



Liquidity Risk and Funds Management

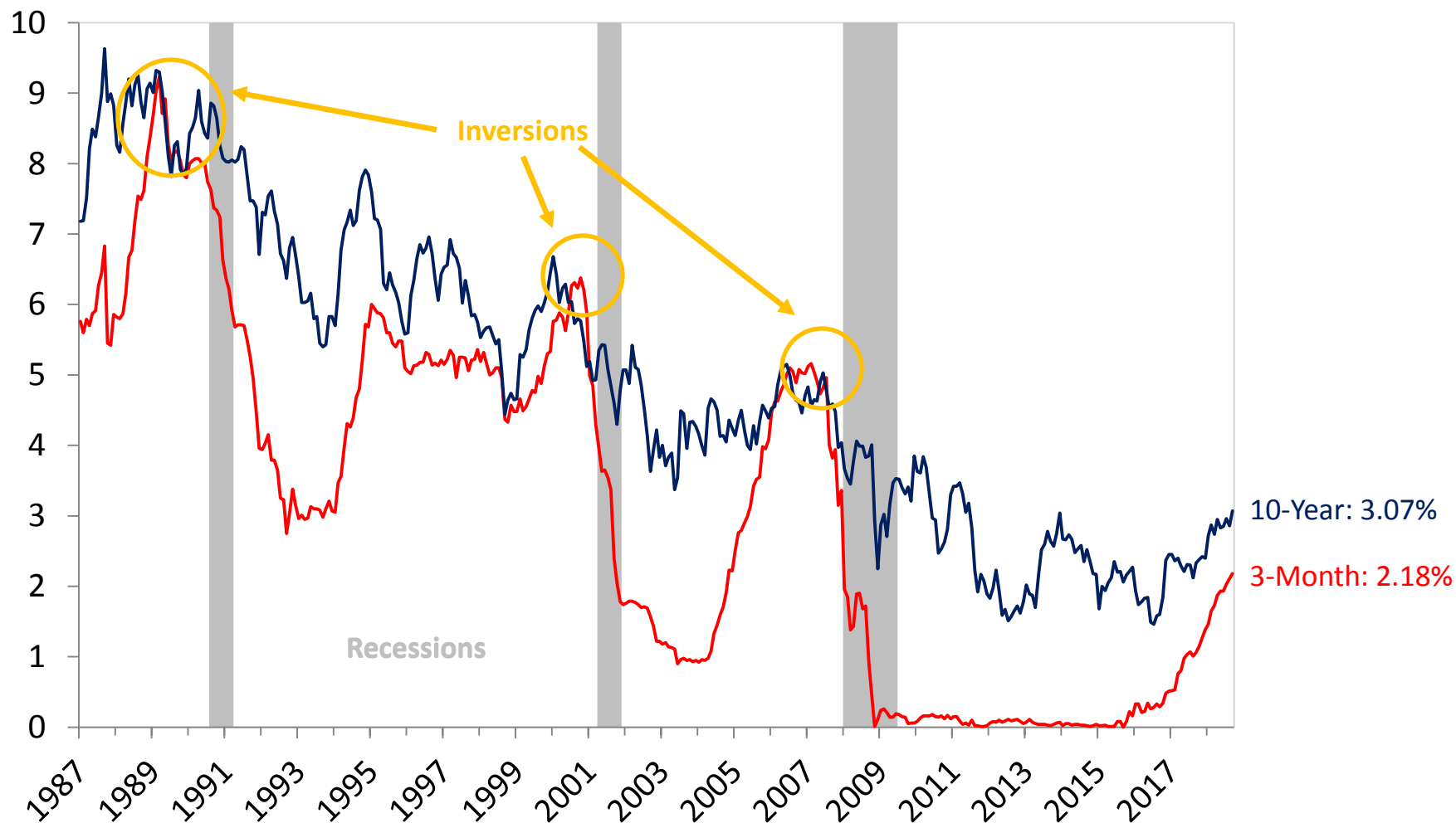
New York Region Regulatory Teleconference
October 3, 2018

Scope of Discussion

- **Industry Trends**
- **Funding Concentrations**
- **Cash Flow Scenario Analysis**
- **Contingency Funding Plans**
- **Q&A Open Forum**

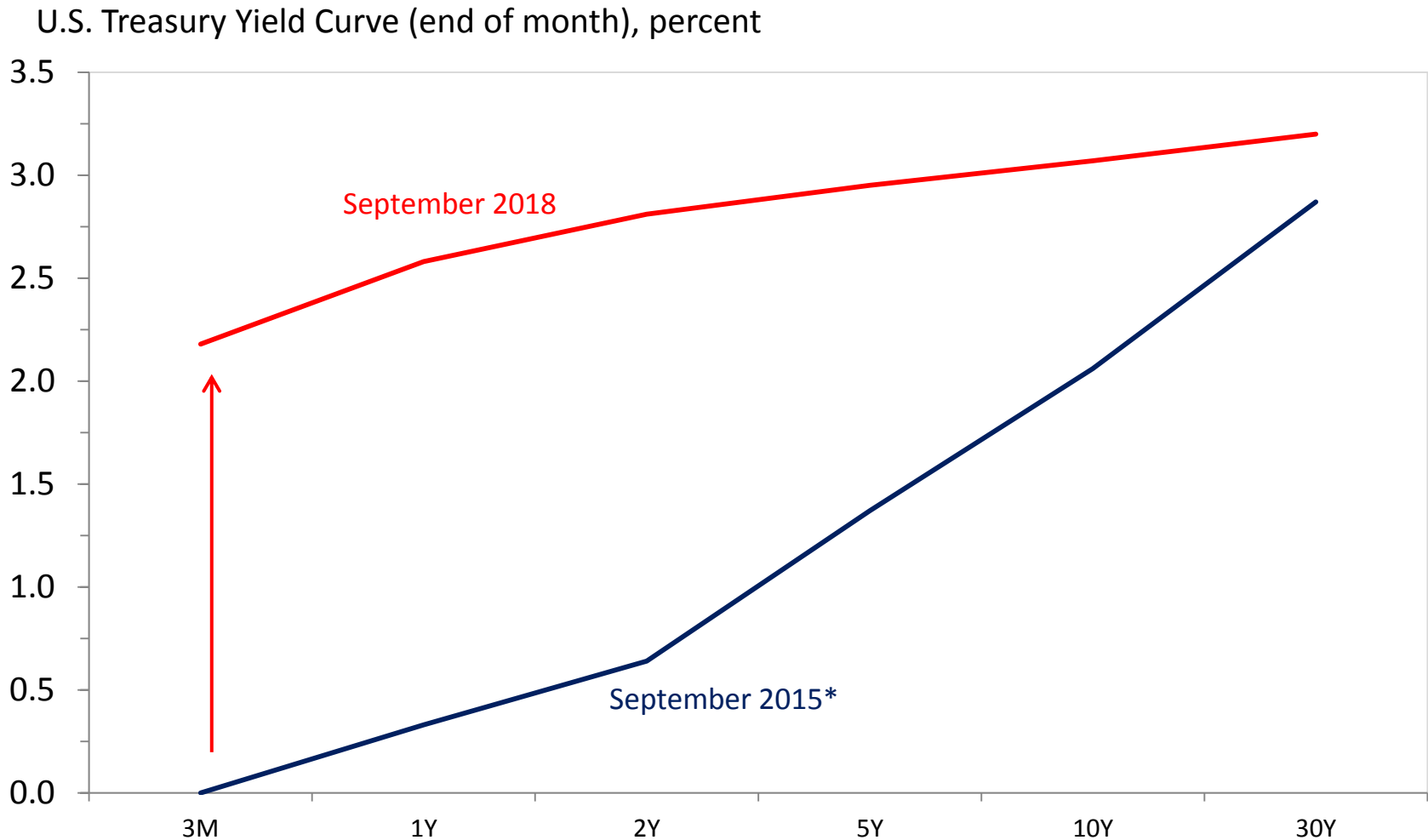
The Shape of the Yield Curve and Potential Market Stress

U.S. Treasury Security Yields (end of month), percent



Sources: Federal Reserve, NBER (Haver), as of September 21, 2018.

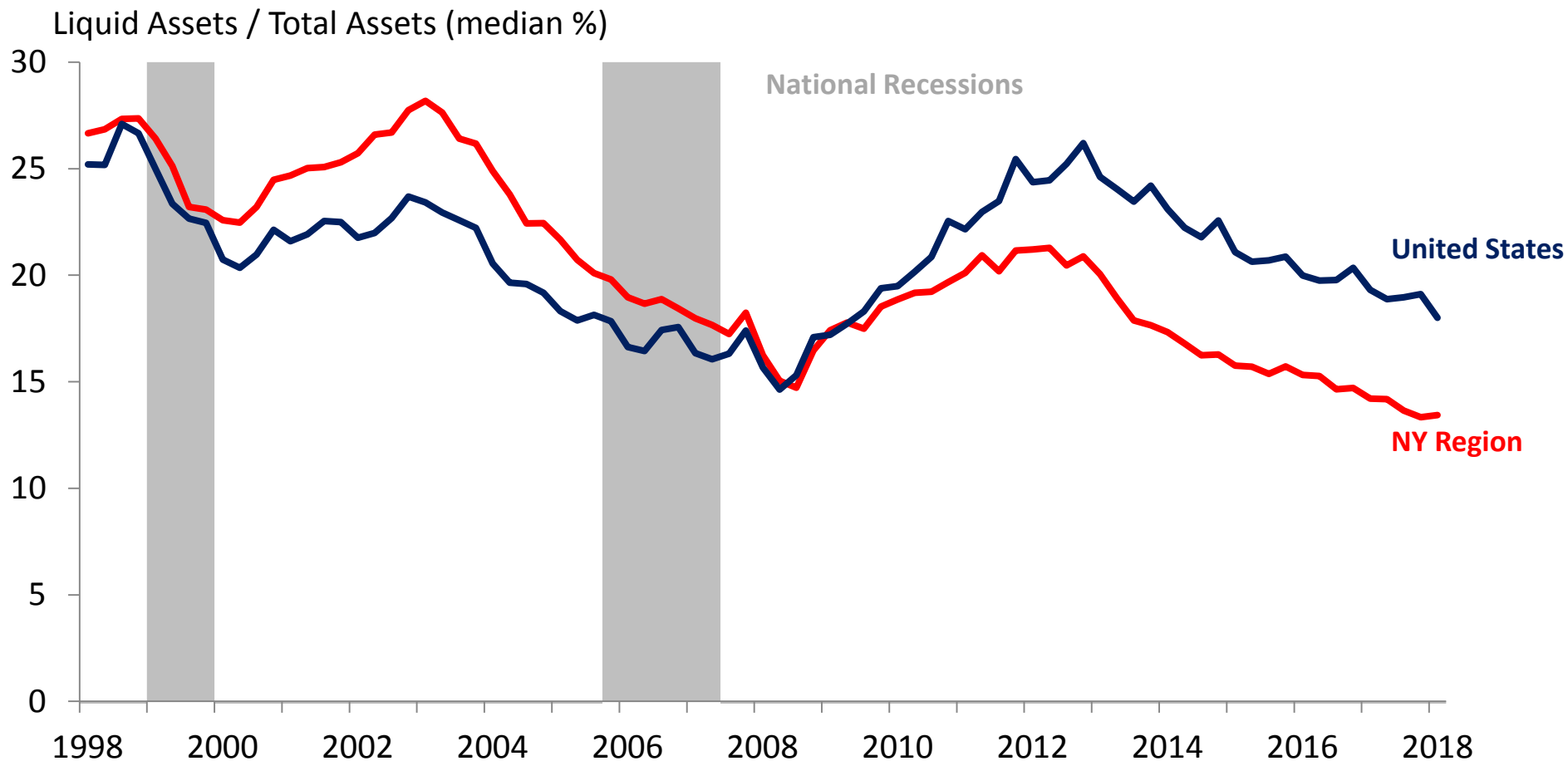
The Yield Curve has Already Flattened Considerably



* September 2015 was three months before the first Fed hike in December. The hike was signaled in October 2015.

Sources: Federal Reserve, NBER (Haver), as of September 21, 2018.

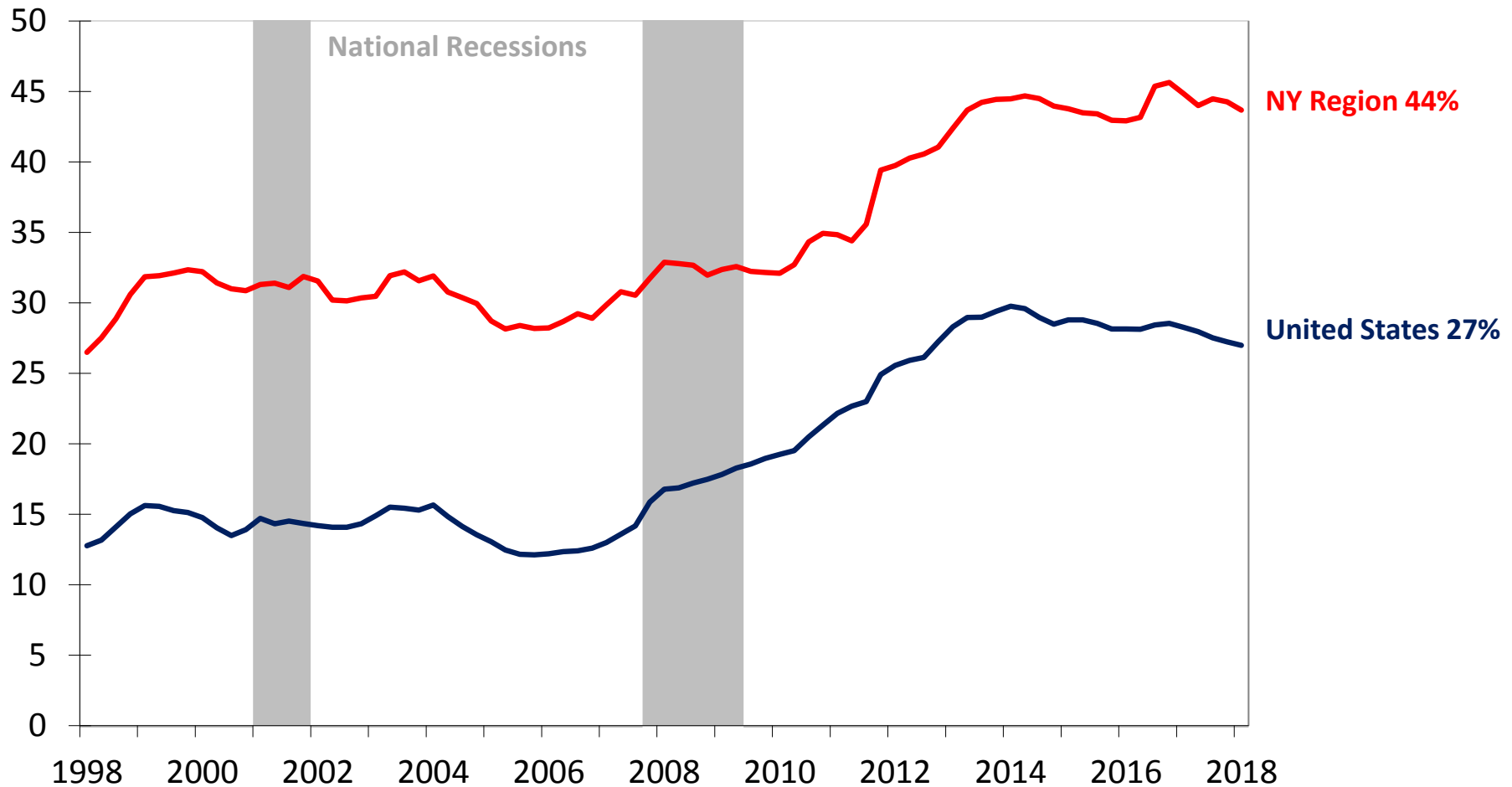
The Level of Liquid Assets Is Low and Falling in the New York Region



Note: Liquid Assets are defined as Cash and Due from Depository Institutions + Non-pledged Securities at Fair Value + Fed Funds and Repos Sold.

Long-term Asset Holdings Remain Well Above the National Level

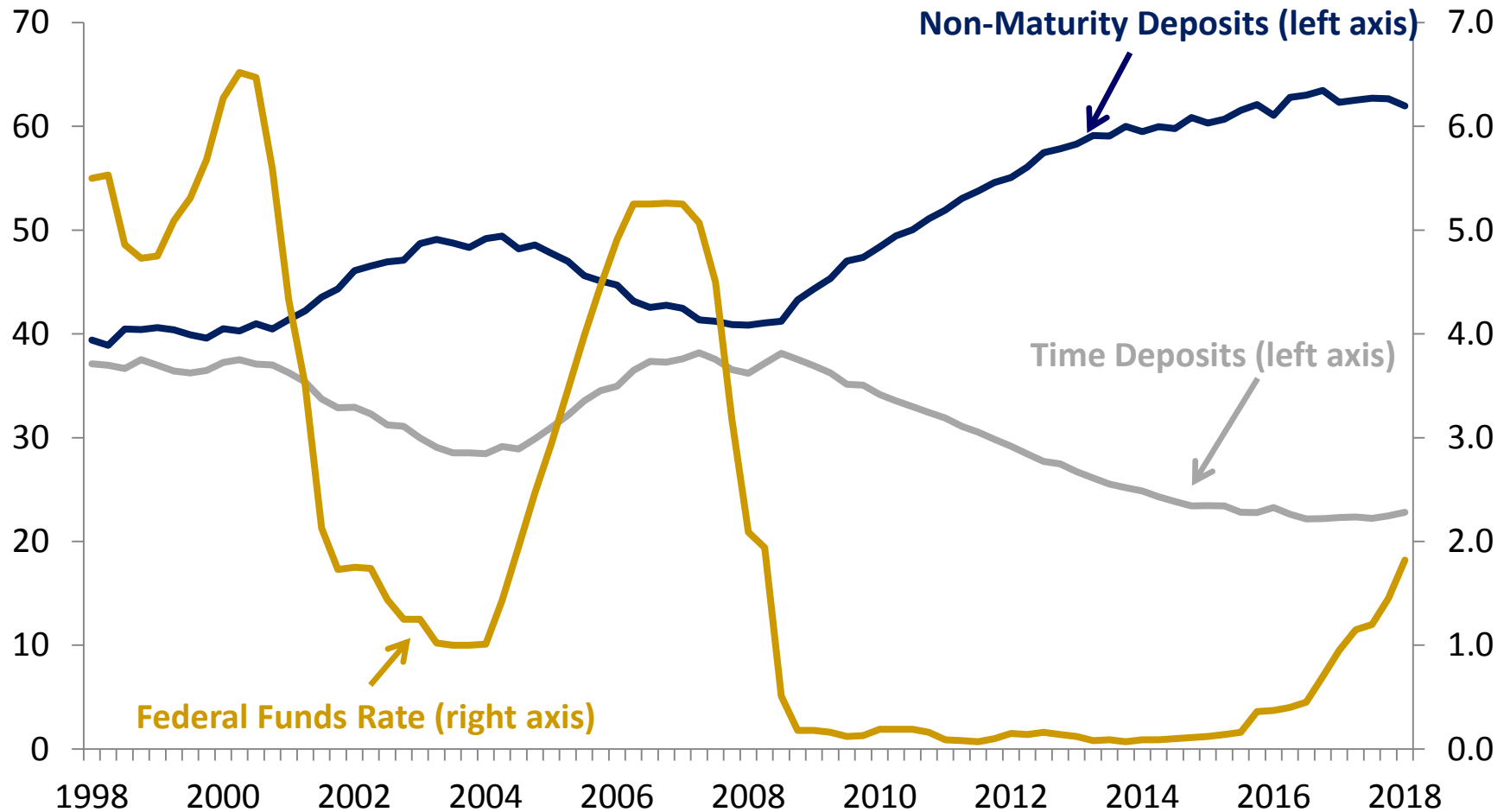
Long-term Assets (>5 yrs.) / Total Assets (median %)



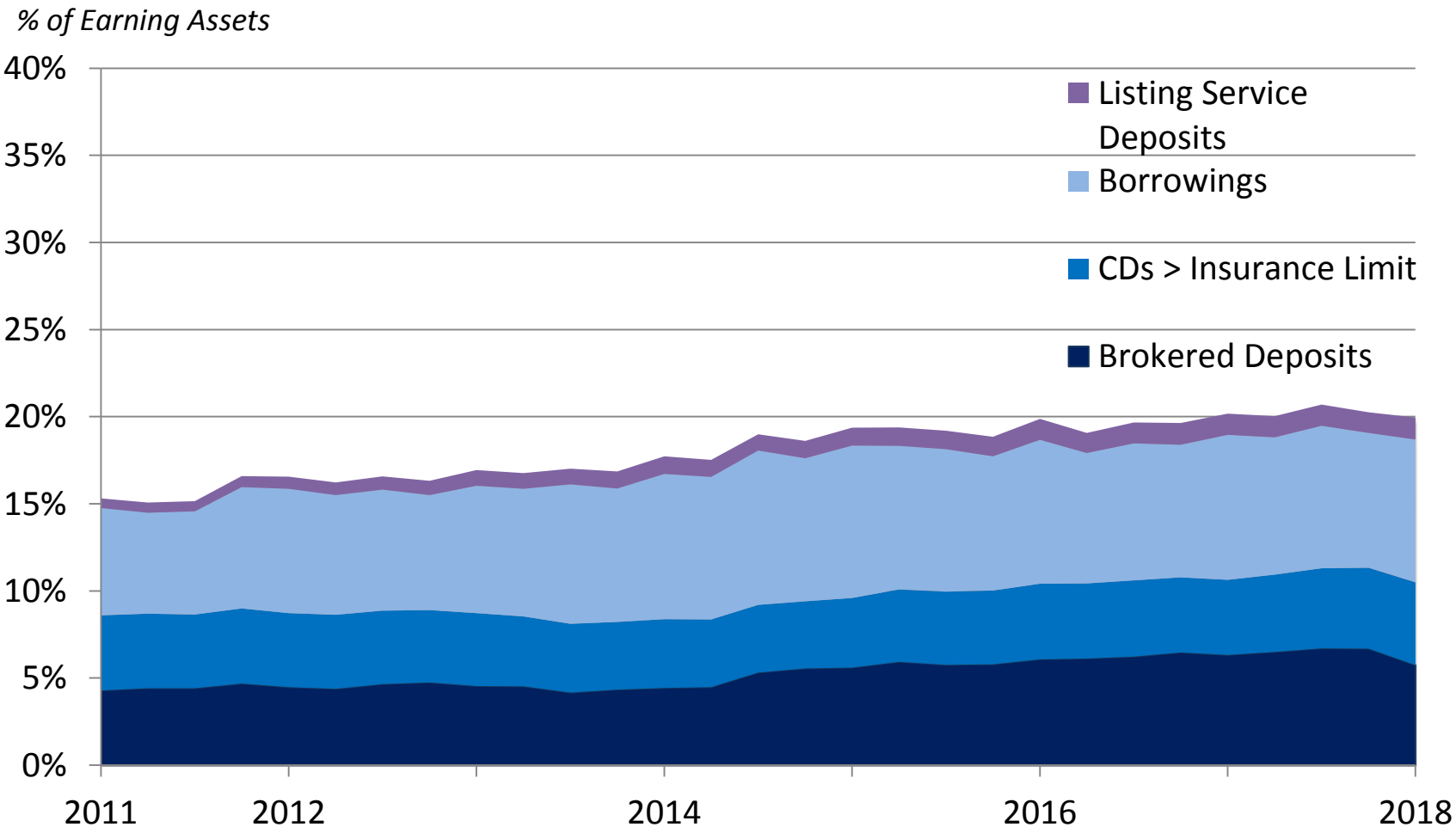
Funding Mix Substantially Influenced by Rate Environment

% of Earning Assets

Federal Funds Rate



Reliance on funding sources with potentially volatile characteristics is increasing in the New York Region

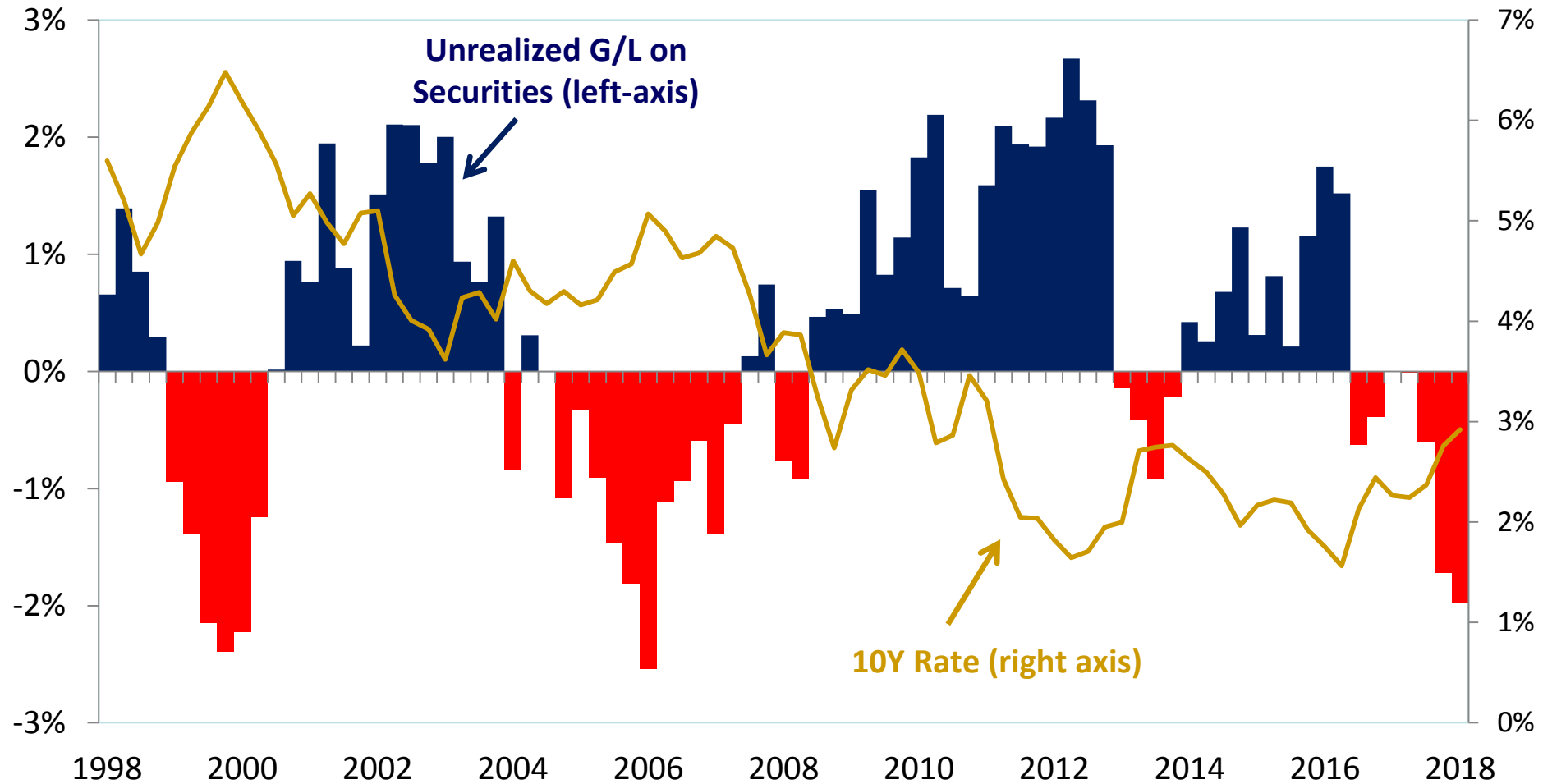


Source: FDIC Call Reports. Based on NY Region banks under \$10B in total assets

Rate Change Impact on Valuation

10Y Treasury Rate

Unrealized G/L to BV



10Y Rate (right axis)

Unrealized G/L on Securities (left-axis)

Funding Concentrations

- Poorly managed funding concentrations have contributed to increases in problem banks, bank failures, and losses to the Deposit Insurance Fund.
- Report of Examination – Concentrations
 - Single source funding concentration (exceeding 10% of Total Assets)
 - Combined potentially volatile funding sources (25% or more of Total Assets)
 - Analysis and assessment of concentration risks and bank management's control of those risks.

Brokered Deposits and Rate Restrictions

- **Section 29 of the FDI Act and Section 337.6 of the FDIC Rules & Regulations**
 - **“Well Capitalized”**: No restriction on brokered deposit use or rates paid on all deposits.
 - **“Adequately Capitalized”**: Waiver required to solicit/renew/rollover brokered deposits. Restriction on rates paid for all deposits.
 - **Less than “Adequately Capitalized”**: Prohibited from brokered deposit use. Restriction on rates paid for all deposits.

Note: A capped amount of reciprocal deposits is now excluded from treatment as brokered deposits under certain circumstances for qualifying institutions

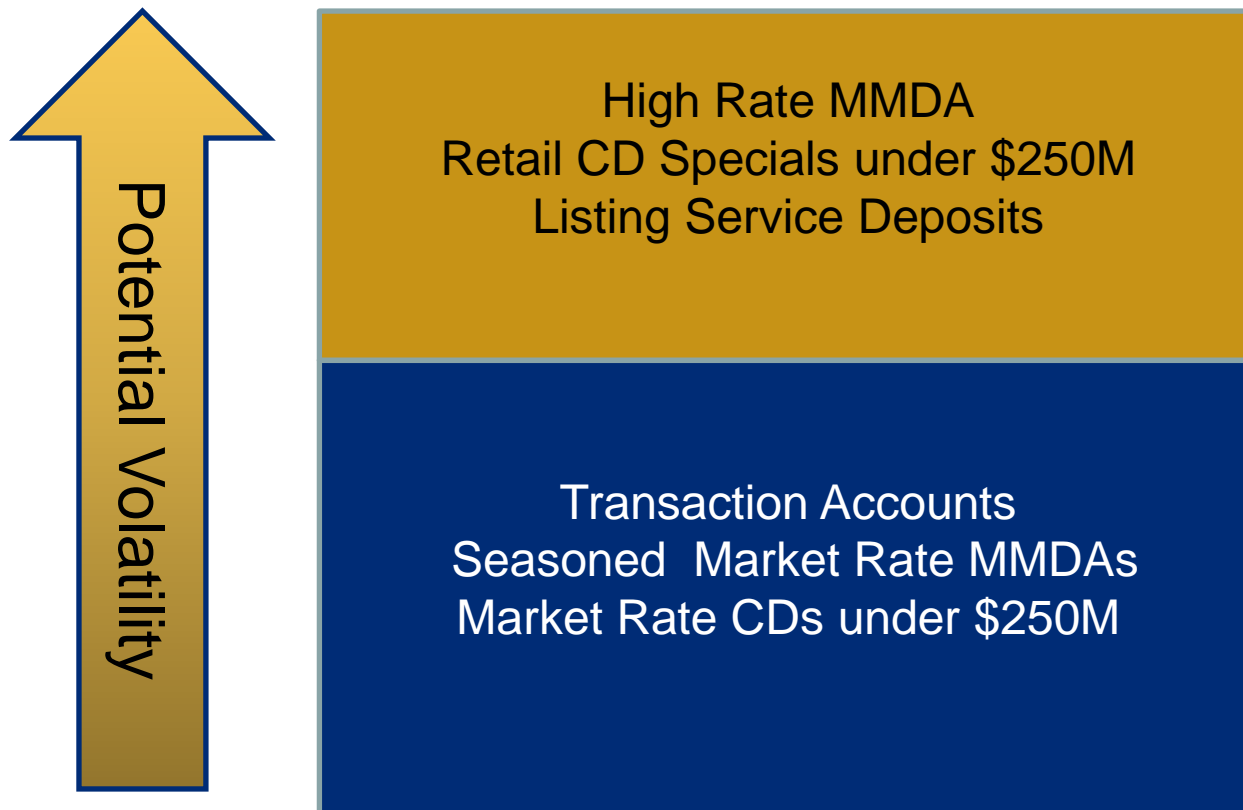
Rate Restrictions for “Less Than Well Capitalized “ Banks

- Section 337.6 of the FDIC Rules and Regulations states that banks that are “Less Than Well Capitalized” can not pay rates on their deposits in excess of the average applicable market rate plus 75 basis points

- Factors impacting rate restrictions for less than “Well Capitalized” banks
 - Applicable rate cap depends on how a deposit is gathered
 - Weekly average national rates
 - Local market high-rate area determination

- Liquidity implications and bank monitoring

Stability of Deposits



Other Deposits with Potentially Volatile Characteristics

Uninsured Deposits

- Deposits Over \$250,000
- Assessment of the Relationship
- Consider if the Customer Uses Other Bank Products and Services

Large Depositors

- Deposits Over \$250,000
- Assessment of the Relationship
- Consider if the Customer Uses Other Bank Products and Services

Cash Flow Analysis

Pro Forma Cash Flow Projections

- Perform some type of cash flow projection (time horizon and categories vary)
- Identify cash flow gaps (under expected and adverse scenarios)
- Ensure assumptions are documented and reasonable

Key Assumptions

Assets

- Loan payments
- MBS/CMO payments
- New loan production
- Investment maturities/calls
- Investment purchases

Funding

- Non-maturity deposit stability
- Borrowing maturities/calls
- CD maturities and early withdrawals
- New CD or other deposit promotions

Base Case Cash Flow

Base Case Cash Flow

	0-30 day	31-90 Day	91-180 day	181-360 Day
Expected Cash Outflows				
New Loans/Drawdowns	(3,000)	(6,000)	(9,000)	(18,000)
Deposit outflows	(4,400)	(3,800)	(5,200)	(9,400)
Maturing FHLB advances	(5,000)		(3,000)	
Total Periodic Outflows	(12,400)	(9,800)	(17,200)	(27,400)
Expected Cash Inflows				
New Deposit Growth	7,800	5,600	8,400	16,800
Asset Maturities/pmts/prepay	4,500	5,250	7,500	14,250
Total Periodic Inflows	12,300	10,850	15,900	31,050
Periodic Net Cash Flow	(100)	1,050	(1,300)	3,650
Cumulative Net Cash Flow	(100)	950	(350)	3,300
On Balance Sheet Liquidity				
Cash	10,000	-	-	-
Free Securities	30,000	-	-	-
Cumulative Liquid Asset Surplus (Deficit)	39,900	40,950	39,650	43,300
Internal Limit >18% of Assets	20.0%	20.5%	19.8%	21.7%
Mitigating Actions				
FHLB Borrowing	-	-	-	-
Brokered Deposits (<10%)	-	-	-	-
Listing Service Deposits (<10%)	-	-	-	-
Cumulative Total Surplus/(Deficit)	39,900	40,950	39,650	43,300
Internal Limit >18% of Assets	20.0%	20.5%	19.8%	21.7%

Stressed Scenarios

- **Forward-looking quantitative evaluation of scenarios that could impact a bank's financial condition and capital adequacy.**
- **Risk assessments based on assumptions about potential adverse external events, such as changes in real estate or capital markets prices, or unanticipated deterioration in a borrower's repayment capacity.**
- **Customized to reflect the characteristics particular to the bank and its market area.**

Stress Scenario Considerations

- **Bank-Specific and Market Wide**
- **Cash Flow Projections under Adverse Scenarios**
- **Identifies Sources of Liquidity Strain**
- **Sufficient Frequency and Magnitude**
- **Alignment with Contingency Funding Plans**

Scenario Selection

Idiosyncratic (Bank Specific)

- Regulatory Capital
- Deteriorating Credit Quality
- Reputational Issue
- Concentration in a weakening Industry

Systemic (Market Wide)

- Interest Rates
- Economic Conditions
- National Disaster
- Capital Market Disruption

Base Case Cash Flow

Base Case Cash Flow

	0-30 day	31-90 Day	91-180 day	181-360 Day
Expected Cash Outflows				
New Loans/Drawdowns	(3,000)	(6,000)	(9,000)	(18,000)
Deposit outflows	(4,400)	(3,800)	(5,200)	(9,400)
Maturing FHLB advances	(5,000)		(3,000)	
Total Periodic Outflows	(12,400)	(9,800)	(17,200)	(27,400)
Expected Cash Inflows				
New Deposit Growth	7,800	5,600	8,400	16,800
Asset Maturities/pmts/prepay	4,500	5,250	7,500	14,250
Total Periodic Inflows	12,300	10,850	15,900	31,050
Periodic Net Cash Flow	(100)	1,050	(1,300)	3,650
Cumulative Net Cash Flow	(100)	950	(350)	3,300
On Balance Sheet Liquidity				
Cash	10,000	-	-	-
Free Securities	30,000	-	-	-
Cumulative Liquid Asset Surplus (Deficit)	39,900	40,950	39,650	43,300
Internal Limit >18% of Assets	20.0%	20.5%	19.8%	21.7%
Mitigating Actions				
FHLB Borrowing	-	-	-	-
Brokered Deposits (<10%)	-	-	-	-
Listing Service Deposits (<10%)	-	-	-	-
Cumulative Total Surplus/(Deficit)	39,900	40,950	39,650	43,300
Internal Limit >18% of Assets	20.0%	20.5%	19.8%	21.7%

Stressed Cash Flow

Stressed Cash Flow

	0-30 day	31-90 Day	91-180 day	181-360 Day
Expected Cash Outflows				
New Loans/Drawdowns	(3,000)	(6,000)	(1,000)	(2,000)
Deposit outflows	(7,200)	(9,400)	(12,600)	(25,200)
Maturing FHLB advances	(5,000)		(3,000)	
Total Periodic Outflows	(15,200)	(15,400)	(16,600)	(27,200)
Expected Cash Inflows				
New Deposit Growth	-	-	-	-
Asset Maturities/pmts/prepay	4,050	4,725	6,750	12,825
Total Periodic Inflows	4,050	4,725	6,750	12,825
Periodic Net Cash Flow	(11,150)	(10,675)	(9,850)	(14,375)
Cumulative Net Cash Flow	(11,150)	(21,825)	(31,675)	(46,050)
On Balance Sheet Liquidity				
Cash	10,000	-	-	-
Free Securities	30,000	-	-	-
Cumulative Liquid Asset Surplus (Deficit)	28,850	18,175	8,325	(6,050)
Internal Limit >18% of Assets	14.4%	9.1%	4.2%	-3.0%
Mitigating Actions (Cumulative)				
FHLB Borrowing	7,150	17,825	27,675	42,050
Brokered Deposits (<10%)	-	-	-	-
Listing Service Deposits (<10%)	-	-	-	-
Cumulative Total Surplus/(Deficit)	36,000	36,000	36,000	36,000
Internal Limit >18% of Assets	18.0%	18.0%	18.0%	18.0%

Cushion of Highly Liquid Assets

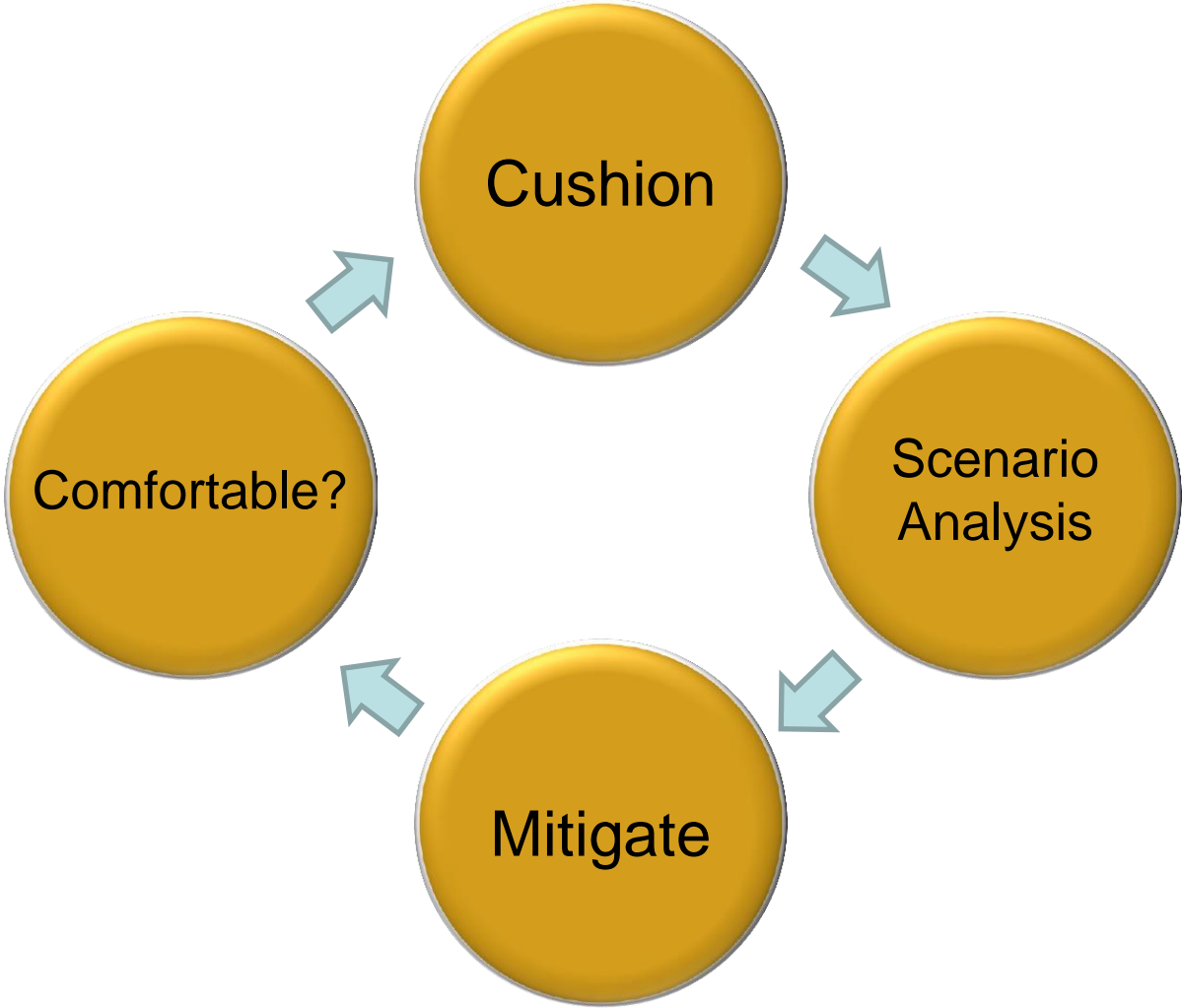
Cushion of Highly Liquid Assets

- Critical component of bank's ability to respond to stress
- Readily marketable even during stress
- Free from legal, regulatory, operational impediments

Examples

- U.S Treasury and Agency Securities
- Excess Reserves

Cushion and Stress Scenario Analysis Relationship



Contingency Funding Plans

- **Identify Stress Events**
- **Assess Stress Level and Timing**
- **Assess Funding Sources and Needs**
- **Establish Event Management Process**
- **Develop Action Plans**
- **Establish Monitoring Framework**

Early Warning Indicators

- **Purpose of Early Warning Indicators**
 - Provide liquidity alerts
 - Promote proactive mitigation
- **Development of Early Warning Indicators**
 - Progressive relative to severe
 - Linked to internal and external events
 - Tied to Contingency Funding Plan actions

Examples of Early Warning Indicators/Triggers

Systemic

- Negative trend in economic or industry conditions
- Rapid increase in market interest rates
- Increase in credit spreads
- Decreased liquidity in certain asset classes

Bank-Specific

- Bank approaching borrowing limit
- Decrease in liquid asset levels
- Increase in delinquencies
- Increase in deposit fluctuations

Resources

- Interagency Policy Statement on Funding & Liquidity Risk Management (FIL-13-10)
- FDIC's Supervisory Insights, Summer 2017
- Section 29 of the FDI Act and Section 337.6 of the FDIC's Rules and Regulations
- FAQ on Identifying, Accepting, and Reporting Brokered Deposits (FIL-42-2016)
- Process for Determining If An Institution Subject to Interest Rate Restrictions is Operating in a High-Rate Area (FIL-69-2009)
- Joint Agency Policy Statement on Interest Rate Risk (FIL-52-96)
- FDIC Risk Management Manual of Examination Policies

Resources

Crisis and Response: An FDIC History, 2008–2013

Report of Bank Failures – Material Loss Reviews (Office of Inspector General)

Capital Markets and Securities Specialists

- Michael E. Aldrich (781) 274-8127 maldrich@fdic.gov
- Michael J. Kostrna (917) 320-2533 mkostrna@fdic.gov
- Gregory M. Quint (781) 794-5521 gquint@fdic.gov

Director's Resource Center: www.fdic.gov/resourcecenter

Capital Markets Resource Center: www.fdic.gov/regulations/capital

QUESTIONS?