

Liquidity Considerations: Awareness for the Road Ahead

6th Annual New England Banking Workshop



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STIFEL | Fixed Income Strategy

More than 125 years old and still growing

Reviewed: 10/03/17

Executive Summary

- Stifel is pleased to discuss trends and strategies surrounding liquidity, wholesale funding, and capital management
- The objectives of this presentation are to cover the following topics:
 - Discuss betas/pricing behavior over the last year and their potential path for the future
 - Exemplify opportunistic trades for reducing wholesale funding and capital costs
 - Assess potential asset sales
 - Provide templates for liquidity reporting

- ***LCR & Deposit Trends***
 - *Derivatives Considerations*
 - *Securities Portfolio Considerations*
 - *Whole Loan Considerations*
 - *Subordinated Debt Issuance*
 - *Liquidity Reporting Emphasis*
-

Basel III Liquidity Coverage Ratio (LCR)

- **The Liquidity Coverage Ratio (LCR)** must be managed primarily by depositories with greater than \$50 billion in total assets, explicitly excluding community banks. This rule requires subject institutions to hold cash, Treasuries, GNMMAs, and certain other assets in an amount equal to certain prescribed runoff rates for deposits/liabilities/off balance sheet commitments.

LCR Calculation:

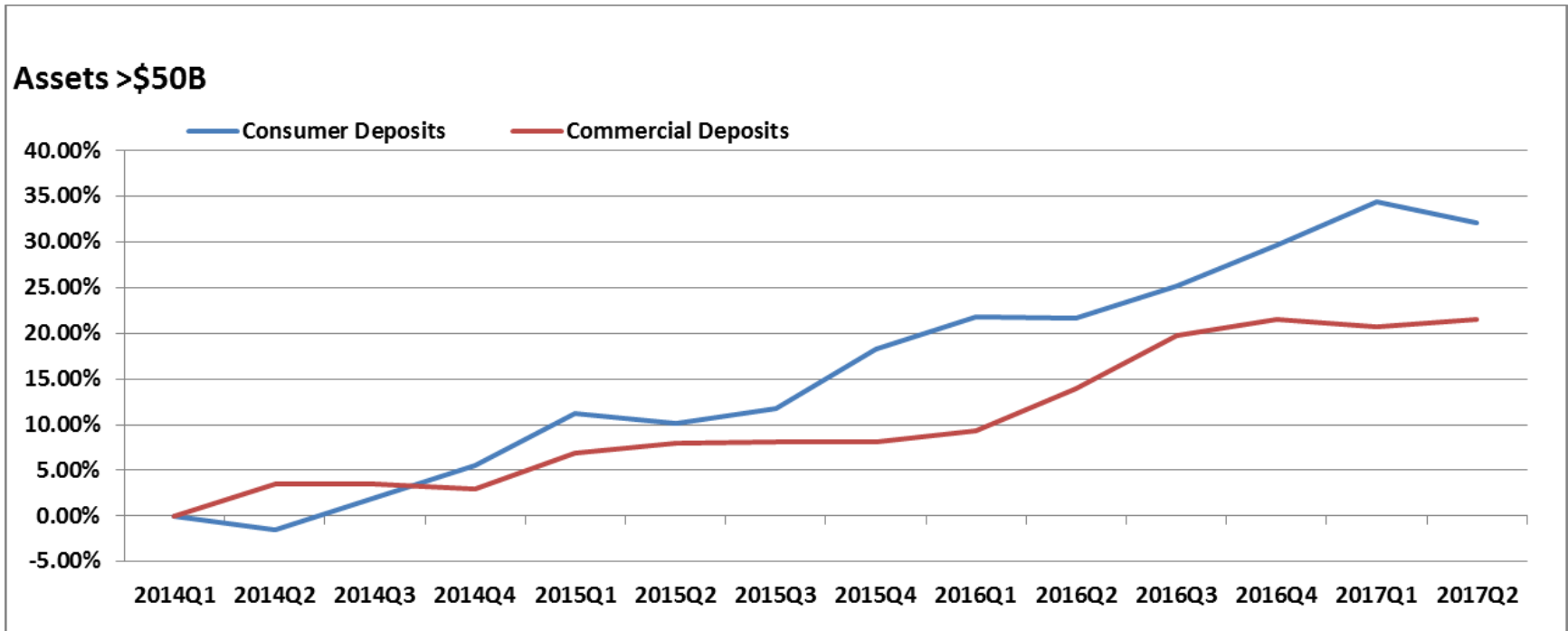
$$\text{Liquidity Coverage Ratio} = \frac{\text{High Quality Liquid Assets (HQLA)}}{\text{Total Net Cash Outflow over Next 30 Calendar Days}}$$

Unsecured Retail Funding*	Standard
Stable Retail Deposits entirely covered by insurance	3%
Other Retail Deposits	10%

*Not a comprehensive list

LCR Implications on Deposits

Change in Deposit Mix Among Banks and Thrifts, by Asset Size (%)



(1) Data provided by SNL as of 6/30/2017

(2) Represents change in aggregate consumer deposits and aggregate commercial deposits compared to the first quarter of 2014.

(3) Analysis is limited to commercial banks and savings banks with \$1B or more in total assets as of 12/31/2016

(4) Excludes institutions that answered "no" to a call report query on offering consumer deposit accounts in any of the last six quarters

(5) Represents transaction and nontransaction savings account deposit products, intended primarily for individuals for personal, household, or family use

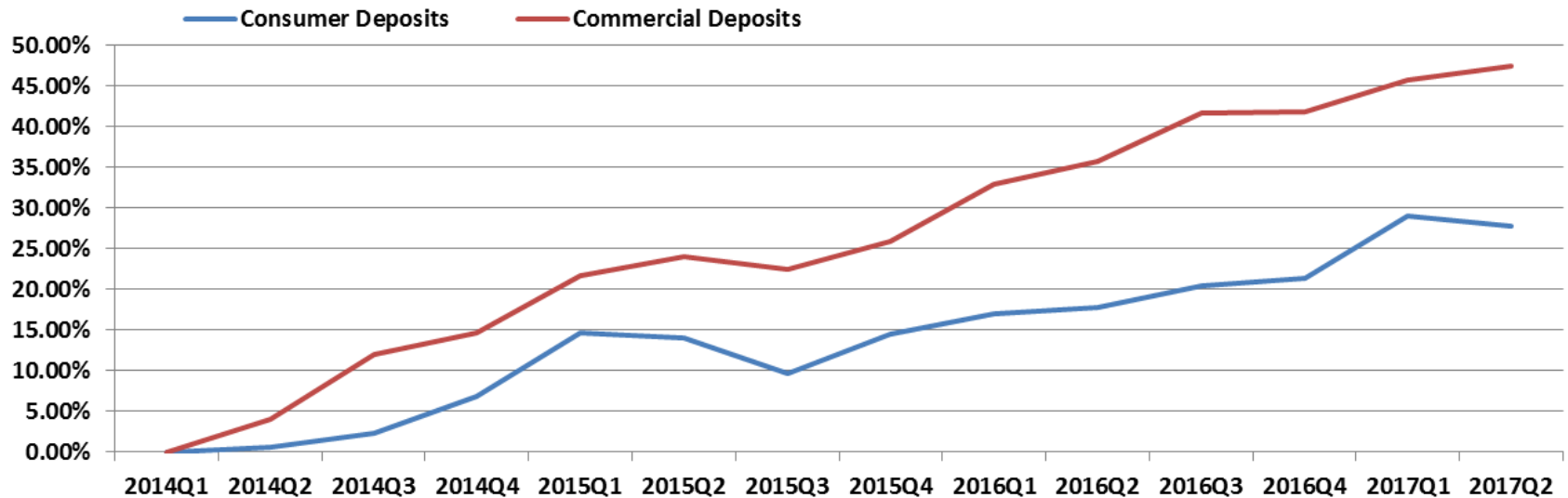
(6) Represents transaction and nontransaction savings account deposits products, intended for individuals, partnerships, and corporations

(7) Time deposits held by individuals, partnerships, or corporations are excluded from the analysis

LCR Implications on Deposits

Change in Deposit Mix Among Banks and Thrifts, by Asset Size (%)

Assets between \$1B - \$50B



(1) Data provided by SNL as of 6/30/2017

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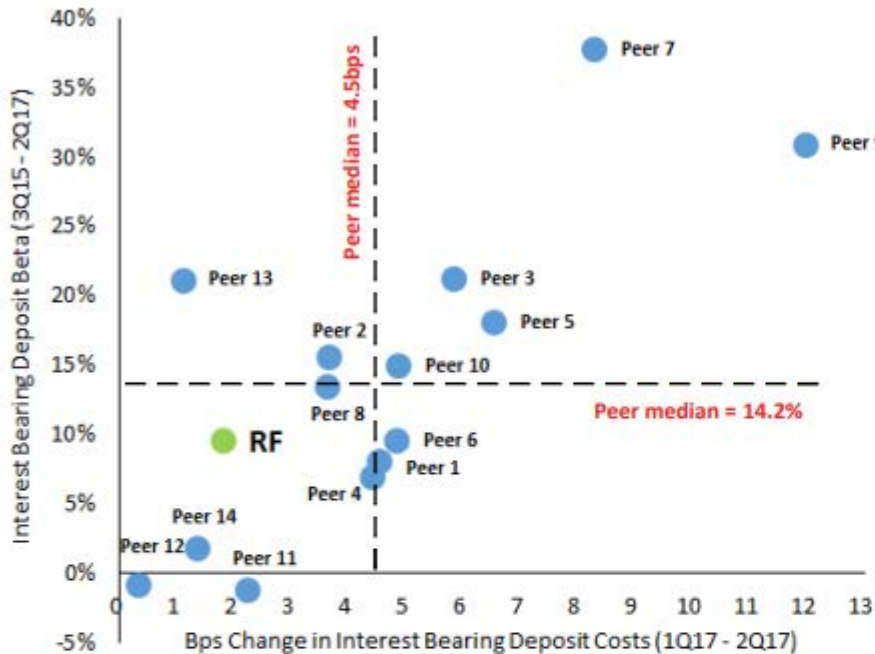
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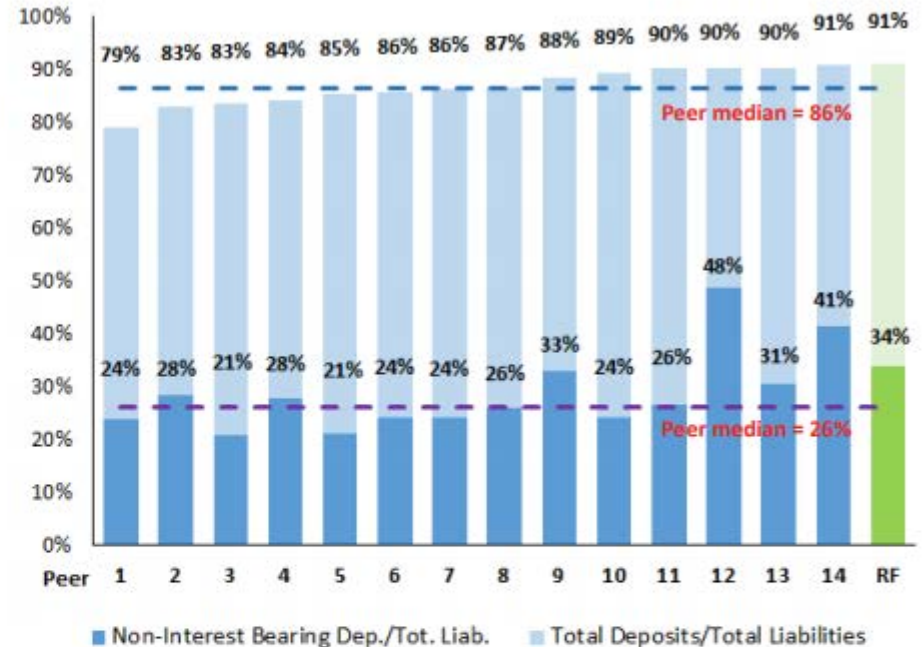
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Deposit Composition Comparison: Regions Financial Corporation (RF)

Interest bearing deposit betas



Deposit funding composition



- Regions' predominantly deposit funded balance sheet, which includes an attractive mix of low cost deposits, provides for a competitive funding advantage against the peer set
 - 91% of liability funding is comprised of deposits, the highest in the peer group
 - 34% of liability funding is in non-interest bearing accounts, the third highest in the peer group
- This advantage is evidenced in the current rising rate cycle through Regions' 10% deposit beta to date versus the peer median of 14%

7 Peers include: BBT, CFG, CMA, FHN, FITB, HBAN, HBHC, KEY, MTB, PNC, SNV, STI, USB, ZION
Source: SNL Financial



Implied Deposit Betas 4Q16 - 1Q17

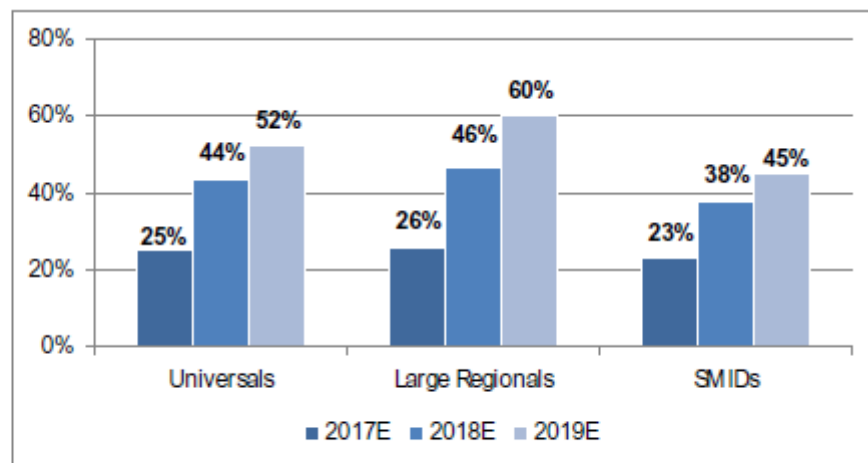
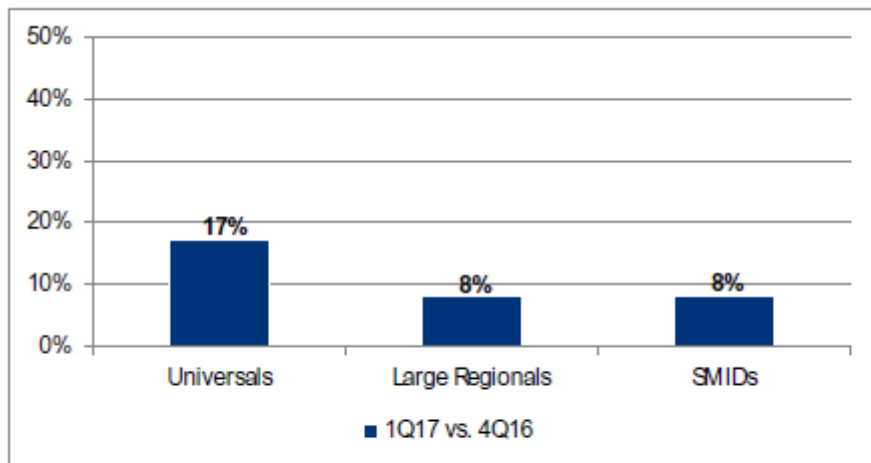
Implied Deposit Betas 4Q16 – 1Q17¹:

Universal Banks: Median 17% beta on interest-bearing deposits (IBD)

Large Regionals: Median 2bps or 8% beta

Small-Mid Sized Banks (SMIDs): Median 1.5bps or 6% beta, with a handful of SMIDs where IBD costs moved more meaningfully, as 7 banks saw 30+% IBD betas q/q

1Q17 IBD Betas Results vs. KBW FY Forecasts²



Source: KBW Research, Company Reports.

Implied Deposit Betas 1Q17 - 2Q17

- Evidence of IBD costs moving higher, albeit still mostly contained, with median IBD beta 16% in Q2 (for 86 banks that have reported as of report date of 7/23/17), which is twice as high as the 8% beta last quarter
- Key takeaway post the June rate hike was the larger increases coming in online deposit market
- Overall, banks still benefiting from rising rates as reported NIMs expanded +1bp median Q1 and +5bps median Q2

Implied Deposit Betas 1Q17 – 2Q17¹:

Universal Banks: +9bps/16% beta median 1H17, +5bps/20% beta median QoQ

Large Regionals: +7bps median 1H17, +4bps median QoQ

Small-Mid Sized Banks (SMIDs): +6bps 1H17, +4bps median QoQ

Debate Over Deposit Betas This Cycle¹

Factors That Support Lower Deposit Betas¹

- **The Fed's Balance Sheet.** The Fed's \$4.5 trillion balance sheet is five times larger than it was during the last higher-rate cycle, while the U.S. economy has grown approximately 50%. The Fed balance sheet creates a large amount of bank liquidity, limiting the demand for deposits.
- **A More Concentrated Banking System.** The concentration of bank deposits at the largest banks has doubled since the last rate cycle, with **BAC**, **WFC** and **JPM** dominant in many markets, potentially creating greater pricing power and less competition for deposits.
- **Potential Reduced Bank Liquidity Requirements.** The current administration is considering significant regulatory reform which could reduce the need for large banks to hold liquid assets, potentially reducing the demand for deposit funding.
- **Reduced Competition from Money Funds.** Most non-treasury money funds are no longer viable competition for banks as a result of the floating NAV rules, reducing non-bank competition for deposits.
- **Reduced Earning Asset Growth:** Earnings asset growth for the banks was 8% during the last tightening cycle. That has been 4% recently at the big banks and could be less if liquidity rules are relaxed.

Factors That Support Higher Betas¹

- **Technology.** The ease with which consumers can move money into high-rate accounts on their phones wasn't available in the last rate cycle, and should accelerate the amount of money flows into the highest-rate insured deposits.
- **Foreign Bank Competition.** With the intermediate bank holding company rules, foreign banks have to fund U.S. operations in the U.S., which could increase their demand for U.S. deposits.
- **Rates Reaching Threshold Levels.** Consumers and businesses appear to have limited appetite to "rate shop" at the current level of interest rates. This is likely to accelerate as rates move higher.

Net Interest Income Variations

Net Interest Income Variations - 15 Largest SABER Users*

Peer #	Total Assets (\$Bs)	Net Int Margin	-100 bps	+100 bps	+200 bps	+300 bps	+400 bps
1	\$13.6	3.22%	-17.5%	4.3%	8.3%	12.2%	16.0%
2	\$13.5	2.27%	-4.3%	-1.1%	-5.4%	-13.1%	-22.7%
3	\$9.1	3.78%	-3.7%	0.9%	1.8%	2.4%	3.0%
4	\$6.3	4.16%	-7.0%	5.7%	1.7%	3.2%	3.9%
5	\$4.4	3.19%	-8.4%	7.0%	13.9%	20.7%	27.5%
6	\$3.3	3.49%	-10.0%	3.7%	4.8%	6.7%	8.5%
7	\$2.9	2.57%	4.4%	-5.9%	-13.2%	-20.8%	-28.6%
8	\$2.7	4.03%	2.5%	-2.6%	-4.9%	-7.4%	-10.1%
9	\$2.4	3.77%	-4.6%	0.7%	1.1%	1.3%	-0.9%
10	\$2.2	2.40%	-9.2%	0.7%	-0.5%	-6.1%	-6.7%
11	\$2.1	4.08%	-0.1%	3.9%	6.5%	6.7%	5.4%
12	\$1.9	3.69%	-5.6%	0.4%	0.2%	-0.2%	-0.9%
13	\$1.8	3.73%	-5.9%	3.8%	8.1%	12.0%	15.2%
14	\$1.5	3.53%	-1.3%	-1.8%	-3.8%	-6.0%	-8.1%
15	\$1.4	3.92%	-7.4%	3.7%	1.9%	1.7%	-0.7%
Average Total Assets		\$4.6					
	Median	3.69%	-5.6%	0.9%	1.7%	1.7%	-0.7%
	Max	4.16%	4.4%	7.0%	13.9%	20.7%	27.5%
	Min	2.27%	-17.5%	-5.9%	-13.2%	-20.8%	-28.6%

* Commercial Banks only - as of 6.30.17

Economic Value of Equity Variations

Economic Value of Equity Variations - 15 Largest SABER Users*

Peer #	Total Assets (\$Bs)	-100 bps	+100 bps	+200 bps	+300 bps	+400 bps
1	\$13.6	-19.2%	-0.5%	-1.5%	-2.5%	-3.7%
2	\$13.5	-0.6%	-6.9%	-16.8%	-28.9%	-42.5%
3	\$9.1	-8.8%	3.8%	5.1%	5.0%	4.3%
4	\$6.3	-8.9%	5.6%	1.9%	2.6%	2.6%
5	\$4.4	-7.1%	4.8%	8.0%	10.2%	12.0%
6	\$3.3	-5.9%	-1.0%	-5.7%	-12.2%	-17.8%
7	\$2.9	2.3%	-2.3%	-8.2%	-15.7%	-23.7%
8	\$2.7	1.9%	-3.6%	-7.8%	-12.3%	-16.4%
9	\$2.4	-9.5%	3.9%	6.3%	7.7%	8.4%
10	\$2.2	-6.7%	-3.2%	-9.6%	-19.0%	-26.6%
11	\$2.1	-2.3%	3.5%	4.5%	2.4%	-1.5%
12	\$1.9	-5.9%	0.6%	-1.2%	-4.2%	-8.3%
13	\$1.8	-3.7%	1.1%	0.8%	-0.2%	-1.7%
14	\$1.5	13.1%	-10.5%	-20.4%	-30.0%	-39.0%
15	\$1.4	-4.3%	-1.5%	-8.0%	-13.7%	-21.1%
Average Total Assets		\$4.6				
	Median	-5.9%	-0.5%	-1.5%	-4.2%	-8.3%
	Max	13.1%	5.6%	8.0%	10.2%	12.0%
	Min	-19.2%	-10.5%	-20.4%	-30.0%	-42.5%

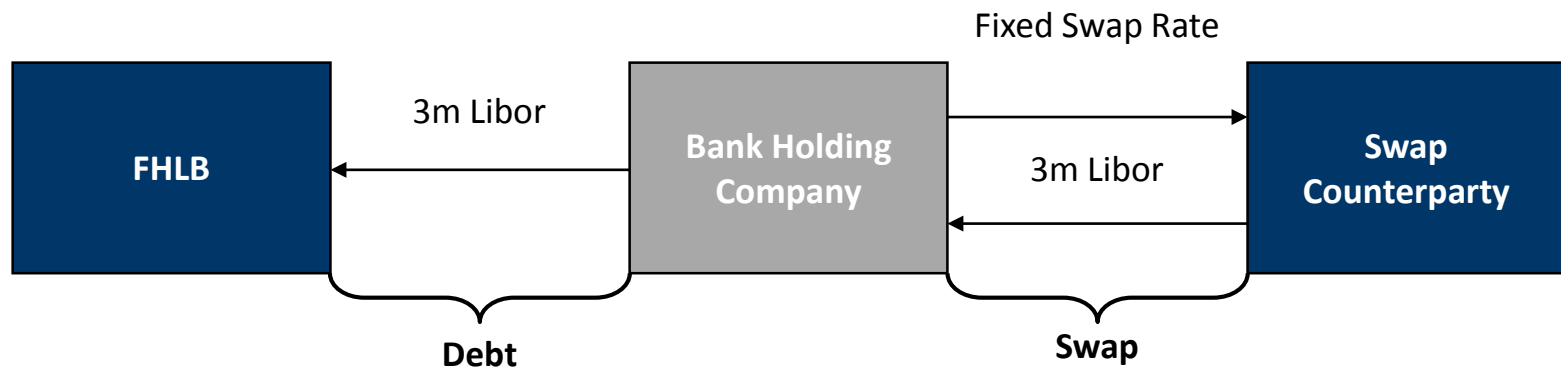
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Wholesale Funding Alternative: Pay Fixed Interest Rate Swaps

Lower Cost Funding Alternative: Pay Fixed Interest Rate Swaps

- A pay fixed interest rate swap is an effective hedge to guard against rising interest rates
- This instrument is effectively a fixed rate borrowing, where the changes in market value of the swap move in the opposite direction of fixed rate securities and are recorded in Other Comprehensive Income (OCI), not earnings
 - Opportunity for utilization depends on structure and presence of existing wholesale funding book (e.g., FHLB advances, brokered CDs, etc.) and composition of retail funding base
 - Compared to other solution for rates up protection (Held-to-Maturity designation and longer term fixed rate funding), this provides realizable gain in rates up and limits future balance sheet encumbrance



Cost Comparison: Swaps vs. FHLB Borrowings

- The grid below illustrates the relative cost savings of using pay-fixed interest rate swaps as a replacement for regular fixed rate FHLB advances from FHLB Boston
- Cost savings increase for longer tenors as “term premium” charged by FHLB is greater for longer tenors

Rolling Series of 3 Month Fixed Rate Advances					
	FHLB Boston Fixed Rate Advance	Swap Rate (vs. 3 Mo LIBOR) ¹	FHLB Boston 3 Mo Advance Spread ^{2,3}	Total Borrowing Cost (Swap + Spread)	Cost Savings
3Y	2.02%	1.89%	0.05%	1.94%	8 bps
4Y	2.19%	1.96%	0.05%	2.01%	18 bps
5Y	2.33%	2.03%	0.05%	2.08%	25 bps
7Y	2.66%	2.16%	0.05%	2.20%	46 bps
10Y	3.04%	2.30%	0.05%	2.35%	69 bps

(1) Indicative levels as of 9/27/2017

(2) FHLB rates provided by FHLB Boston as of 9/27/2017

(3) Implied spread assumed to remain constant over the life of the hedge

Roll Down Impact/Worst Case Scenario

Worst Case Scenario

- Scenario defined
 - Short term rates do not rise
 - 5Y Treasury remains at historically low levels
- Impact on financials due to scenario
 - Interest expense will be higher relative to overnight borrowing cost (assuming short-end of the curve also stays anchored)
 - Mark-to-market on the swap strategy is negative, thereby reducing Tangible Common Equity
 - ***Offsetting these two negatives would be the fact that the unrealized gain on the investment portfolio has increased due to maturity roll-down of the investments, thereby increasing Tangible Common Equity***

Roll Down Illustration: 1 Year Horizon; \$50mm of 3Y and 5Y Swaps

Market Value Shocks: \$50MM Notional						
Scenario	Tenor	Level	+25bps	+50bps	+100bps	+200bps
Change in Market Value (\$000s)	3Y	-	339	676	1,340	2,635
<i>Immediate:</i>	5Y	-	594	1,181	2,330	4,538
Change in Market Value (\$000s)	3Y	(154)	64	281	711	1,554
<i>1Y Horizon:</i>	5Y	(198)	283	760	1,697	3,510

Case Study: 7yr pay fixed swap on floating trust preferred issuance

- In a cash flow hedge of trust preferred liabilities, a BHC or SLHC can utilize spot starting or deferred structures at any maturity point, without having to match the final maturity on the Trust Preferred
- A \$3 billion asset bank holding company executed a 7 yr swap on each of their trust preferred issuances at a pay-up of only 82 bps vs. their floating rate (~3 Fed Funds moves to breakeven)⁽¹⁾

Cost Comparison of Hedging all TruPs		
3 Mo LIBOR	Trust I (\$10MM)	Trust II (\$20MM)
Current Cost (3mo LIBOR + Margin)		
Margin	3.00%	2.50%
3m LIBOR	1.33%	1.33%
All-in Cost	4.33%	3.83%
Cost of Hedging (Pay-Fixed Swap + Margin)		
Margin	3.00%	2.50%
Pay-Fixed Swap	2.15%	2.15%
Total Cost	5.15%	4.65%
Additional Cost	0.82%	0.82%

Pay-Up for 7 year Fixed Rate Protection vs. 3 Mo LIBOR (Aug 2016- Present)



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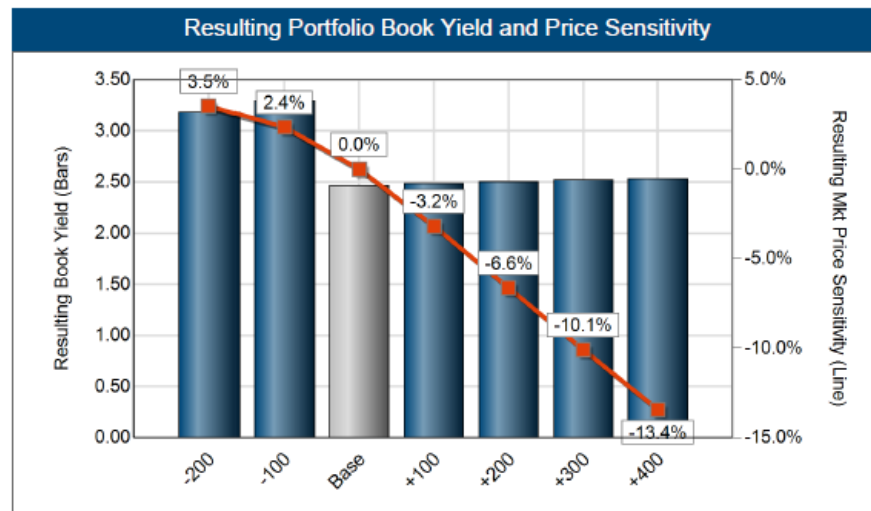
Sample Transaction – Overview

- The below transaction summary highlights selling low yielding securities at break-even in order to improve book yield and profitability:

Transaction Summary			
	Sell Side	Buy Side	Net Change
# Securities	11	5	-6
Current Par Value	\$14,476,008	\$14,415,000	-\$61,008
Market Value	\$14,490,476	\$14,426,009	-\$64,467
Gain/Loss \$	\$4,243		
Gain/Loss %	0.0%		
Book Yield	1.13%	2.43%	1.29%
Avg. Life	0.9	1.4	0.6
Avg. Life +300	0.9	7.0	6.1
% Price Chg +300	-2.6%	-14.1%	-11.6%
Effective Duration	0.84	2.40	1.56

Portfolio Impacts			
	Before	After	Net Change
# Securities	226	220	-6
Current Par Value	\$231,665,225	\$231,604,217	-\$61,008
Market Value	\$234,493,431	\$234,428,964	-\$64,467
Gain/Loss \$	\$228,179	\$223,936	-\$4,243
Gain/Loss %	0.1%	0.1%	0.0%
Book Yield	2.39%	2.47%	0.08%
Avg. Life	3.1	3.1	0.0
Avg. Life +300	4.3	4.7	0.4
% Price Chg +300	-9.4%	-10.1%	-0.7%
Effective Duration	2.75	2.84	0.10

Income Difference by Year End			
Scenario	-100	Base	+100
Gain/Loss	\$4,244	\$4,244	\$4,244
Year 1	\$89,016	\$150,758	\$119,332
Year 2	\$80,723	\$151,187	-\$22,840
Year 3	\$75,270	\$145,454	-\$166,120
Year 4	\$71,533	\$141,032	-\$308,239
Year 5	\$68,987	\$137,736	-\$448,898
Income Difference to			
Sell Side Avg Life	\$80,111	\$150,758	\$119,332
Months to Exhaust Gain	gain+inc	gain+inc	23



Sample Transaction – Securities Detail

Securities Sold

CUSIP	Security Description	Sector	Cpn	Maturity	Original Par	Current Par	Book Price	Market Price	G/L (\$)	G/L (%)	% Px Δ +300	Eff Dur	Eff Cvx	Speed	Book Yld	Avg. Life
3133EFQD2	FFCB 1.08 05/23/18	Bullet Agency	1.08	05/23/2018	\$3,400,000	\$3,400,000	100.21	99.80	-\$13,926	-0.4%	-2.2%	0.7	0.0		0.79%	0.7
3134G8Y60	FHLMC 1 07/27/18	Bullet Agency	1.00	07/27/2018	\$3,100,000	\$3,100,000	100.00	99.67	-\$10,230	-0.3%	-2.7%	0.9	0.0		1.00%	0.9
3135G0TG8	FNMA 0 7/8 02/08/18	Bullet Agency	0.88	02/08/2018	\$1,000,000	\$1,000,000	100.00	99.77	-\$2,300	-0.2%	-1.3%	0.4	0.0		0.87%	0.4
3135G0UE1	FNMA 1 02/14/18	Bullet Agency	1.00	02/14/2018	\$1,000,000	\$1,000,000	100.02	99.83	-\$1,870	-0.2%	-1.4%	0.5	0.0		0.96%	0.5
3134GAJQ8	FHLMC 1.15 09/14/18	Callable Agency	1.15	09/14/2018	\$2,130,000	\$2,130,000	99.88	99.70	-\$3,796	-0.2%	-3.1%	1.0	-0.4		1.27%	1.0
3136G14S5	FNMA 1 06/27/18	Callable Agency	1.00	06/27/2018	\$3,000,000	\$3,000,000	100.00	99.67	-\$9,900	-0.3%	-2.5%	0.8	-0.1		1.00%	0.8
3128PTUS2	FG J14193	10yr Fixed MBS	3.50	01/01/2021	\$3,639,432	\$429,821	101.10	104.25	\$13,547	3.1%	-3.5%	1.2	0.0	22cpr	2.47%	1.2
31335HXS7	FG C90689	20yr Fixed MBS	4.50	07/01/2023	\$1,900,000	\$59,314	101.63	106.50	\$2,891	4.8%	-6.1%	2.0	-0.1	12cpr	3.68%	2.3
31371LHE2	FN 255029	20yr Fixed MBS	5.00	12/01/2023	\$2,400,000	\$85,837	100.77	108.31	\$6,470	7.5%	-6.5%	2.1	-0.2	11cpr	4.55%	2.4
31371MNB9	FN 256086	20yr Fixed MBS	5.00	12/01/2025	\$5,000,000	\$217,841	99.15	108.31	\$19,950	9.2%	-7.8%	2.3	-0.2	13cpr	5.25%	3.0
31413QWV6	FN 952560	20yr Fixed MBS	5.50	08/01/2027	\$2,500,000	\$53,195	101.91	108.31	\$3,407	6.3%	-8.2%	2.3	-0.2	17cpr	4.72%	3.1
Sell Side Total			1.22		\$29,069,432	\$14,476,008	100.07	100.10	\$4,243	0.0%	-2.6%	0.8	-0.1		1.13%	0.9

Securities Purchased

CUSIP	Security Description	Sector	Cpn	Maturity	Original Par	Current Par	Book Price	Market Price	G/L (\$)	G/L (%)	% Px Δ +300	Eff Dur	Eff Cvx	Speed	Book Yld	Avg. Life
3128P8EW7	FG C91949	20yr Fixed MBS	3.00	09/01/2037	\$1,000,000	\$1,000,000	102.75	102.75			-16.4%	3.7	-2.7	12cpr	2.43%	5.5
3133EHVP5	FFCB 2.300 08/23/23 '1	Callable Agency	2.30	08/23/2023	\$2,500,000	\$2,500,000	100.09	100.09			-12.7%	2.7	-1.7		2.20%	1.0
3130ACB29	FHLB 2.500 08/22/24 '1	Callable Agency	2.50	08/22/2024	\$4,250,000	\$4,250,000	100.08	100.08			-13.7%	2.1	-2.9		2.33%	0.5
3132X0WW7	FAMCA 2.6 08/28/24	Callable Agency	2.60	08/28/2024	\$500,000	\$500,000	100.00	100.00			-14.1%	2.8	-1.9		2.60%	1.0
3133EF6J1	FFCB 2.35 11/05/24	Callable Agency	2.35	11/05/2024	\$6,165,000	\$6,165,000	99.64	99.64			-14.6%	2.2	-5.9		2.57%	1.7
Buy Side Total			2.44		\$14,415,000	\$14,415,000	100.08	100.08			-14.1%	2.4	-3.9		2.43%	1.4

Difference			1.22		-\$14,654,432	-\$61,008	0.01	-0.02			-11.6%	1.6	-3.8		1.29%	0.6
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Portfolio Impacts

	Cpn	Original Par	Current Par	Book Price	Market Price	G/L (\$)	G/L (%)	% Px Δ +300	Eff Dur	Eff Cvx	Speed	Book Yld	Avg. Life
Beginning Portfolio	2.46	\$528,476,891	\$231,665,225	101.12	101.23	\$228,179	0.1%	-9.4%	2.7	-0.7		2.39%	3.1
Ending Portfolio	2.54	\$513,822,459	\$231,604,217	101.12	101.22	\$223,936	0.1%	-10.1%	2.8	-0.9		2.47%	3.1
Difference	0.08	-\$14,654,432	-\$61,008	0.00	-0.01	-\$4,243	0.0%	-0.7%	0.1	-0.2		0.08%	0.0

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Case Study – Loan Purchase

Case Study – Loan Purchase

• The following slides study the impact of a CRE Loan Purchase made in 2017Q1 by a Sample Bank primarily focused on 1-4 Family lending with the following characteristics:

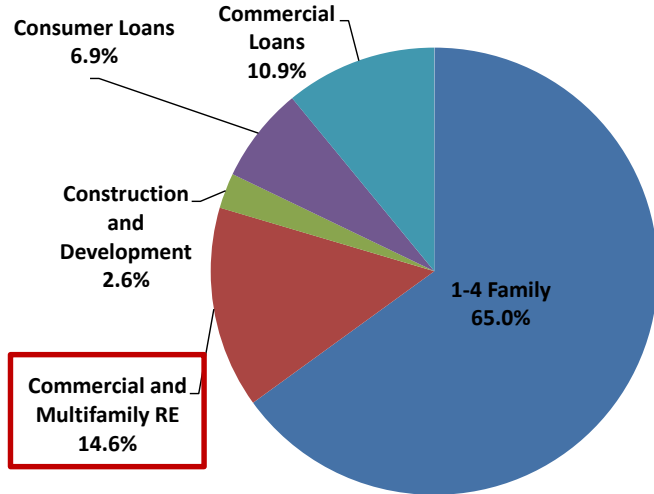
- Low loan/deposit ratio
- Excess capital and liquidity
- 1-4 Family concentration within the loan portfolio
- Sub-3.00% Net Interest Margin

Portfolio Characteristics	
Loan Amount	\$50,000,000
Coupon	4.95%
Term	120
Amortization	360
Interest Only Term	36
Original LTV	65%
DSCR (NCF)	1.35x
Debt Yield (NCF)	8.5%
Occupancy	100%
Property Type	Newly Renovated Class A Office
Location	Downtown Miami, Florida
Key Comments	NNN Lease Lockout / Defeasance for 9 years \$9.0 MM Tenant Corporate Guaranty + \$3.5 MM Security Deposit Significant equity with \$20MM renovation costs from the Sponsor + Tenant

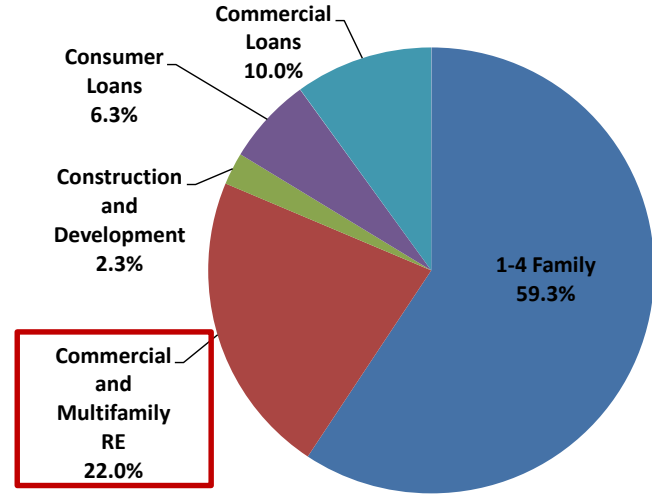
Custom Yield Table Assuming Zero Losses, 10Y Balloon on 30Y am, 3Y IO, 28M Lockout			
Price	CPB	CPB	CPB
102.00	0	3	6
BEY	4.700%	4.686%	4.666%
Avg Life	9.60	8.80	8.15
Duration	7.67	7.15	6.67

Loan Portfolio Composition & Balance Sheet Metrics

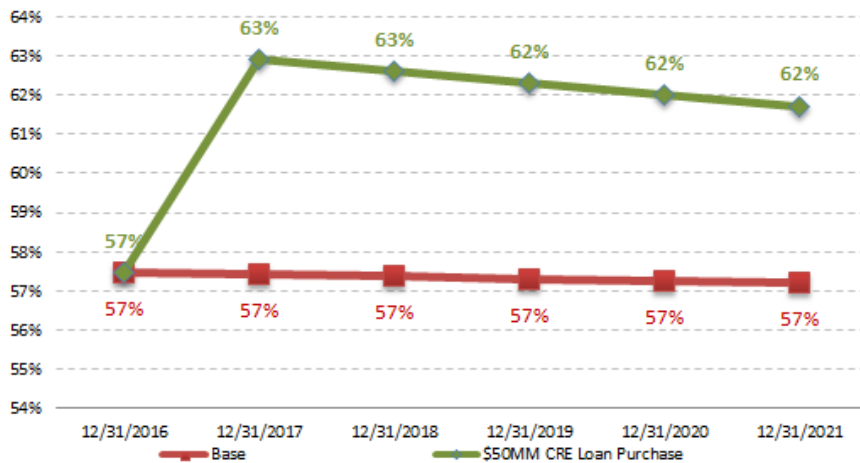
Loan Portfolio Composition (Before)



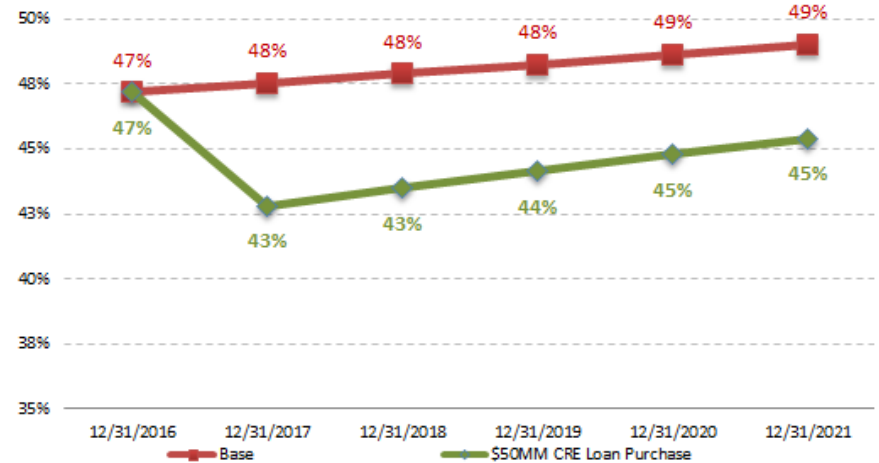
Loan Portfolio Composition (After)



Loans / Deposits

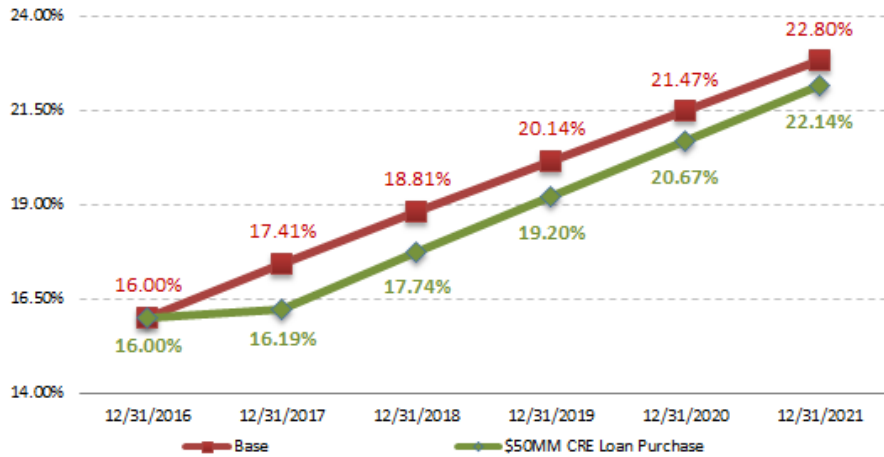


Cash + Securities / Total Assets

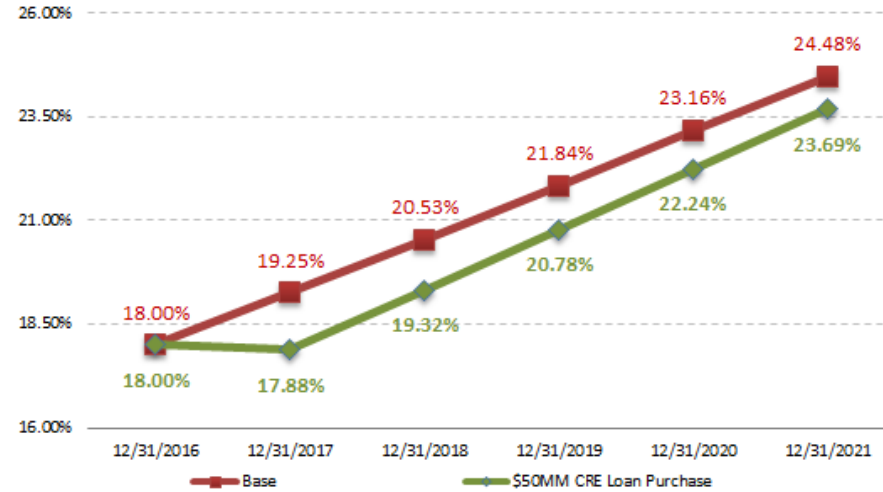


Capital Metrics & Earnings Analysis

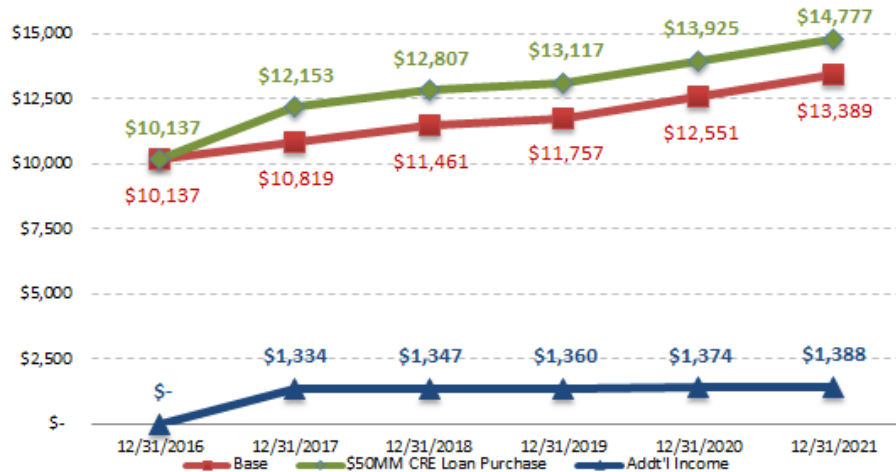
Tier 1 Capital



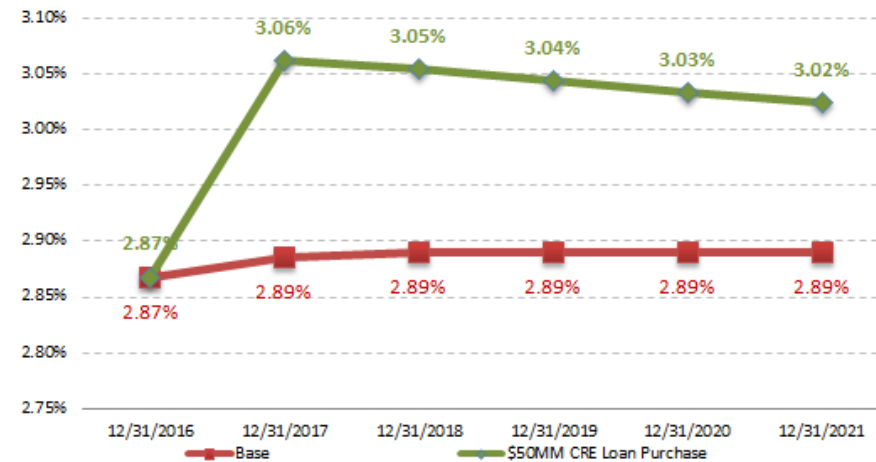
Total Capital



Net Income to Common



Net Interest Margin



Case Study – Loan Sale

Case Study – Loan Sale

- The following slides study the impact of a CRE Loan Sale by a Sample Bank primarily focused on Commercial lending with the following characteristics:
 - CRE concentration greater than 300% of total capital
 - High loan/deposit ratio
 - Funding balance sheet growth through wholesale borrowings
 - Limited capital and liquidity
- The Loan Sale transaction uses the following assumptions:
 - Yield is 5.00%
 - Risk Weighting is 100%
 - Proceeds are reinvested into securities yielding 2.50% with a 20% risk weighting

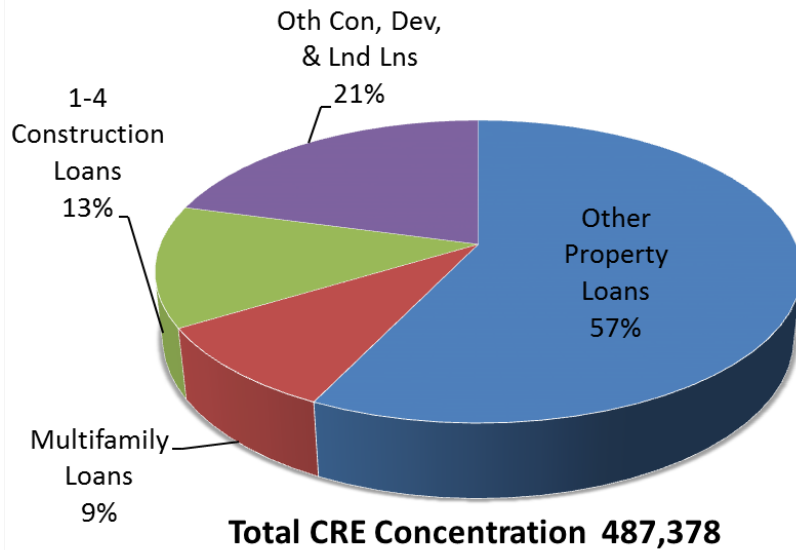
CRE Concentration

CRE Concentration (Before)

Total CRE / Total Capital

398%

Other Property Loans	278,405
Multifamily Loans	44,629
1-4 Construction Loans	63,091
Oth Con, Dev, & Lnd Lns	101,253
Total CRE Concentration	487,378
Total Capital	122,588
Total Capital Ratio	13.07%

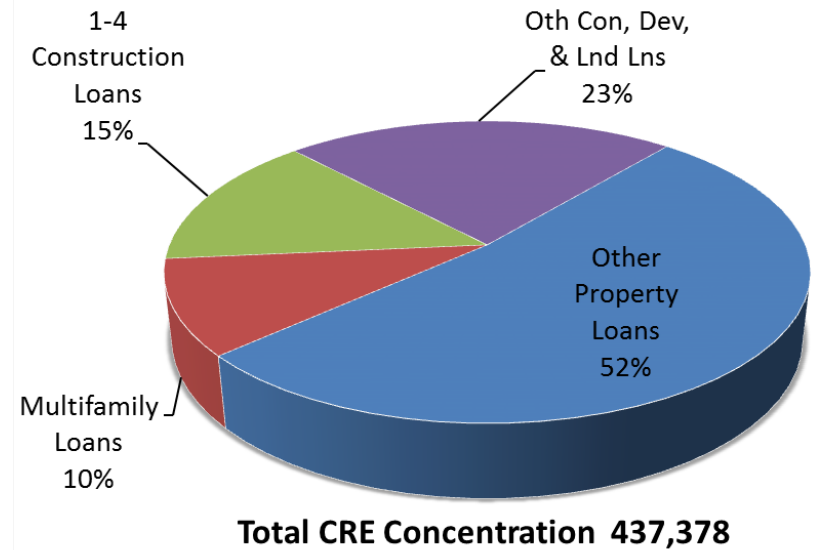


CRE Concentration (After)

Total CRE / Total Capital

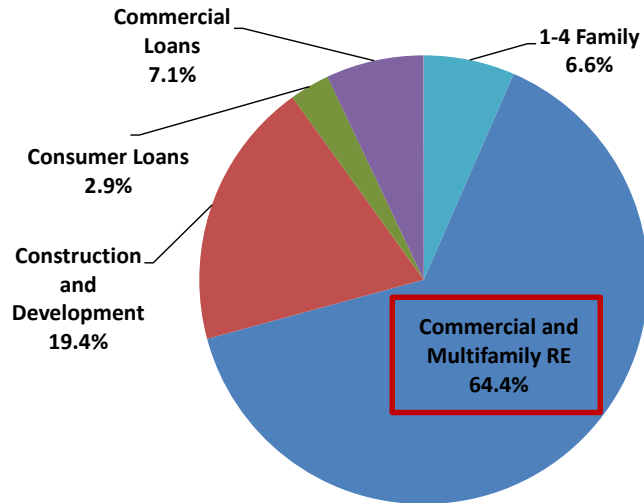
357%

Other Property Loans	228,405
Multifamily Loans	44,629
1-4 Construction Loans	63,091
Oth Con, Dev, & Lnd Lns	101,253
Total CRE Concentration	437,378
Total Capital	122,588
Total Capital Ratio	13.07%

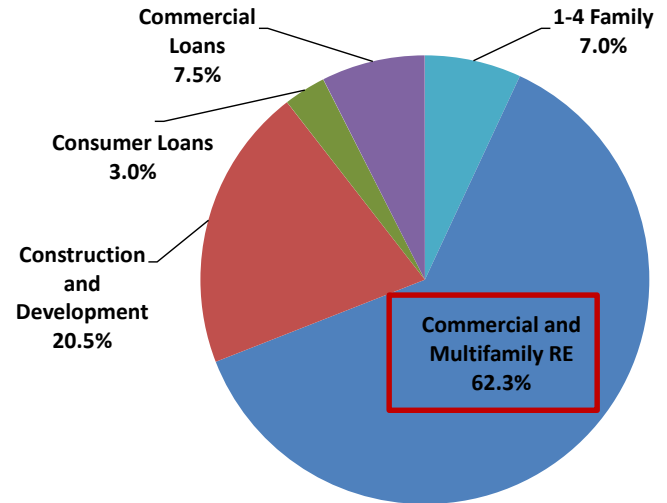


Loan Portfolio Composition & Balance Sheet Metrics

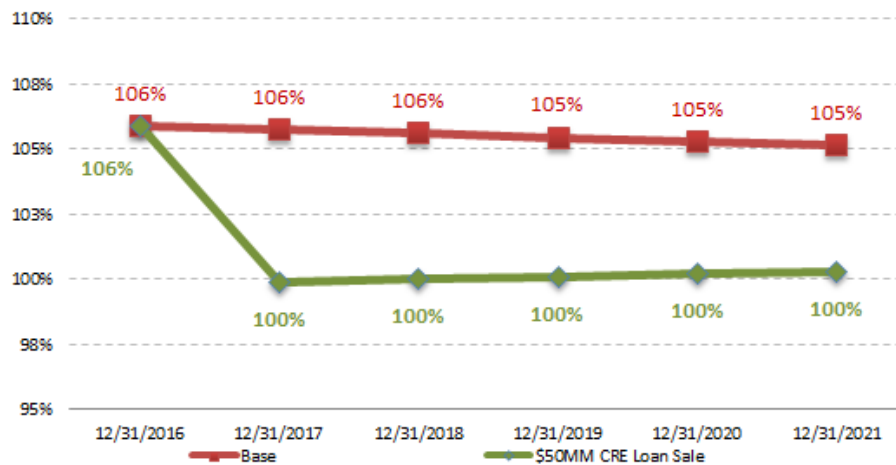
Loan Portfolio Composition (Before)



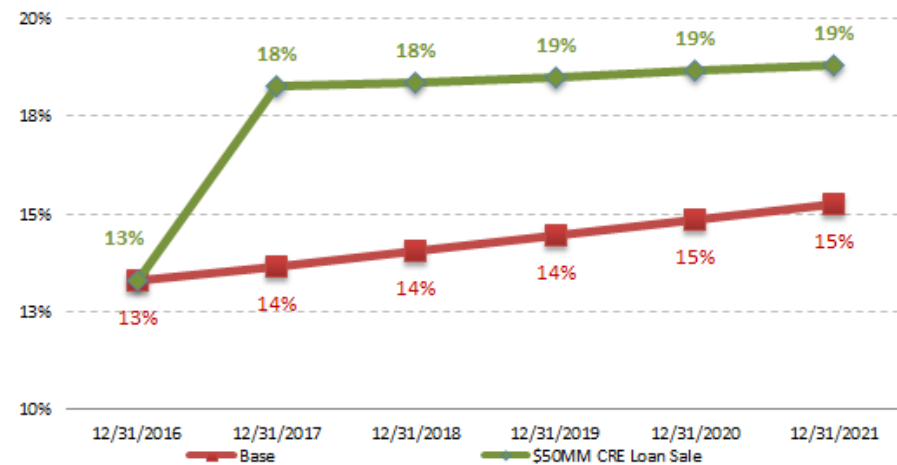
Loan Portfolio Composition (After)



Loans / Deposits

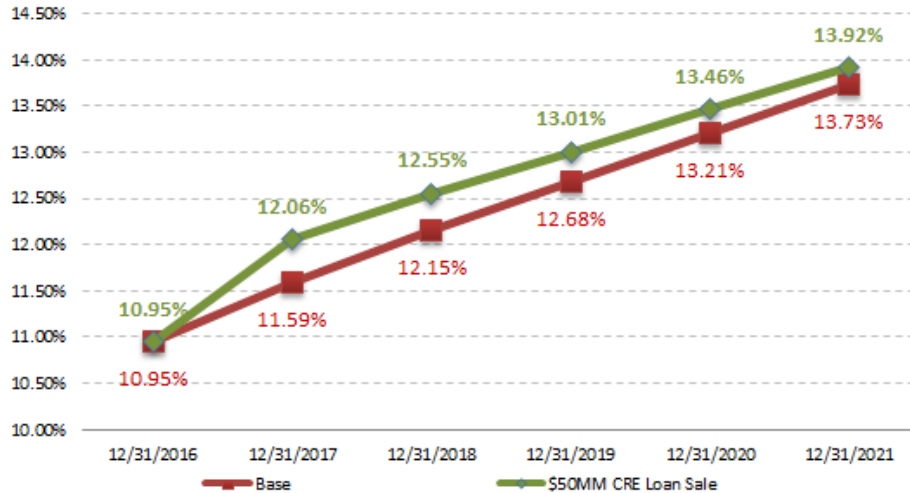


Cash + Securities / Total Assets

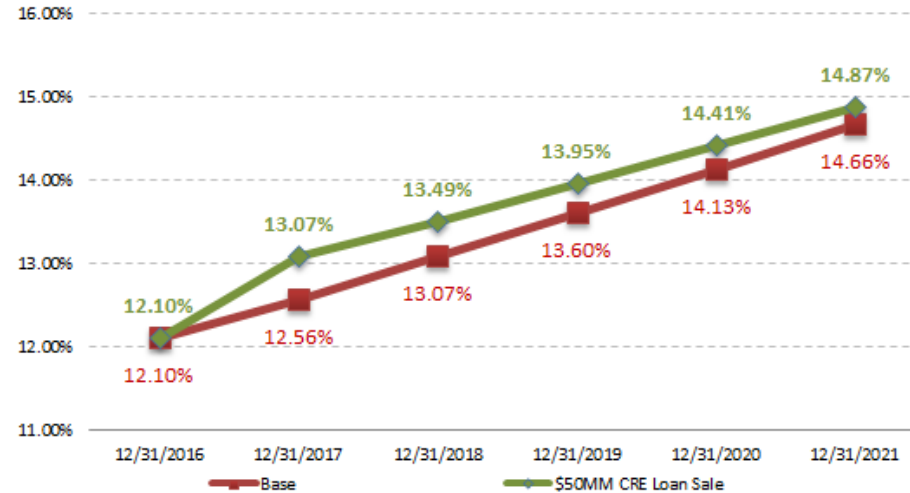


Capital Metrics & Earnings Analysis

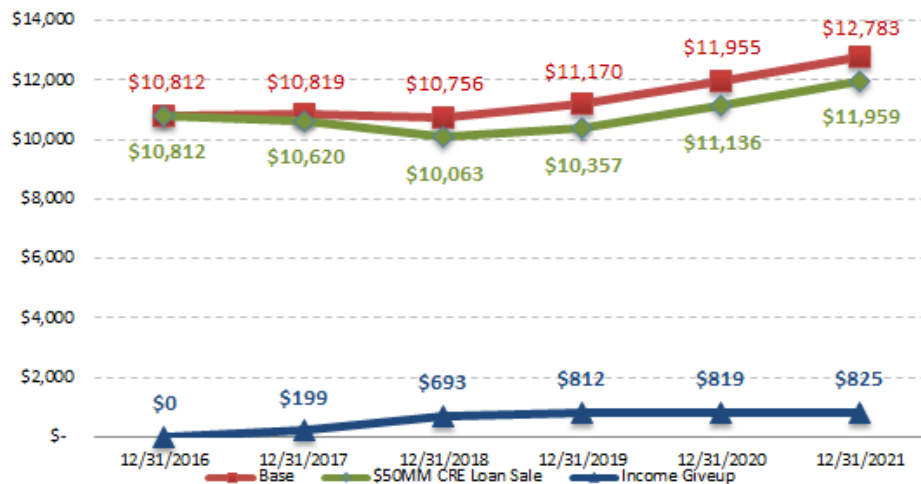
Tier 1 Capital



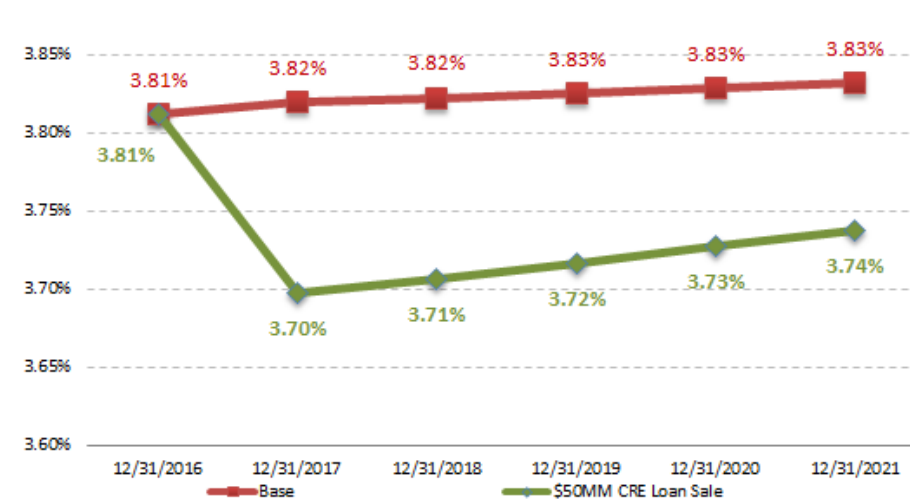
Total Capital



Net Income to Common



Net Interest Margin



- *LCR & Deposit Trends*
 - *Derivatives Considerations*
 - *Securities Portfolio Considerations*
 - *Whole Loan Considerations*
 - ***Subordinated Debt Issuance***
 - *Liquidity Reporting Emphasis*
-

Case Study – Scenario Descriptions

- The following case study was created to examine the impact of a Subordinated Debt Raise and Share Repurchase Program for a Sample Bank with the following characteristics:
 - Leverage Ratio is 10.16%; Total Capital Ratio is 13.50%
 - The Sample Bank has no outstanding Subordinated Debt
 - Net Interest Margin is a moderate 3.50%
- The **Base Case** was constructed to reflect historical and industry trends
- In addition to the **Base Case**, **Strategy 1** examines the impact of a Subordinated Debt Raise
 - The Subordinated Debt Raise takes place in 2017Q4 and uses the following assumptions:
 - \$25MM is issued
 - Fixed rate coupon is 6.00%
 - Proceeds are held in cash yielding 1.25%
- In addition to the **Strategy 1**, **Strategy 2** examines the impact of a Share Buyback Program
 - The Share Repurchase Program uses the following assumptions:
 - 2.0% of shares outstanding are purchased quarterly in 2018
 - Cash yielding 1.25% is used to fund the repurchases

Case Study – Summary Impact

- The below tables highlight the impact of the combined Subordinated Debt Issuance and Share Repurchase Program after the Share Repurchase Program is completed in 2018Q4:

Leverage Ratio				
	2018	2019	2020	2021
Base Case	11.00%	11.35%	11.69%	12.02%
Post Sub Debt & Share Repurchase	9.80%	10.20%	10.55%	10.90%
Change	-1.20%	-1.15%	-1.14%	-1.12%

Total Capital Ratio				
	2018	2019	2020	2021
Base Case	14.48%	14.99%	15.50%	16.01%
Post Sub Debt & Share Repurchase	14.52%	14.96%	15.40%	15.85%
Change	0.04%	-0.03%	-0.10%	-0.16%

Tangible Common Equity / Tangible Assets				
	2018	2019	2020	2021
Base Case	10.46%	10.81%	11.15%	11.49%
Post Sub Debt & Share Repurchase	9.34%	9.69%	10.05%	10.40%
Change	-1.12%	-1.12%	-1.10%	-1.09%

Tangible Book Value Per share				
	2018	2019	2020	2021
Base Case	\$30.12	\$32.67	\$35.40	\$38.31
Post Sub Debt & Share Repurchase	\$29.25	\$31.85	\$34.65	\$37.64
Change	-\$0.87	-\$0.82	-\$0.75	-\$0.67

Net Interest Margin				
	2018	2019	2020	2021
Base Case	3.50%	3.50%	3.50%	3.50%
Post Sub Debt & Share Repurchase	3.40%	3.42%	3.42%	3.43%
Change	-0.10%	-0.08%	-0.08%	-0.07%

Earnings Per Share				
	2018	2019	2020	2021
Base Case	\$2.37	\$2.55	\$2.73	\$2.91
Post Sub Debt & Share Repurchase	\$2.42	\$2.60	\$2.79	\$2.99
Change	\$0.05	\$0.05	\$0.06	\$0.08

Return on Average Assets				
	2018	2019	2020	2021
Base Case	0.82%	0.84%	0.86%	0.87%
Post Sub Debt & Share Repurchase	0.76%	0.79%	0.81%	0.82%
Change	-0.06%	-0.05%	-0.05%	-0.05%

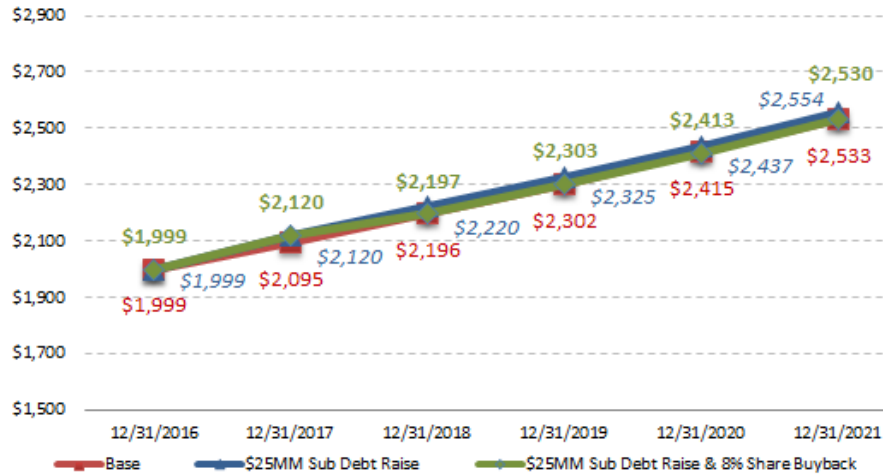
Return on Average Common Equity				
	2018	2019	2020	2021
Base Case	8.19%	8.13%	8.02%	7.91%
Post Sub Debt & Share Repurchase	8.17%	8.52%	8.40%	8.29%
Change	-0.02%	0.39%	0.38%	0.38%

Summary Financial Graph Output

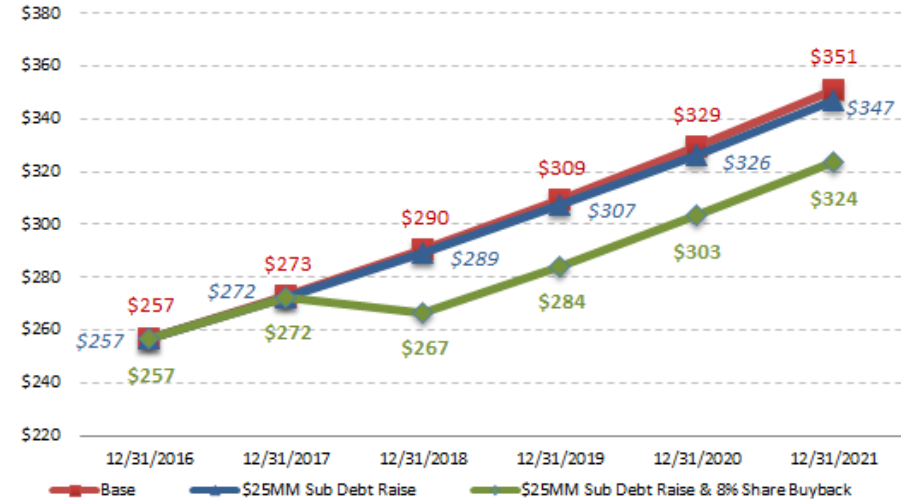
- (1) Please refer to the last page of this report for Stifel Nicolaus Fixed Income Capital Markets disclosures
- (2) For distribution to institutional clients only

Balance Sheet Metrics

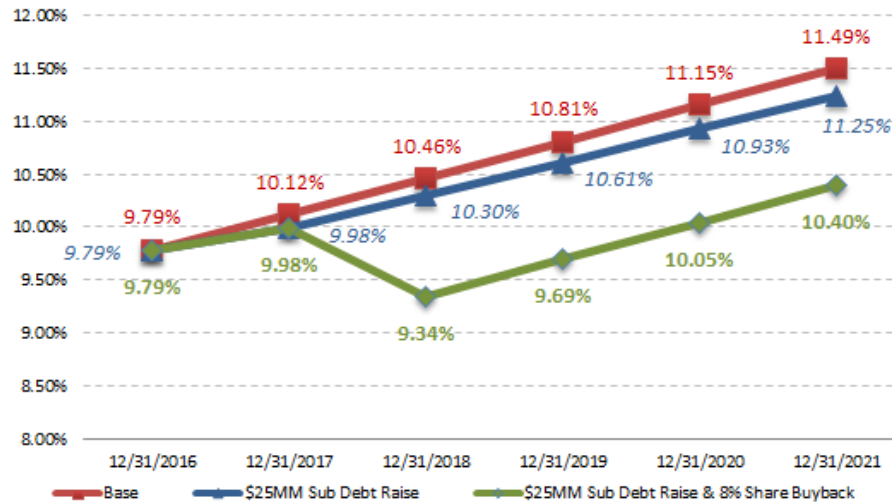
Total Assets



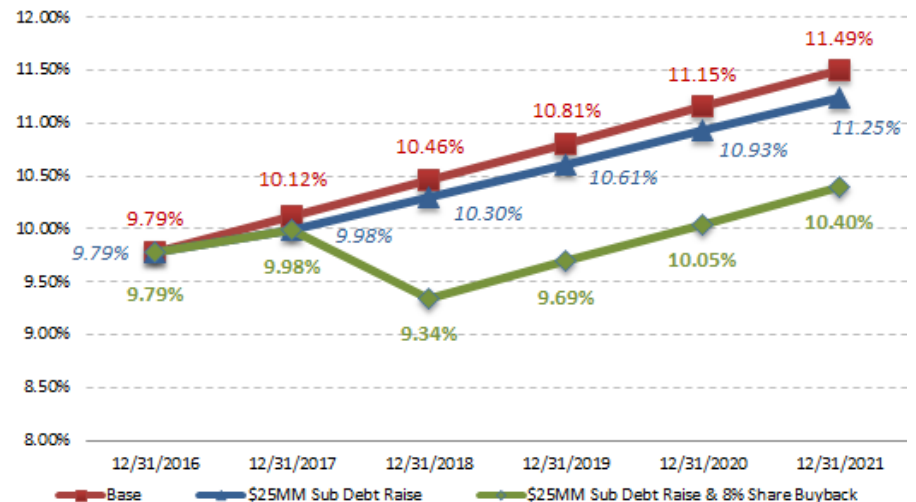
Total Equity



Tangible Equity / Tangible Assets

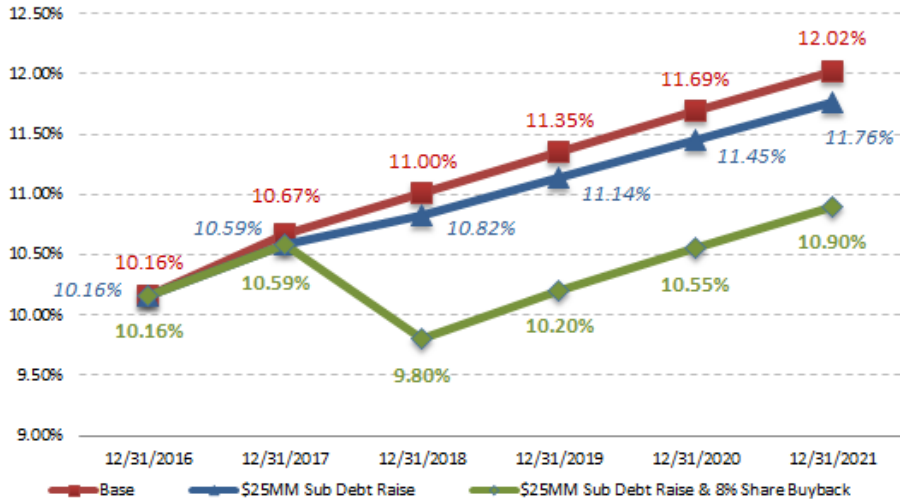


Tangible Common Equity / Tangible Assets

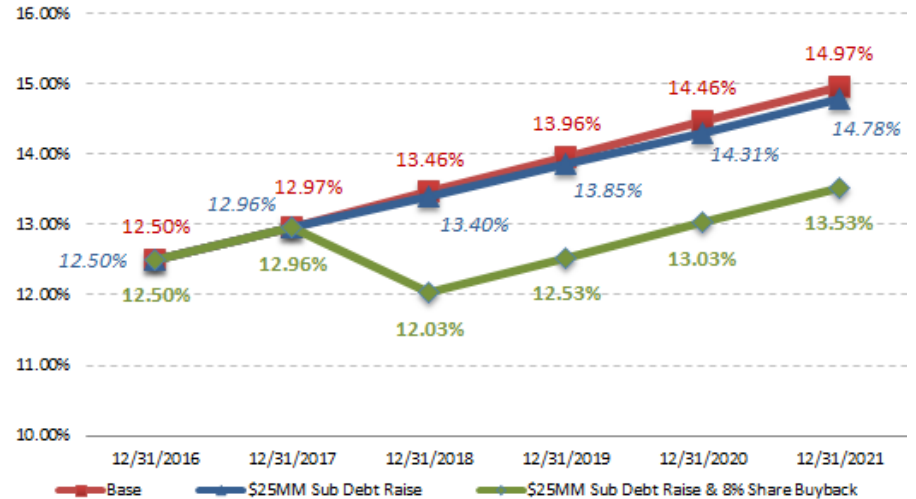


Regulatory Capital Ratios

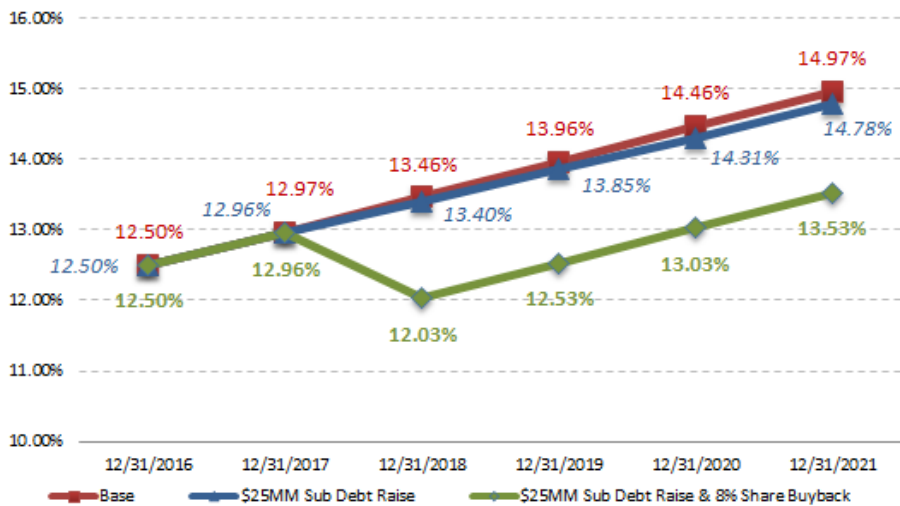
Leverage



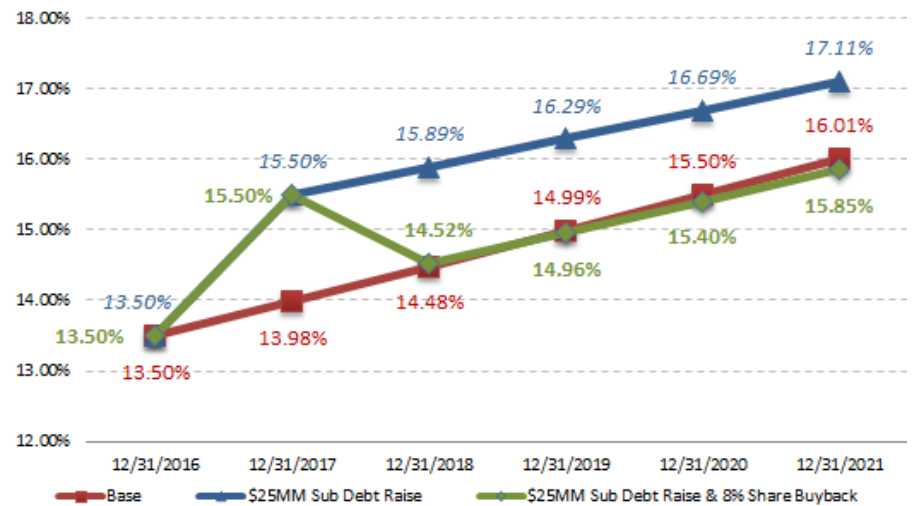
Common Equity Tier 1



Tier 1 Capital

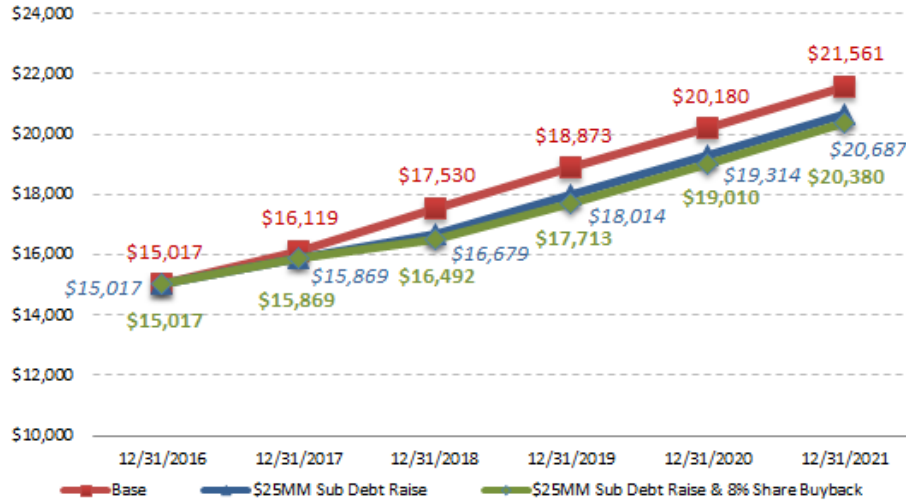


Total Capital

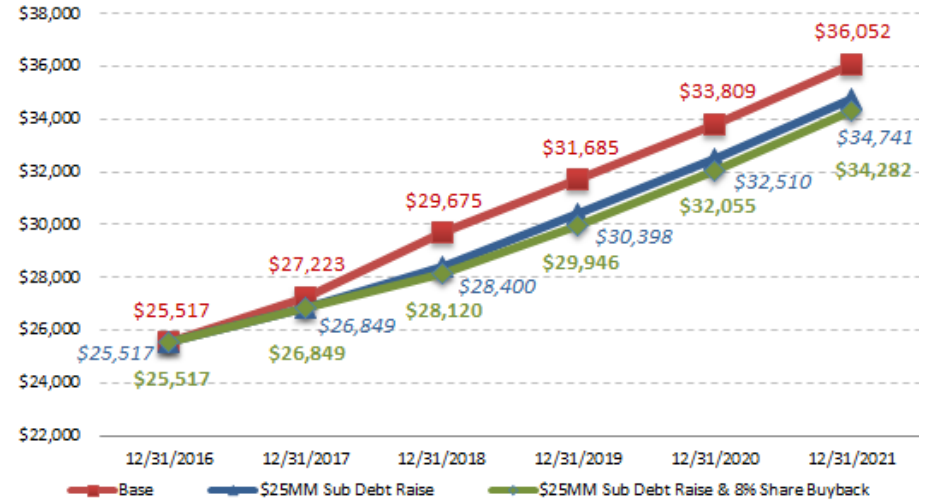


Earnings Analysis

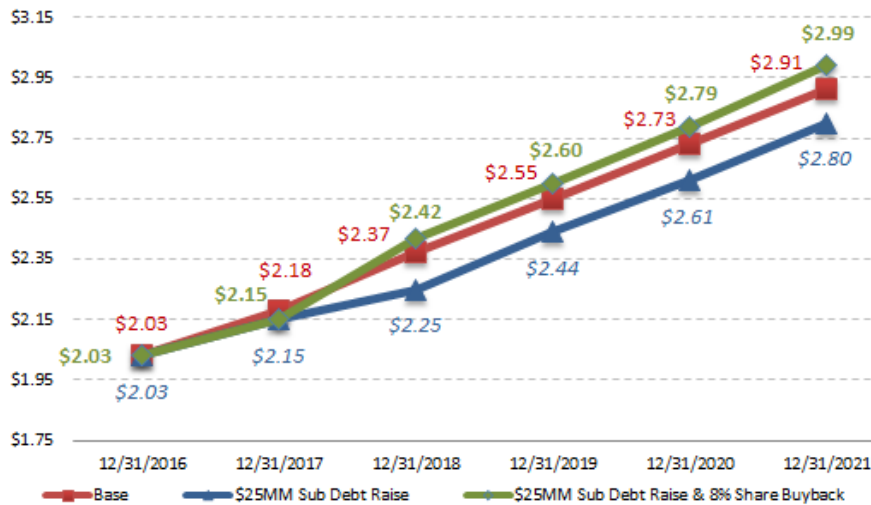
Net Income to Common



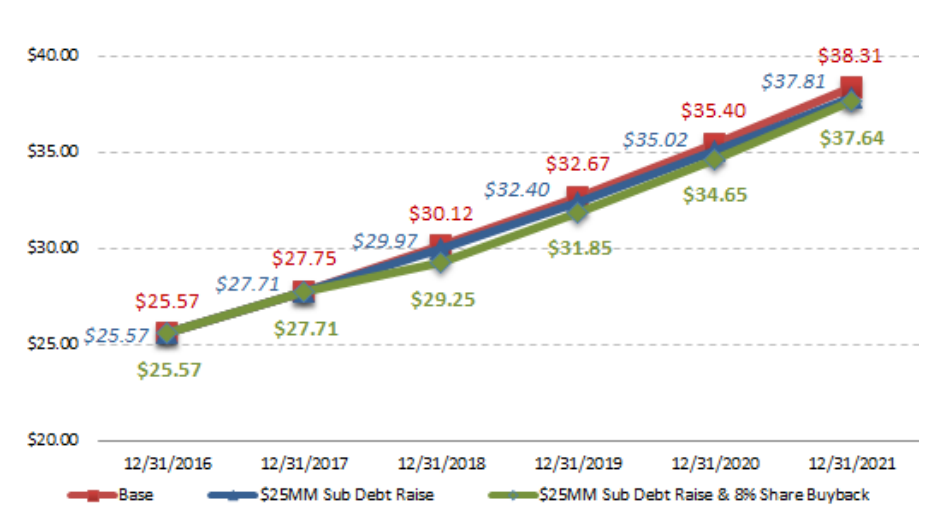
Pre-Tax Pre-Provision Earnings



Earnings Per Share

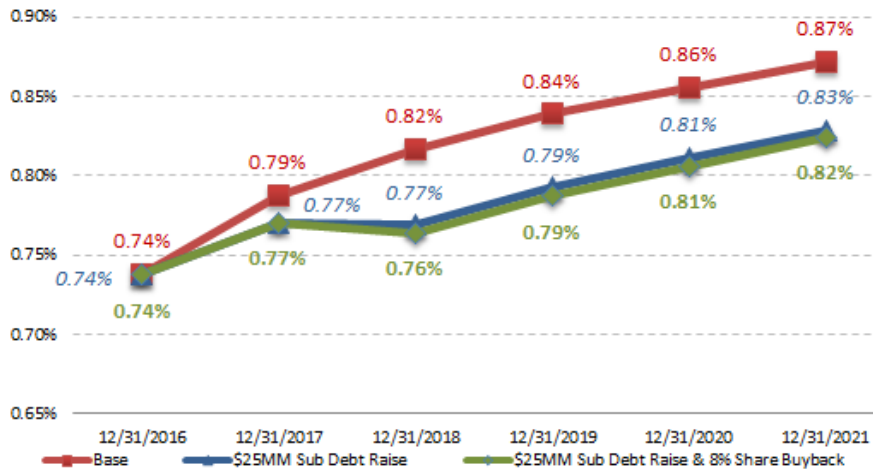


Tangible Book Value Per Share

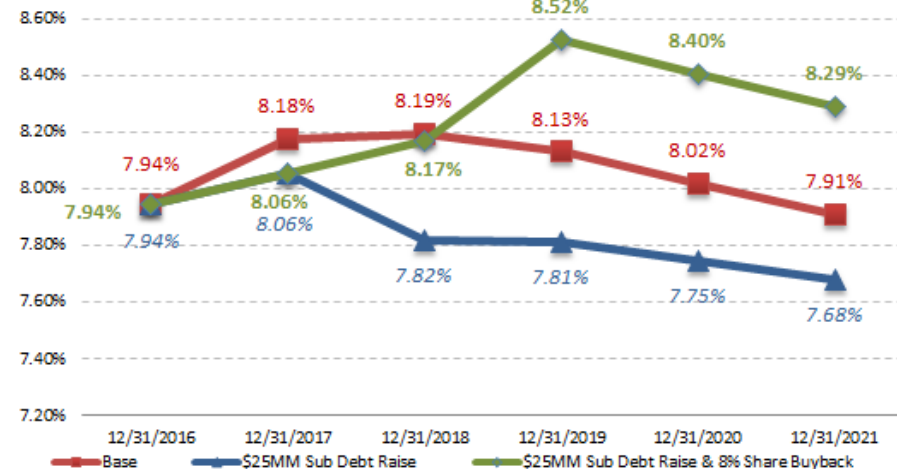


Key Profitability Metrics

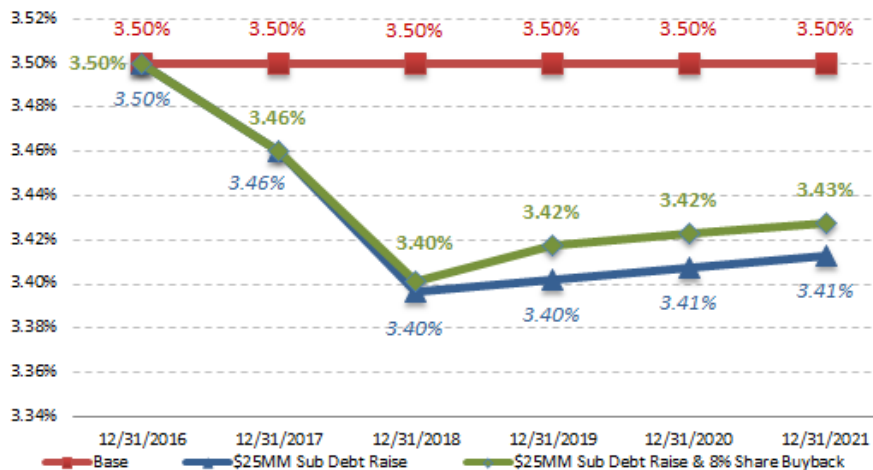
Return on Average Assets



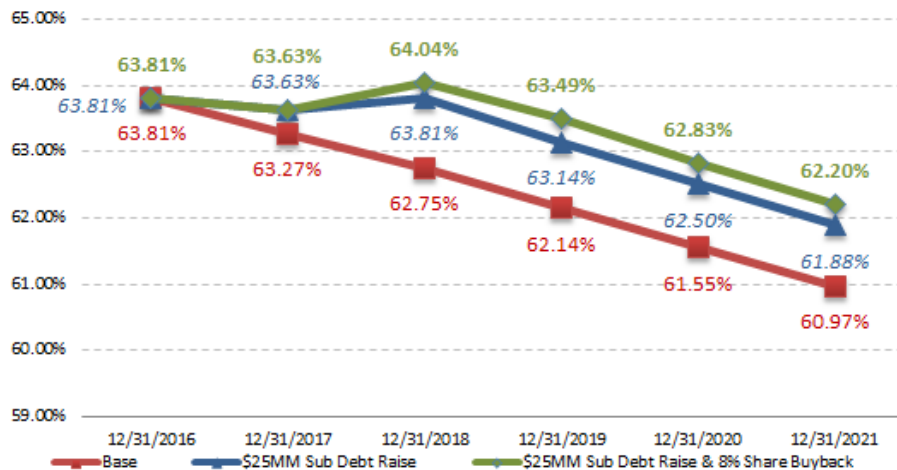
Return on Average Common Equity



Net Interest Margin



Efficiency Ratio



- *LCR & Deposit Trends*
 - *Derivatives Considerations*
 - *Securities Portfolio Considerations*
 - *Whole Loan Considerations*
 - *Subordinated Debt Issuance*
 - ***Liquidity Reporting Emphasis***
-

On Balance Sheet Liquidity

- Be mindful of ratio of “highly liquid assets” to total assets
- Often looked at in light of proportion of uninsured deposits to total deposits

Highly Liquid Assets: A Definition

Cash and Due From (less: restricted balances)
Fed Funds Sold and Repurchase Agreements
Loans Held-for-Sale
US Treasury / Agencies / GSEs (unpledged)
Trading Assets (less illiquid trading assets)

Sample Liquidity/Capital Analysis

Liquidity Ratios %	Current	Historical		Policy	National Peers	Period-End Liquidity Analysis (\$000s)	
	12/31	9/30	6/30				
Liquidity Ratio *	24.75	26.34	25.84		22.35	Assets	
Net Loans/Total Assets	66.47	64.07	63.91		66.29	Fed Funds Sold	14,942
Net Loans/Total Deposits	74.35	77.12	75.86		81.29	Trading Account Assets	0
Pledged Securities/Total Securities	31.31	29.21	28.44		40.81	Securities Maturing < 1 Yr (Book Value)	1,153
NonCore Funding Dependence (>250K)	0.60	3.83	4.91		5.91	Money Market & Other Interest Bearing Balances	590
NonCore Funding Dependence (>100K)	7.89	NA			NA	Temporary Investments	16,685
Brokered Deposits/Total Deposits	0.00	0.00	0.00		4.13	Treasury/Agency Sec's Maturing > 1 Yr	62,782
Reliance of Wholesale Funding	0.72	7.26	5.77		9.58	Other Investment Grade Securities Maturing > 1 Yr *	38,492
						Other Marketable Assets	0
						Total Term Investments (Held at Market)	101,274
						Cash and Noninterest Bearing Balances	10,384
						Less: Pledged Assets	32,353
						Net Cash + Short-Term and Marketable Assets	95,989

Capital Ratios %	Current	Historical		Policy	National Peers
	12/31	9/30	6/30		
Equity/Total Assets	NA	9.49	9.66		11.08
Tangible Common Equity/Tang Assets	NA	9.49	9.66		10.71
Tier 1 Risk Based Ratio	NA	12.83	13.11		10.65
Risk Based Capital Ratio	NA	13.90	14.15		16.47

Long Term Assets	420,046
Short Term Investments	16,685
Brokered Deposits	0
Total Deposits	412,487
Total Liabilities	420,184

Ratio Definitions

Liquidity Ratio: (Cash+Due+Securities+FFS/Repos+Trading Account Assets-Pledged Securities) / Total Liab.

Net Noncore Funding Dependence = (Noncore Liabilities - Short Term Investments) / Long Term Assets

Noncore Liabilities = Brokered Deposits + CDs > 100K + Borrowings

Short Term Investments = Cash + FFS + Securities < 1 Year

Reliance on Wholesale Funding = (Borrowing + Brokered Deposits) / (Borrowing + Total Deposits)

Tangible Common Equity = Total Equity - Preferred Stock - (Goodwill + Intangibles)

Tier 1 Risk Based Ratio = Tier 1 Capital / Risk-Adjusted Assets

Risk Based Capital Ratio = Total Capital (Tier 1 + Tier 2) / Risk - Adjusted Assets

Liabilities	
Brokered Deposits (MM and CD's)	0
Time Deposits \$250M and Over	16,198
Deposits Held in Foreign Offices	0
Fed Funds Purchased	0
Borrowings (Debt and Repos)	3,000
Total NonCore Liabilities	19,198
Transaction Accounts	234,808
Money Market Deposit Accounts	27,951
Savings Accounts	70,901
Time Deposits < \$250M	62,628
Total Core Deposits	396,288
Total Deposits and Short-Term Liabilities	415,487
Less: Pledged Assets	32,353
Net Deposits and Short-Term Liabilities	383,133

* Investment grade securities are those rated by either S&P or Moodys with no less than a BBB or BAA rating

Sample Liquidity Gap – Level Rates

(\$000s)	Months 1-3	Months 4-6	Months 7-9	Months 10-12	Year 2	Year 3	Years 4-5	Years 6-10	Beyond Year 10	Total Book Value
<i>Assets</i>										
Interest & Non-Interest Bearing Cash	10,973	0	0	0	0	0	0	0	0	10,973
Treasuries/Agencies	1,036	412	1,051	387	2,638	2,349	12,701	11,234	2,054	33,846
Municipals	0	0	750	0	0	2,060	945	18,805	4,106	26,666
MBS/CMOs	982	999	1,052	980	3,910	3,653	5,780	9,567	4,783	31,705
Corporates	0	0	0	1,149	1,000	0	3,000	8,000	0	13,005
Other Securities/Stock	0	0	0	0	0	0	517	0	486	1,003
Fed Funds Sold	14,942	0	0	0	0	0	0	0	0	14,942
Commercial Loans	7,016	8,700	6,796	5,351	6,483	4,846	6,540	7,081	1,089	53,903
Consumer Loans	950	512	383	389	990	621	444	102	37	4,428
Residential RE Loans	6,887	6,524	8,138	4,522	12,735	8,006	12,058	14,104	4,346	77,321
Commercial RE Loans	7,401	8,629	10,363	11,408	20,175	15,464	30,420	24,965	8,481	137,306
Other Loans	381	1,031	834	682	244	263	638	212	290	4,576
Oth Real Estate Loans	6,817	2,897	2,806	2,477	2,880	5,772	2,631	3,088	1,590	30,959
Total Funding Sources	57,385	29,705	32,173	27,344	51,055	43,034	75,675	97,159	27,264	440,632
<i>Liabilities</i>										
DDA Interest-Free	2,661	2,603	2,547	2,492	6,524	4,055	6,774	95,225	0	122,881
DDA Interest-Bearing	2,502	2,446	2,391	2,337	5,806	2,833	4,653	88,960	0	111,927
MMDA	467	458	450	442	1,497	5,851	18,786	0	0	27,951
Savings	20,491	1,016	994	973	2,655	1,438	1,962	41,373	0	70,901
Time Deposits	13,970	20,690	24,889	12,914	5,505	908	50	0	0	78,926
Fed Funds Purchased	0	0	0	0	0	0	0	0	0	0
Borrowings	0	3,000	0	0	0	0	0	0	0	3,000
Total Funding Uses	40,090	30,213	31,272	19,158	21,987	15,084	32,225	225,557	0	415,586
Periodic Funding	17,295	(508)	901	8,186	29,068	27,950	43,450	(128,398)	27,264	
Cumulative Net Funding	17,295	16,787	17,688	25,874	54,942	82,892	126,342	(2,056)	25,208	
Sources/Uses	1.43	1.24	1.17	1.21	1.38	1.53	1.66	1.00	1.07	
Funding/Total Assets	3.7%	3.6%	3.8%	5.6%	11.9%	18.0%	27.4%	(0.4%)	6.6%	

Sample Credit Stressed Liquidity

(\$000s)	Months 1-3	Months 4-6	Months 7-9	Months 10-12	10% Core Deposit Outflow *	20% Core Deposit Outflow *	75% Avail. Borrow Capacity	50% Avail. Borrow Capacity	20% Dep Outflow * + 50% Brw Cap
<i>Projected Funding Sources</i>									
Interest & Non-Interest Bearing Cash	10,973	0	0	0	10,973	10,973	10,973	10,973	10,973
Treasuries/Agencies	1,036	412	1,051	387	2,886	2,886	2,886	2,886	2,886
Municipals	0	0	750	0	750	750	750	750	750
MBS/CMOs	982	999	1,052	980	4,013	4,013	4,013	4,013	4,013
Corporates	0	0	0	1,149	1,149	1,149	1,149	1,149	1,149
Other Securities/Stock	0	0	0	0	0	0	0	0	0
Fed Funds Sold	14,942	0	0	0	14,942	14,942	14,942	14,942	14,942
Commercial Loans	7,016	8,700	6,796	5,351	27,863	27,863	27,863	27,863	27,863
Consumer Loans	950	512	383	389	2,233	2,233	2,233	2,233	2,233
Residential RE Loans	6,887	6,524	8,138	4,522	26,071	26,071	26,071	26,071	26,071
Commercial RE Loans	7,401	8,629	10,363	11,408	37,801	37,801	37,801	37,801	37,801
Other Loans	381	1,031	834	682	2,928	2,928	2,928	2,928	2,928
Oth Real Estate Loans	6,817	2,897	2,806	2,477	14,997	14,997	14,997	14,997	14,997
Total Funding Sources (Inflows)	57,385	29,705	32,173	27,344	146,607	146,607	146,607	146,607	146,607
<i>Projected Funding Needs</i>									
DDA Interest-Free	2,661	2,603	2,547	2,492	22,592	34,880	10,304	10,304	34,880
DDA Interest-Bearing	2,502	2,446	2,391	2,337	20,868	32,061	9,675	9,675	32,061
MMDA	467	458	450	442	4,613	7,408	1,818	1,818	7,408
Savings	20,491	1,016	994	973	28,619	33,764	23,474	23,474	33,764
Time Deposits	13,970	20,690	24,889	12,914	72,463	72,463	72,463	72,463	72,463
Fed Funds Purchased	0	0	0	0	0	0	0	0	0
Borrowings	0	3,000	0	0	3,000	3,000	3,000	3,000	3,000
Total Funding Uses (Outflows)	40,090	30,213	31,272	19,158	152,154	183,575	120,733	120,733	183,575
Periodic Funding (Sources/Uses)	17,295	(508)	901	8,186	(5,547)	(36,967)	25,874	25,874	(36,967)
Gap (% of Total Assets)	3.75%	-0.11%	0.20%	1.77%	-1.20%	-8.01%	5.61%	5.61%	-8.01%
Cumulative Funding (Sources/Uses)	17,295	16,787	17,688	25,874					
Gap (% of Total Assets)	3.75%	3.64%	3.83%	5.61%					
Available Borrowing Capacity	88,406	88,406	88,406	88,406	88,406	88,406	66,305	44,203	44,203
Net Cumulative Funding (Sources/Uses)	105,701	105,193	106,094	114,280	82,859	51,439	92,179	70,077	7,236

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