

RATE OUTLOOK & THE CHANGING REGULATORY ENVIRONMENT

November 2015

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Interest rates are expected to rise but Basel III has introduced regulatory changes that will have a profound impact on the banking industry, including client deposits held by banks.

What we will cover today:



Interest Rate Overview

- Market Rate History
- Drivers of U.S. Interest Rate Policy
- Interest Rate Outlook
- Delayed Draw Financing

Banking Regulatory Changes

- Basel III Overview
- Explanation of key ratios impacting bank deposits
- Basics of bank funding

Potential impacts and ways to adapt

- Deposits, including collateralized Public Sector funds, are viewed differently in the new regulatory environment
- Certain deposit types will be more valuable than others to banks
- Clients may need to revisit their liquidity strategy and investment policies

Historical Perspective: Still Lowest Short Term Rate Environment in 10 years

10 Year Historical Interest Rates

DataQuery

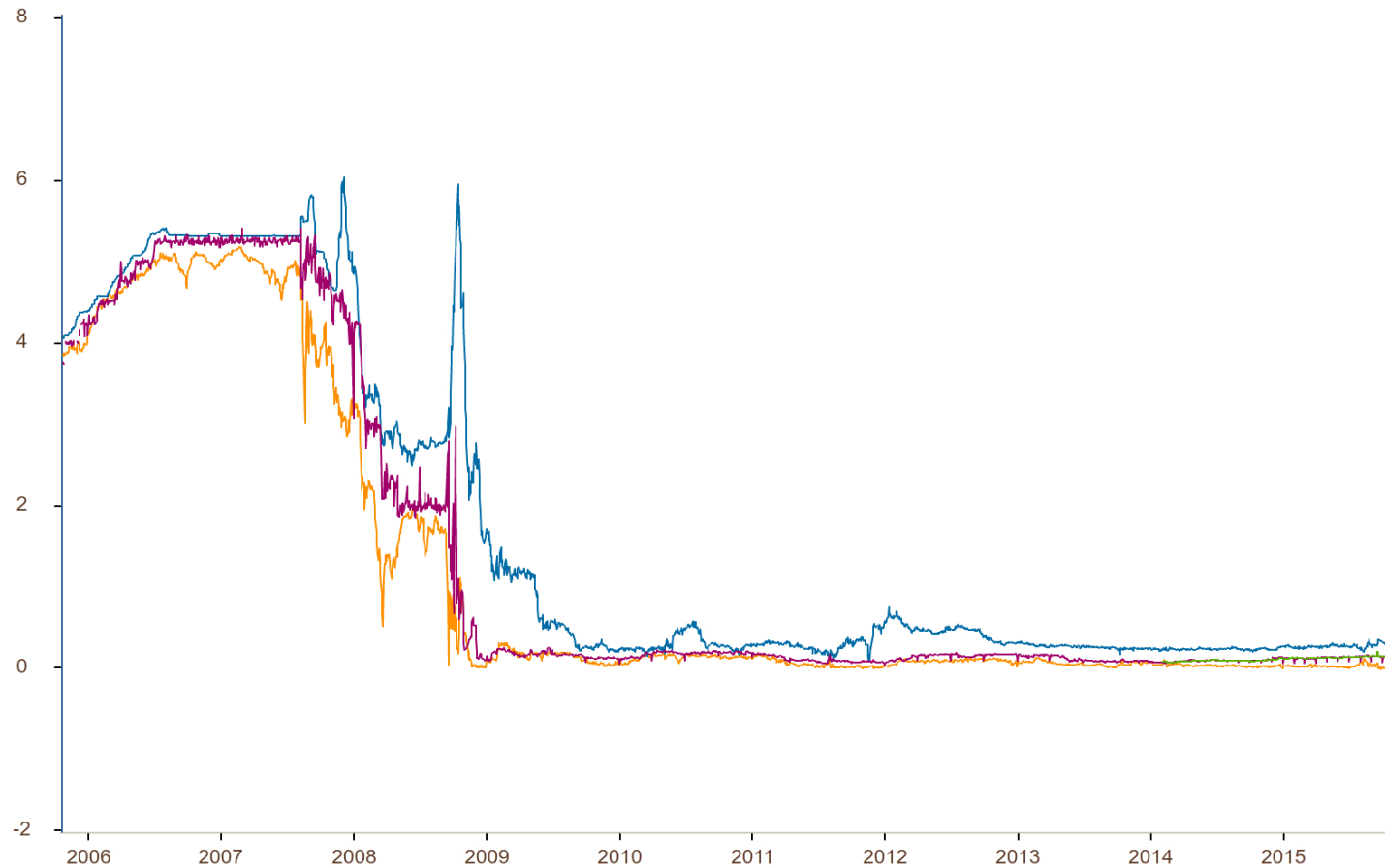
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Untitled Chart

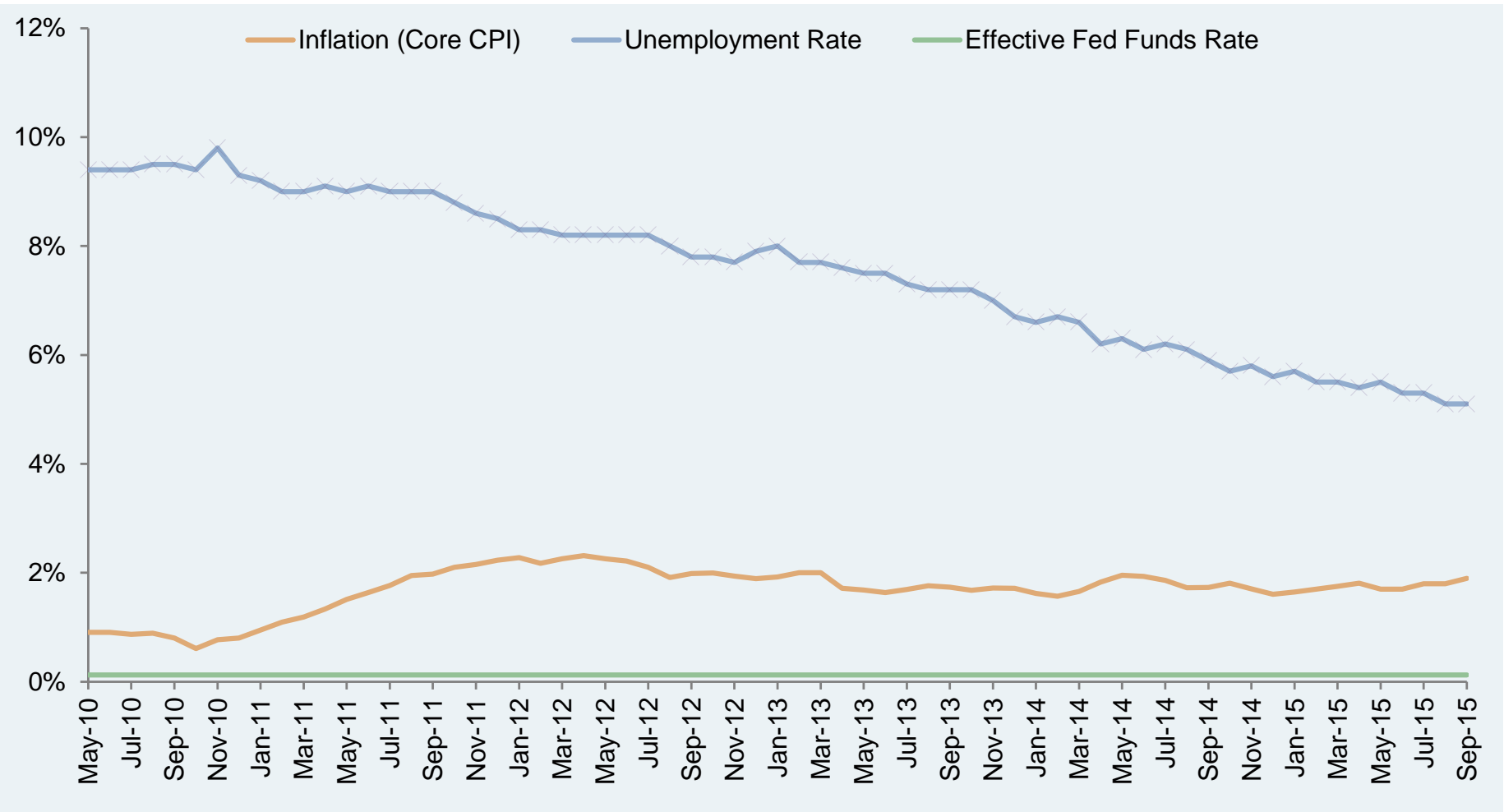
3 month bill Current Mid Yield 1 Month Mid Rate Fed Funds (Effective Rate) Level FOMC OIS 1 Day Rate



Source: J.P. Morgan Markets

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Why Have Rates Not Increased? Key Economic Indicators vs. Fed Funds Rate

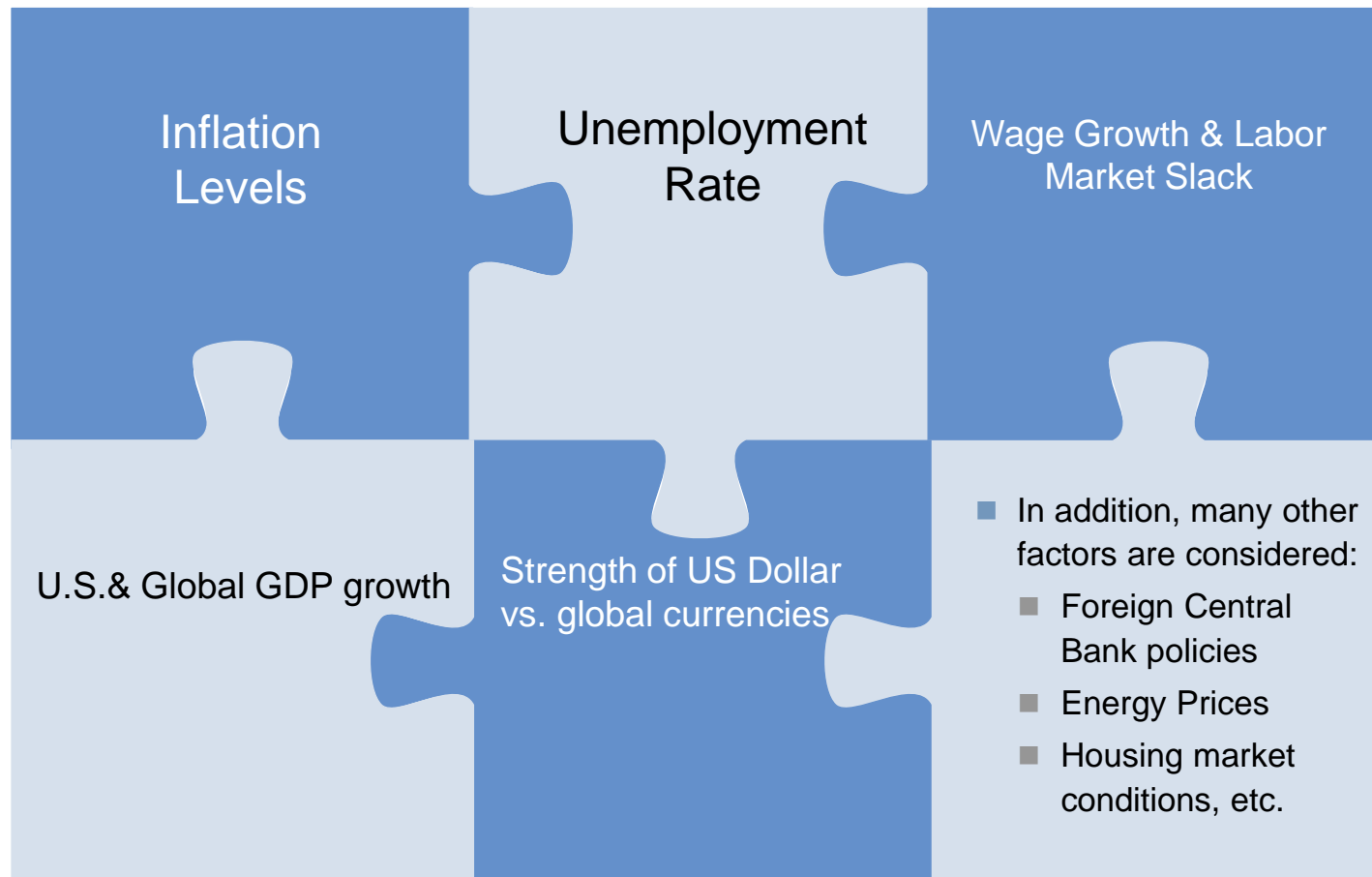


Source: J.P. Morgan Markets

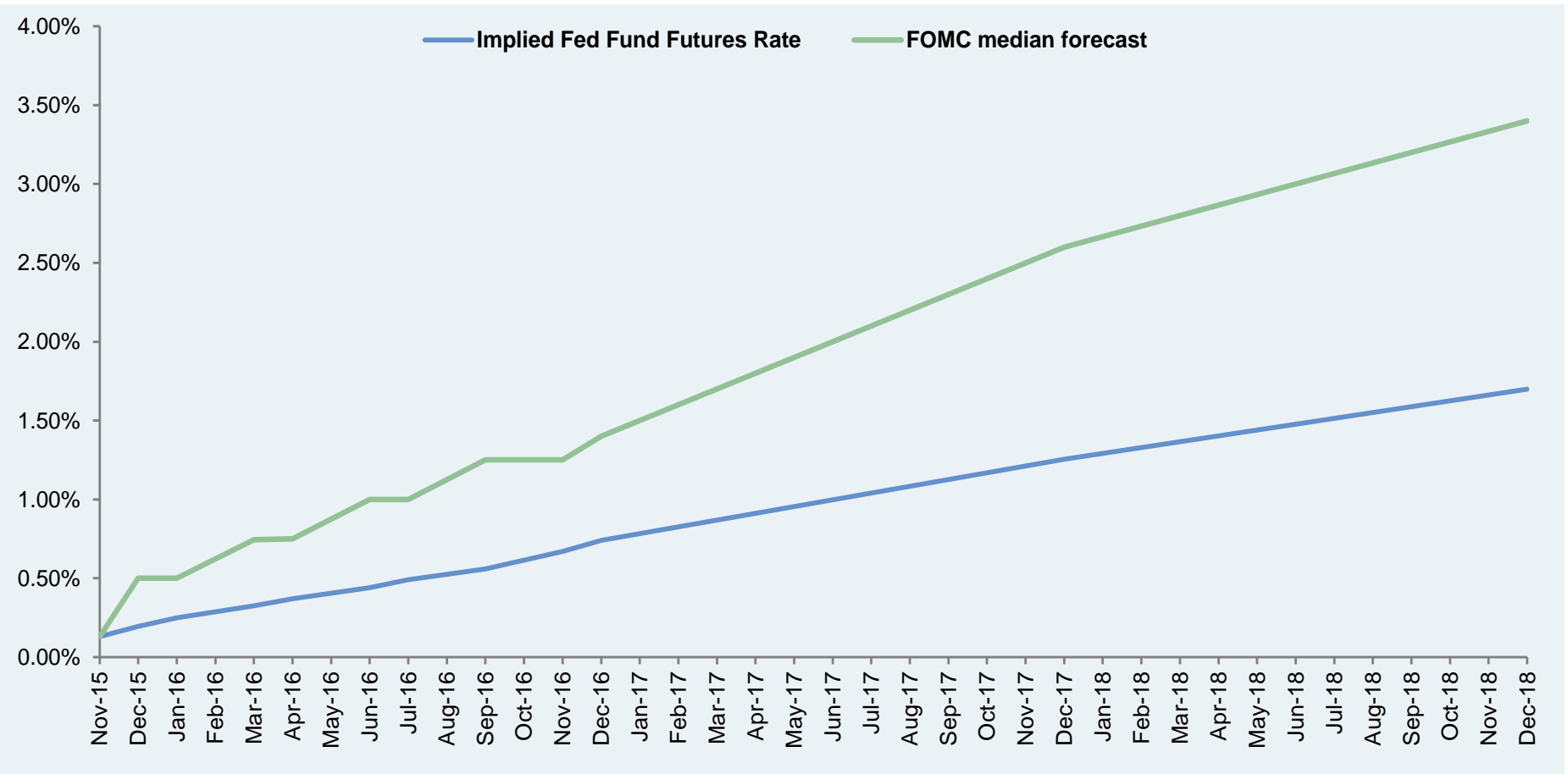
- The unemployment rate of 5.1% has shown steady improvement in 2015; however, recent jobs reports were below market expectations.
- Inflation has remained below the Fed's 2% target which has allowed the FOMC to remain patient with regards to a target Fed Funds rate increase.

What Factors Does the Fed Consider When Deciding to Adjust Interest Rates?

- The Federal Open Market Committee's objectives when setting interest rates currently are:
 - Full employment with a stable **unemployment rate** between 4%-6%
 - **Stable Inflation** levels with a core inflation target of 2%
- While U.S. unemployment & inflation rates are two primary drivers of Fed policy, the U.S. economy is intertwined with global economic conditions which requires the Fed to consider many factors when setting rate policy including:



When Are Rates Expected to Rise? Fed Funds Rate Outlook



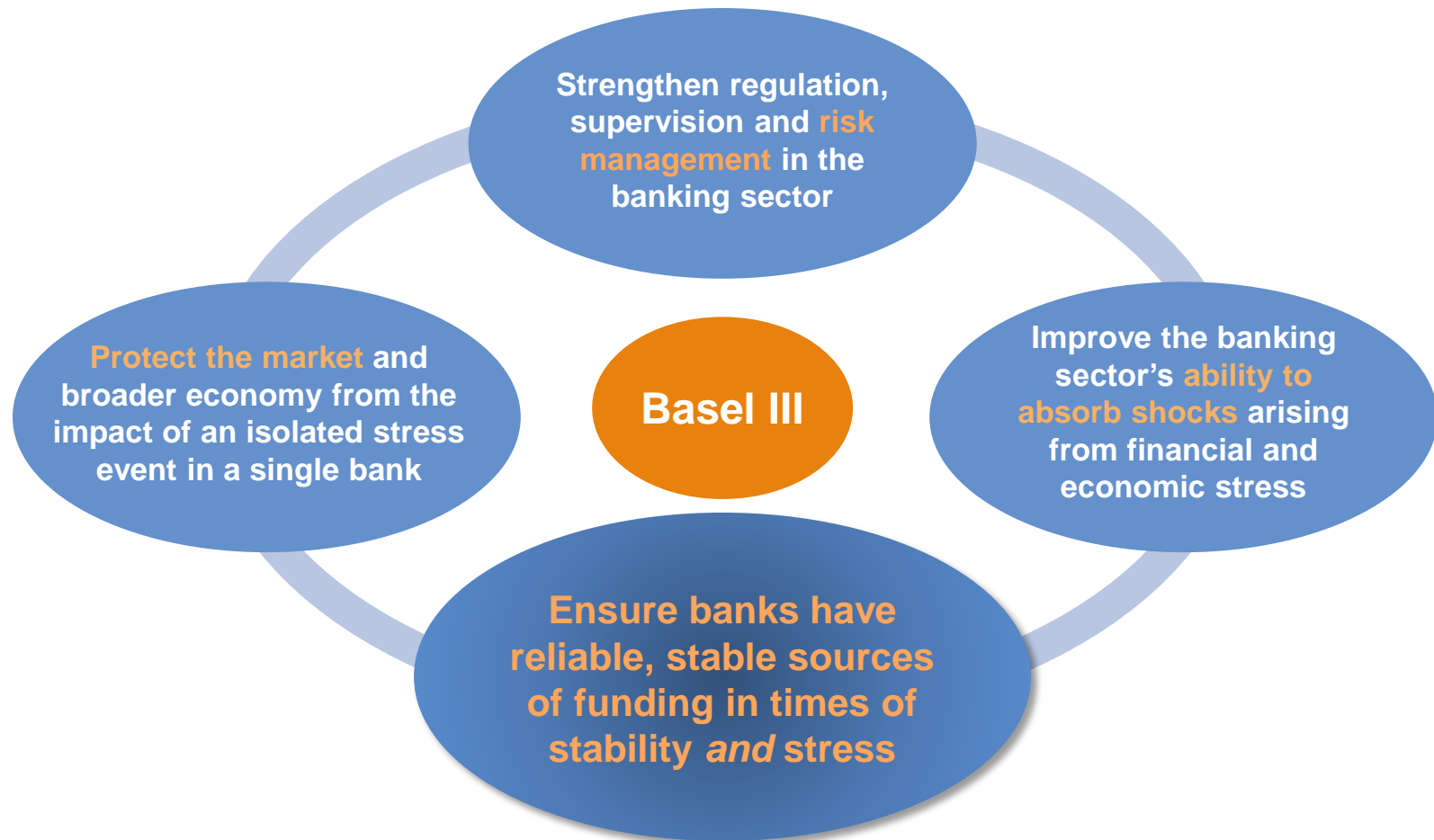
Source: Federal Reserve, CME, Bloomberg

- Many economists and Fed officials expect the FOMC to increase the Target Fed Funds rate at the Dec. 16th meeting but this is not a certainty as the Fed continues to emphasize that changes to the Fed Funds rate will be driven by economic results, primarily jobs & inflation data.
- The Fed Fund Futures market has not priced in the same pace of rate increases as the FOMC has projected.

The Changing Regulatory Environment

Basel III – a comprehensive set of reforms with several goals

- Basel III was developed by the Bank for International Settlements which was established in 1930; goal is to help central banks with monetary and financial stability. Their head office is in **Basel, Switzerland**.



US Basel III Components – Liquidity and Leverage

- Basel III has redefined global standards for how banks are required to manage their balance sheet, including liquidity risk. To achieve this, the regulations put the following measures in place:

Liquidity Coverage Ratio (LCR)

LCR requires banks to hold enough high quality liquid assets (HQLA) in reserve to meet all liabilities in a 30-day stress scenario

$$\frac{\text{HQLA}}{\text{Net Cash Outflows}}$$

$\geq 100\%$

- Incentive for banks to hold more HQLA
- HQLA includes cash, central bank reserves, government securities, corporate debt securities, etc.
- Potentially limits banks capacity to make loans

Net Stable Funding Ratio (NSFR)

NSFR seeks to reduce a bank's funding risk over a one-year horizon by promoting longer term funding sources

$$\frac{\text{Stable Funding}}{\text{Weighted long-term assets}}$$

$> 100\%$

- Reduces dependency on short-term wholesale funding (STWF)
- Encourages better assessment of funding risk
- Promotes funding stability
- Targets mismatches between liquidity profile of a bank's assets and liabilities

Supplementary Leverage Ratio

$$\frac{\text{Tier 1 Capital}}{\text{Total Assets (total of all on- and off-balance sheet assets)}}$$

$=$

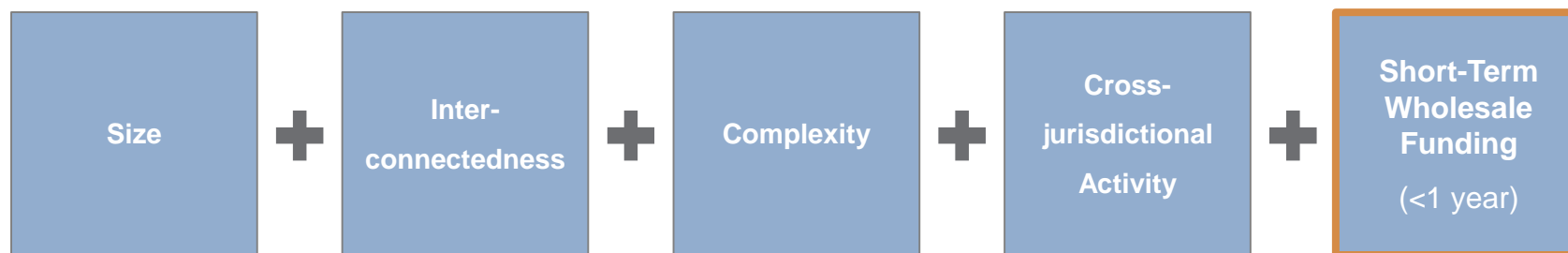
- A supplemental 3%* non-risk based leverage ratio which serves as the backdrop to LCR and NSFR
 - $> 6\%$ for 8 biggest US Banks: Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, JPMorgan Chase, Morgan Stanley, State Street, and Wells Fargo

These financial measures focus on ensuring banks have available, reliable funding during times of stability and stress

US Basel III Components – Capital Requirements: *What is G-SIB?*

Global Systemically Important Banks

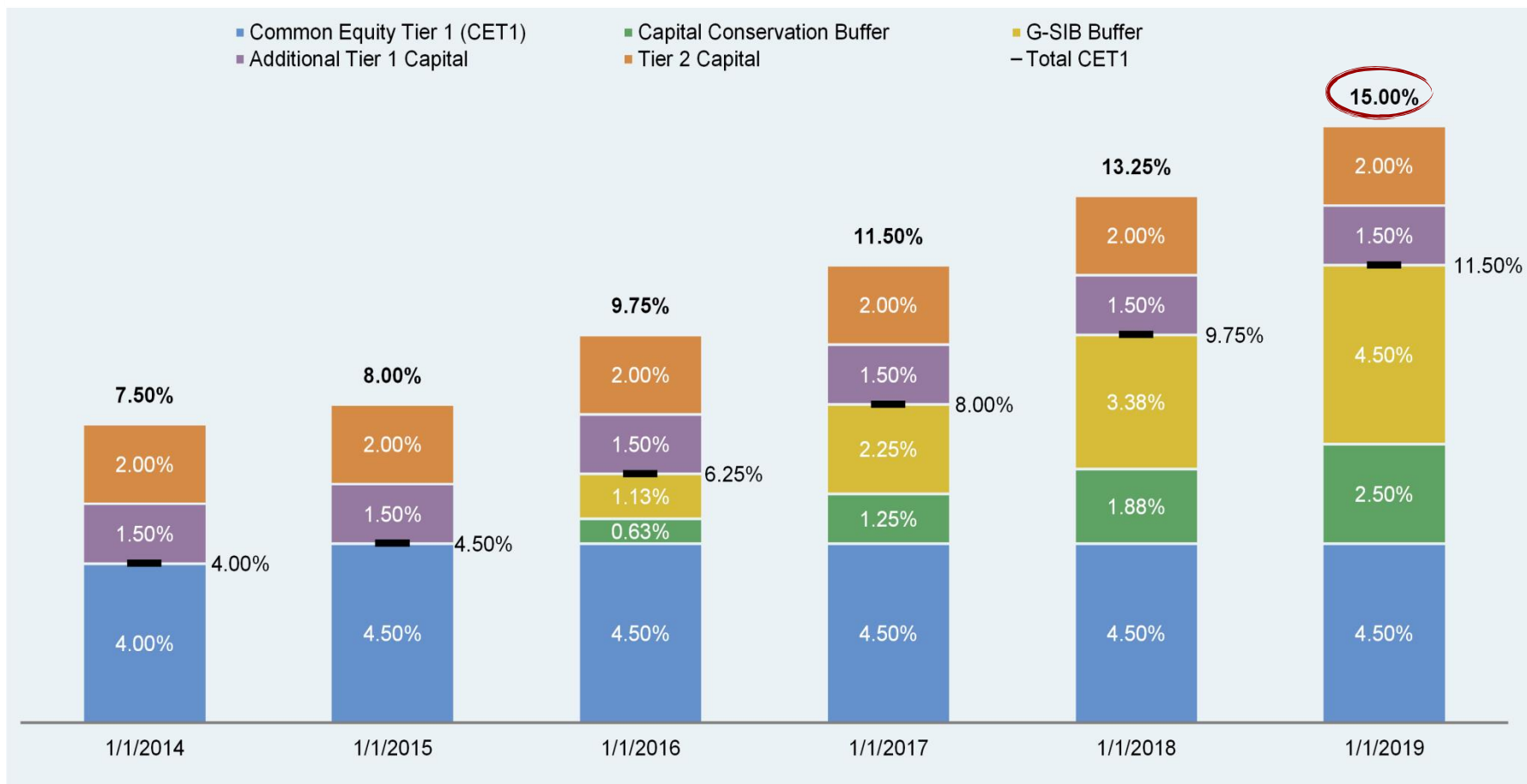
- US G-SIB guidelines announced by the Fed in December 2014; made up of 5 components
- Identified US G-SIBs are: Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, JPMorgan Chase, Morgan Stanley, State Street, and Wells Fargo
- US G-SIB capital buffer percentage ranges from 0% to over 5.5%
- US method for G-SIB calculation varies from the Basel Committee calculation by including **Short-term Wholesale Funding (STWF)**; which adds further pressure on these banks' treatment of **non-operating deposit balances**



Non-operating balances will increase the US GSIB score, which results in increased capital costs

US Basel III Components – Capital Requirements

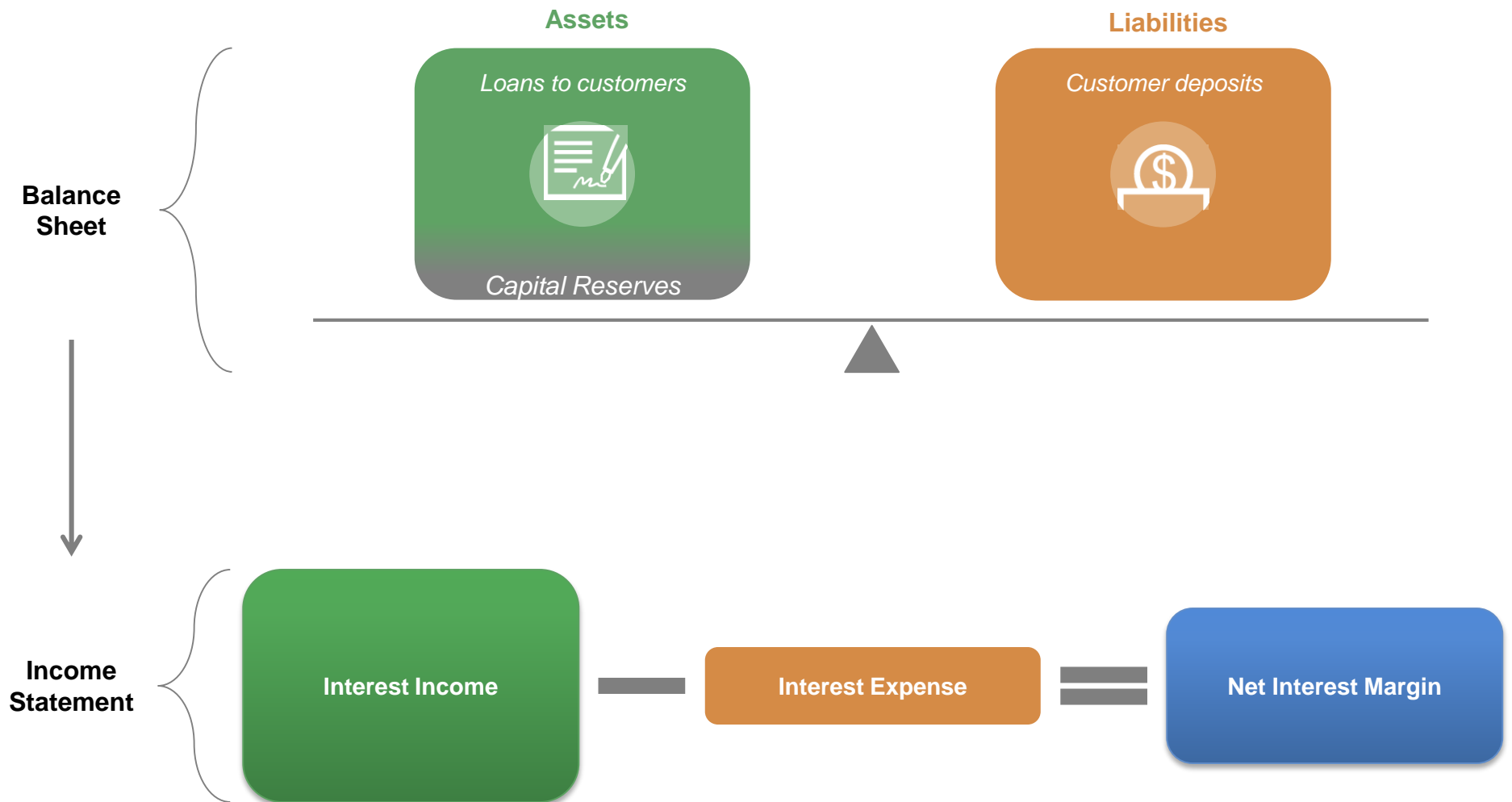
Composition of Required Capital through transition period to 2019



Source: Board of Governors of the Federal Reserve System

Bank Profitability Basics

A bank's most basic profitability goal is to earn more interest on its book of loans than it pays in interest on deposits

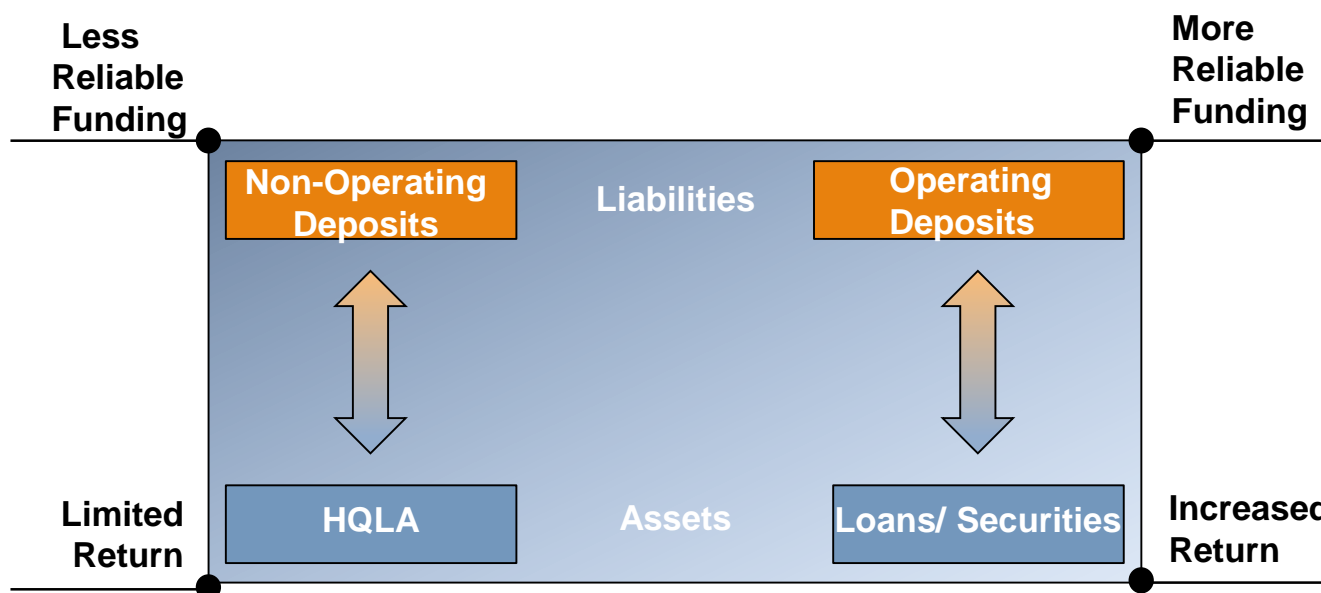


Basel III has impacted interest income by requiring more capital to be held in reserve

The Changing Regulatory Environment

Bank funding sources: usability and return

- The classification of the balance has a direct impact on the usability of that funding for banks and the opportunity for return.
- Under the regulations, a higher percentage of non-operating balances need to be deployed against High Quality Liquid Assets (HQLA).



- HQLA (e.g. U.S. Treasuries) provide liquidity and reliability but offer reduced return when compared with the return opportunity for reliable funding deployed against a traditional bank loan.

Restrictions on the use of non-operating balances limit the opportunity for return

What Are the Key Impacts of the Basel III Framework on Deposits?

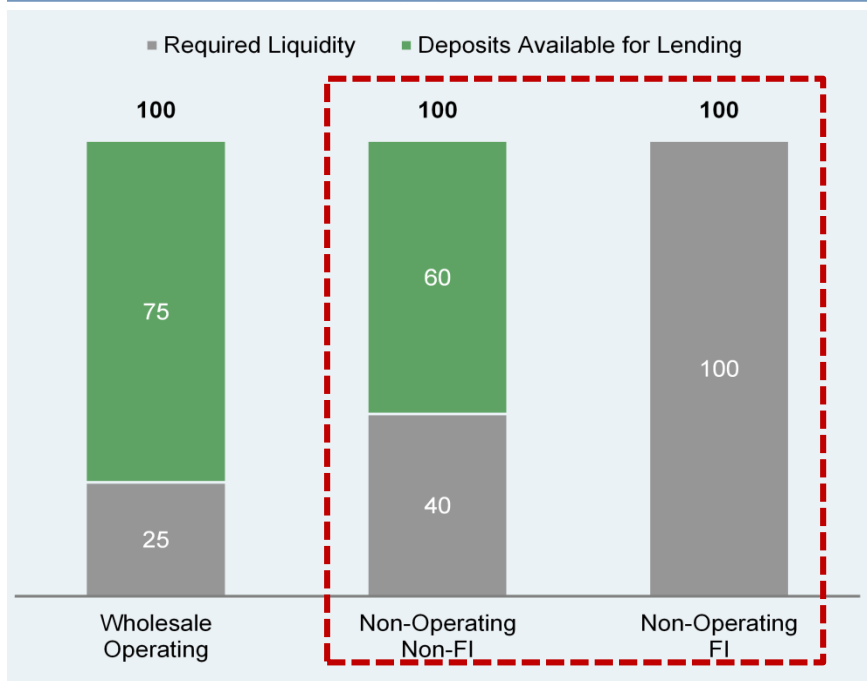
Liquidity linked to operating services

- For every **\$100MM** in wholesale (“corporate”) deposits:
 - 30 day run-off during a market event → **25%**
 - Required bank liquidity → **\$25MM**

Non-operating / Wholesale liquidity

- For every **\$100MM** in deposits:
 - Corporates, Sovereigns, Central Banks and Public Sector Entities (PSE):
 - 30 day run-off during a market event → **40%**
 - Required bank liquidity → **\$40MM**
 - Financial institution (FI) and correspondent banking balances:
 - 30 day run-off during a market event → **100%**
 - Required bank liquidity → **\$100MM**

Illustration of Liquidity (\$MM)



Key Takeaways

- There will be more demand for HQLA under the new regulations potentially impacting the supply available to serve as collateral for Public Sector deposits
- Banks will carry significantly higher costs on public sector and non-operating balances vs. Corporate operating balances which may impact available yields
- There could be a disparity between how clients define operating balances and what the regulators will permit banks to classify as operating balances.
- Banks will likely channel certain non-operating funding to appropriate off-balance sheet vehicles such as Money Market Mutual Funds.

Basel III: What it Could Mean For You

Impact to Banks

- Higher capital reserve requirements for all deposit types particularly collateralized public sector funds and non-operating balances
- Banks are impacted by enhanced capital requirements and higher regulatory compliance costs



How it may impact you

- Some types of deposits may no longer be attractive to some banks
 - Holistic banking relationships will be critical; operational accounts are key
 - Banks may look to channel excess non-operating liquidity into off balance sheet alternatives
- Lower yields for excess liquidity is likely the new normal

Strategies for managing liquidity in the new environment

- Consider collateral alternatives for public deposits including:
 - Federal Home Loan Bank Standby Letters of Credit
 - Expanded collateral types such as local municipal securities
 - Reduced or no collateral requirements for certain balances
- Focus on forecasting and segmenting liquidity to maximize the value of cash throughout the cycles of receipts and payments
 - Optimizes operating cash, intermediate reserve cash as well as longer term strategic investment funds
- Utilize Money Market Mutual Funds and/or direct investment in U.S. Treasury & Agency securities for excess non-operating liquidity

Key Takeaways

- ✓ Rates are expected to rise; however, Basel III is reshaping the global financial landscape
- ✓ It will impact the strategy of many financial institutions
- ✓ And therefore affect all customers
- ✓ Deposits associated with operational business will be attractive to banks
- ✓ Deposits associated with non-operational business will be less attractive
- ✓ Basel III should be a discussion point with all your banking partners
- ✓ Understanding the impact of the regulations is critical to maximizing operating cash

Direct Bank Purchase of Tax-Exempt Loans

Features of Direct Purchase Loans

- With the Direct Purchase structure, tax-exempt bonds are issued through a government authority that will designate the issue as either bank-qualified or non-bank qualified.
- A commercial bank purchases the tax-exempt obligations directly from the borrower.
- The tax-exempt interest rate is set as a percentage of the borrower's conventional loan rate and can be structured on either a fixed or variable rate basis. In the case of construction or project financing, the borrower has the ability to draw down the proceeds over a period of time.
- Ability to use a forward rate lock or delayed draw feature to match up timing of debt with need for funding.

Additional Considerations

- As a requirement of the loan, there is no agency rating on the issue nor is a CUSIP utilized.
- In addition, there is no underwriter discount or remarketing fee as the issue is directly purchased by the bank as a funded loan.
- In general, there is no letter of credit, municipal insurance or other credit enhancement necessary in a bank purchase loan.
- There are no underwriter's attorney fees.
- There is no requirement to prepare an Official Statement.
- Typical fees considered in these types of transactions include the following:
 - Bank Counsel
 - Borrower's Counsel
 - Bond Counsel

Conclusion

- Bank purchase structures can be very flexible and fit nicely with new projects the issuers may be looking to start.
 - New infrastructure projects
 - Improve economics on existing financing
- Under a bank purchase structure, the upfront costs are minimized.
- As most bank purchase structures are not rated, many ongoing expenses of a publicly issued security may be unnecessary.
- Once the documentation is in place, the loan is considered closed and funds are disbursed as per the loan agreement.

Questions?

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