



CBA of Michigan



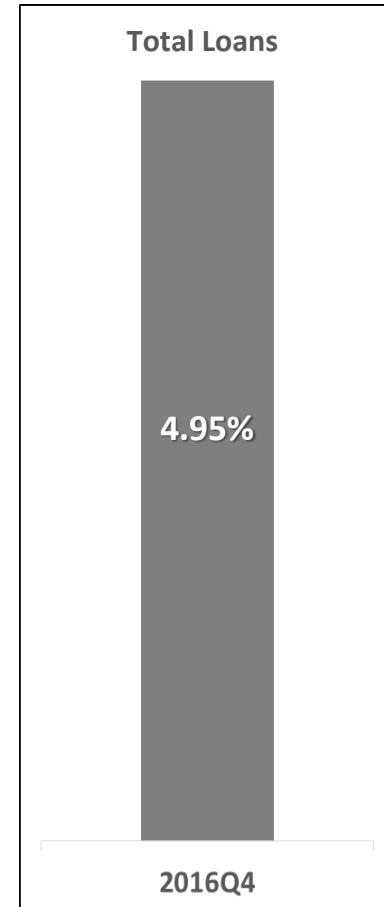
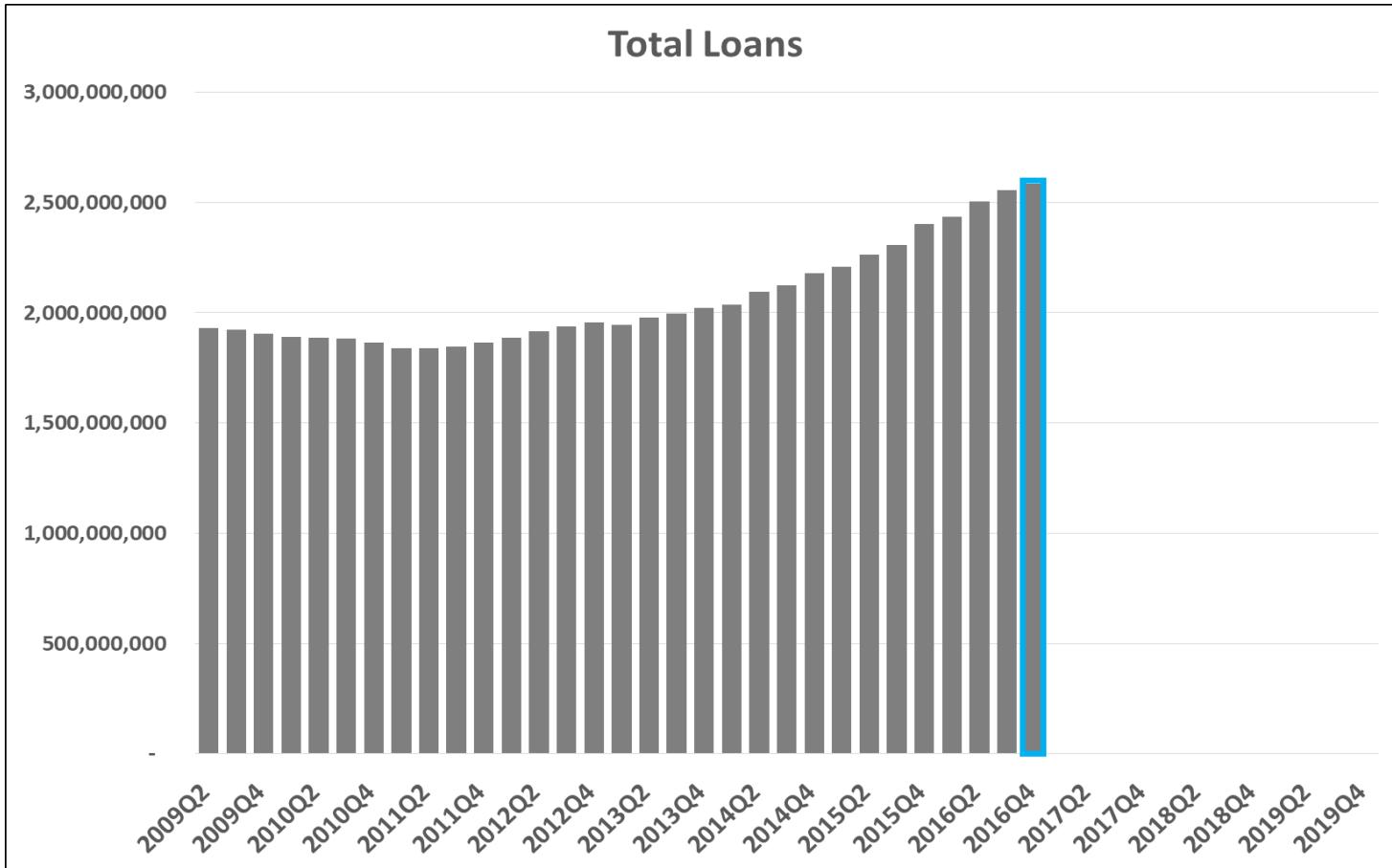
Adam Mustafa



Disturbing Trends Heading into  
the Next Cycle

# 11. Rate hikes not translating to materially higher loan yields

## All Banks in US (<\$10B) Total Loans



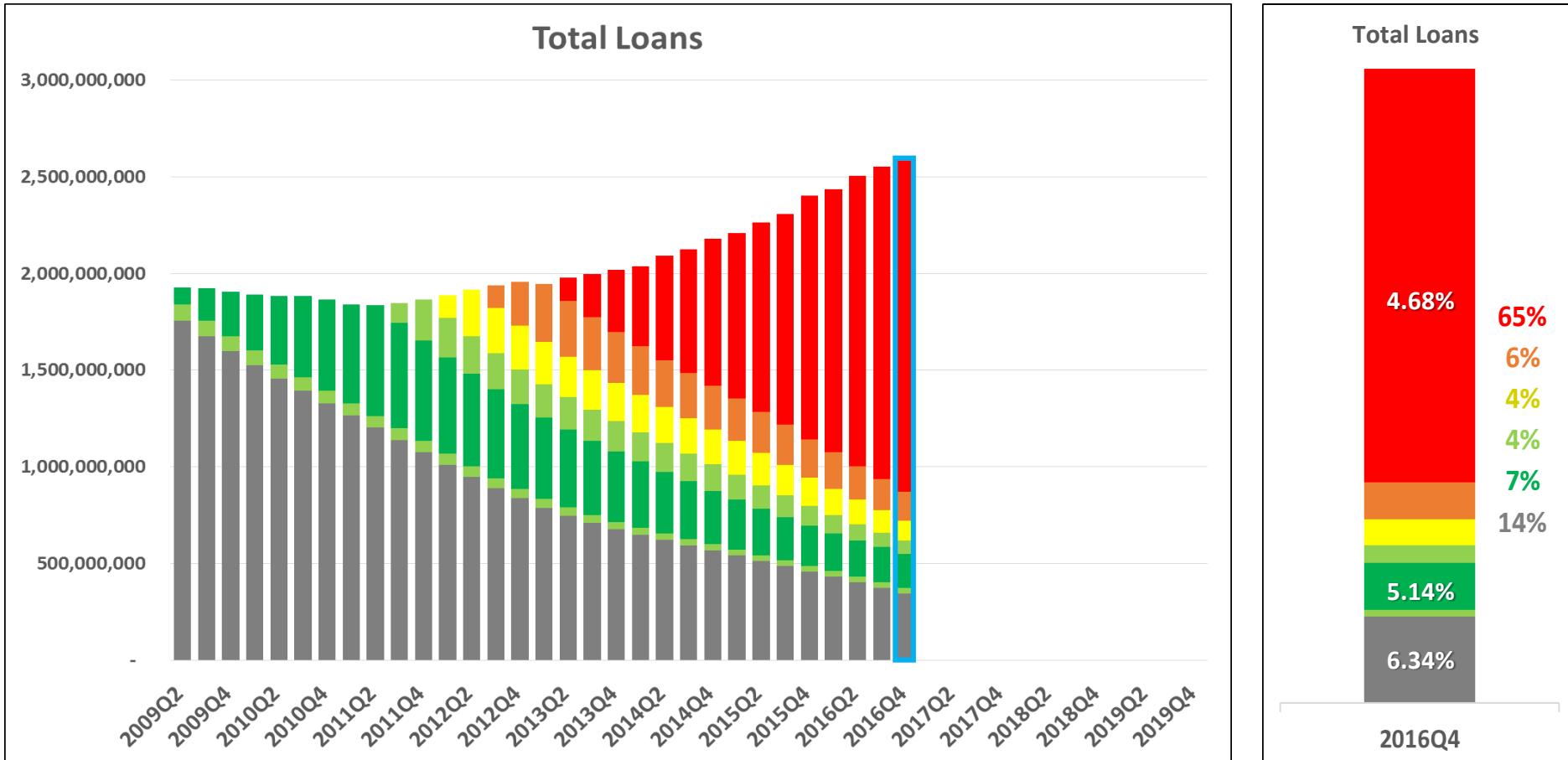
Gross Yield on Loans:



4.95%

# 11. Rate hikes not translating to materially higher loan yields

## All Banks in US (<\$10B) Total Loans *Risk/Reward*

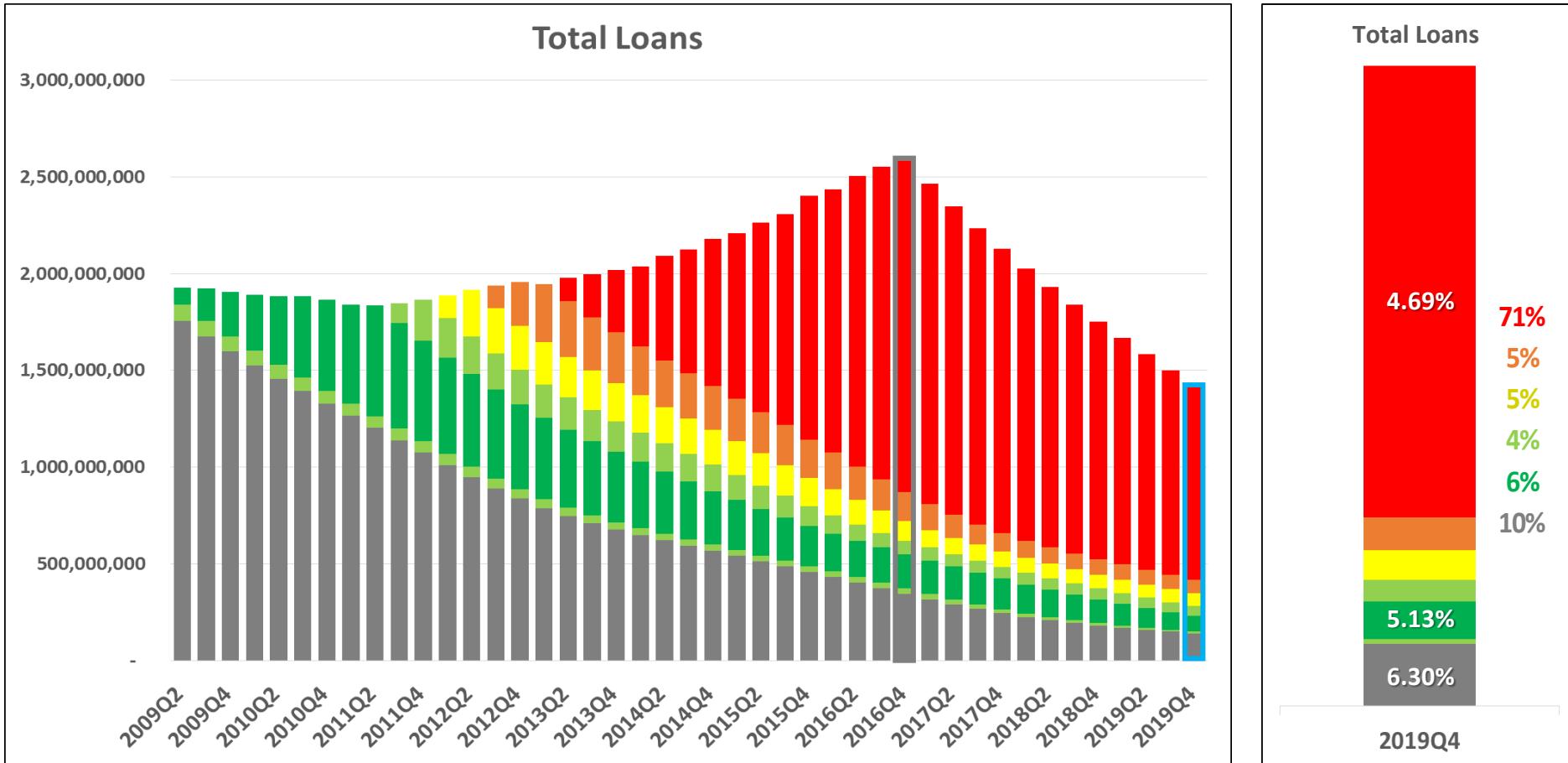


Gross Yield on Loans:

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# 11. Rate hikes not translating to materially higher loan yields

**All Banks in US (<\$10B) 3 Years No-Growth**  
**Total Loans *Risk/Reward***



**Gross Yield on Loans:**

4.89%

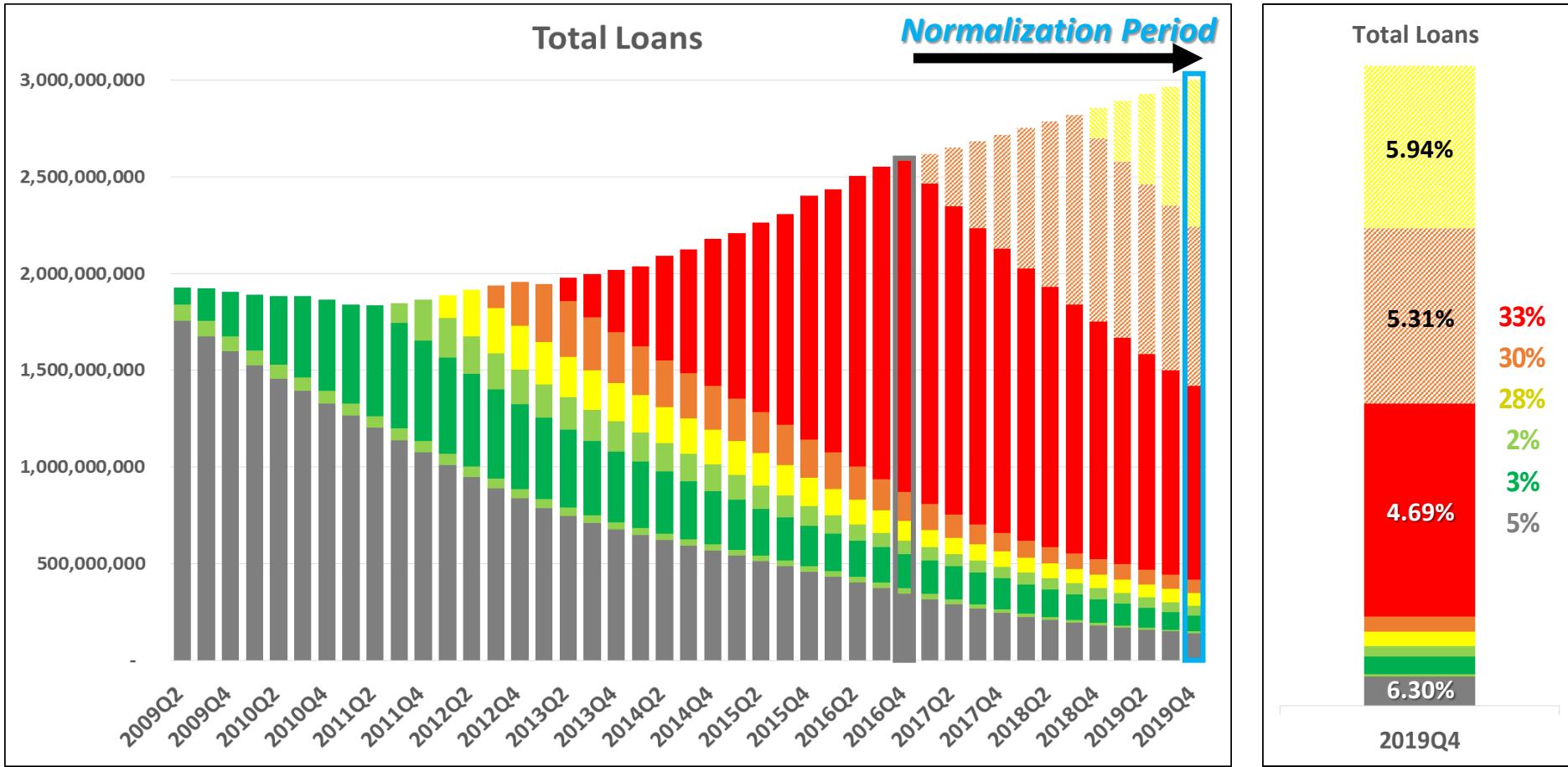
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# 11. Rate hikes not translating to materially higher loan yields

All Banks in US (<\$10B) 3 Years No-Growth

Total Loans *Risk/Reward*

+100 bps Rate Hike



Gross Yield on Loans:

4.89%

4.95%

5.25%

## 2. Strong likelihood of tepid loan demand

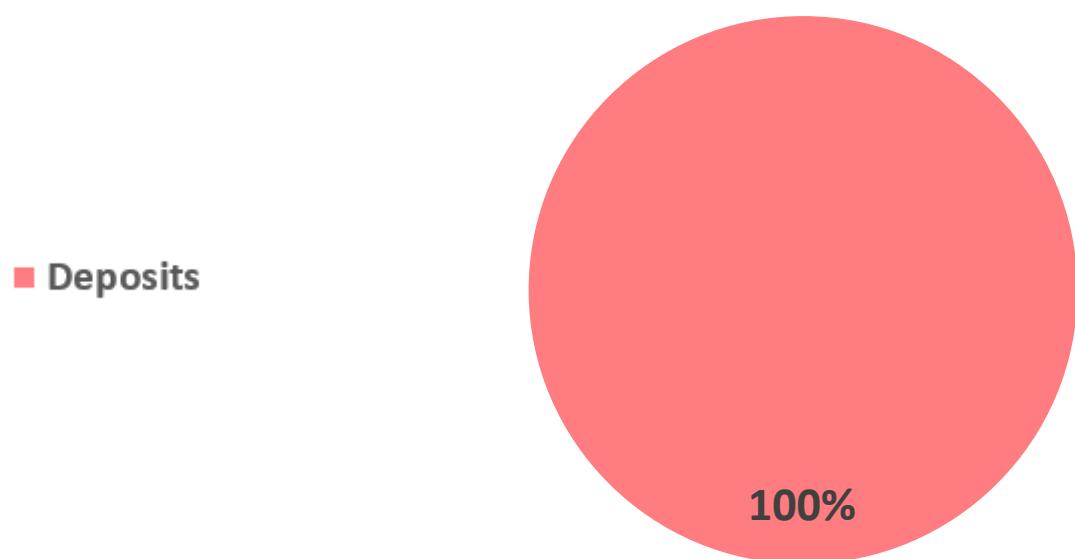
|          | High Growth<br>Rising Rates   | High Growth Flat<br>Rates   | Low Growth Rising<br>Rates   | Low Growth Flat<br>Rates   |
|----------|---|---|--|--|
| Resi     | Severe decline in refi's partially offset by purchases.                            | Purchases significantly increase w/o material falloff in refi's.                   | Refis disappear and purchases do not increase.                          | Equivalent of today's environment.    |
| CRE      | Rising cap rates will overpower increases in rental rates.                         | Rental rates increase and cap rates remain unchanged.                              | Cap rates increase and rental rates remain flat.                        | Equivalent of today's environment.    |
| Consumer | More borrowers qualify, but rising rates acts as disincentive.                     | Consumers leverage when more bullish, but household debt/GDP near historic highs.  | Rising rates disincentivizes and no increase in qualifying borrowers.  | Equivalent of today's environment.    |
| Ag       | Upward pressure on USD crushes commodity prices.                                 | Driven by modest increase in demand.   | Upward pressure on USD crushes commodity prices.                      | Equivalent of today's environment.  |
| C&I      | Capex and working capital investments increase. Partial offset by higher rates.  | Capex and working capital investments increase.                                  | No incentive for leverage and rising rates acts as disincentive.      | Equivalent of today's environment.  |

# Assessment of Loan Demand

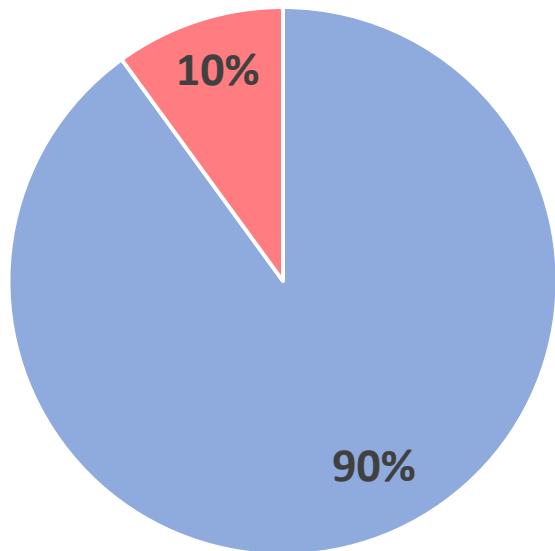
|          | High Growth<br>Rising Rates   | High Growth Flat<br>Rates   | Low Growth Rising<br>Rates   | Low Growth Flat<br>Rates   |
|----------|---|---|--|--|
| Resi     | Severe decline in refi's partially offset by purchases.                            | Purchases significantly increase w/o material falloff in refi's.                   | Refis disappear and purchases do not increase.                          | Equivalent of today's environment.    |
| CRE      | Rising cap rates with downward trend in rental rates.                              | Rental rates increase and Cap rates remain unchanged.                              | Cap rates increase and rental rates remain Flat.                        | Equivalent of today's environment.    |
| Consumer | More borrowers qualify, but rising rates acts as disincentive.                     | Consumers leverage when more bullish, but household debt/GDP near historic highs.  | Rising rates disincentivizes and no increase in qualifying borrowers.  | Equivalent of today's environment.    |
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### 3. Looming Deposit Turbulence?

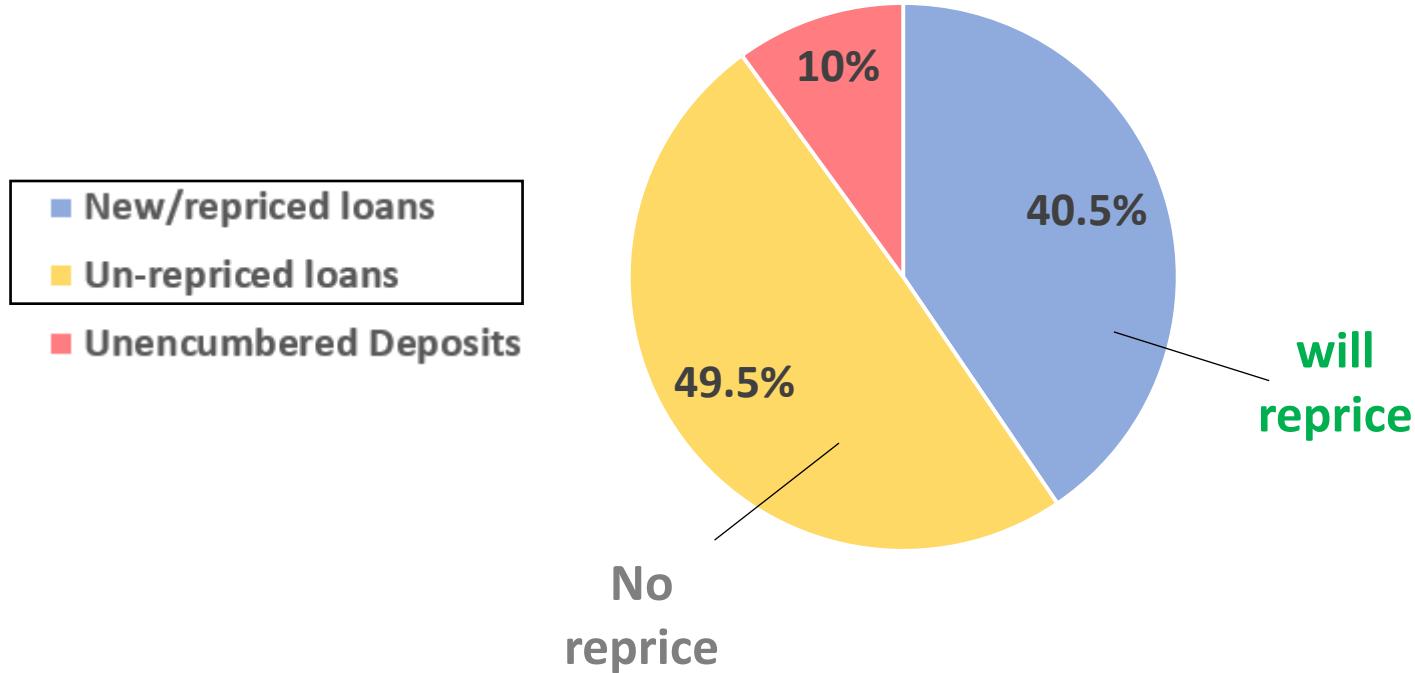
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### 3. Looming Deposit Turbulence?

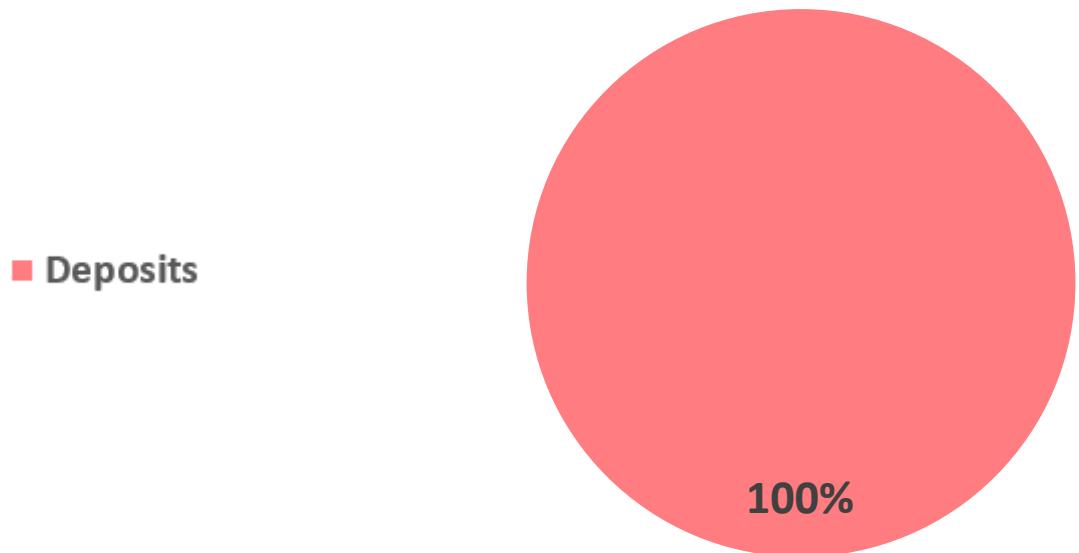


### 3. Looming Deposit Turbulence?

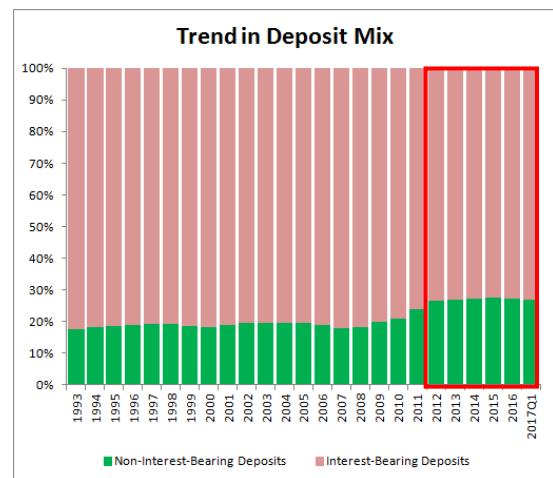
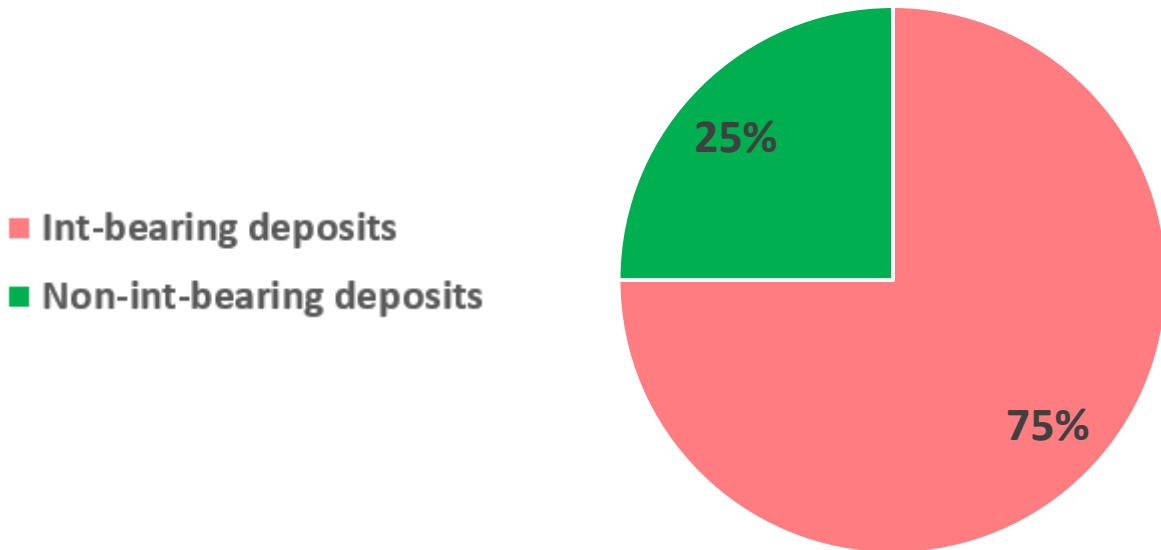


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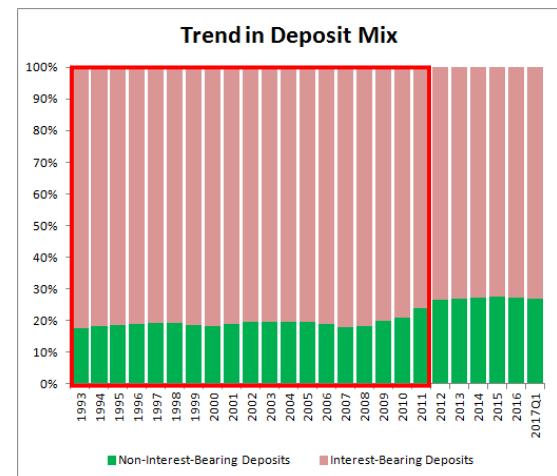
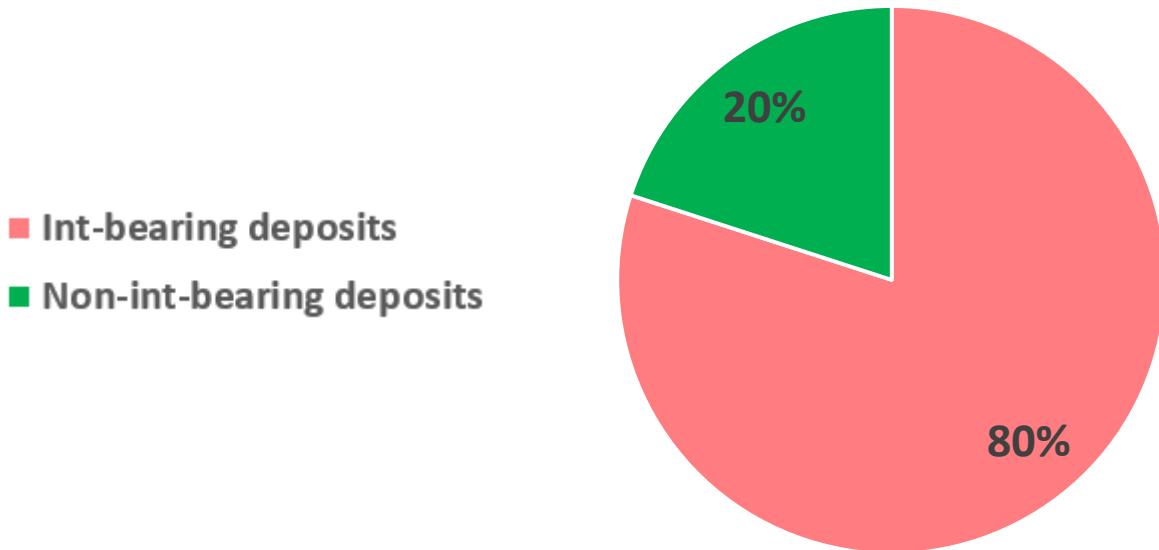
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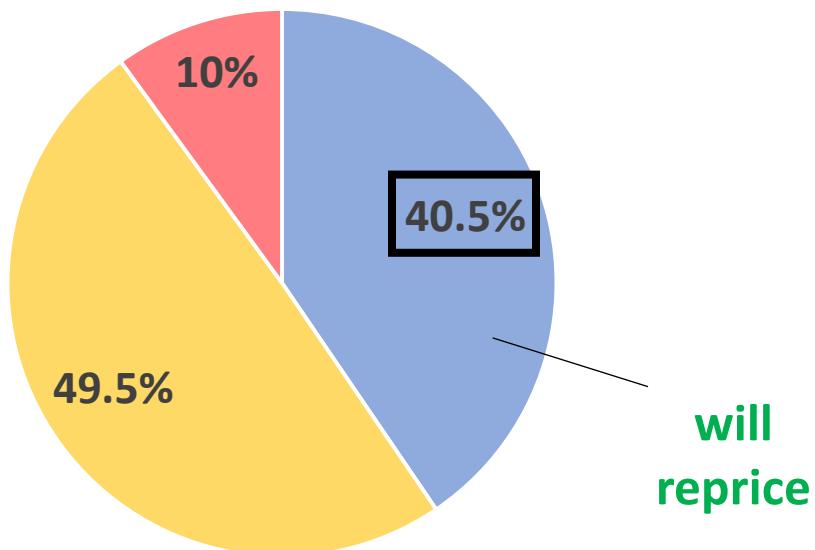


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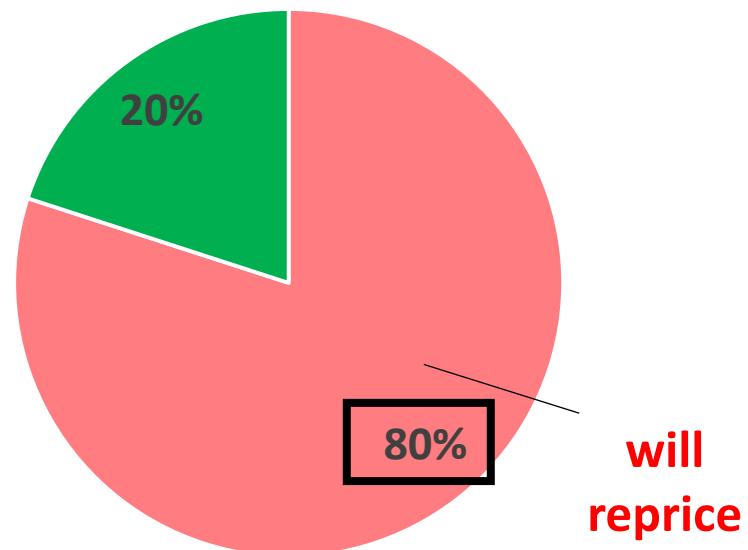


### 3. Looming Deposit Turbulence?

Repricing on the Loans



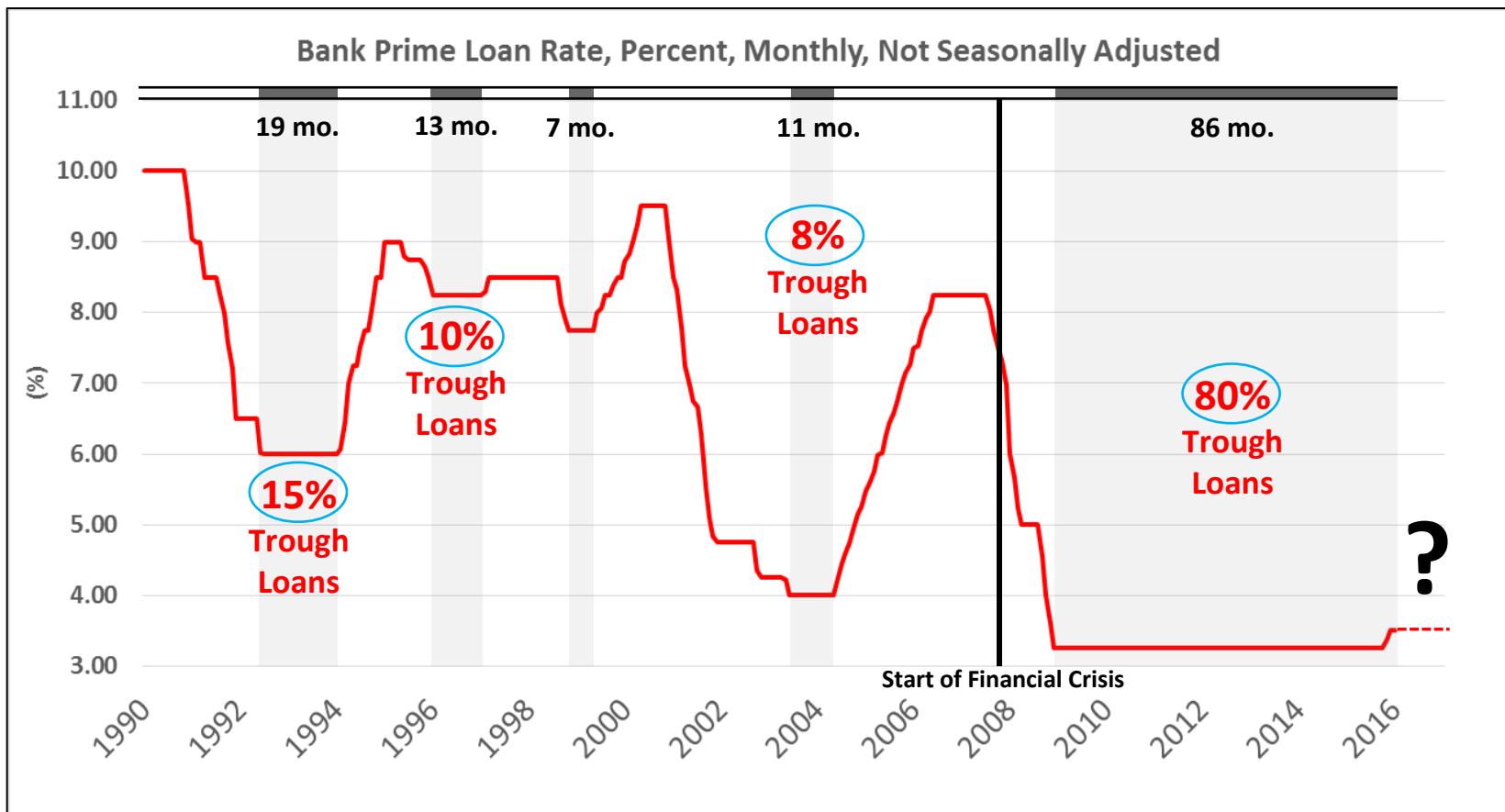
Repricing on the Deposits



- New/repriced loans
- Un-repriced loans
- Unencumbered Deposits

- Int-bearing deposits
- Non-int-bearing deposits

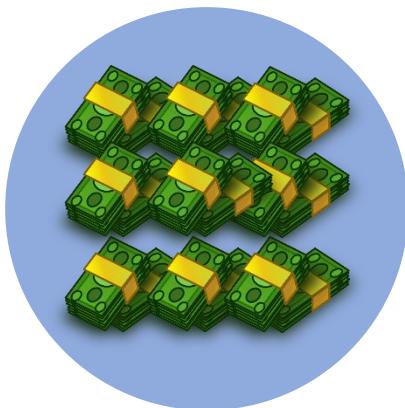
# Duration of Interest Rate Troughs: *A History of Prime*



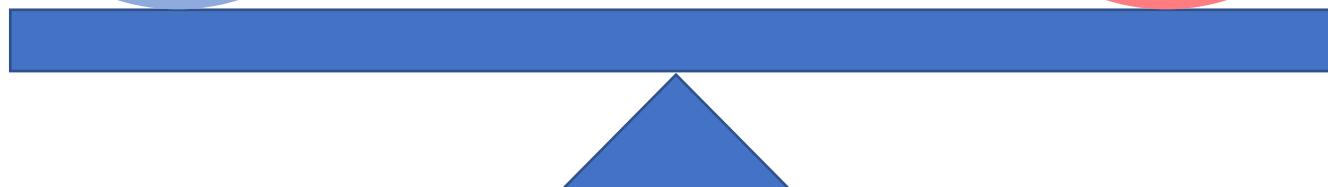
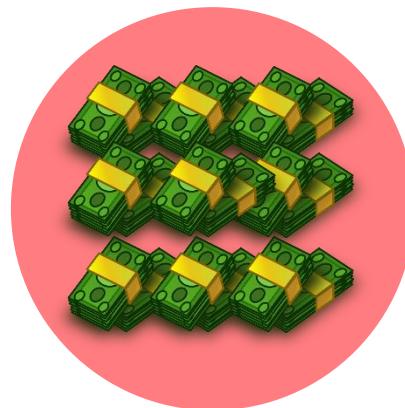
### 3. Looming Deposit Turbulence?

#### Old World Scenario

##### New/Repriced Loans



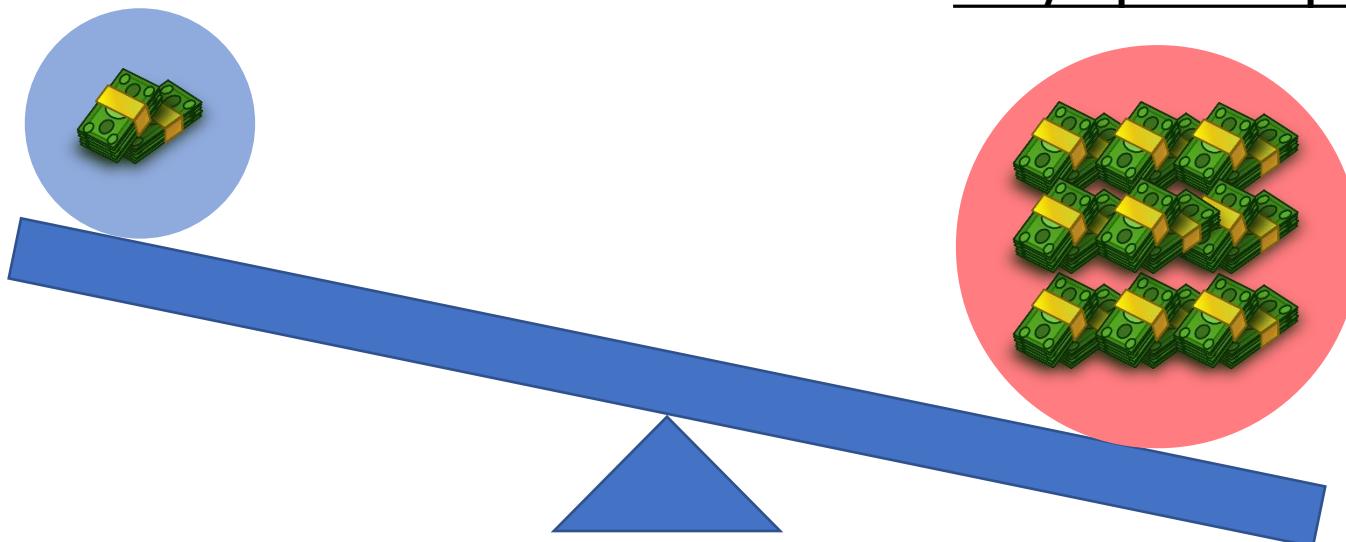
##### New/Repriced Deposits



### 3. Looming Deposit Turbulence?

#### Today's Scenario

##### New/Repriced Loans



##### New/Repriced Deposits

# Expected Pro Forma: Assets and Deposits

*It is critical to manage asset mix and protect deposits during normalization period, but banks must contend with the following issues:*

## ASSETS

- Low organic growth.
- Intense pricing and term competition for new loans and refinancings.
- Slow turnover of existing portfolios due to extended maturities.

## DEPOSITS

- Reduction in industry-wide deposits as Fed unwinds balance sheet
- Aggressive tactics by CCAR banks to steal core deposits from community banks
- Electronic banking facilitates poaching of deposits from community banks
- Increasing regulatory pressure on high/rising Loan-to-Deposit ratios.
- Renewed regulatory focus on brokered funds.

# Traditional Methods for Managing Assets and Protecting Deposits

## Strategy 1: Organic Growth

### ASSETS

A sample bank growing at a 10% growth rate with:

1. a 50% haircut on fixed rate loans and
2. a 20% increase on floating rate loan growth

would have minimal impact on asset mix:

|              | <b>TODAY</b> | <b>YEAR 3</b> |
|--------------|--------------|---------------|
| <b>Fixed</b> | 63%          | 62%           |
| <b>Float</b> | 37%          | 38%           |

### DEPOSITS

Pricing on deposits is set in the market. The bank has very limited ability to protect deposits in an organic growth strategy.

*This analysis assumes the bank could achieve growth in floating rate loans.*

# Disruptive Methods for Managing Assets and Protecting Deposits

## Strategy 2: M&A

### ASSETS

A strategic acquisition can shift the acquirer's asset mix in a meaningful way with less deterioration of loan yield versus organic growth.

### DEPOSITS

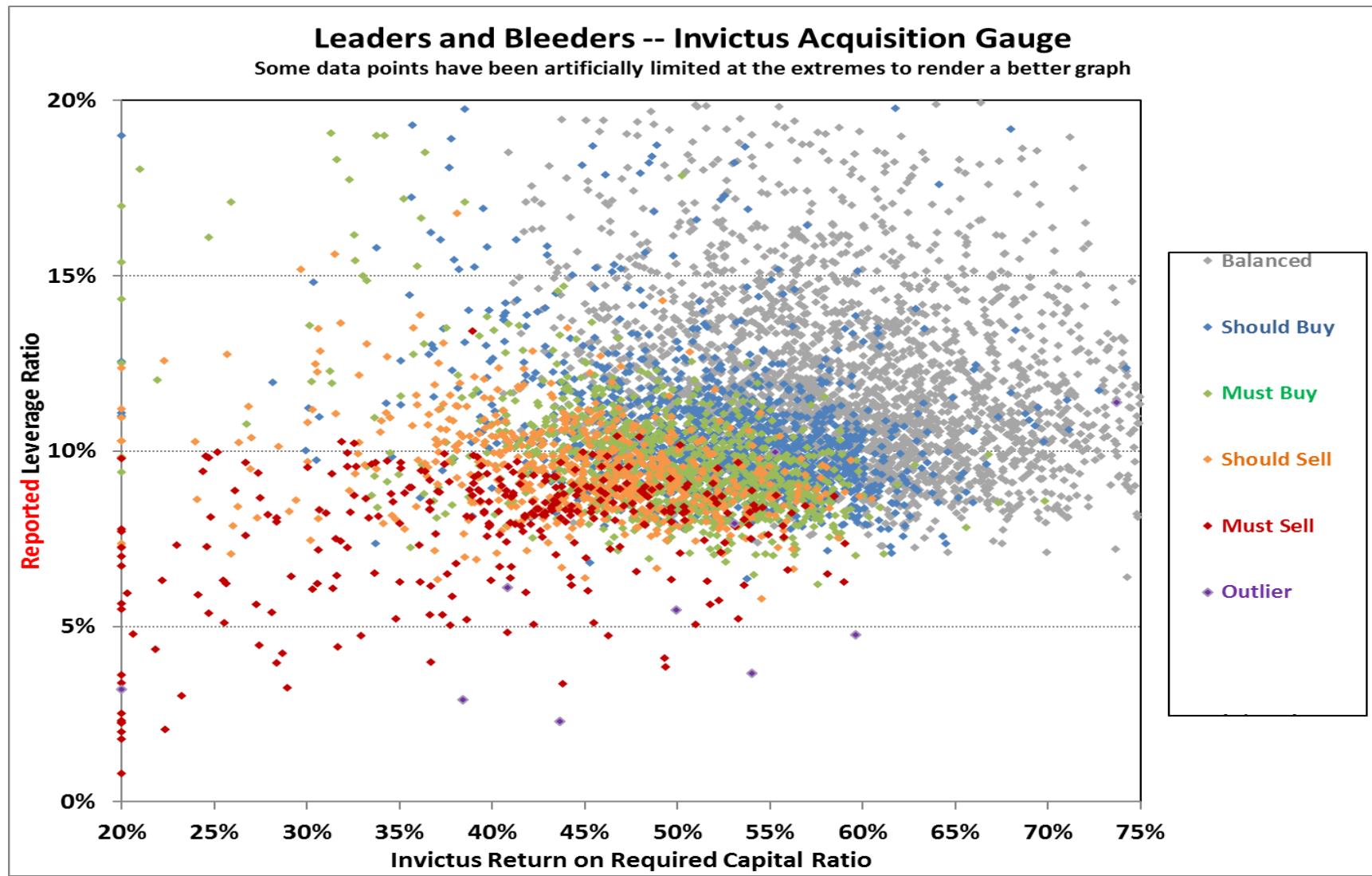
A strategic acquisition can lower the acquirer's loan/deposit ratio & cost of funds while achieving greater asset growth than a pure organic growth.



# Market Survey

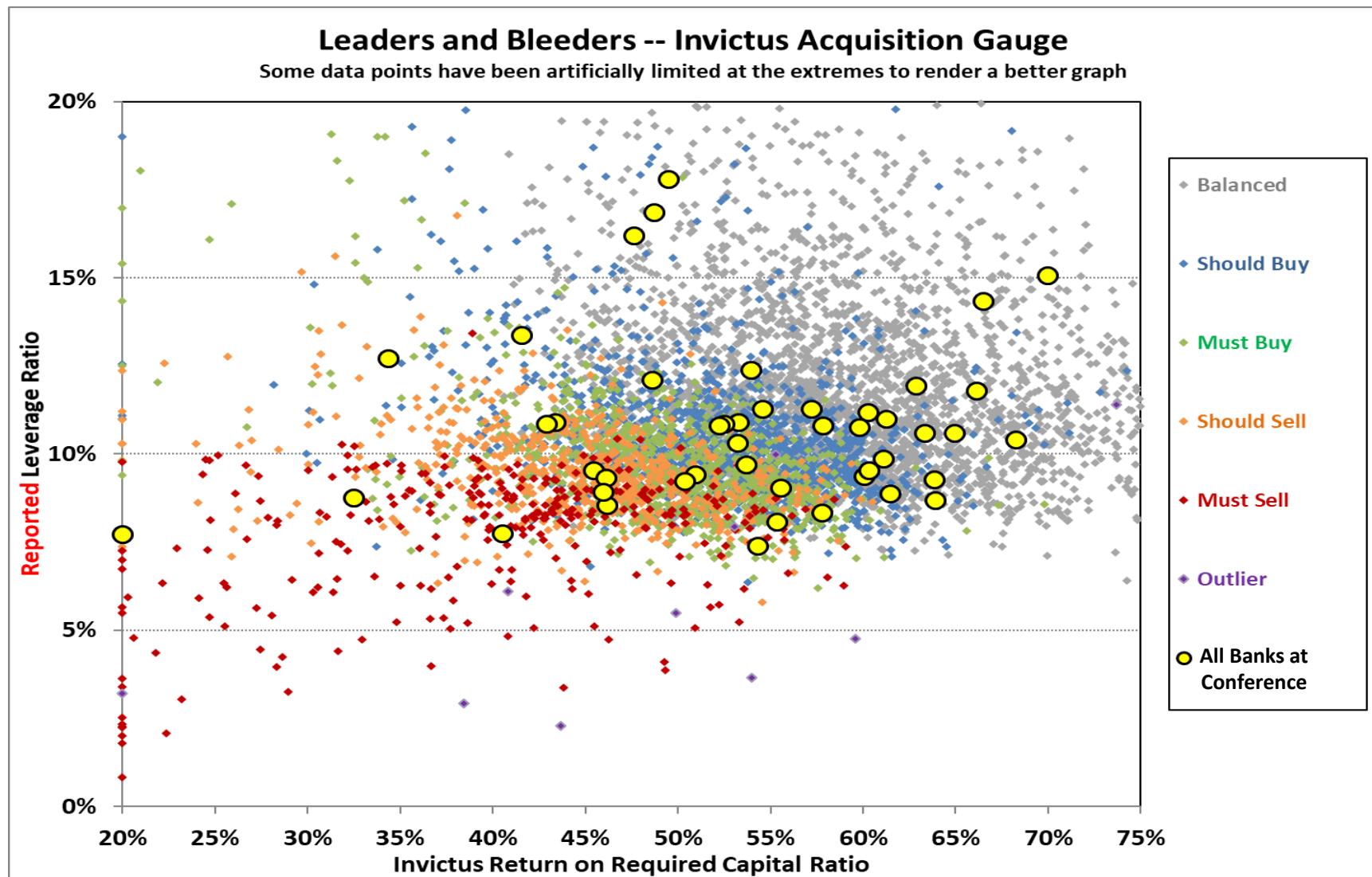
# Invictus Acquisition Gauge: All Banks USA

Invictus Return on Required Capital Ratio =  $\frac{\text{Gross Asset Return}}{\text{Regulatory Capital Required to Support the Assets}}$



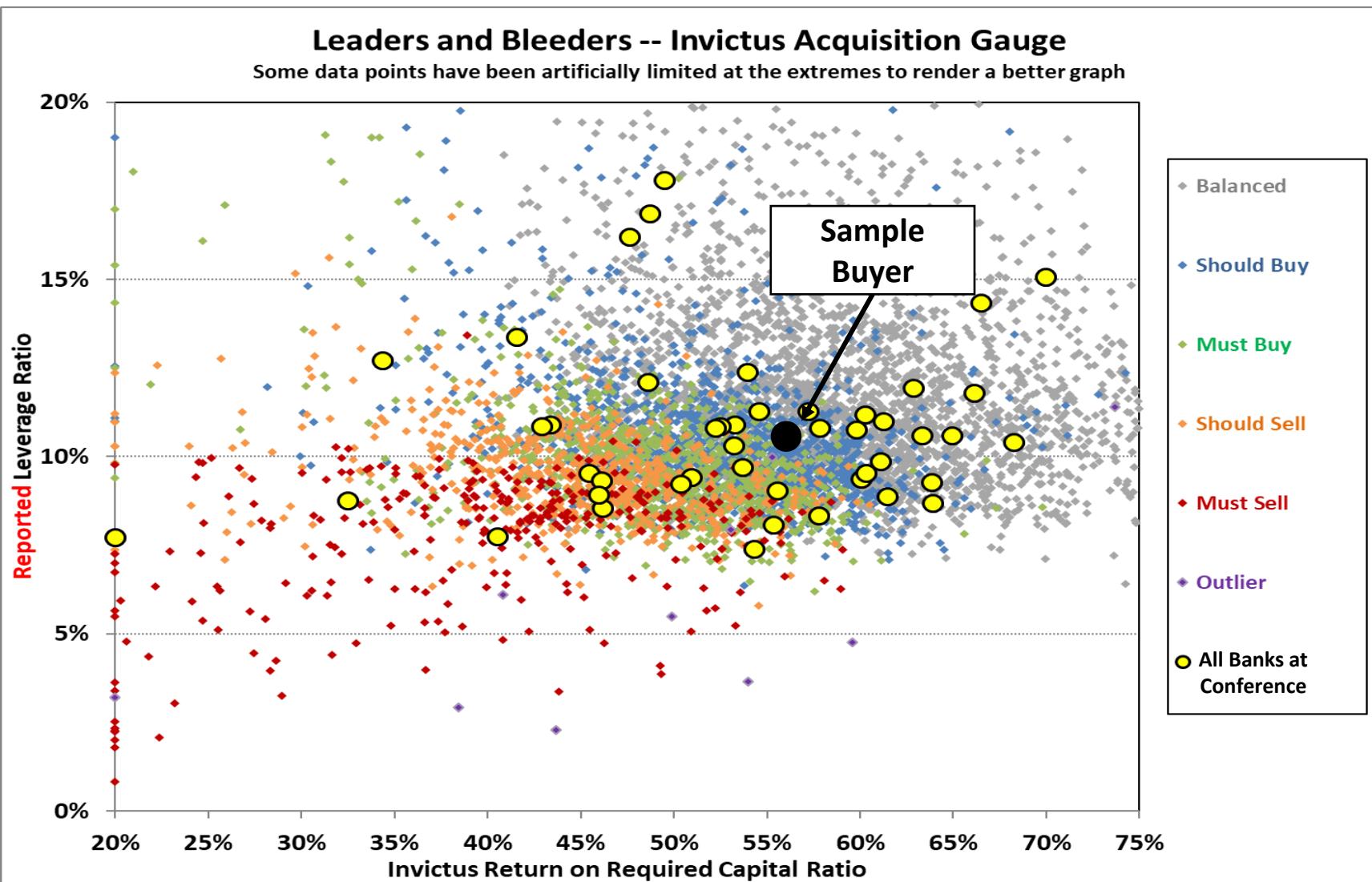
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# Invictus Acquisition Gauge: All Banks in USA

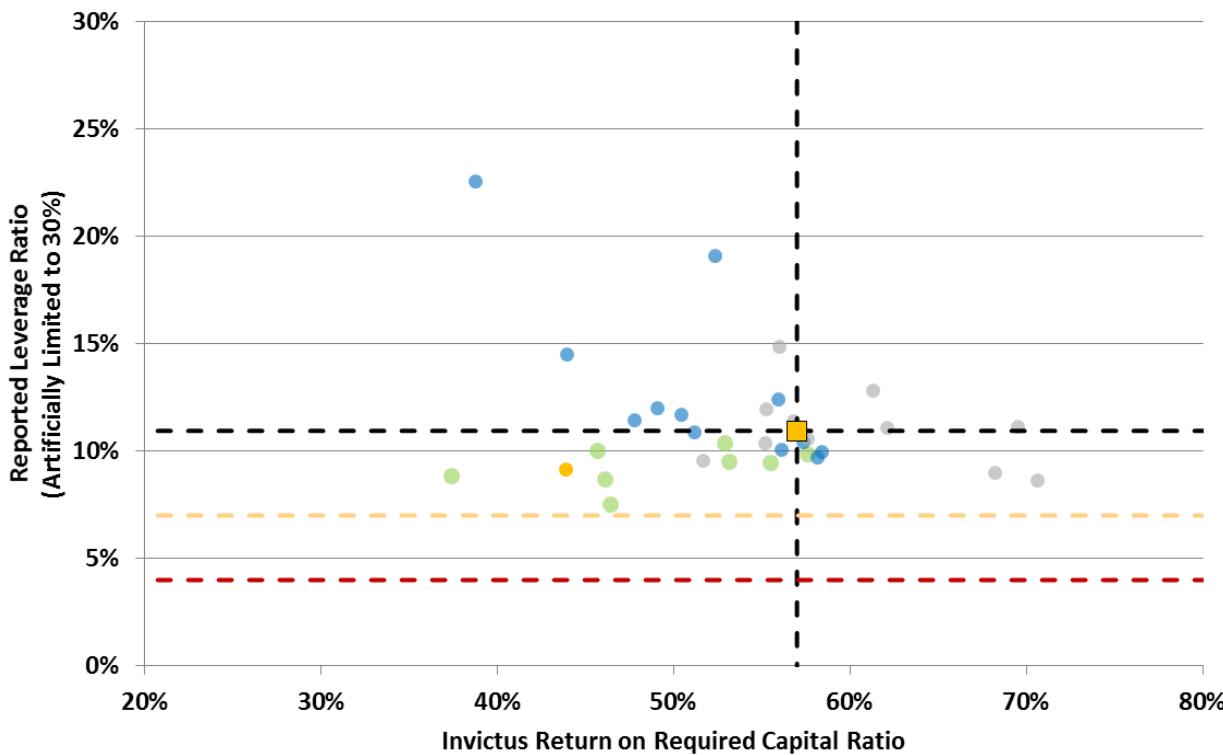
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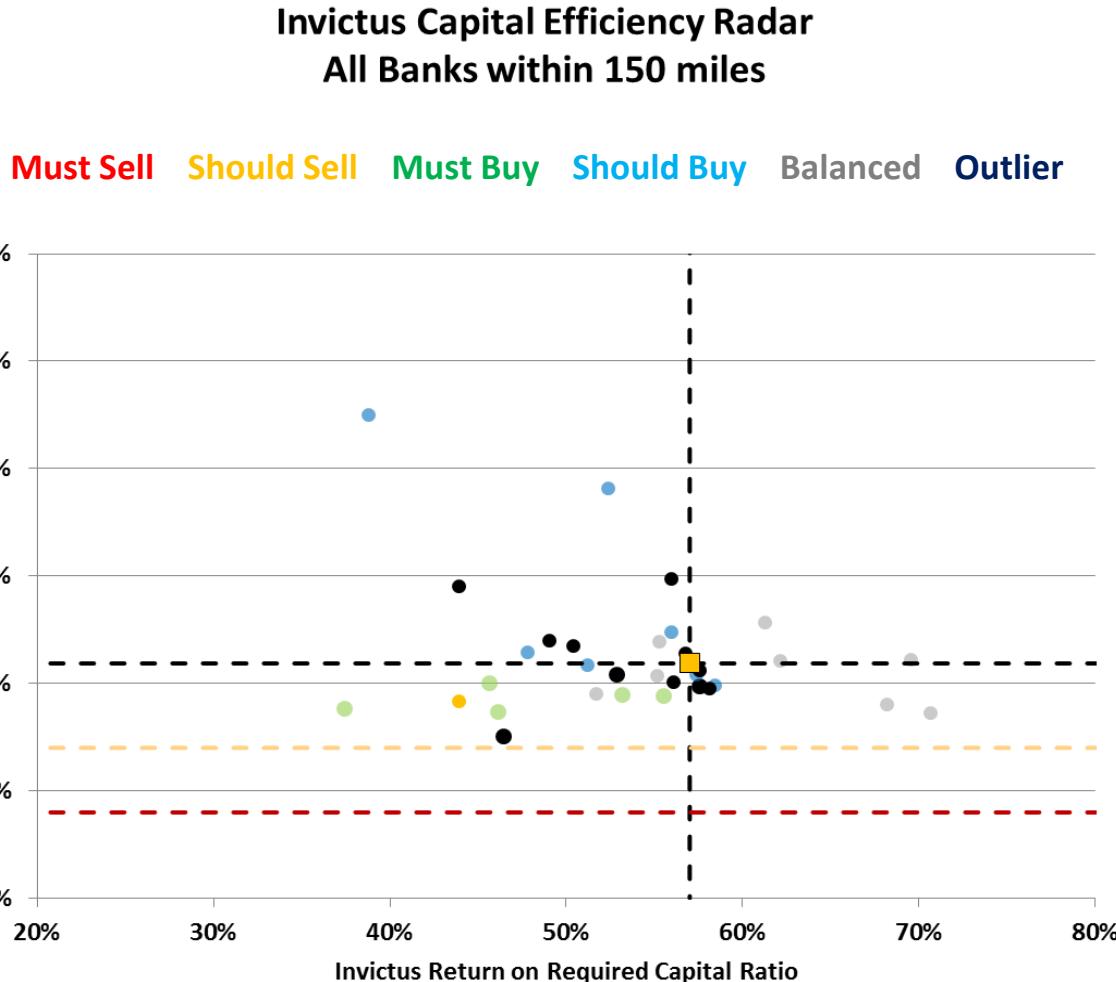
# Invictus Acquisition Gauge: Potential Targets within 150 miles

Invictus Capital Efficiency Radar  
All Banks within 150 miles

Must Sell   Should Sell   Must Buy   Should Buy   Balanced   Outlier



# Invictus Acquisition Gauge: Potential Targets within 150 miles

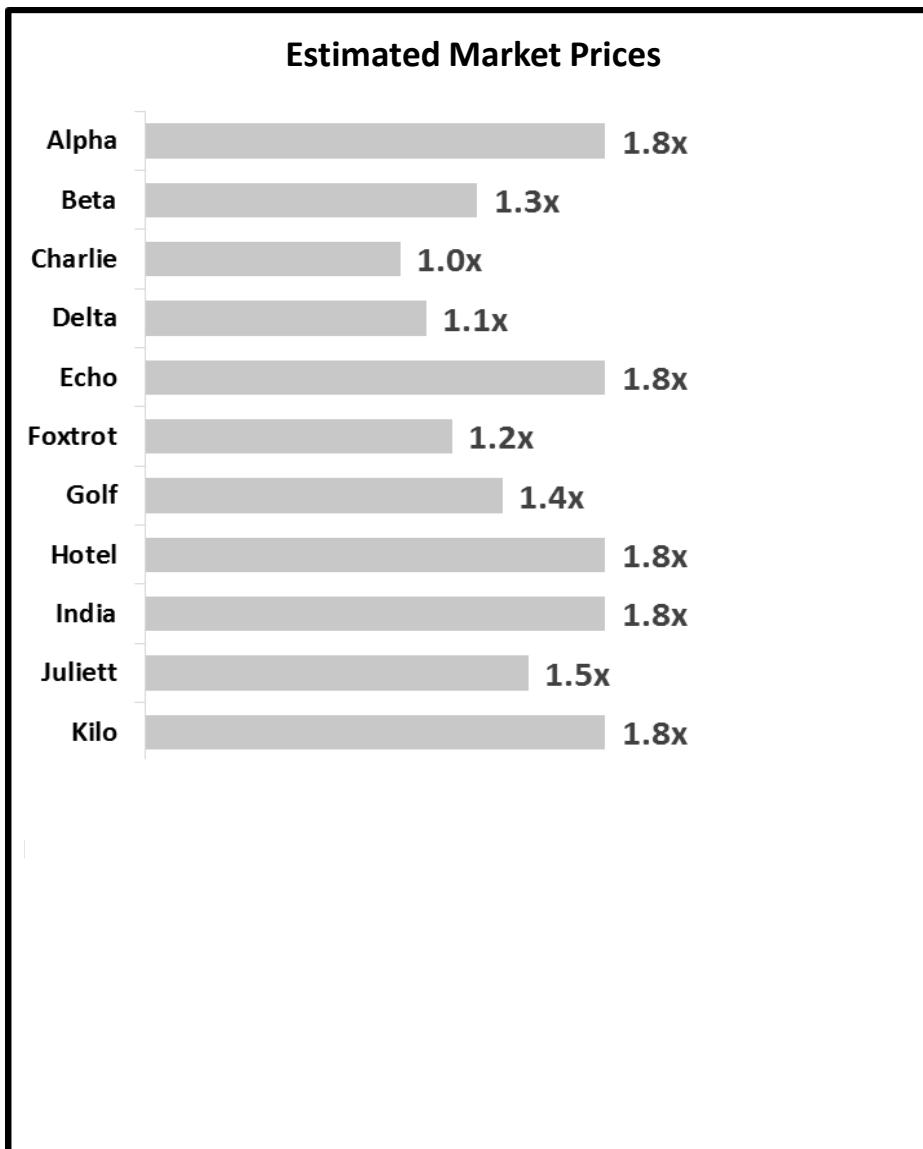


## Initial Target Shortlist:

| Bank    | Invictus Ratio | Leverage Ratio | Invictus Acquisition Gauge |
|---------|----------------|----------------|----------------------------|
| Alpha   | 46%            | 7.5%           | Must Buy                   |
| Beta    | 49%            | 12.0%          | Should Buy                 |
| Charlie | 58%            | 9.7%           | Should Buy                 |
| Delta   | 53%            | 10.4%          | Must Buy                   |
| Echo    | 58%            | 10.6%          | Balanced                   |
| Foxtrot | 44%            | 14.5%          | Should Buy                 |
| Golf    | 50%            | 11.7%          | Should Buy                 |
| Hotel   | 58%            | 10.0%          | Should Buy                 |
| India   | 57%            | 11.4%          | Balanced                   |
| Juliett | 56%            | 10.1%          | Should Buy                 |
| Kilo    | 56%            | 14.9%          | Balanced                   |

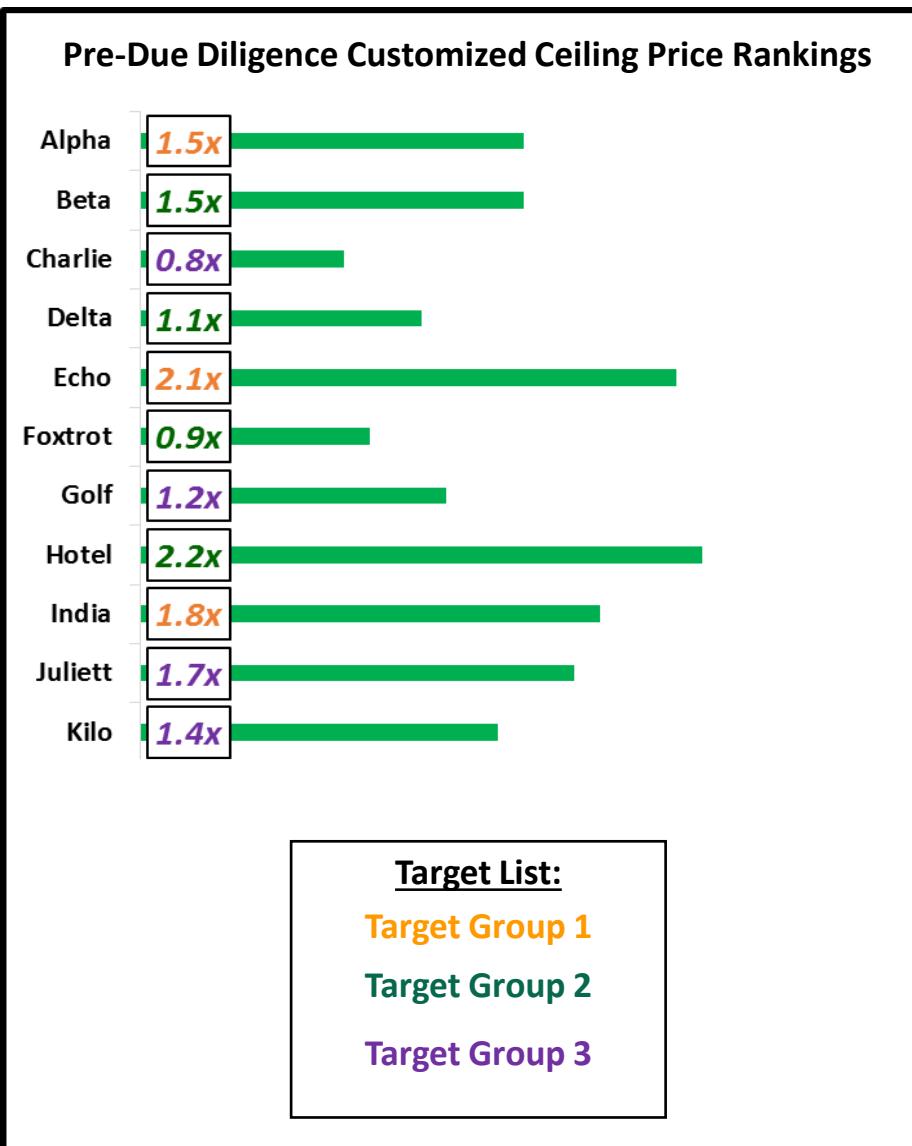
# Invictus Market Survey: *Market Price*

Calculate the  
Estimated Market  
Price by analyzing  
recent comparable  
transactions based  
on size, earnings,  
footprint, etc.



# Invictus Market Survey: *Custom Price Ceiling*

Then calculate  
what these targets  
are worth to YOU.

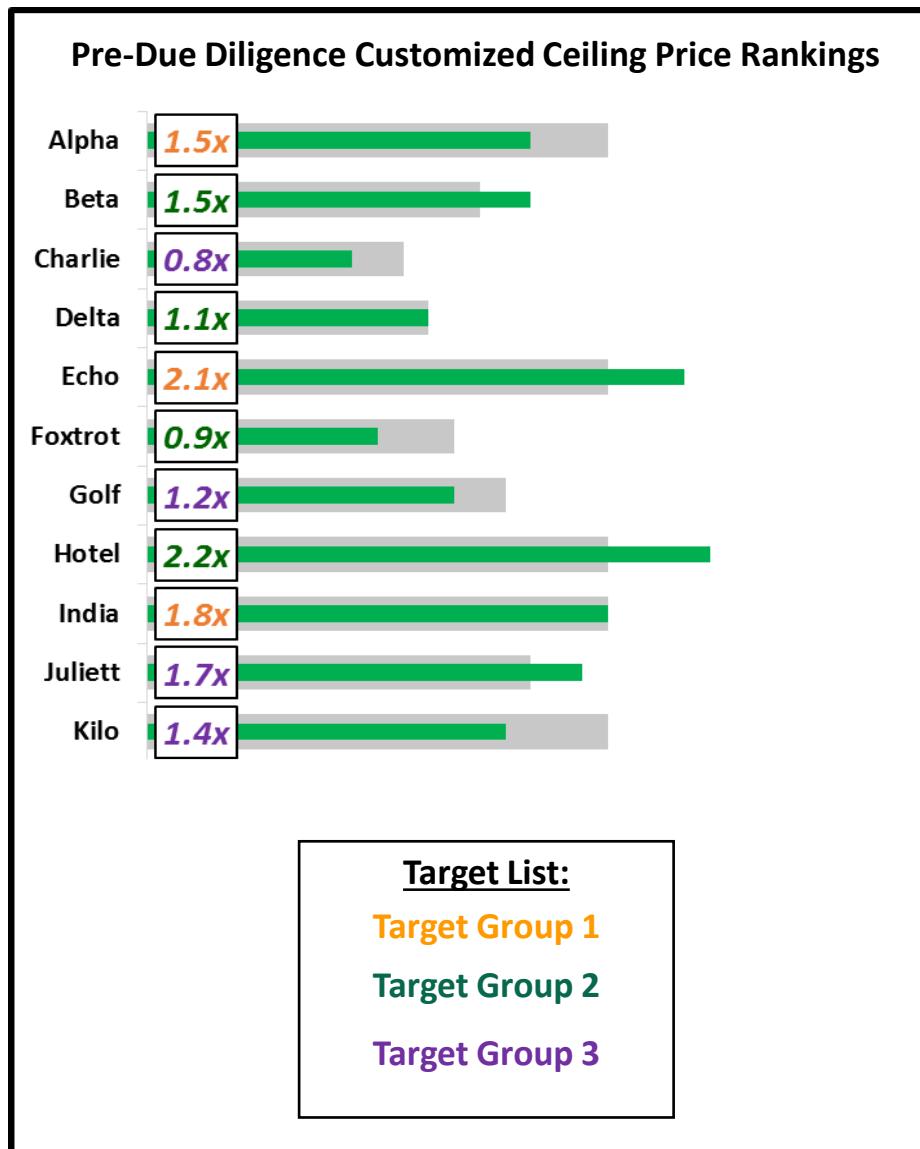


Legend:

Customized Ceiling  
Price

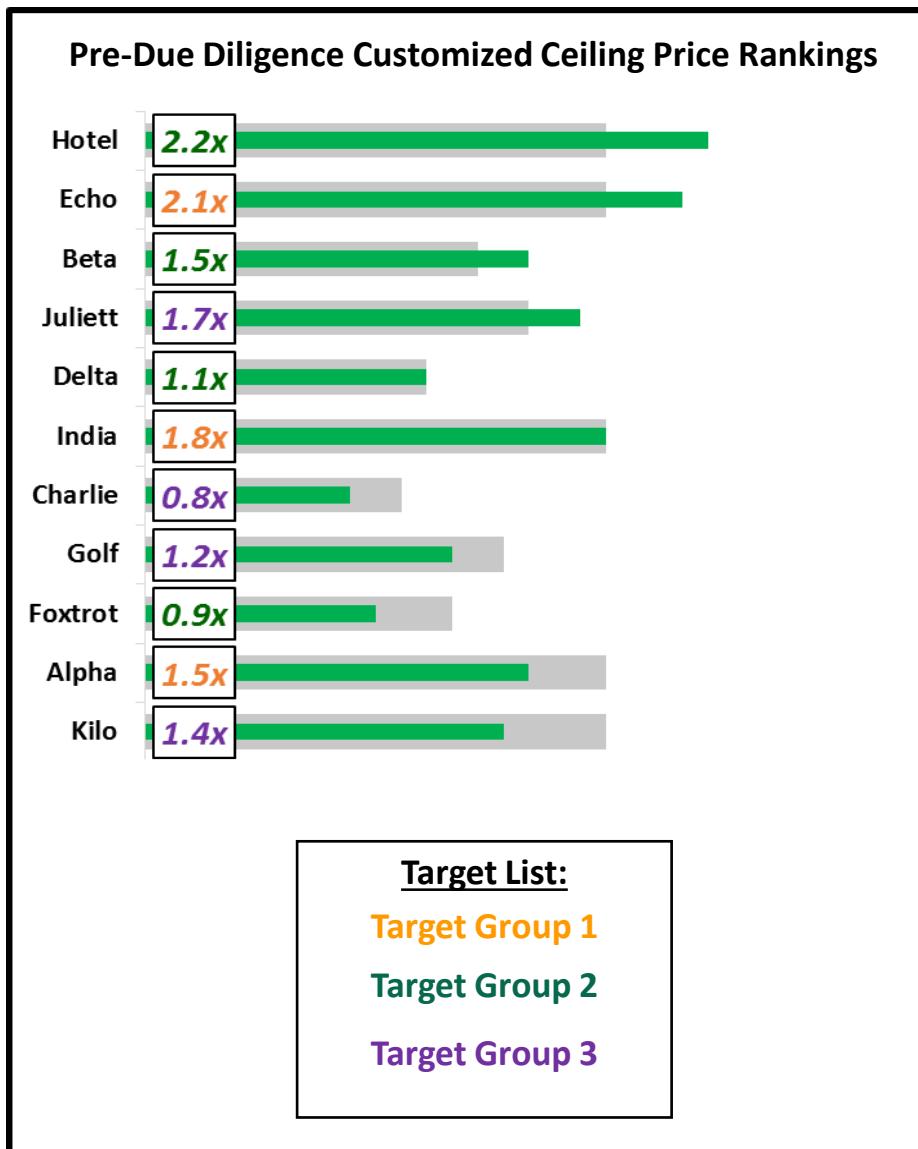
# Invictus Market Survey: *Custom Price Ceiling*

Compare the market price to their value to you.



# Invictus Market Survey: *Bid/Ask Spread*

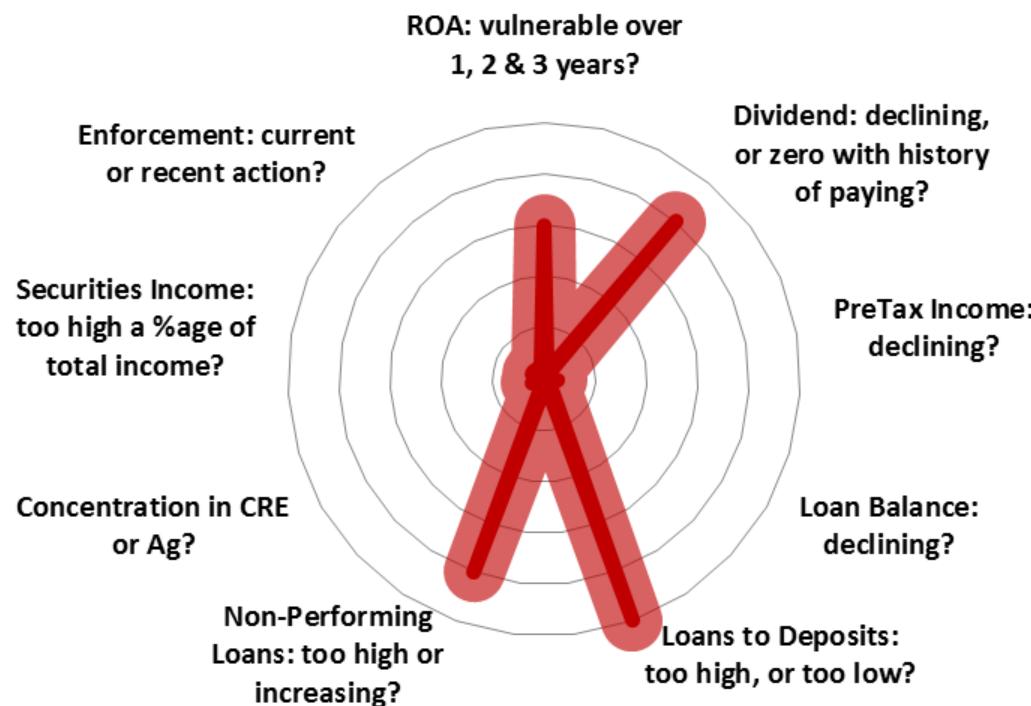
The targets are ranked by the spread between the price ceiling and seller expectations. This is the bid/ask spread.

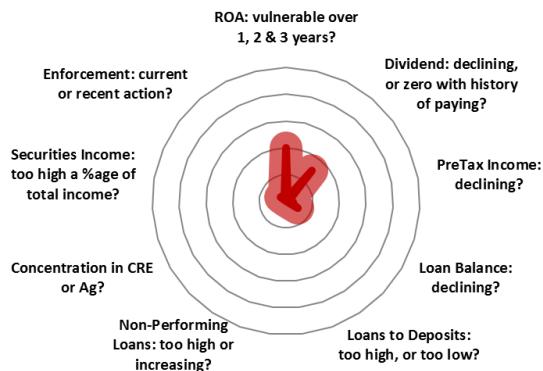
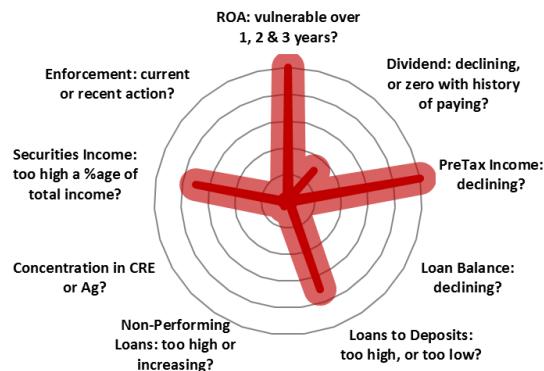
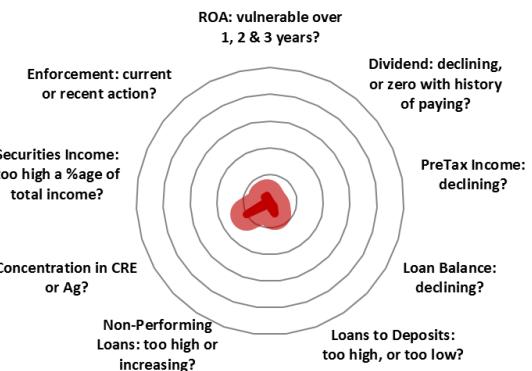
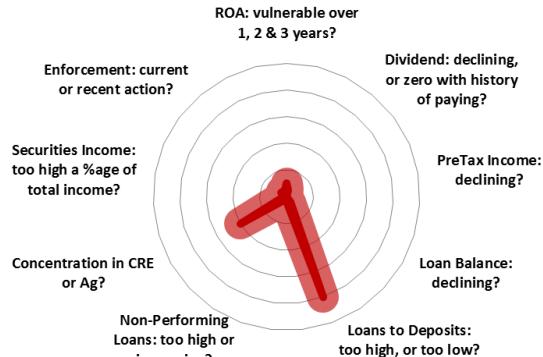
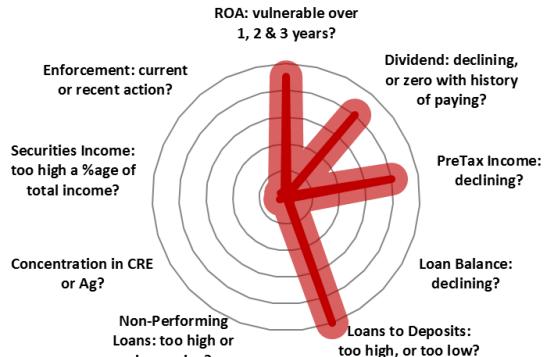
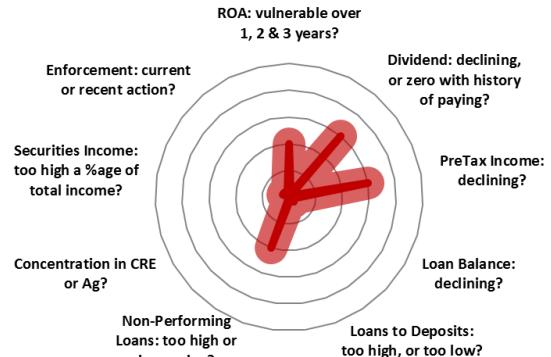


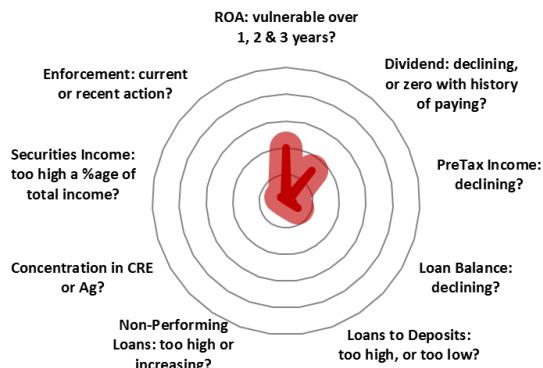
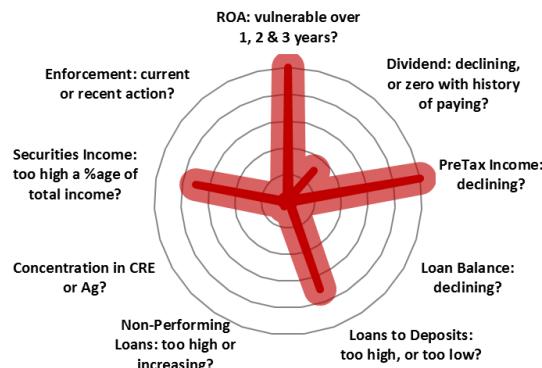
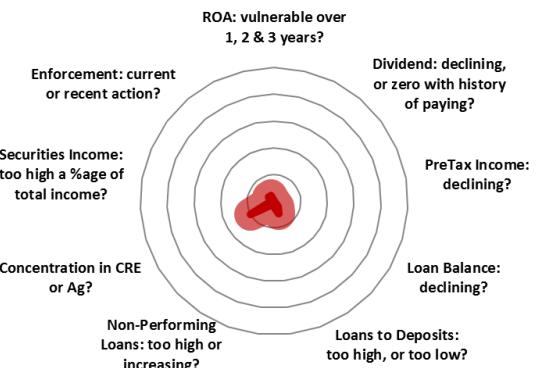
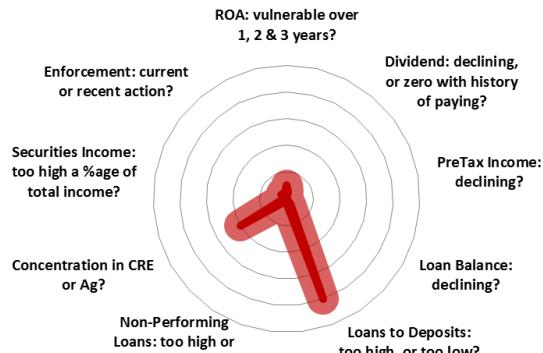
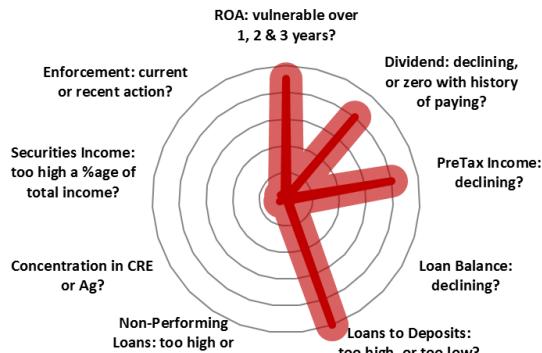
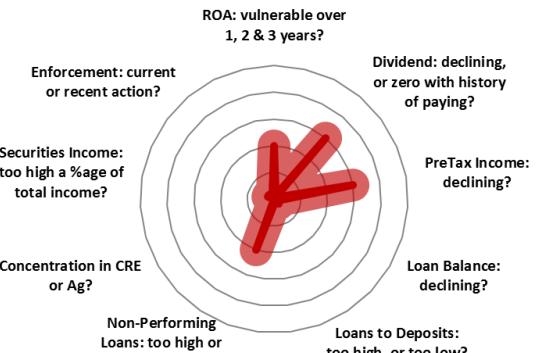
# Invictus Market Survey: *Vulnerability*

## SAMPLE BANK

**Vulnerability Score: 43**



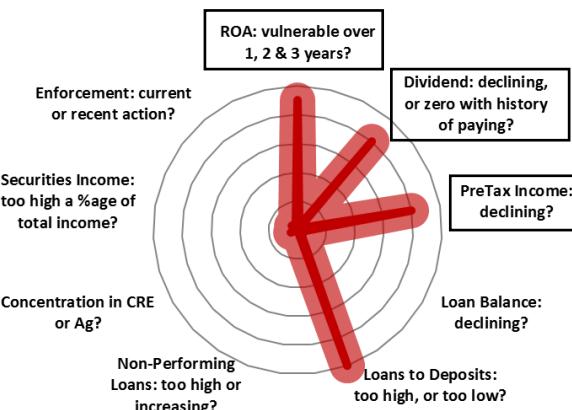
**Alpha****Vulnerability Score: 12****Beta****Vulnerability Score: 47****Charlie****Vulnerability Score: 6****Delta****Vulnerability Score: 14****Echo****Vulnerability Score: 44****Foxtrot****Vulnerability Score: 24**

**Alpha****Vulnerability Score: 12****Beta****Vulnerability Score: 47****Charlie****Vulnerability Score: 6****Delta****Vulnerability Score: 14****Echo****Vulnerability Score: 44****Foxtrot****Vulnerability Score: 24**

# Echo: Target Reconnaissance

## Ownership:

### Echo Vulnerability Score: 44

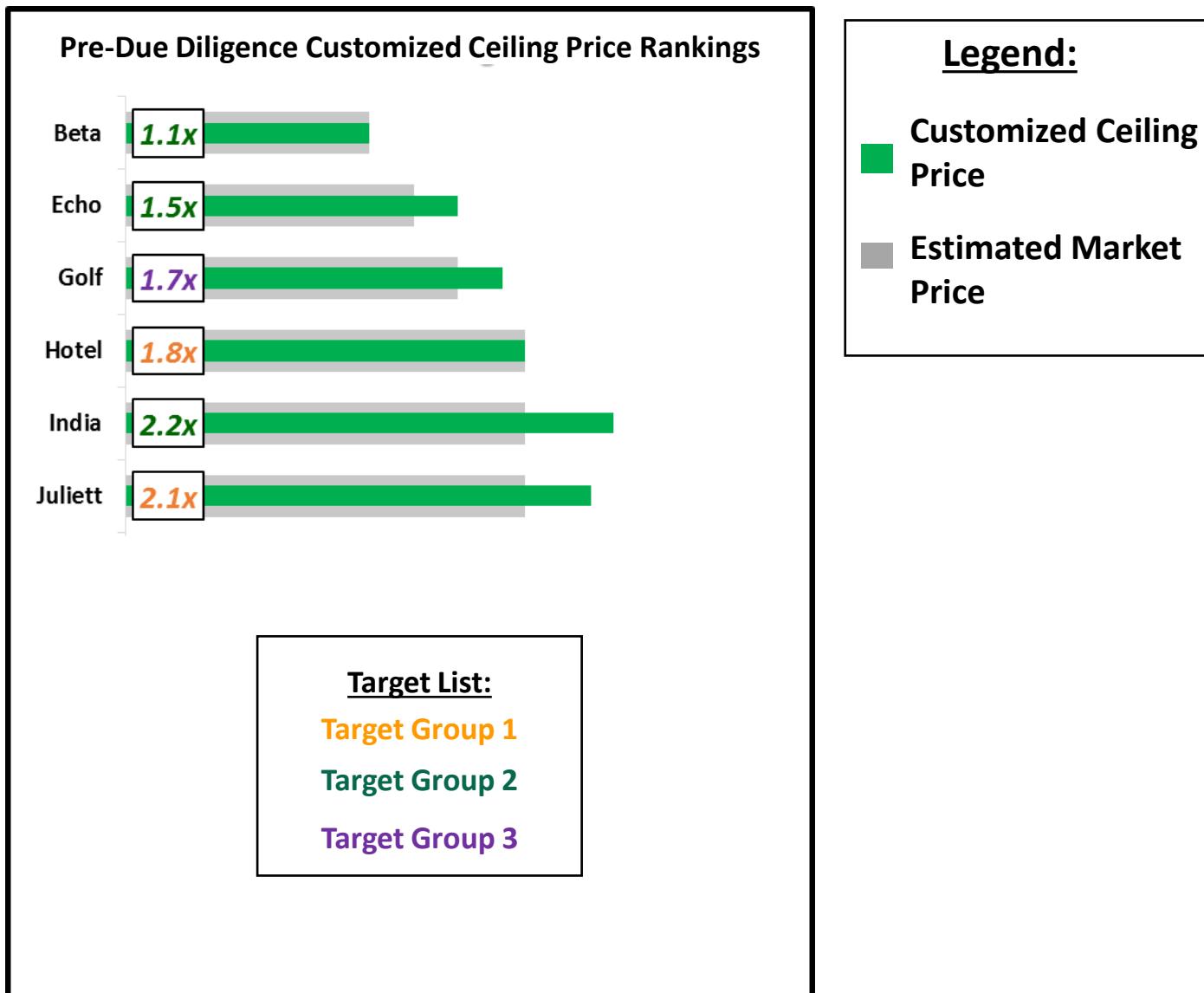


| Role         | Age | Ownership |
|--------------|-----|-----------|
| Shareholder* | 67  | 39.54%    |
| Director*    | 62  | 10.51%    |
| Director     | 58  | 5.38%     |
| Director     | 49  | 5.09%     |
| CEO          | 56  | 0.00%     |

\*[Shareholder], now 67, and [Director], 62, have long business ties going back to at least 1993. [Shareholder] was CEO of [REDACTED], a manufacturing firm. He resigned in 1999 and the firm was liquidated in 2000. [Director] served on his board. [Shareholder] also provided legal services to [REDACTED], which [Director] owned.

# Invictus Market Survey: *Banks with positive Bid/Ask Spreads ranked by Vulnerability*

The targets are prioritized by vulnerability and bid/ask spread.





# Traditional vs. Vintage Analytics

# Traditional Analytics / Vintage Analytics

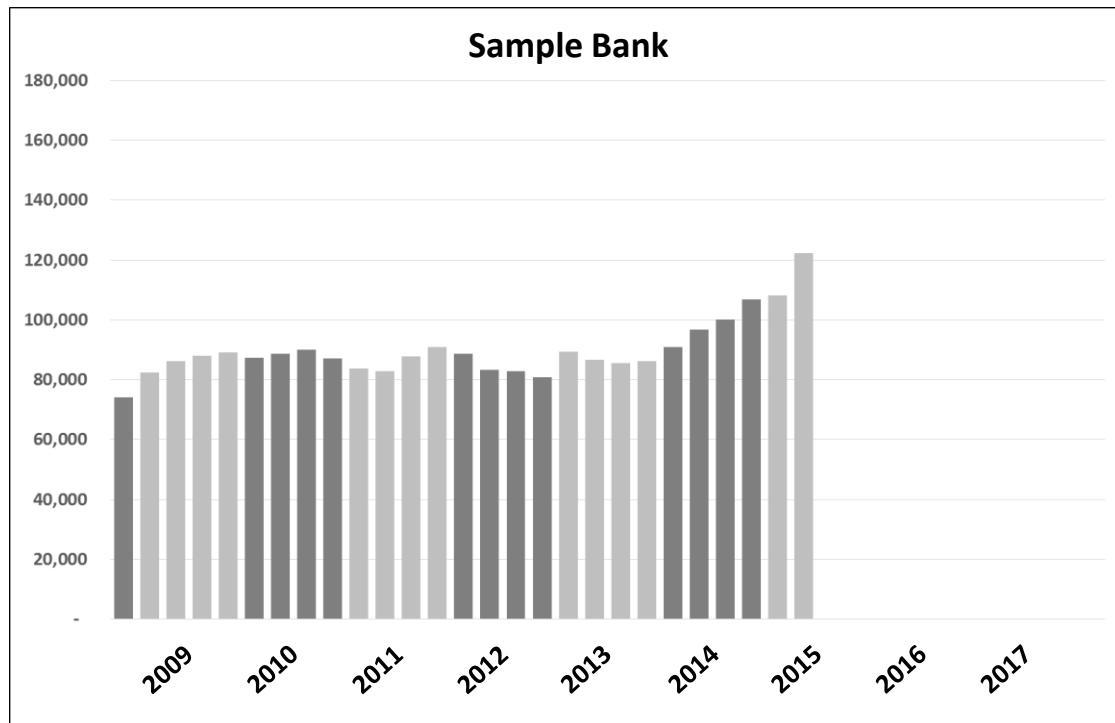
Standalone pro forma analysis

## Sample Bank Quarterly Assets/Loans Data:

Recent Historical Annual Loan Growth = 15%

NIM = 3.7%

Gross Loan Yield = 4.63%



Total Assets

| TTM                  |         |
|----------------------|---------|
| 2015Q2               |         |
| (\$Ms)               |         |
| Assets               | \$126.7 |
| Gross Yield on Loans | 4.63%   |

Interest Income \$5.4  
 Interest Expense\* \$2.3

Net Interest Income \$3.1  
 Provision Exp \$0.3

Non-Int Income \$3.2  
 Non-Int Expense\* \$4.6

Efficiency Ratio 73%

Pre-Tax Income \$1.4  
 Tax Exp \$0.5  
 Net Income \$0.9

ROA 0.8%

\*Practically always modified by acquirer

# Traditional Analytics / Vintage Analytics

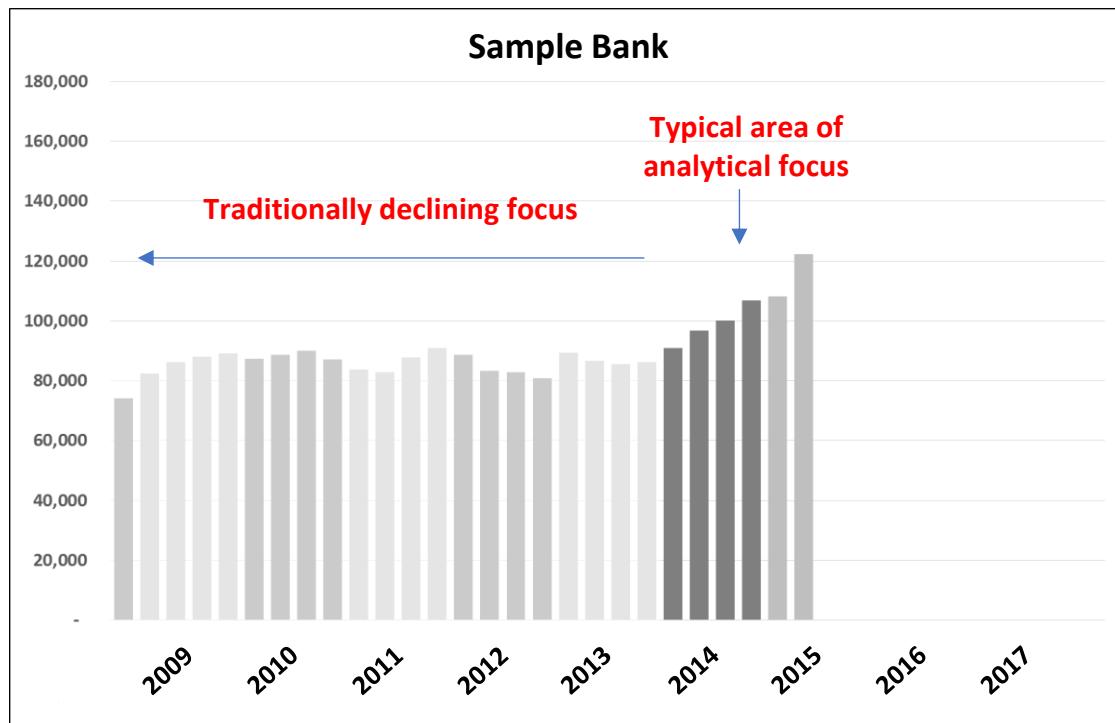
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Total Assets

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|                   |       |
|-------------------|-------|
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| Interest Expense* | \$2.3 |

|                     |       |
|---------------------|-------|
| Net Interest Income | \$3.1 |
| Provision Exp       | \$0.3 |

|                  |       |
|------------------|-------|
| Non-Int Income   | \$3.2 |
| Non-Int Expense* | \$4.6 |

*Efficiency Ratio* 73%

|                |       |
|----------------|-------|
| Pre-Tax Income | \$1.4 |
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| Net Income     | \$0.9 |

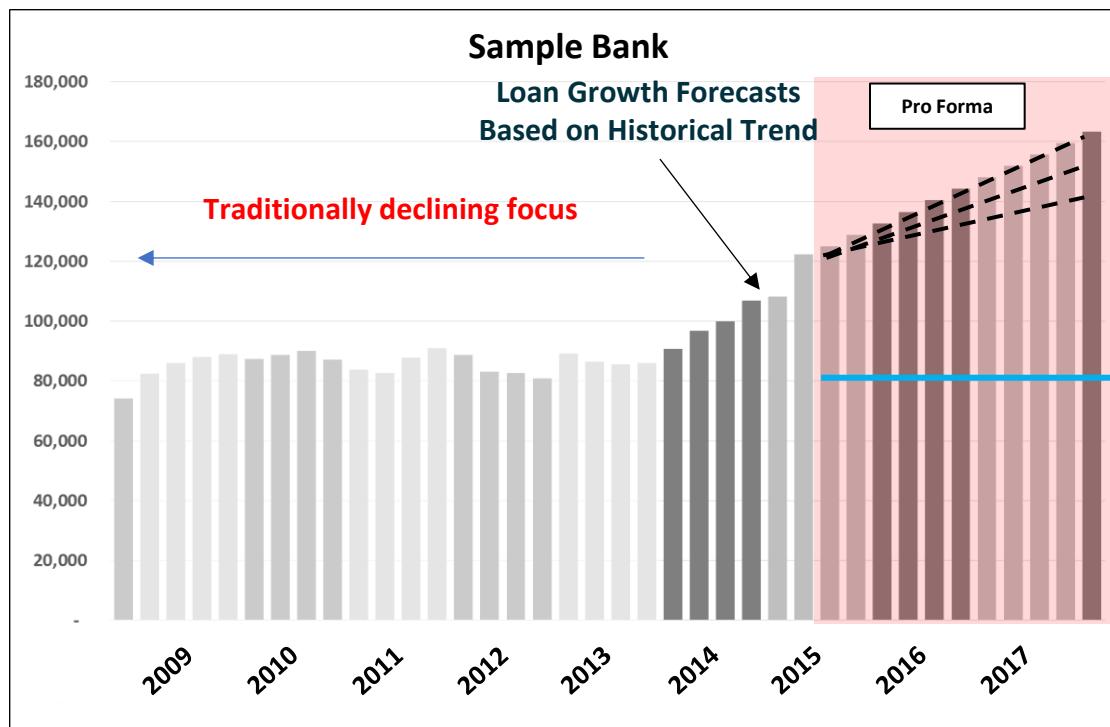
ROA 0.8%

\*Practically always modified by acquirer

# Traditional Analytics / Vintage Analytics

Standalone pro forma analysis

## Pro Forma Loan Growth



## Pro Forma Financials

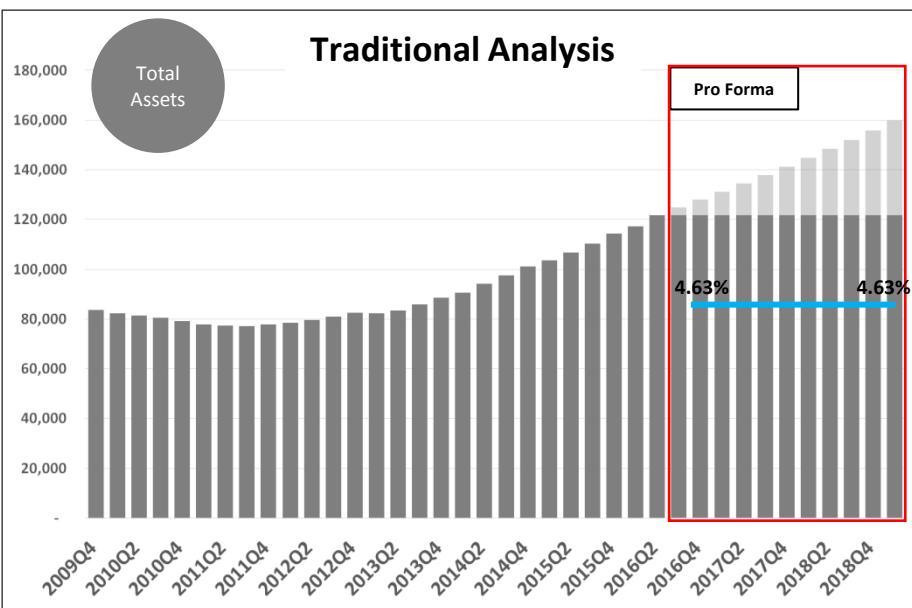
| (\$Ms)                  | TTM    |        | Pro-Forma |        |  |
|-------------------------|--------|--------|-----------|--------|--|
|                         | 2016Q2 | Year 1 | Year 2    | Year 3 |  |
| <b>Assets</b>           | \$127  | \$145  | \$162     | \$180  |  |
| <b>Rate Increase</b>    | NM     | 0.25   | 0.25      | 0.25   |  |
| <b>Gross Loan Yield</b> | 4.63%  | 4.63%  | 4.63%     | 4.63%  |  |

Estimated Gross Yield on Loans

Total Assets

# Traditional Analytics / Vintage Analytics

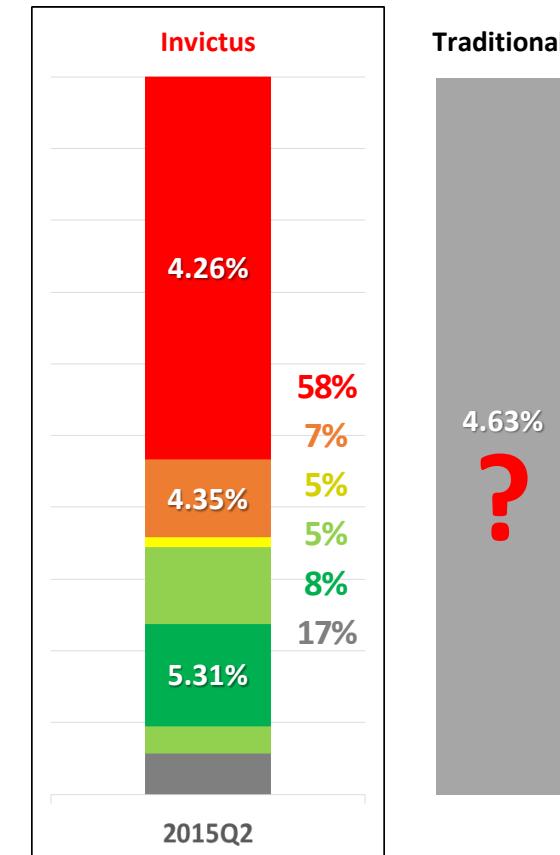
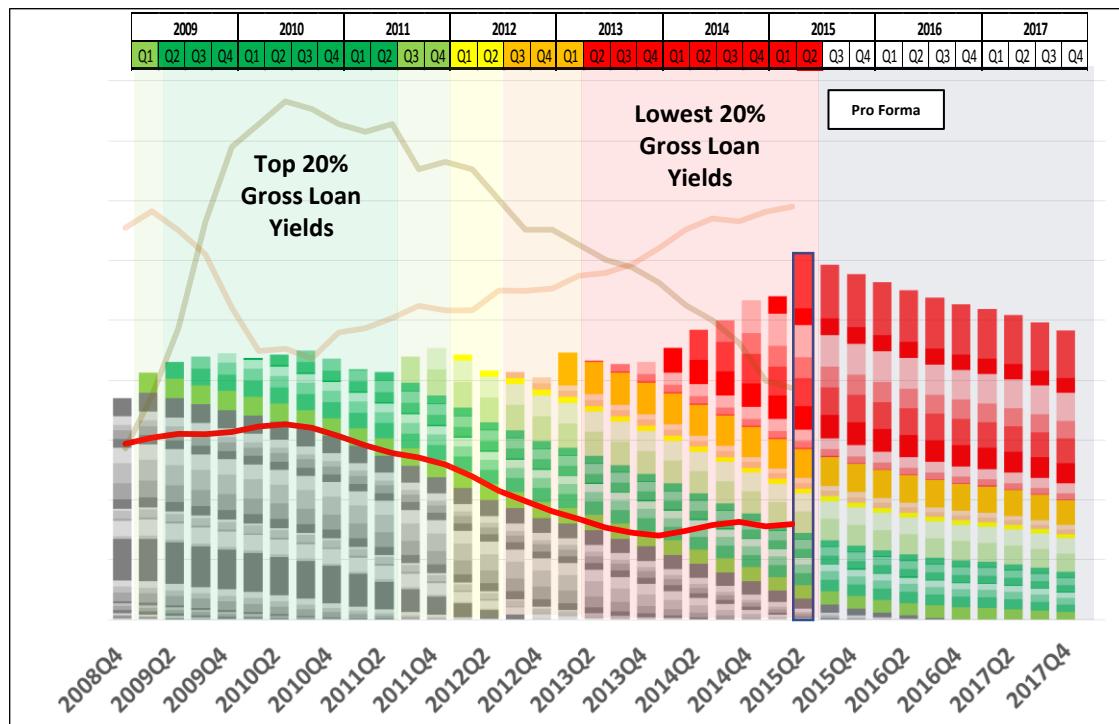
Standalone pro forma analysis



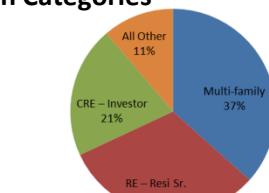
# Traditional Analytics / Vintage Analytics

Standalone pro forma analysis

## Incorporating Vintage Characteristics



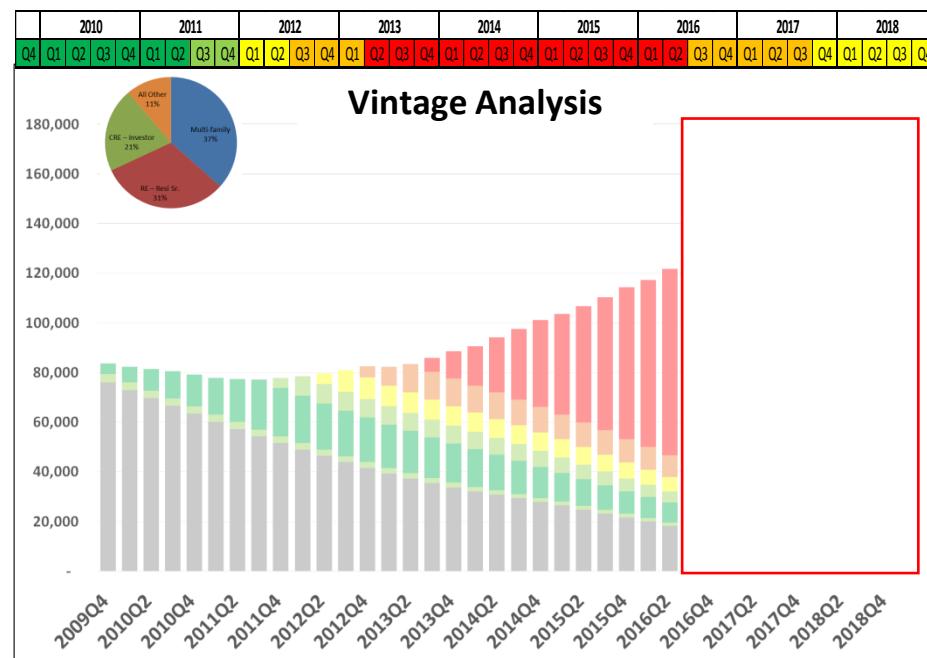
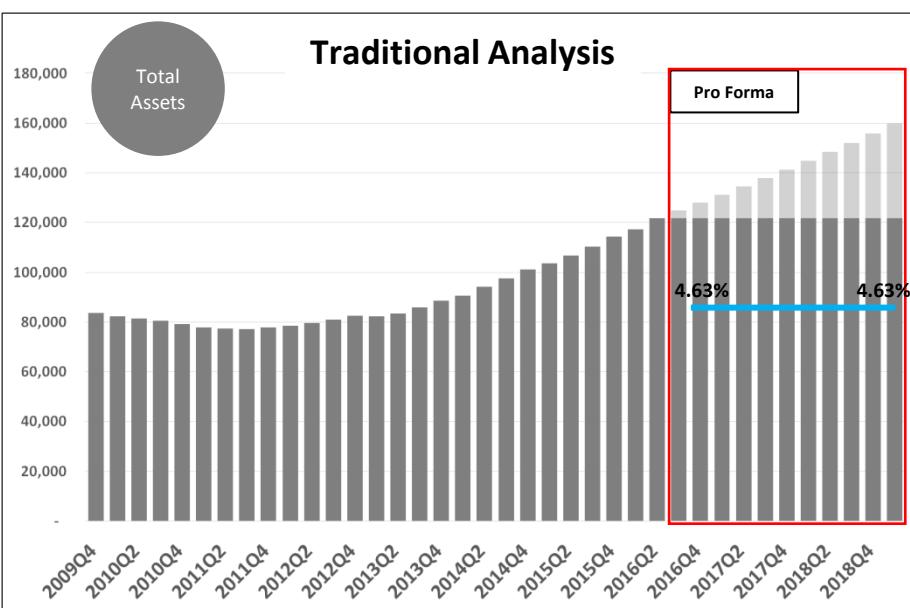
Loan Categories



- CRE Index (Loss Given Default)
- Unemployment (Inverse Probability of Default)
- Invictus Regional Rate

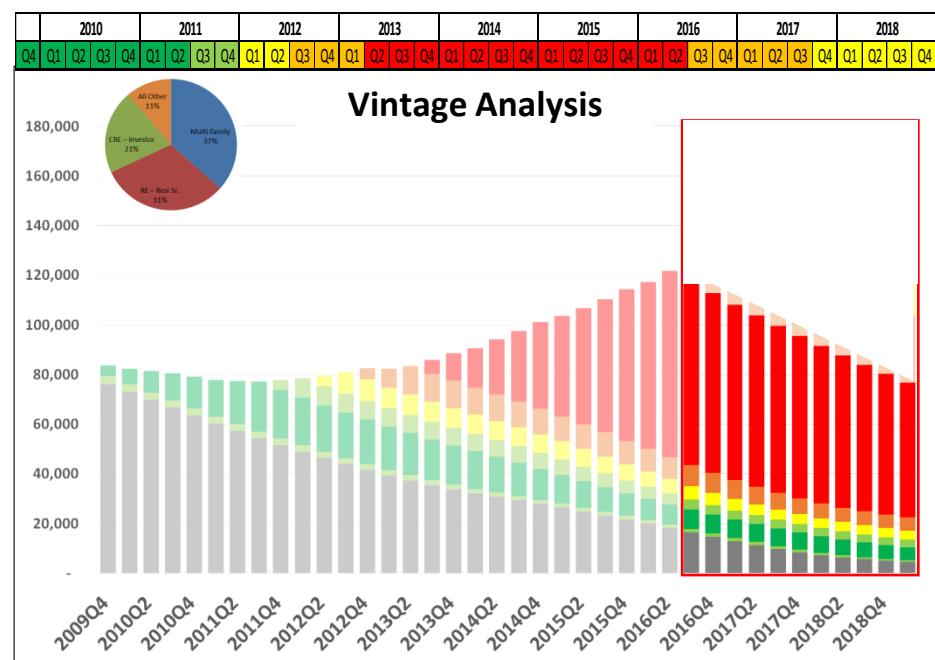
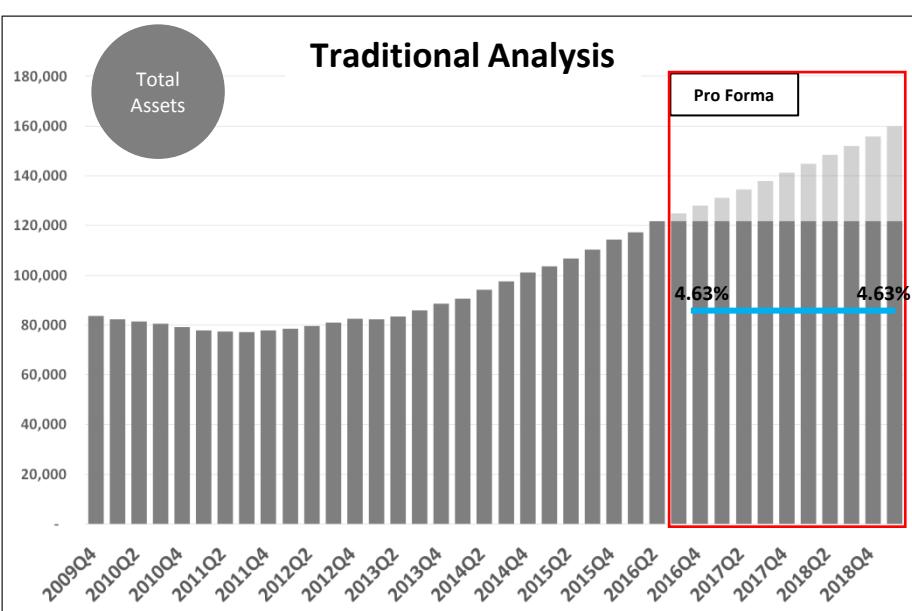
# Traditional Analytics / Vintage Analytics

Standalone pro forma analysis



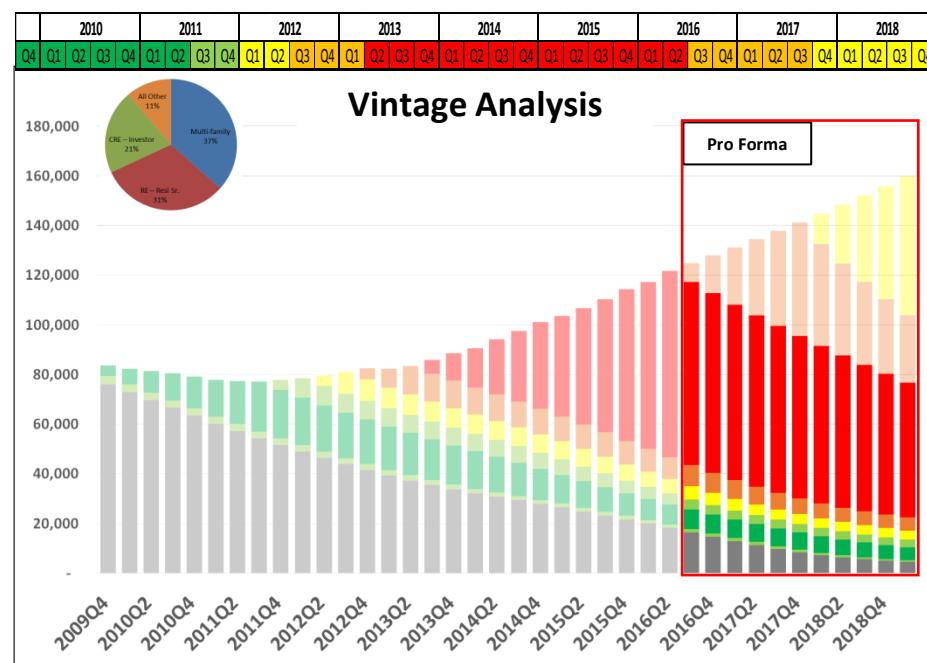
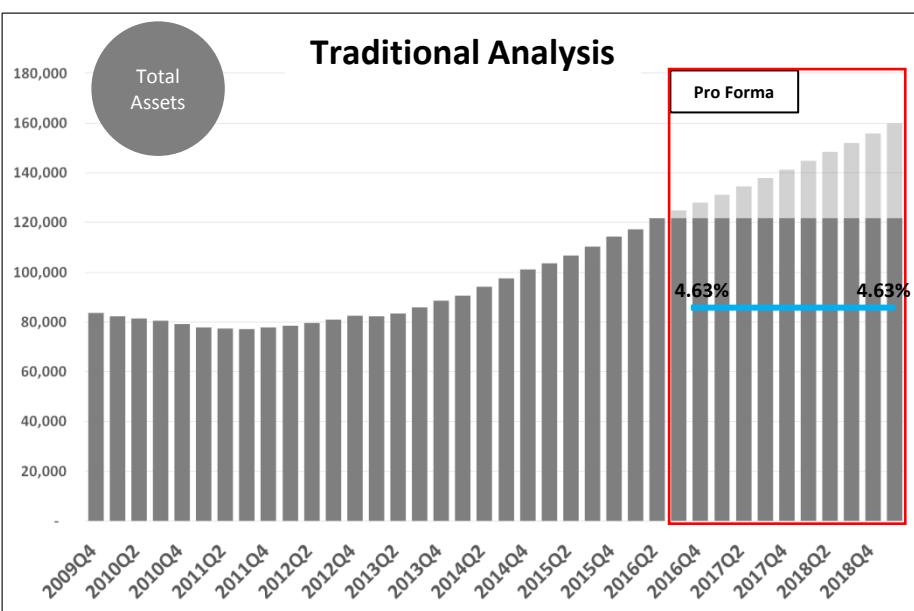
# Traditional Analytics / Vintage Analytics

Standalone pro forma analysis



# Traditional Analytics / Vintage Analytics

## Standalone pro forma analysis

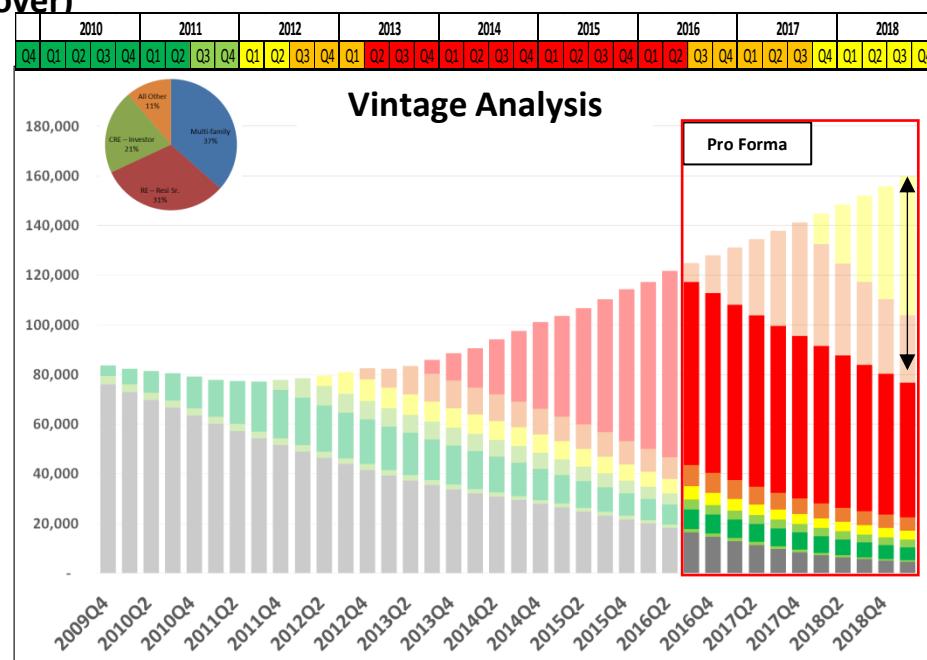
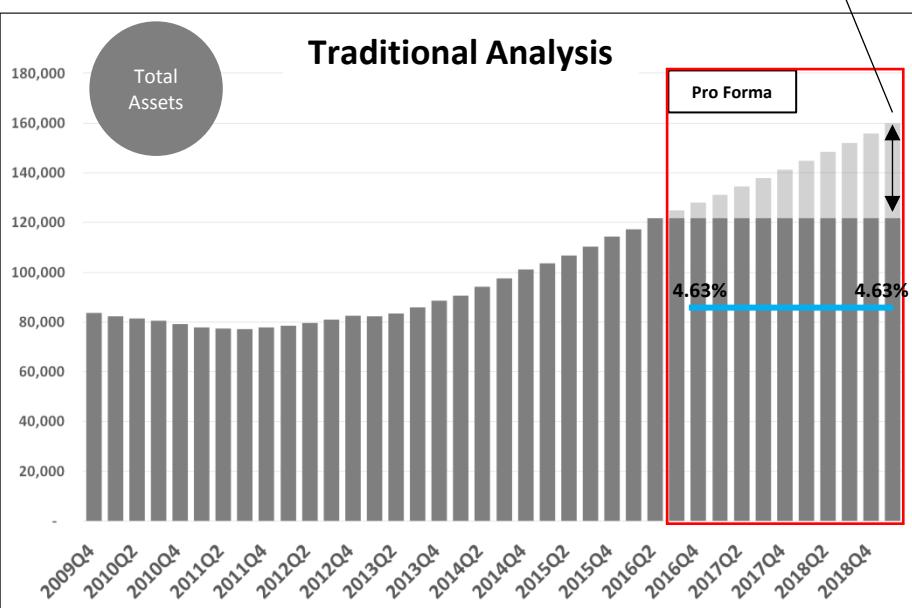


# Traditional Analytics / Vintage Analytics

## Standalone pro forma analysis

**10% Net Growth**

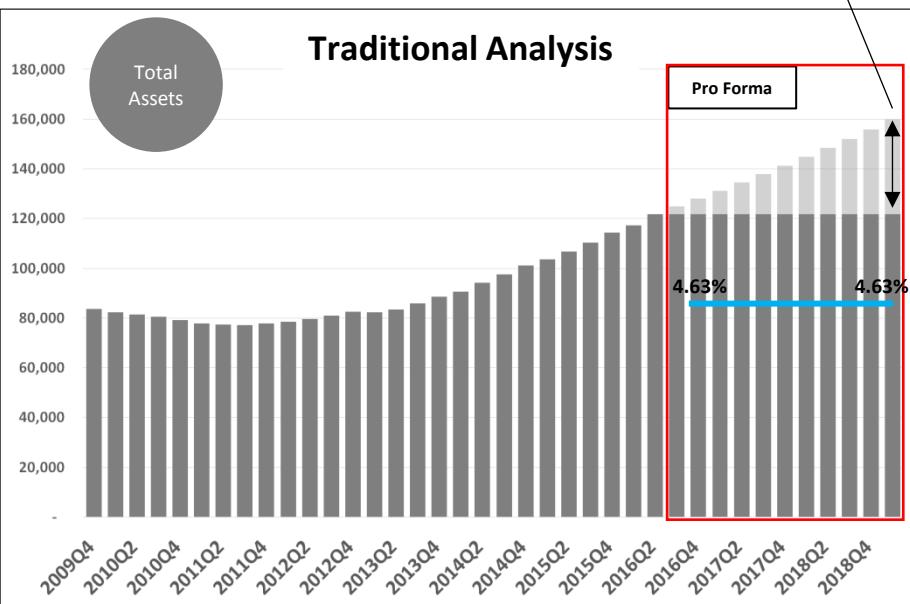
**(Ignores Portfolio Turnover)**



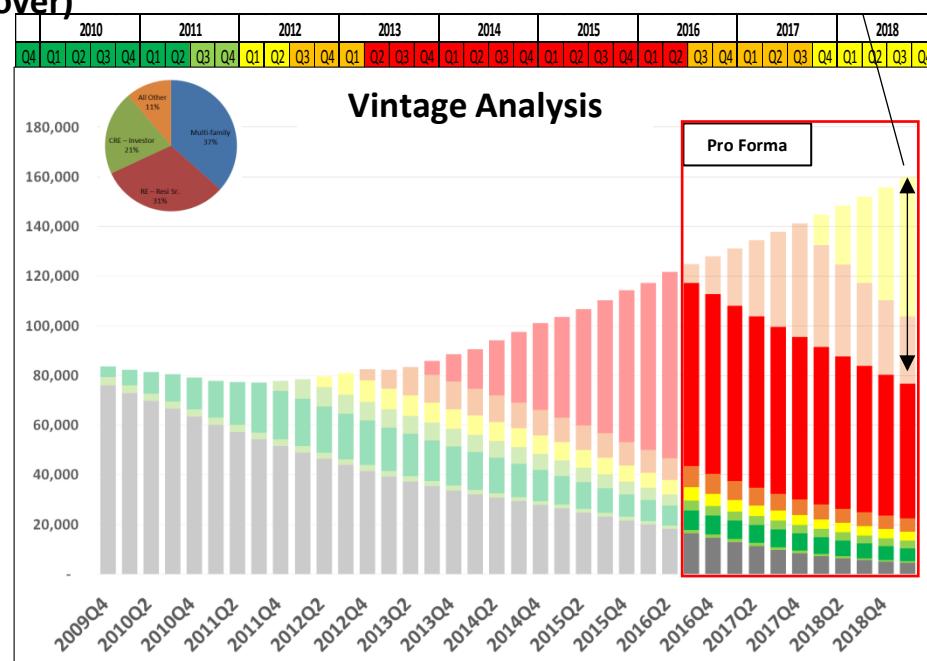
# Traditional Analytics / Vintage Analytics

Standalone pro forma analysis

10% Net Growth  
(Ignores Portfolio Turnover)



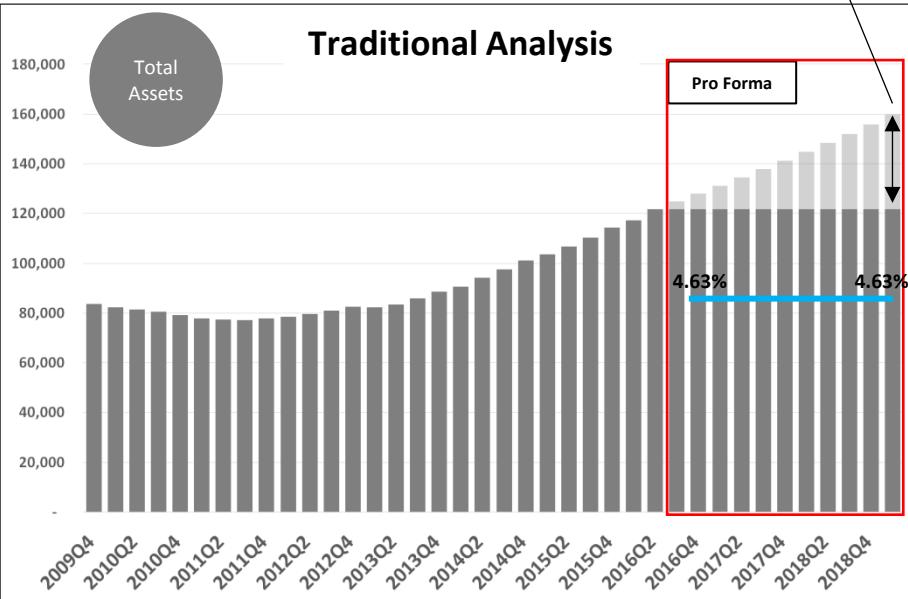
Actual Growth Requires 40% Turnover of the Portfolio



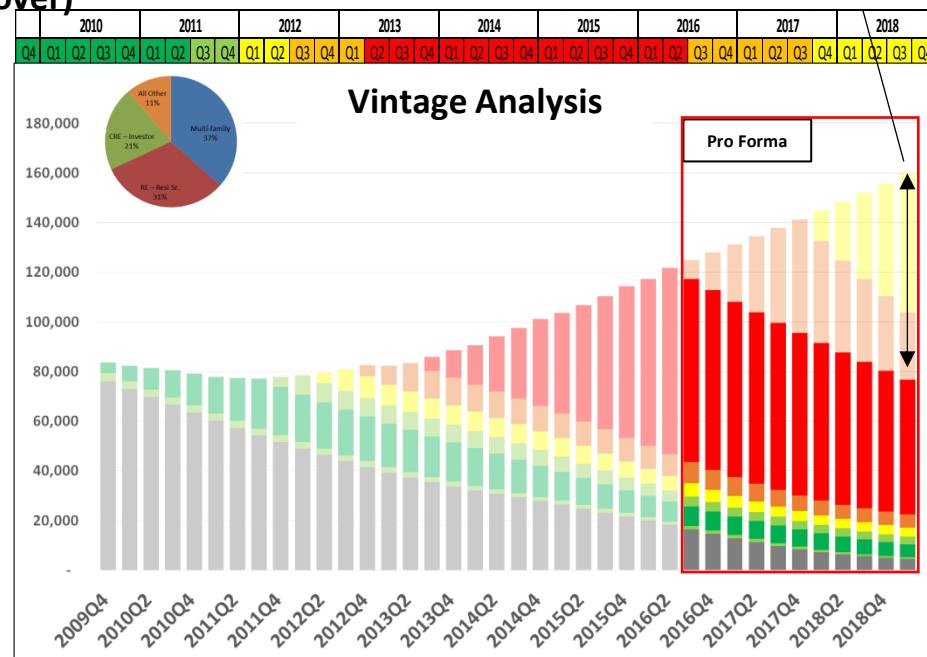
# Traditional Analytics / **Vintage** Analytics

Standalone pro forma analysis

10% Net Growth  
(Ignores Portfolio Turnover)



Actual Growth Requires 40% Turnover of the Portfolio

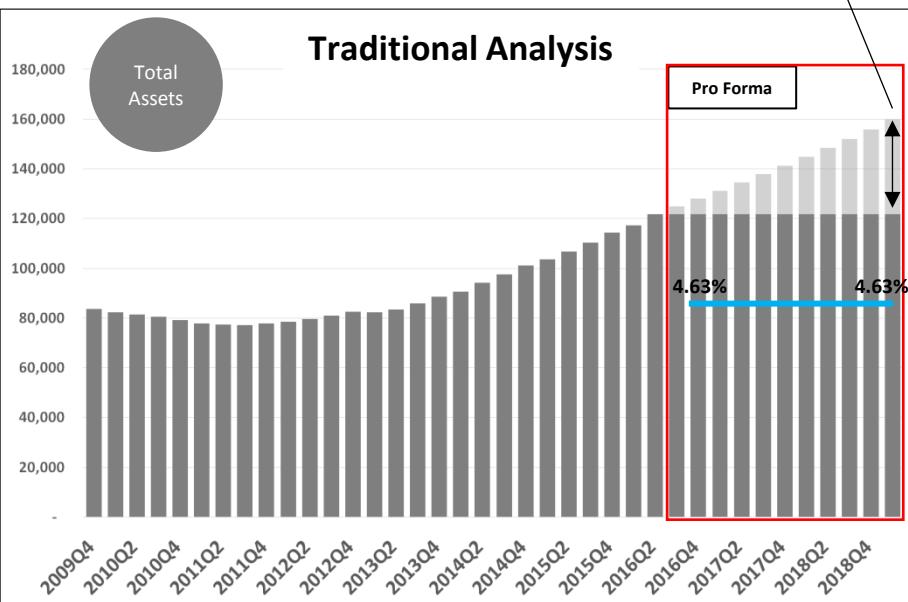


| (\$Ms)                  | TTM    |              |              |              | Pro-Forma |  |  |  |
|-------------------------|--------|--------------|--------------|--------------|-----------|--|--|--|
|                         | 2016Q2 | Year 1       | Year 2       | Year 3       |           |  |  |  |
| <b>Assets</b>           | \$127  | \$145        | \$162        | \$180        |           |  |  |  |
| <b>Rate Increase</b>    | NM     | 0.25         | 0.25         | 0.25         |           |  |  |  |
| <b>Gross Loan Yield</b> | 4.63%  | <b>4.63%</b> | <b>4.63%</b> | <b>4.63%</b> |           |  |  |  |

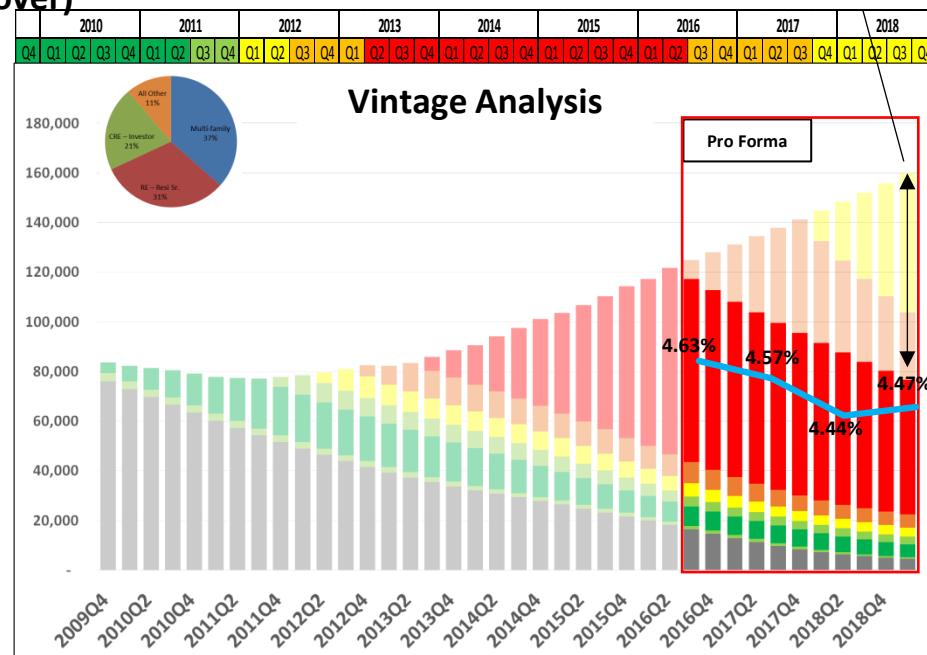
# Traditional Analytics / Vintage Analytics

Standalone pro forma analysis

10% Net Growth  
(Ignores Portfolio Turnover)



Actual Growth Requires 40% Turnover of the Portfolio

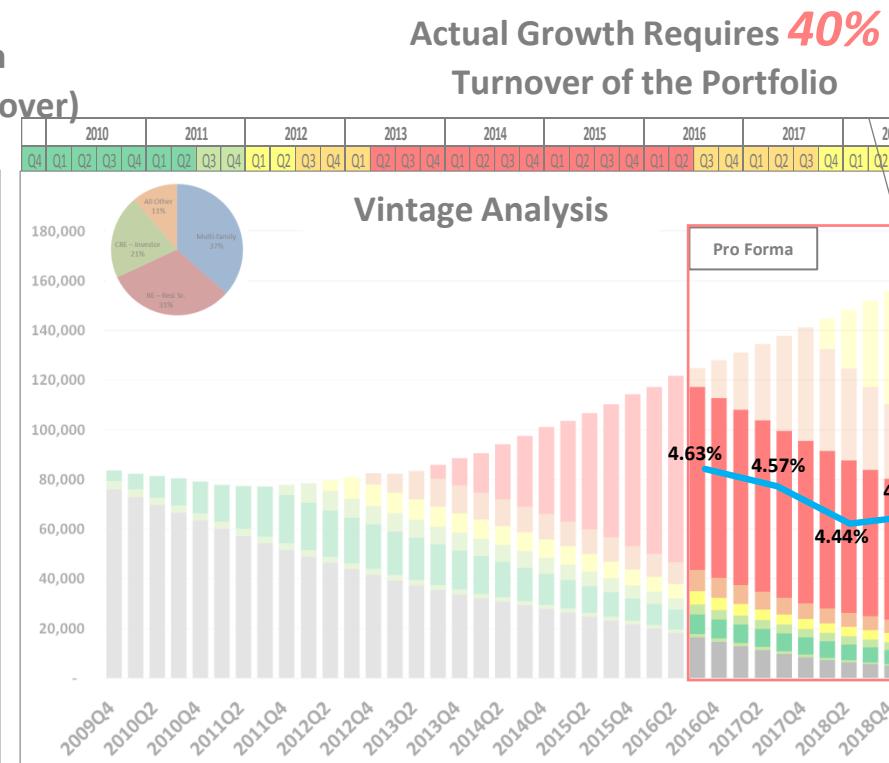
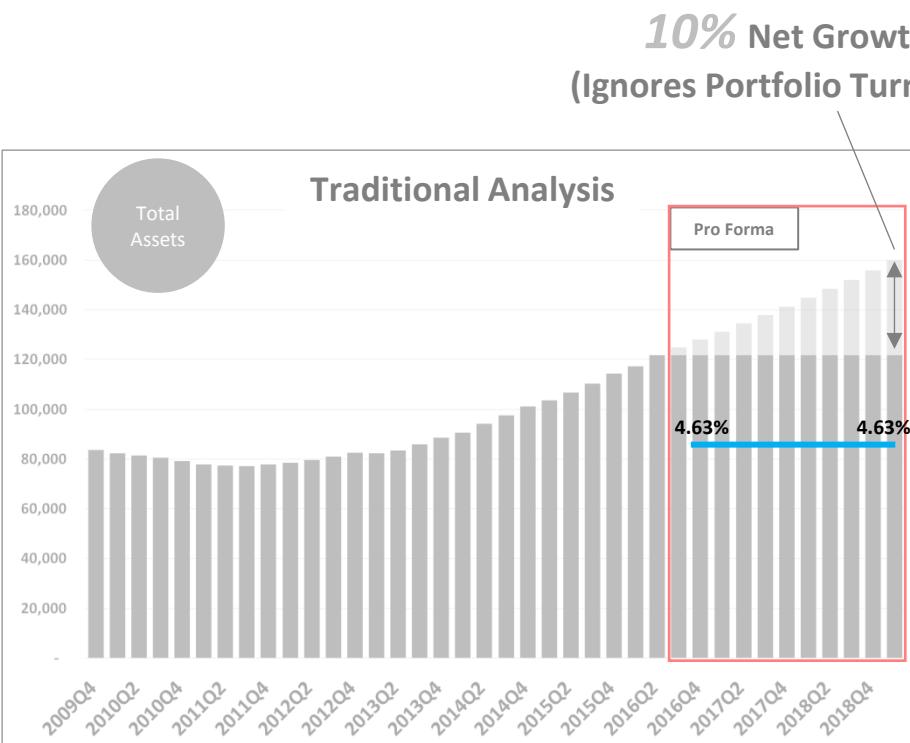


| (\$Ms)                  | TTM Pro-Forma |        |        |        |
|-------------------------|---------------|--------|--------|--------|
|                         | 2016Q2        | Year 1 | Year 2 | Year 3 |
| <b>Assets</b>           | \$127         | \$145  | \$162  | \$180  |
| <b>Rate Increase</b>    | NM            | 0.25   | 0.25   | 0.25   |
| <b>Gross Loan Yield</b> | 4.63%         | 4.63%  | 4.63%  | 4.63%  |
| <b>Gross Loan Yield</b> | 4.63%         | 4.57%  | 4.44%  | 4.47%  |

X ✓

# Traditional Analytics / Vintage Analytics

Standalone pro forma analysis



| (\$Ms)                  | TTM    | Pro-Forma |        |        |
|-------------------------|--------|-----------|--------|--------|
|                         | 2016Q2 | Year 1    | Year 2 | Year 3 |
| <b>Assets</b>           | \$127  | \$145     | \$162  | \$180  |
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| <b>Gross Loan Yield</b> | 4.63%  | 4.63%     | 4.63%  | 4.63%  |
| <b>Gross Loan Yield</b> | 4.63%  | 4.57%     | 4.44%  | 4.47%  |

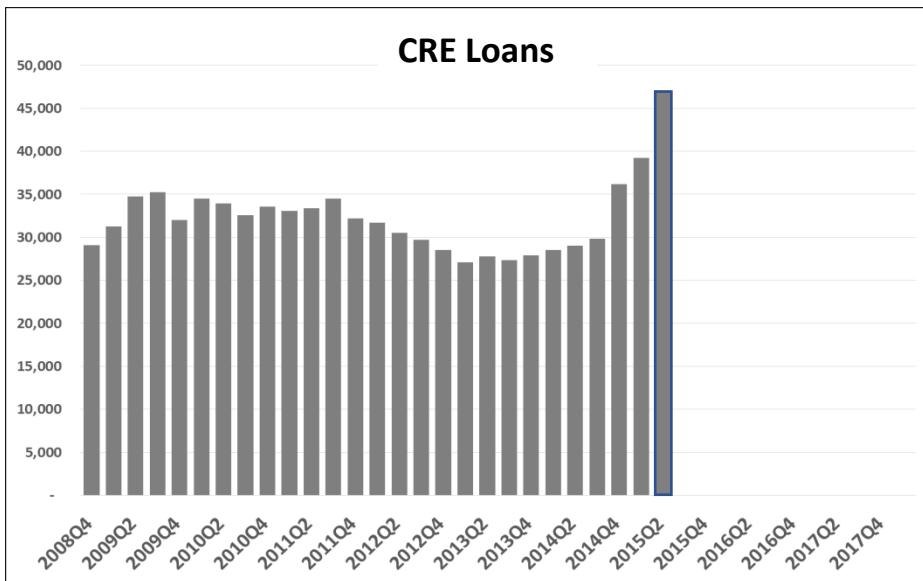




# Importance of Growth Timing

# Impact of Different Growth Patterns over the Same Time Period

## Sample Bank Historical Growth Pattern



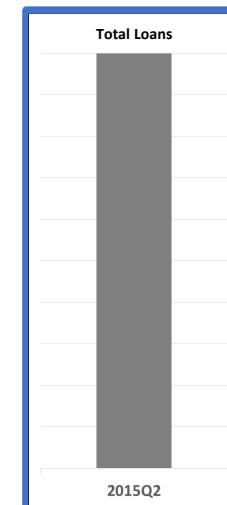
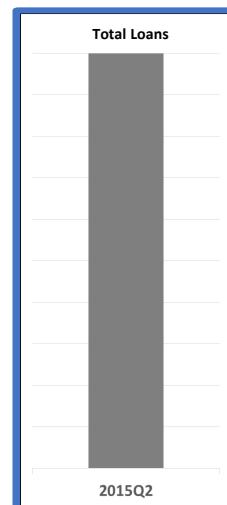
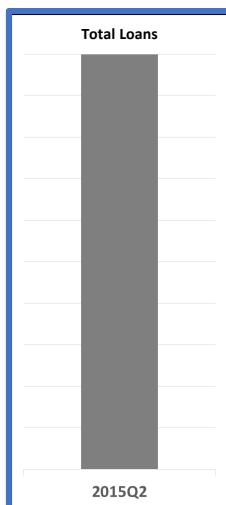
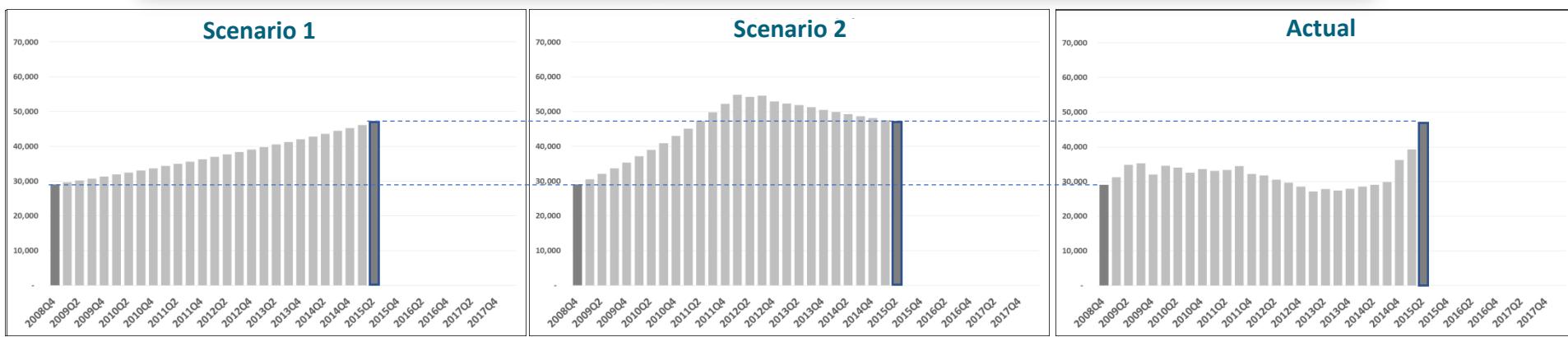
## CRE Loans



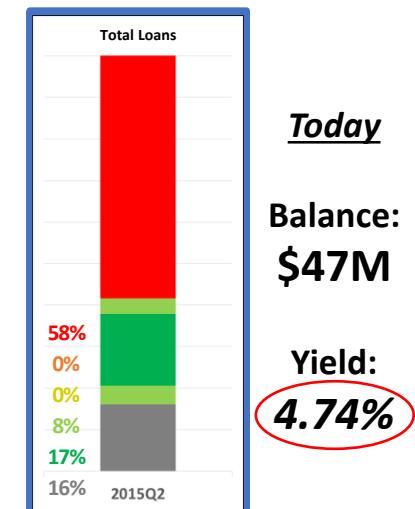
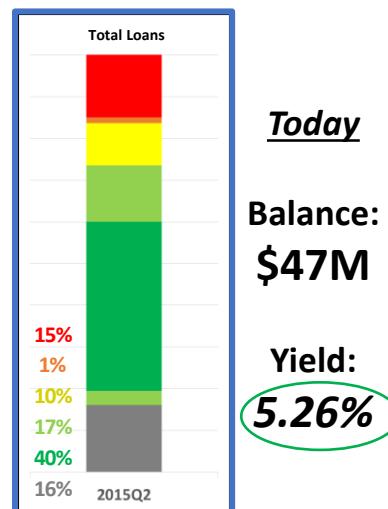
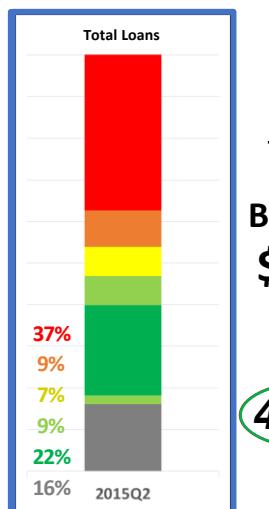
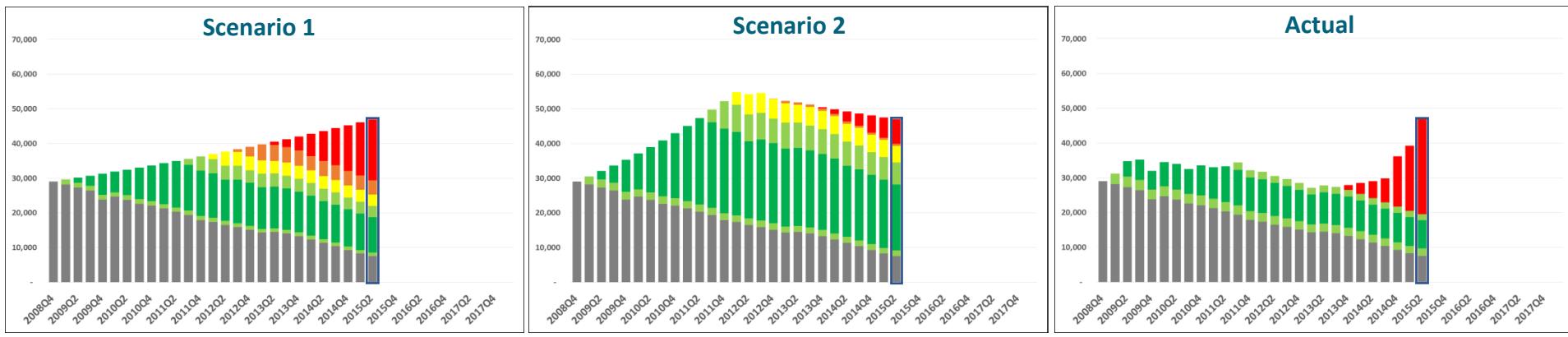
The bank's current balance of loans is \$47M

# Impact of Different Growth Patterns over the Same Time Period

In each Scenario, the bank has a beginning balance of \$30M and an ending balance of \$47M.



# Impact of Different Growth Patterns over the Same Time Period





Target Valuation:  
Key Component's Value  
Contribution to Pricing Multiple

# Value Components

Valuation must focus on the balance sheet, which is the driver of a bank's P&L

Key components of value are:

**Assets:**

- Loans

Subsets: CRE Concentrations, Ag Concentrations, etc.

**Liabilities:**

- Deposits

**Equity:**

- Capital (FreeCapital™)

# Justifying Market Value

| Value Component                    | Premium/(Discount) to TBVx | Premium/(Discount) to TBVx |
|------------------------------------|----------------------------|----------------------------|
|                                    | Target 1                   | Target 2                   |
| Loans                              | +0.26x                     | +0.51x                     |
| Deposits                           | -0.17x                     | +0.08x                     |
| CRE Concentration                  | -0.12x                     | +0.11x                     |
| FreeCapital™                       | +0.10x                     | -0.30x                     |
| Operating Synergies                | ?                          | ?                          |
| <i>Potential Value Proposition</i> | <b>1.07xBV</b>             | <b>1.44xBV</b>             |

# Justifying Market Value

| Value Component                    | Premium/(Discount) to TBVx | Premium/(Discount) to TBVx |
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| FreeCapital™                       | +0.10x                     | -0.30x                     |
| Operating Synergies                | ?                          | ?                          |
| <i>Potential Value Proposition</i> | <b>1.07xBV</b>             | <b>1.44xBV</b>             |
| <i>Market Price</i>                | <b>1.60xBV</b>             | <b>1.00xBV</b>             |



# Strategic Planning: Baseline Growth vs. Consolidated Forecast

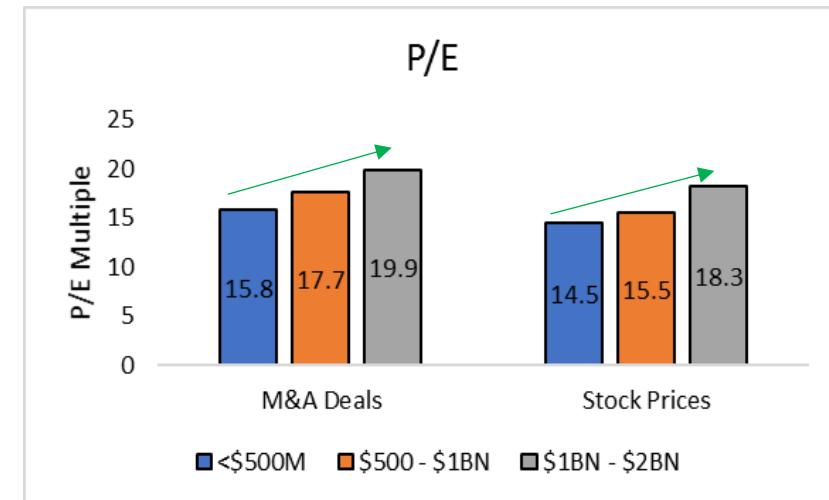
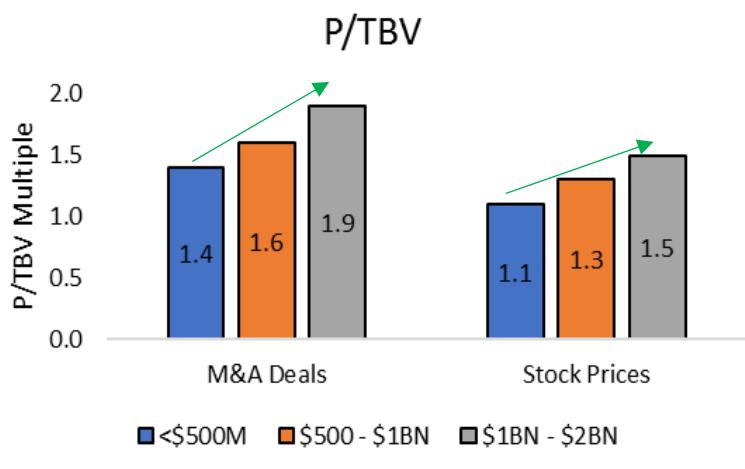
# Maximizing Shareholder Value: Size Matters

## ▪ Operational

- Efficiencies/Economies of Scale
- Higher lending limits
- Stronger competitive position
- More revenue diversity
- Acquisition of talent

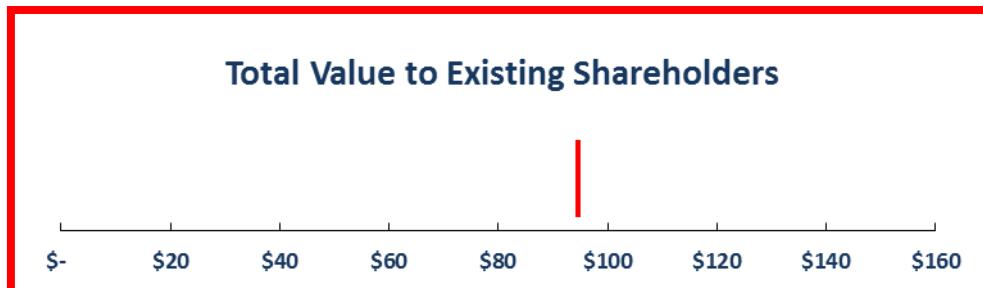
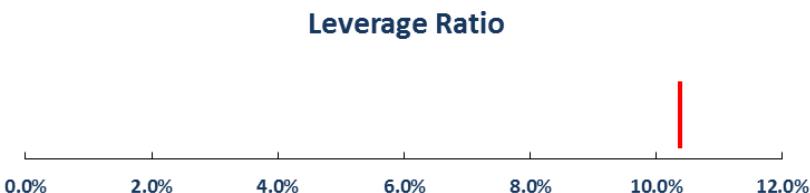
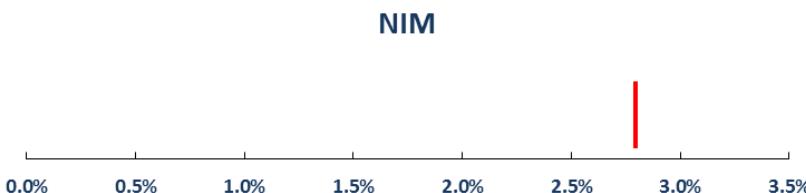
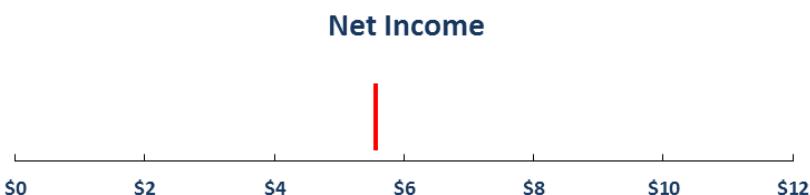
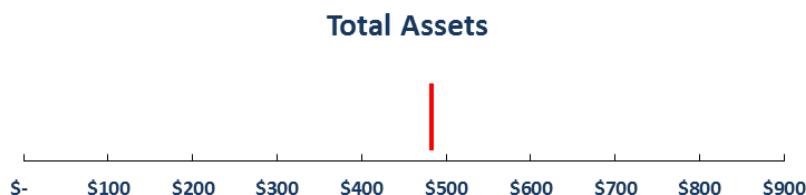
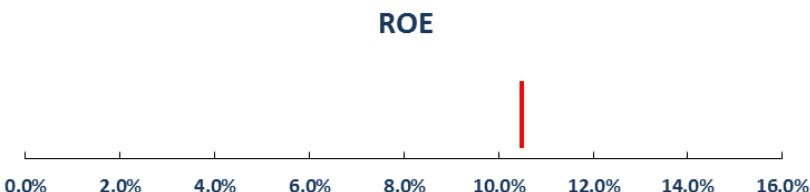
## ▪ Valuation

- Banks with higher assets trade and sell at higher premiums
- Increased liquidity
- Larger universe of potential investors
- Greater access to capital



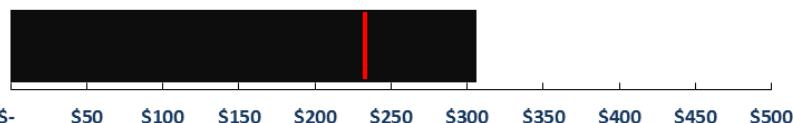
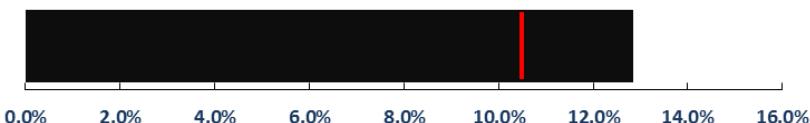
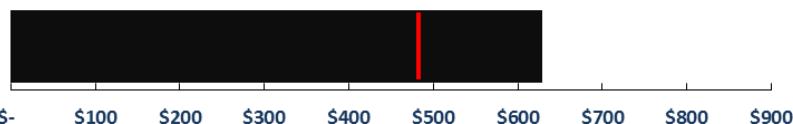
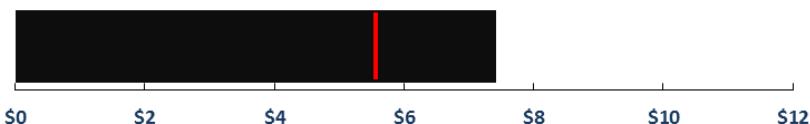
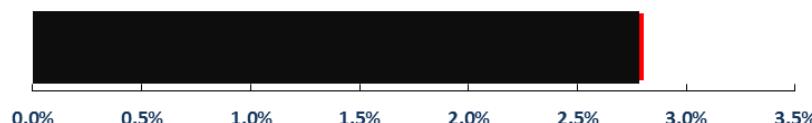
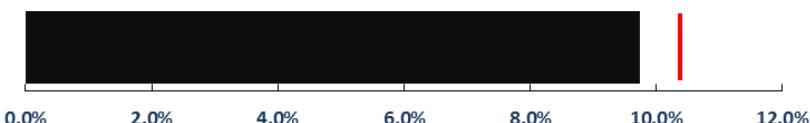
| Key  |   |
|------|---|
| MR4Q | █ |

# Bank X Reported Financials



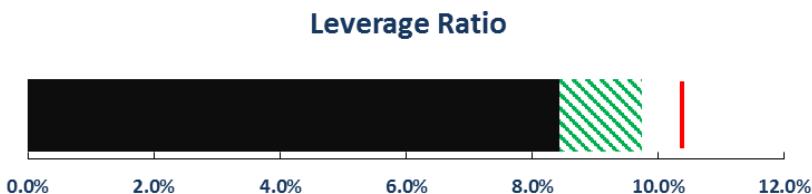
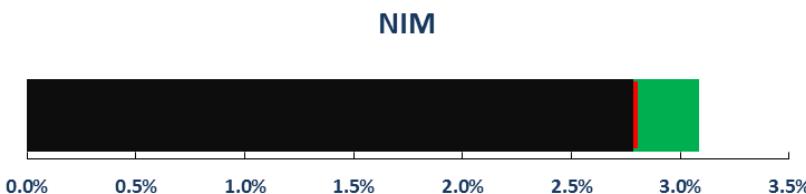
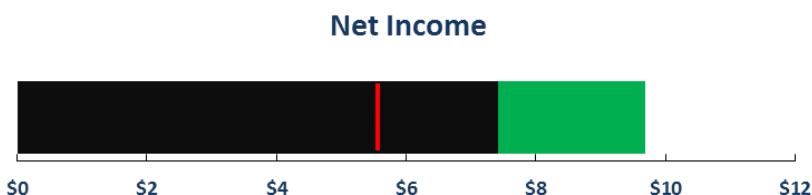
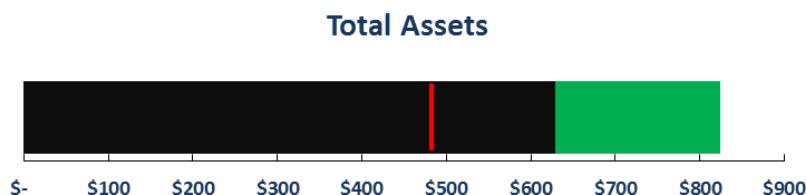
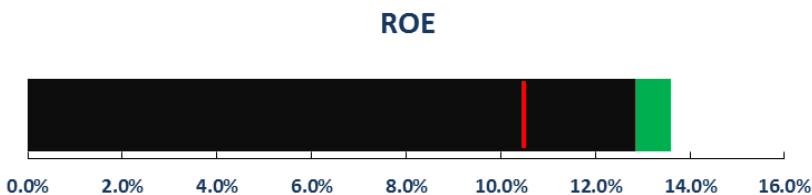
# Bank X Organic Growth (Year 3)

| Key            |
|----------------|
| MR4Q           |
| Organic Growth |

**Total Loans****ROE****Total Assets****Net Income****NIM****Leverage Ratio****Total Value to Existing Shareholders**

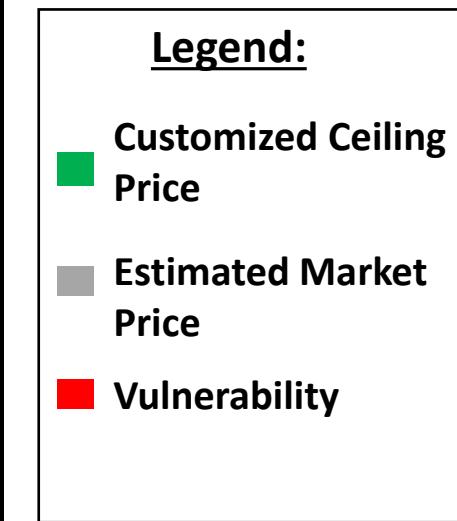
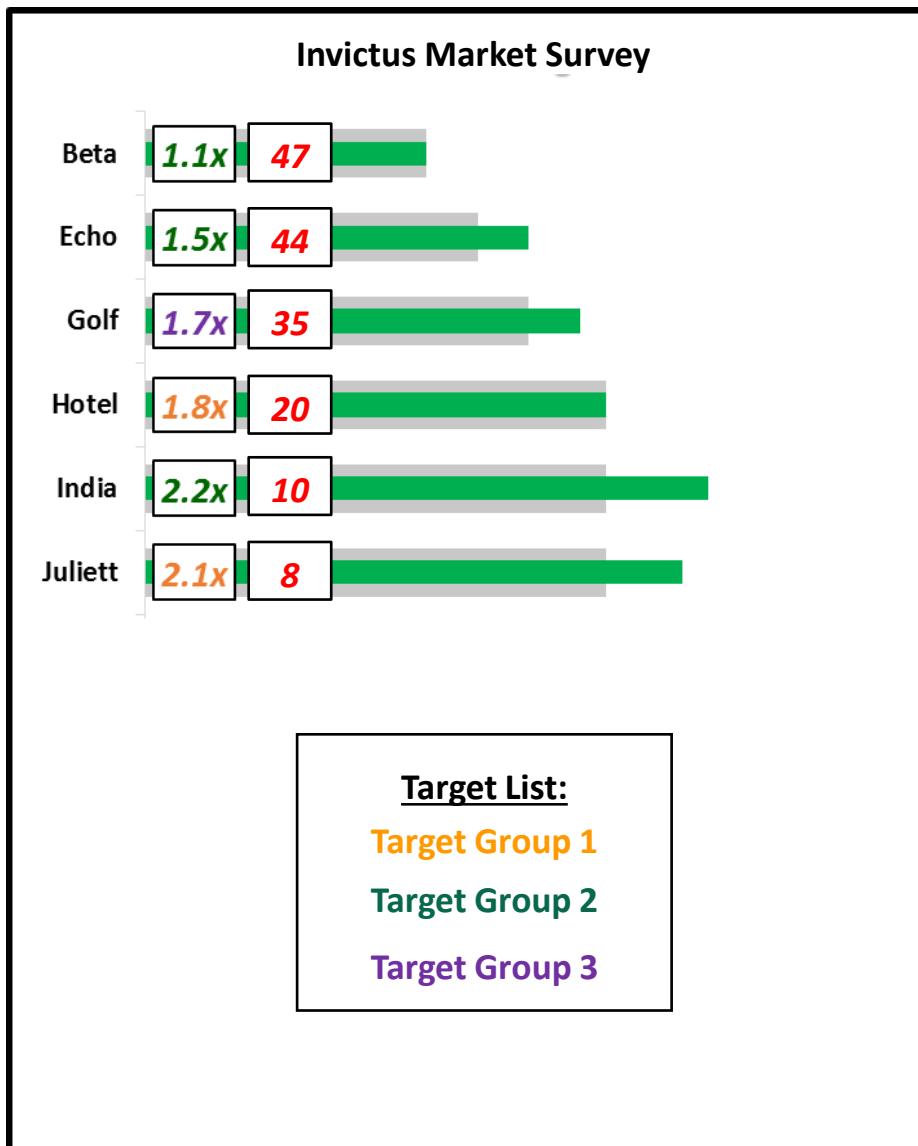
# Bank X Acquisition Scenario (Year 3)

| Key            |   |
|----------------|---|
| MR4Q           | █ |
| Organic Growth | █ |
| Acquisition    | █ |



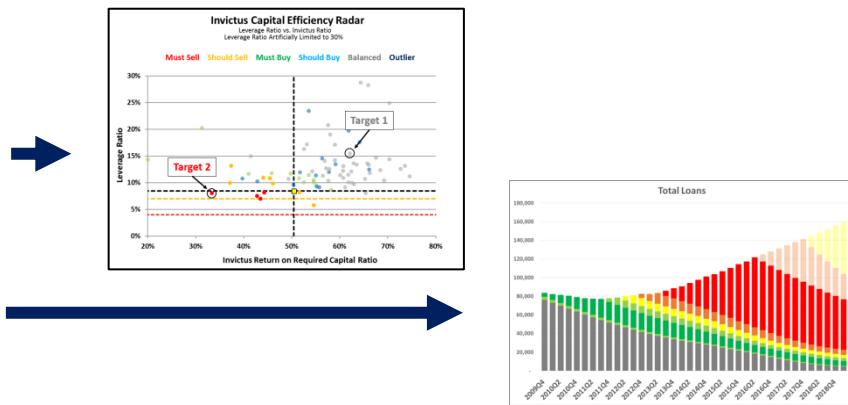
# Invictus Market Survey: *Banks with positive Bid/Ask Spreads ranked by Vulnerability*

The targets are prioritized by vulnerability and bid/ask spread.

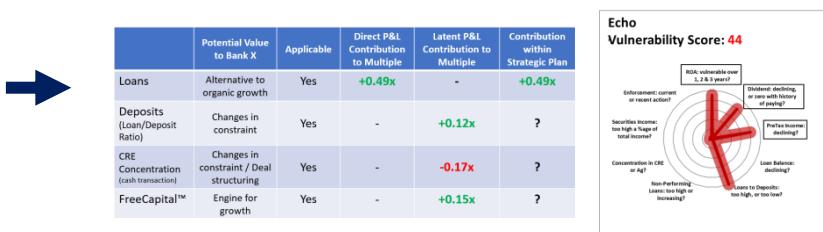


# Steps to Success in Strategic M&A

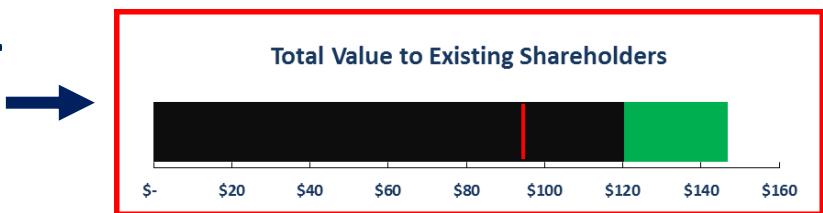
## 1. Comprehensive Market Scan



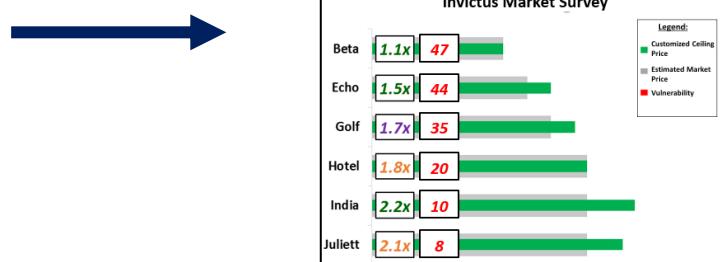
## 2. Appropriate Analytical Approach (Vintage Analysis)



## 3. Customized Valuation



## 4. Accurate Evaluation of Shareholder Value



## 5. Strategic Prioritization

## 6. Swift and Efficient Deal Close

# *Thank You*

**For more information about  
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**George Callas**  
**Managing Partner &**  
**National Sales Director**  
**(718) 219-0441**  
**[gcallas@invictusgrp.com](mailto:gcallas@invictusgrp.com)**

