencing	0.00%	10.00%	Positive

Component	Variable	Variable Type	Variable Lower Limit	Variable Upper Limit	SD Impact
Earnings	Return on Average Assets	Required	0.00%	N/A	Negative
	Return on Average Equity	Required	0.00%	N/A	Negative
	Adjusted Return on Equity	Required	0.00%	N/A	Negative
	Non-Interest Income to Average Assets	Required	0.00%	N/A	Negative
	Return on Tangible Assets	Influencing	0.00%	N/A	Negative
	Gross Profit Rate, YTD	Influencing	60.00%	N/A	Negative
	Lending Profitability	Influencing	0.00 bp	N/A	Negative



Questions

Lizz Lewis, Director of Legislative, Policy & Constituent Affairs
Elizabeth.Lewis@tos.ohio.gov – 614-728-9251

