Central Florida GFOA

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Agenda

1. Liquidity Management Techniques
2. Liquidity Coverage Ratio
3. Money Market Fund Reform
4. Q & A

Liquidity Management Techniques

Our discussion today

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- Understanding your critical treasury objectives
- Minimizing idle cash balances and enhancing working capital
- Meeting your needs with a solution set that will point you in the right direction

Principles of cash & short-term investments

Prudent investment principles suggest that capital preservation, liquidity, and yield are the top three concerns for executive management when managing cash positions.

Constant change in the market and new regulations provides a catalyst to review investment and cash management policies and procedures.

The Context

Maintain Pulse on Market

- Market and regulatory changes are a catalyst to initiate a review today

Evaluate Risk

- Principles of investment should be defined and weighted based on your entity's preferences

Review Investment Policy

- Thoughtful and thorough review of risk factors is critical. Conventional wisdom and historical approaches should be challenged.

Evaluate Alternatives

- Available instruments vary by region

Principles of Investments

Capital Preservation

- Primary goal is to preserve capital and prevent loss in a portfolio

Liquidity

- Availability for expected and unexpected working capital needs

Yield

- Rate of return on an investment

Conventional wisdom suggests diversification mitigates risk; however, that may not always be the case.

Meeting treasury objectives: principal preservation, liquidity, yield

OBJECTIVES

- Maintain value of and access to operating, excess, strategic and reserve cash
- Better control over regional/entity liquidity
- Comply with a rapidly changing regulatory environment
- Improve cash forecasting through enhanced visibility

BEST PRACTICES

- Allocate capital among a variety of products and tenors
- Consolidate bank relationships and accounts
- Deploy cash management effectively to respond to changing regulations
- Utilize online tools — view cash position and investments in real time

Optimizing your working capital

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Harness cash flow

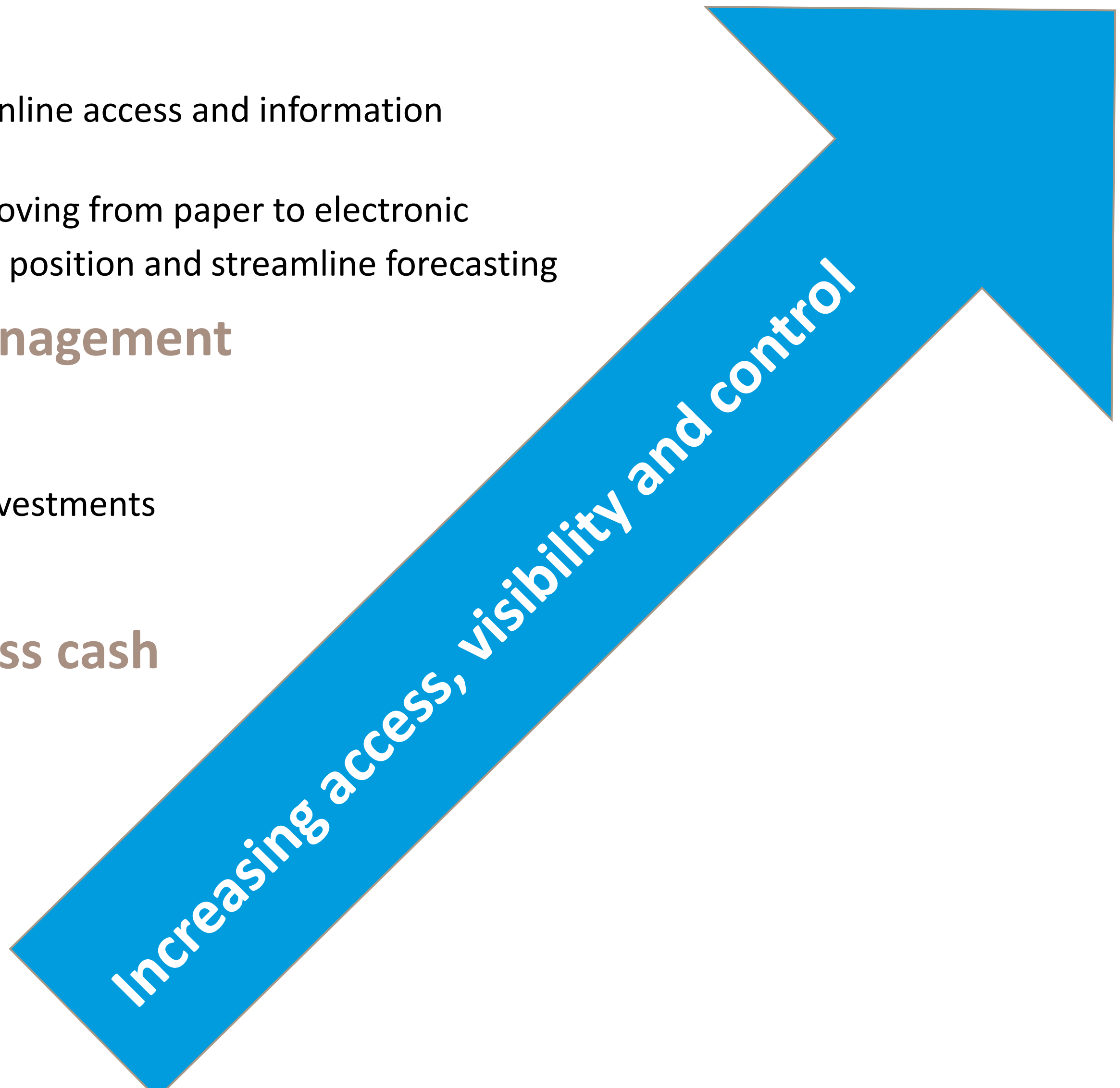
- Consolidate balances
- Improve visibility with online access and information management
- Create efficiencies by moving from paper to electronic
- Speed view of your cash position and streamline forecasting

Drive liquidity management

- Cash concentration
- Multibank sweeping
- Automated overnight investments

Capitalize on excess cash

- Deposits
- Sweeps
- Investments



Working capital optimization

Liquidity Trends

Safety, increasing visibility, control and access to funds

Key challenges

Regulatory
Rapidly changing regulatory environment

Low-rate environment
Global macroeconomic challenges and sluggish growth leading to depressed yields on cash

Visibility
Requirement to see real-time information for cash positions across multiple entities

Simplification

Safety

Visibility

Automation

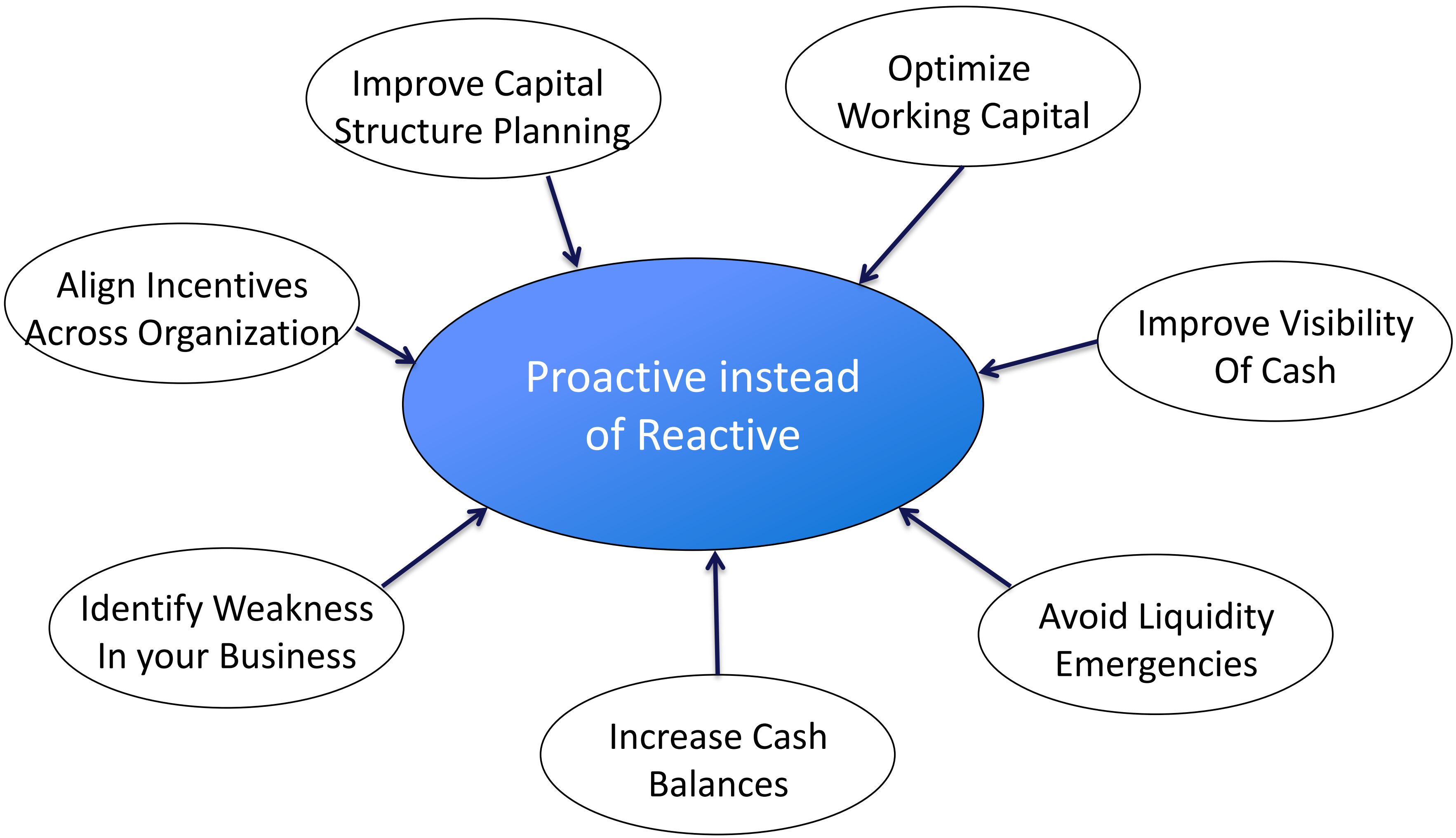
Leading practices

Liquidity Management
Effective deployment of cash management to respond to changing regulatory environment

Global Liquidity Structure
Tailoring liquidity to capitalize on yield-producing opportunities

Online tools
Leverage advanced technology to view cash position and investments in real time

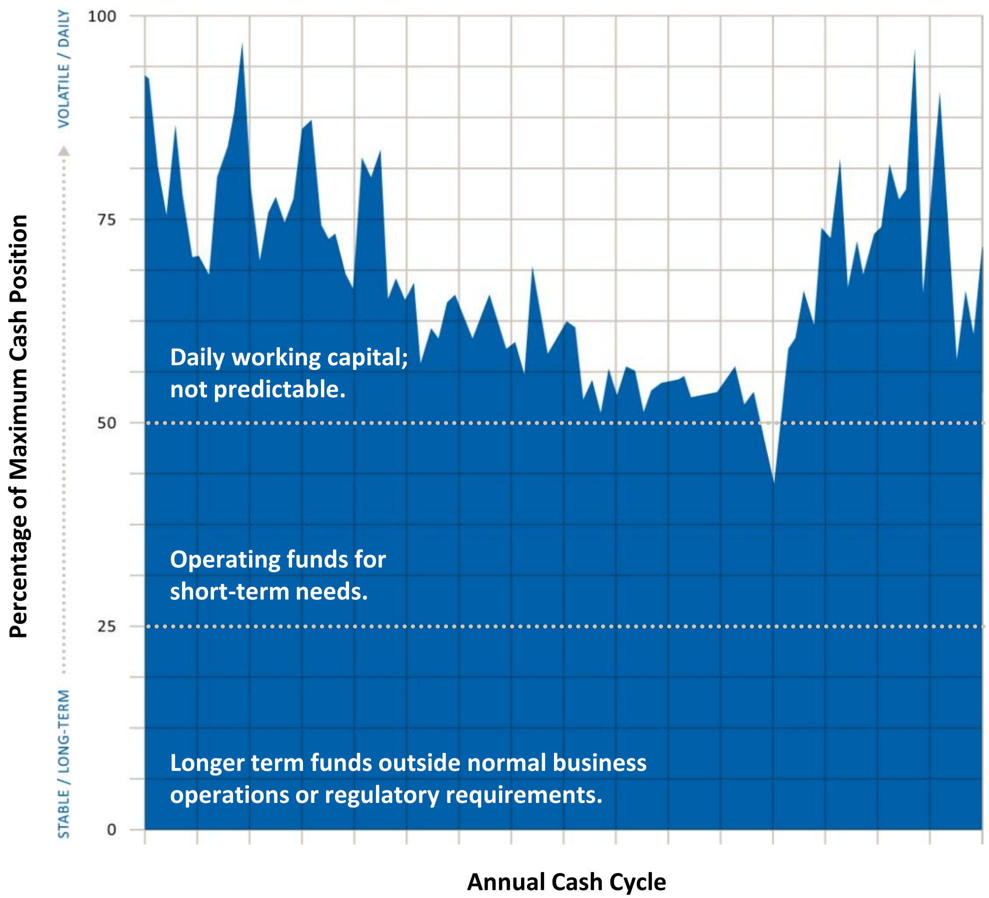
Cash flow forecasting: Focus on **Working Capital** to maximize global working capital through solutions and practices that enhance visibility and controls, optimize payables and receivables, streamline/automate payments and receipts, rationalize accounts and structures and understand complex interdependencies



✓ Manage debt & investment activity
✓ Cash reconciliation / application
✓ Daily liquidity management

Identifying Liquidity Needs: Emphasize visibility, access, and control

Your Intended Use of Cash Determines The Term and Alternatives to Help Fulfill Your Investment Objectives and Strategy. Maintain principal, liquidity, and yield.



Daily Operating Cash

- Demand deposit accounts
- Interest checking
- Sweep (automated investment):
  - Eurodollar time deposits
  - Money market mutual funds
  - Repurchase agreements
- Money market mutual funds

Reserve Operating Cash

- Money market deposit accounts
- Money market mutual funds
- Short-term CDs
- Treasury bills
- U.S. agency discount notes
- Commercial paper
- Variable rate demand notes

Strategic or Long-term Cash

- Short and long-term CDs
- U.S. treasury notes
- U.S. agency notes
- Supranational/sovereigns
- Corporate & municipal bonds
- Separately managed accounts
- Reserve account services

See product disclosures

Liquidity Coverage Ratio

Background

At the start of the financial crisis that began in 2007, banks ran into liquidity difficulties which further fuelled the Great Recession.

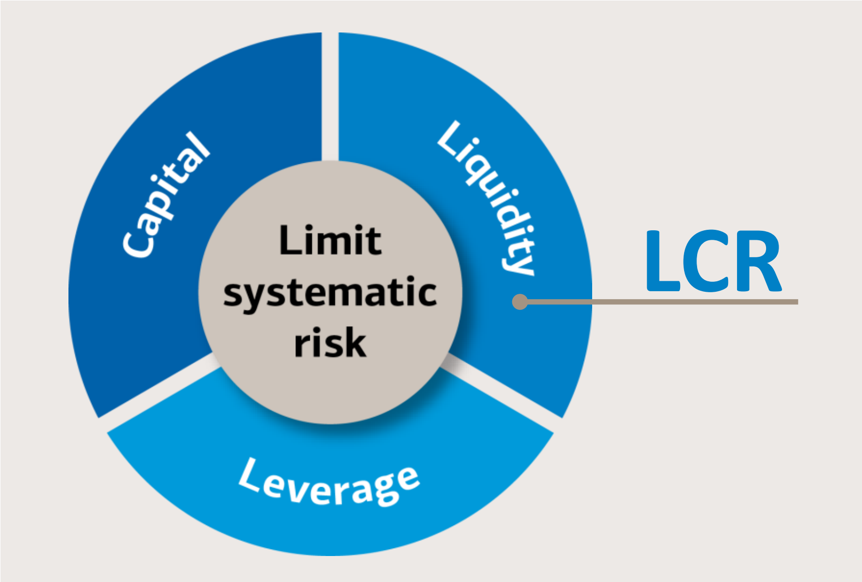
In 2010 and 2011, the Basel committee introduced new guidance to further strengthen global capital and liquidity regulations, to promote a more resilient banking sector, and prevent future liquidity crises.

Under the Liquidity pillar, the Basel III framework has two key requirements:

- The Liquidity Coverage Ratio (LCR) – Short term outlook
- The Net Stable Funding Ratio (NSFR) – Long term outlook

Due to the short-term nature of corporate deposits, the LCR will have an impact in the way bank's view and value client's cash and cash equivalents.

BASEL III



- Updates capital requirements
- Introduces two new concepts: Liquidity and Leverage Ratios
- Liquidity rules to have most immediate impact on GTS

Basel III: International framework for liquidity risk measurement, standards and monitoring, Dec 2010. More information on the BCBS' capital and liquidity standards can be found here: http://www.bis.org/publ/bcbs188.htm

The Liquidity Coverage Ratio (LCR)

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New global rule

- The liquidity coverage ratio (LCR) is part of the Basel III framework
- Identifies the minimal amount of unencumbered, high quality liquidity assets (HQLA) a banking institution must hold to cover an acute 30-day short-term stress event
- Less stringent LCR requirements for certain banks (>$250B full LCR, $50B-$250B / 70% modified LCR, <$50B exempt)

$$\text{LCR} = \frac{\text{High quality liquid assets}}{\text{Net cash outflows 30 days}} \geq 100\%$$

Timing of implementation accelerated for the U.S.

	Jan 1, 2015	Jan 1, 2016	Jan 1, 2017	Jan 1, 2018	Jan 1, 2019
Basel Committee LCR	60%	70%	80%	90%	100%
U.S. LCR Proposal	80%	90%	100%		

Mandated Assumptions

Regulated assumptions on deposit outflows will be enforced and held for each depositor

Expensive Assets

Bank is required to hold a specific amount of HQLA, which varies by the outflow assumption.

Different Deposit View

Focus will be on identifying deposit type and associated extra costs.

Implication?

- Deposits with higher outflows will tend to have lower value
- Deposits with lower outflow maintain value

The above information was derived from the U.S. Notice for Proposal of Rulemaking issued by the Federal Reverse, FDIC, and OCC report dated October 2013. The report can be found here: http://www.federalreserve.gov/aboutthefed/boardmeetings/board-memo-lcr-20131024.pdf

Goal of the LCR

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The goal of the LCR is to make sure banking organizations have "back-up" assets to keep a bank liquid in the event bank funding is withdrawn under a financial crisis.

Assuming a severe 30-day stress event, do banks have sufficient and high enough quality assets to cover outflows?

$$\text{LCR} = \frac{\text{High quality liquid assets}}{\text{Net cash outflows 30 days}} \geq 100\%$$

High Quality Liquid Assets (HQLA)

Level 1 Assets: Highest quality, highest liquidity. No haircut or limits. For example, Cash and Treasuries.

Level 2a & 2b Assets: Slightly lower quality, therefore subject to haircuts and limits. For example, FNMA and FHLMC MBS.

≥

Net cash outflows in a stress event

Deposit outflow assumptions from 0% to 100%:

• Term > 30 days	0% outflow
• Operating for most clients	25% outflow
• Non-Operating Corporates	40% outflow
• Non-Operating FI	100% outflow
• Excluded entities	100% outflow
• Public Sector entities	0%-40% outflow

The Federal Reserve, FDIC, and OCC issued an Notice for Proposed Rulemaking (NPR) in October 2013 aimed to implement Basel III's LCR in the United States.

- The NPR was open to public comment until January 31, 2014; after which U.S. regulators will review the comments and eventually propose a final rulemaking
- The proposed U.S. LCR follows the general framework of Basel III's LCR, but is considered more stringent in certain key areas

The above information was derived from the U.S. Notice for Proposal of Rulemaking issued by the Federal Reverse, FDIC, and OCC report dated October 2013. The report can be found here: http://www.federalreserve.gov/aboutthefed/boardmeetings/board-memo-lcr-20131024.pdf

Classifying Operating Deposits – NPR View

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The LCR changes not just the way banks value deposits, but ultimately the way companies view their cash.

The higher the outflow assumption, the more expensive assets (HQLA) the bank will have to hold.

LCR mandates outflow assumptions for wholesale demand deposits based on nature of: 1) deposit, 2) depositor and 3) deposit insurance.

"Balances in these accounts should be recognized as operational deposits only to the extent that they are **critically important to customers to utilize operational services**…

Amounts beyond that which is critically important for the customer's **operations should not be included in the operational deposit category**…

Rule enumerates specific criteria for operational deposits that seek to limit operational deposit amounts to those that are held for operational needs"

from U.S. NPR

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	Less liquidity risk			More liquidity risk
Driver	⟷			
Deposit purpose	Operational services to client	Most are 25% outflows	Non-operational deposit, including operational account excess amounts	Most are 40%-100%
Depositor	Corporates, Sovereigns	20%-40%	Regulated Financial Companies	25% operational; 100% non-operational
Insurance	Fully FDIC insured	5%-20%	Not fully FDIC insured	25%-100%

*Additional categories impacting GTS: Brokered Deposits (10% to 100% runoff), Secured (Collateralized) Deposits (0% to 100%), and Small Business (5% to 100%)

Operating criteria

Interpreted as residual cash on deposit that must stay with the bank for daily cash management needs

Good rules of thumb include:

1. Use of multiple Treasury Services tied to accounts
2. Significant activity in the account on a daily basis
3. Specifically linked to services – i.e. the cash that can not be removed from an account without risking daily operations

US NPR - Operational Deposit Criteria Breakdown

Qualitative

1. Held under binding agreement with 30-day termination notice or significant termination costs
2. Held in account designated as operational account
3. Primary purpose of deposit is operating
4. Must not be for an investment adviser, investment company, or non-regulated fund
5. Must not be for correspondent banking arrangements where Bank holds deposits owned by another depository institution bank and respondent temporarily places excess funds in an overnight deposit with the Bank

Quantitative

1. Empirically linked to the operational services with methodology for identifying any excess amount
2. Must not be significant volatility in the average balance of the deposit
3. No economic incentive for the customer to maintain excess funds through increased revenue, fee reduction, or other incentives

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Money Market Fund Reform

U.S. MMF Reform: Proposed Options & Timeline

The SEC draft proposal presented two alternative reform options:

On June 5, 2013, The Securities and Exchange Commission (SEC) issued a draft proposal outlining several regulatory reforms intended to increase money market funds' resiliency during market stress periods. The release of the draft proposal marks the beginning of a lengthy process in which the SEC will strive to strengthen money market fund regulations while preserving the economic benefits the funds provide.

- **Alternative #1: Floating NAV for Institutional Prime Money Market Funds –** The first proposal, applicable only to institutional prime funds, would replace the stable $1.00 per share net asset value (NAV) with a "floating" NAV based on the market price of funds' holdings. Retail prime funds, defined as those with a redemption limit of $1 million per shareholder per day, and government funds would be exempt from the floating NAV requirement, allowing these funds to continue to employ a stable $1.00 NAV
- **Alternative #2: Liquidity Fees and/or Redemption Gates for Non-Government Money Market Funds –** The second alternative, applicable to all non-government funds, would preserve the stable NAV and instead would rely on liquidity fees and redemption gates. Under this proposal, a fund would impose a 2% liquidity fee on redemptions if its "weekly liquid assets" fell below 15% of its total assets. Current money market fund regulations require fund companies to maintain weekly liquidity equal to 30% of a fund's total assets. Weekly liquid assets generally include cash, U.S. Treasury securities, certain other government securities with remaining maturities of 60 days or less, and securities that convert into cash within one week
- **Alternative #3: A combination** of the above proposals

Timeline and Key Milestones to Final Proposal and Rule Implementation

Key Event:	FSOC publishes reform options for comment (Nov. 2012)	SEC conducts study and publishes rule proposals	Public comment period	Comments collected & analyzed by SEC Staff (1)	Potential for re-proposal (2)	Additional comment collection & analysis period (3)	Final Rule issuance and conformance period for compliance	**Total Potential Timeline**
Potential Timeline (1)	Comments due from public Feb. 15, 2013	June 2013	Ends September 17th 2013	Fall 2013 - Spring 2014	1–2 months (if necessary)	1–3 months (if necessary)	Proposed 2 years	**12–30 months**

(1) Given the uncertainties regarding the proposals, the timeframes set forth above could change dramatically
(2) Steps may not be necessary depending level of acceptance from public
(3) Assumes SEC does not reject FSOC's proposals and/or money fund reform altogether. If it does, SEC has 90 days to explain its rejection

U.S. MMF Reform Potential Market Impact

- Money market funds provide over $2.6T of short-term funding to the public and private sector
- A well-functioning money market system is crucial to the overall health of the financial system as it provides critical short-term funding to businesses, municipalities and the federal government
- The MMF reform proposal issued by the SEC recognizes the need to preserve the important benefits of MMFs and prevent the negative consequences that could result from dramatic changes to how the largest participants in the money market system operate
- Demand destruction for money market funds will not change the demand needs of money market participants seeking short-term funding. Alternative sources of funding are likely to be limited and more costly. The affects could impact consumers in terms of auto and credit card loans, mortgages etc.

Potential reform should be balanced to reduce systemic risk and promote a healthy, well functioning money market system.

2013 AFP Liquidity Survey

Floating NAV Proposal

Liquidity Fee and/or Redemption Gate Proposal

Combination of Both Proposals

65% of companies would eliminate or change their MMF investments if the NAV were allowed to float (1)

56% of companies would eliminate or change their MMF investments if Liquidity Fee and Redemption Gates were implemented (1)

22% of companies would fully eliminate current MMF holdings if these two proposals were implemented (1)

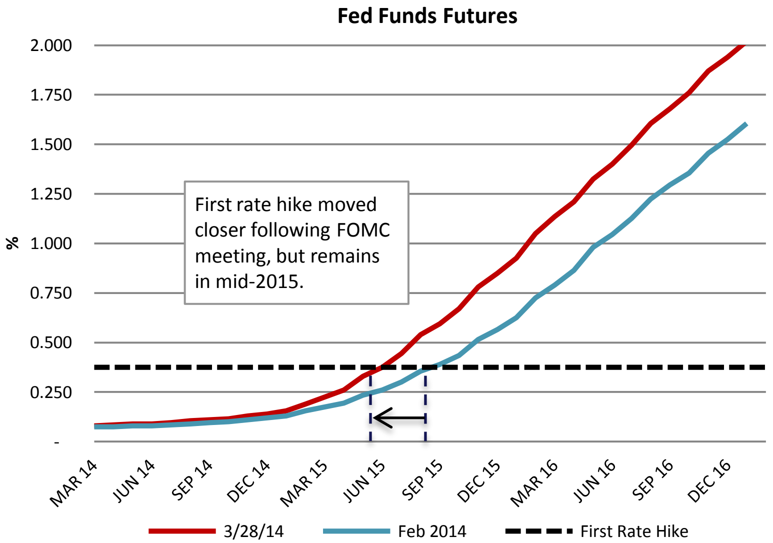
(1) 21 June 2013 AFP Survey: http://www.afponline.org/mbr/reg/pdf/2013_AFP_Liquidity_Survey.pdf.

Appendix

Market Rate Environment

- Fed Funds Effective = 0.138%
- Fed Funds Target = 0.00 – 0.25%
- 3M UST = 0.035%
- as of 4/18/14

- 1M Libor = 0.15%
- 3M Libor = 0.23%



Source: Bloomberg

KEY THEMES

FOMC creates little surprise; Yellen provides guidance on future rate hikes

- The FOMC continued to taper monthly asset purchases by another $10B as expected, and remains on pace to end QE3 this year.
- The Fed shifted away from thresholds to qualitative guidance, returning towards goals of maximum employment and 2% inflation. The Committee will assess progress—both realized and expected—toward its objectives.
- Janet Yellen provided important guidance in her first press conference as Fed Chair, indicating that the first rate hike could come 6 months after QE ends. This would place the first Fed rate increase in 2Q15, earlier than recent market expectations of 3Q15.

Money Fund reform back in focus

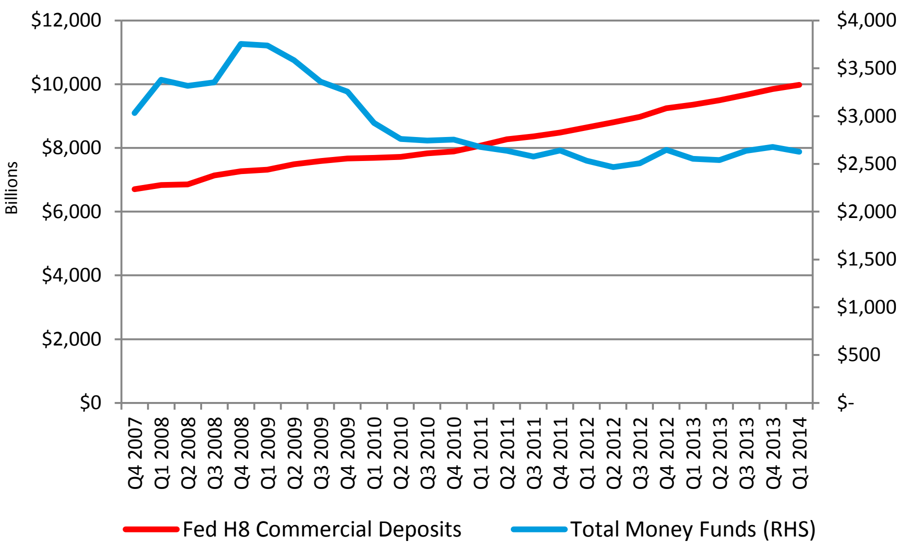
- The SEC released a series of analysis on money funds in preparation for final money fund rules, with the goal of better understanding the market and possible impacts of their proposed reform.
- Importantly, the work addresses concerns on the reallocation of assets from prime to government funds as a result of floating-NAV requirements, finding that there would be a sufficient supply of 'safe' assets for government funds to purchase.
- *The analysis suggests a potentially higher likelihood of the SEC adopting floating-NAV on institutional prime funds*.
- With analysis concluded, final reform could be announced in coming months. Expected implementation timelines, especially for floating-NAV requirements, would be at least 6 months following final rules.

Market Conditions

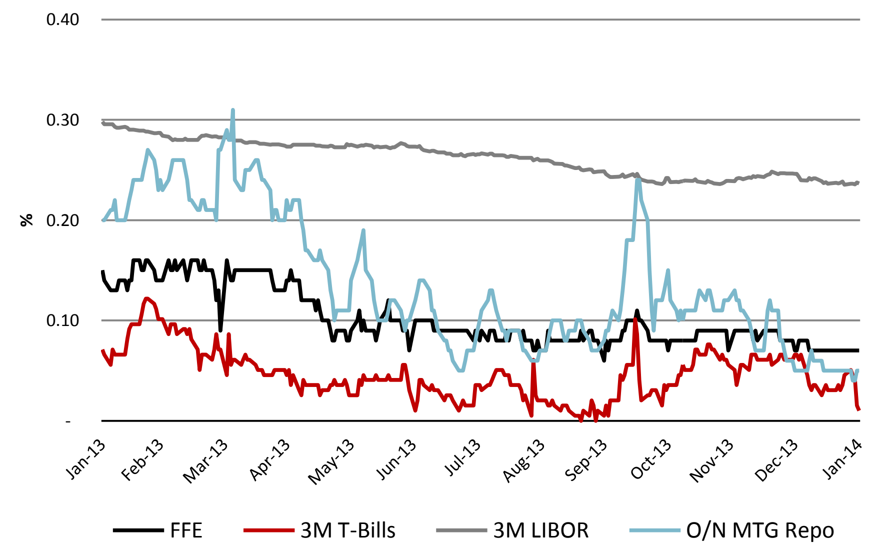
Bank deposits continue to increase. MMF assets have been declining to stable.

Current ST market rates remain low.

INDUSTRY DEPOSITS & MONEY FUND BALANCES – MINIMAL OUTFLOWS IN BANK DEPOSITS [1,2]



MONEY MARKET RATES – TRENDING LOWER [3]

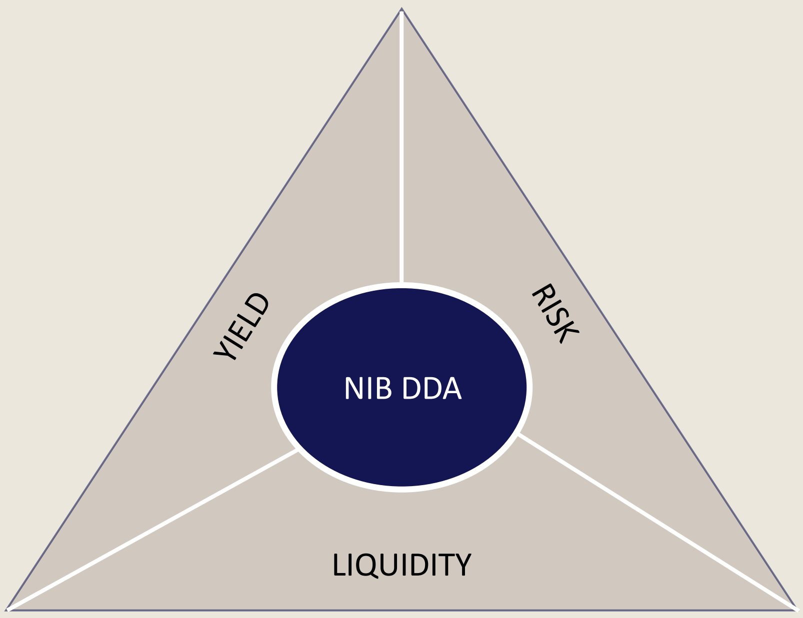


Source: Bloomberg

(1) Money Fund data from Federal Reserve http://www.federalreserve.gov/releases/z1/current/accessible/l120.htm
(2) Deposit data per Federal Reserve.
(3) Sourced from Bloomberg

Benefits of Noninterest-bearing Demand Deposit Account (NIB DDA)

Through their primary operating account our clients can capitalize on offsetting bank fees with earnings credit (where applicable), while maintaining ready access to funds. Thus, this solution can be an attractive option to fulfill each pillar of liquidity: yield, risk and accessibility of funds.



Yield – Favorable returns and lower bank fees

- Earnings credit rate (where applicable) that can compare favorably to other cash alternatives, and usage does not incur active investment costs.
- Managed rate, set by Bank of America Merrill Lynch, which is flexible as it is based on deposit levels and treasury services usage.

Liquidity – Operational efficiency and daily access to cash

- Daily access to funds allows for unlimited withdrawals and deposits.
- Operational efficiency for working capital is the cornerstone of NIB DDA.

Risk – A bank's strength in capital and liquidity

- Bank strength and stability is an important consideration from a risk perspective when comparing deposit and investment alternatives.
- The banks' strength is to be considered even when State regulations and policies require deposits to be collateralized.

Deposit Outflows under the LCR

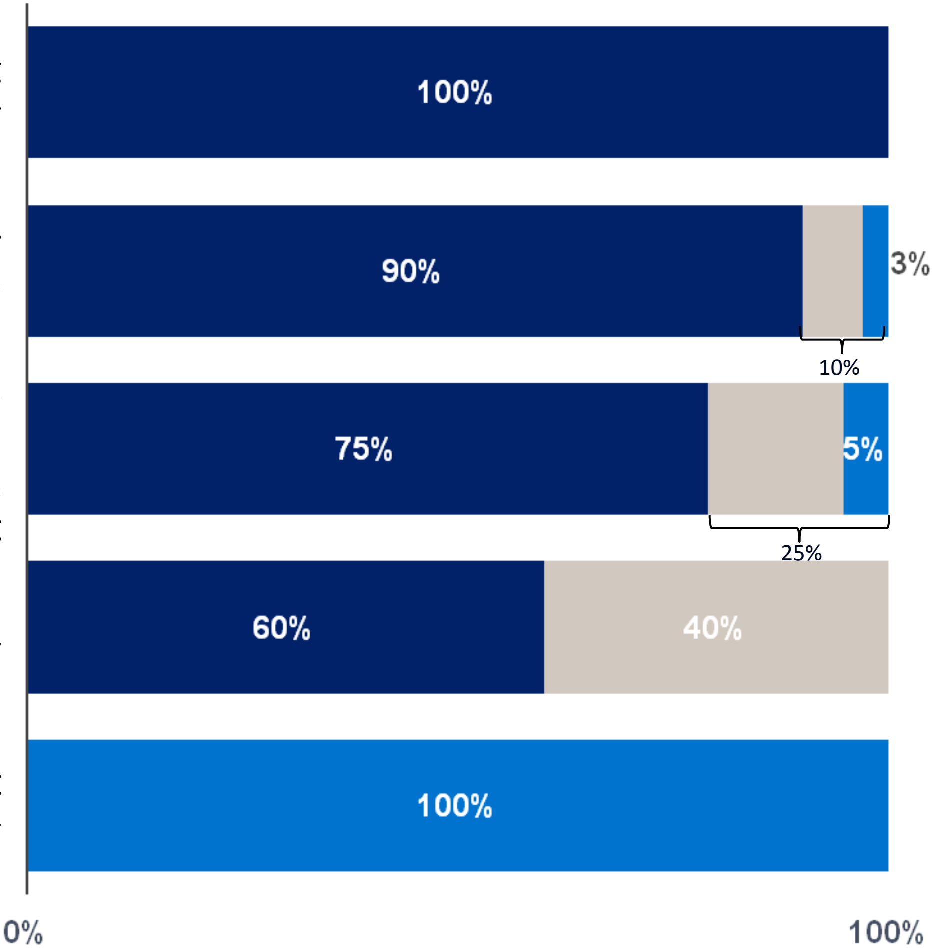
Certain Term Deposits with > 30 days remaining maturity: contractually obligated to stay – 0% outflow

Individual and Small Business deposits: 3% outflow for stable fully insured and 10% for less stable

Corporate and certain deposits from Financial Service firms: likely stay with the bank due to operational requirement 5% outflow for insured (ex FI) and 25% for non-insured, all RFC

Corporate deposits, not operational: higher proportion assumed to flow out in a stress event – 40% outflow

Financial services Non-Operating and certain other RFC deposits: 100% outflow

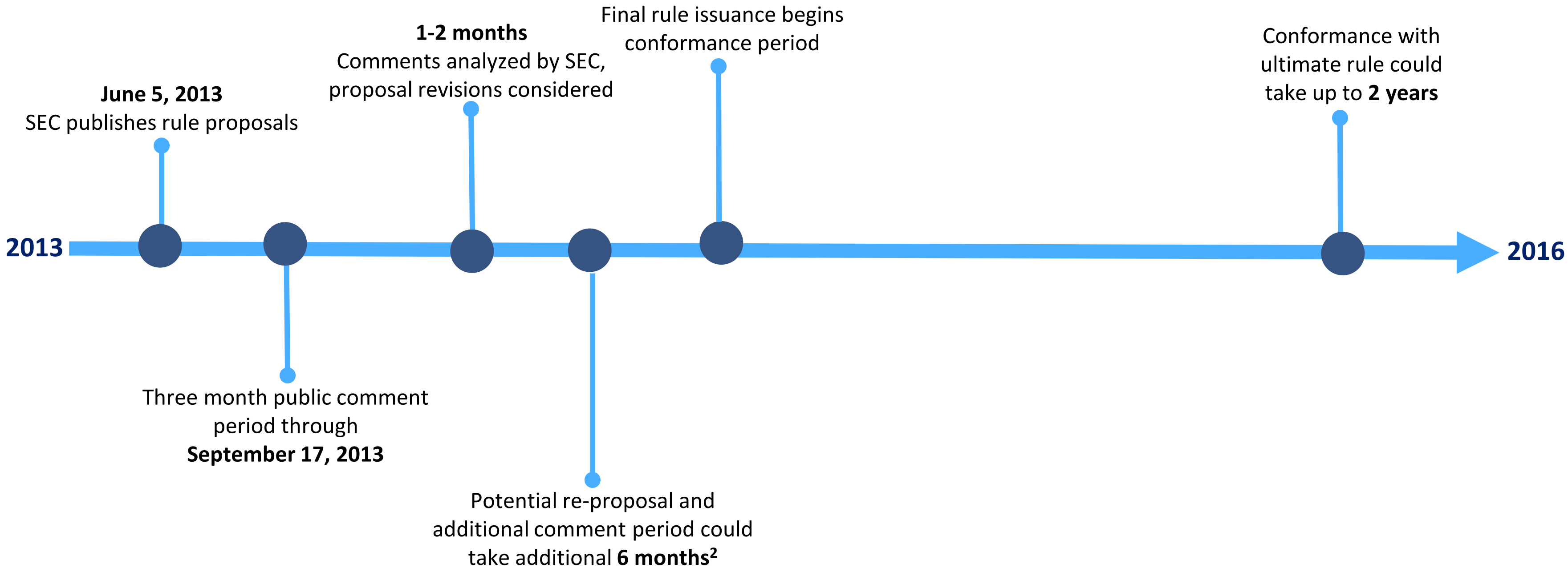


Legend: In an acute liquidity event over a 30 day period, portion of funds that will: ■ No outflow ■ Flow out if not insured ■ Flow out

The above information was derived from the U.S. Notice for Proposal of Rulemaking issued by the Federal Reverse, FDIC, and OCC report dated October 2013. The report can be found here: http://www.federalreserve.gov/aboutthefed/boardmeetings/board-memo-lcr-20131024.pdf

Industry Trends: Potential Market Impact of MMFs Reform

The SEC's June 5, 2013 MMF reform proposal began an extended process of public comment, analysis, final rulemaking and conformance/implementation periods. Final rules are unlikely before mid-2014, with final conformance no earlier than 2016[1]:



[1]Given the uncertainties regarding the proposals, the timeframes set forth above could change dramatically.
[2]Steps may not be necessary depending level of acceptance from public.
Source: BofA Global Capital Management, as of March 2014.

Disclosures

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