Investing 2015
Fixed Income Securities

Volusia/Flagler Chapter FGFOA

Daytona Beach, FL – June 19, 2015

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Inside the Federal Reserve

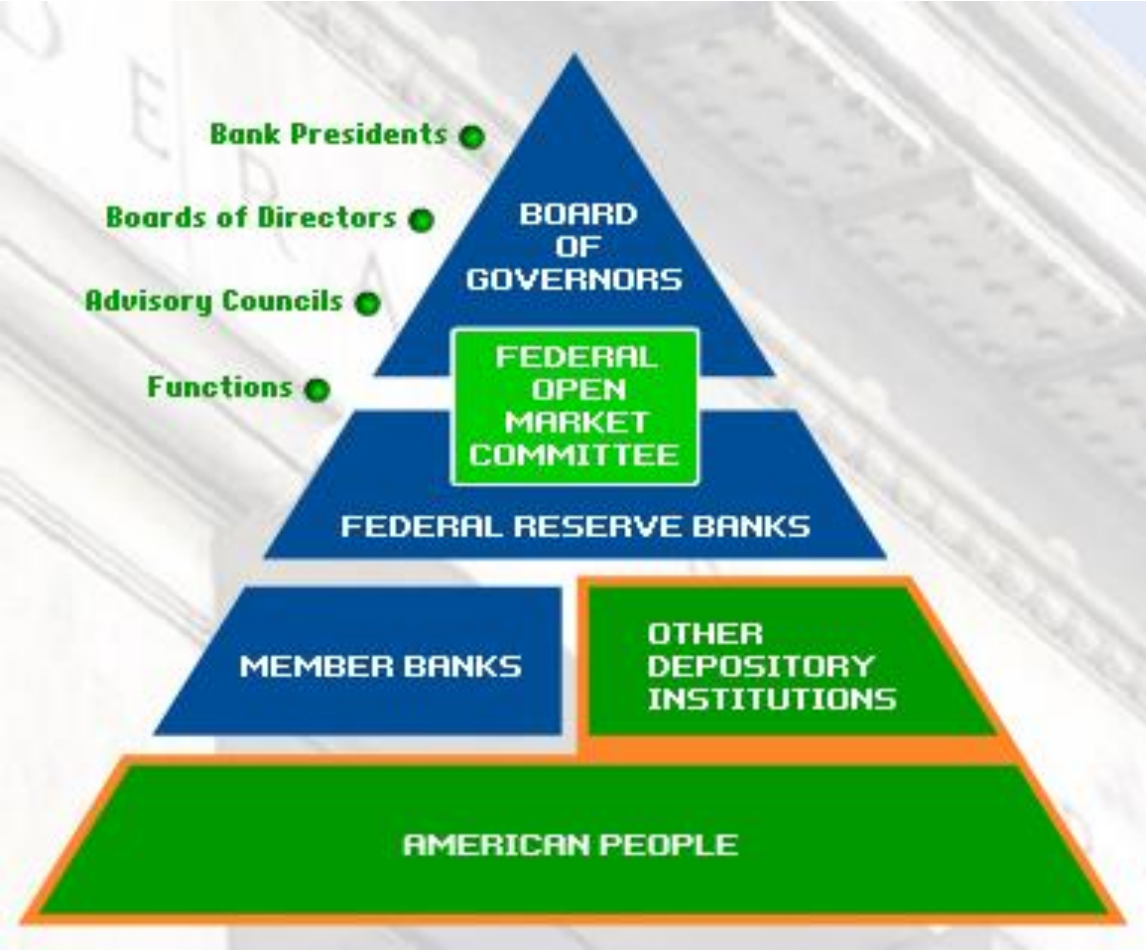
Question 1 – a Quiz if you know it and a Test if you don't!

The monetary policy objectives of the Federal Reserve are:

I. Consistent economic growth
II. Maximum employment
III. Stable prices and moderate long-term interest rates
IV. Favorable value of the U.S. dollar

a. I, II, III, IV
b. II only
c. I, II, III
d. II, III

Federal Reserve 101



Who is the Federal Reserve?

Structure of the FOMC

- The Federal Open Market Committee (FOMC) consists of twelve members--the seven members of the Board of Governors of the Federal Reserve System; the president of the Federal Reserve Bank of New York; and four of the remaining eleven Reserve Bank presidents, who serve one-year terms on a rotating basis.

2015 Members of the FOMC

- Members
  - Janet L. Yellen, *Board of Governors*, Chair
  - William C. Dudley, New York, Vice Chairman
  - Lael Brainard, *Board of Governors*
  - Charles L. Evans, Chicago
  - Stanley Fischer, *Board of Governors*
  - Jeffrey M. Lacker, Richmond
  - Dennis P. Lockhart, Atlanta
  - Jerome H. Powell, *Board of Governors*
  - Daniel K. Tarullo, *Board of Governors*
  - John C. Williams, San Francisco
- Alternate Members
  - James Bullard, St. Louis
  - Esther L. George, Kansas City
  - Loretta J. Mester, Cleveland
  - Eric Rosengren, Boston
  - Christine M. Cumming, First Vice President, New York

Who is the Federal Reserve?

	2016	2017	2018
Members	New York Cleveland Boston St. Louis Kansas City	New York Chicago Philadelphia Dallas Minneapolis	New York Cleveland Richmond Atlanta San Francisco
Alternate Members	New York† Chicago Philadelphia Dallas Minneapolis	New York† Cleveland Richmond Atlanta San Francisco	New York† Chicago Boston St. Louis Kansas City

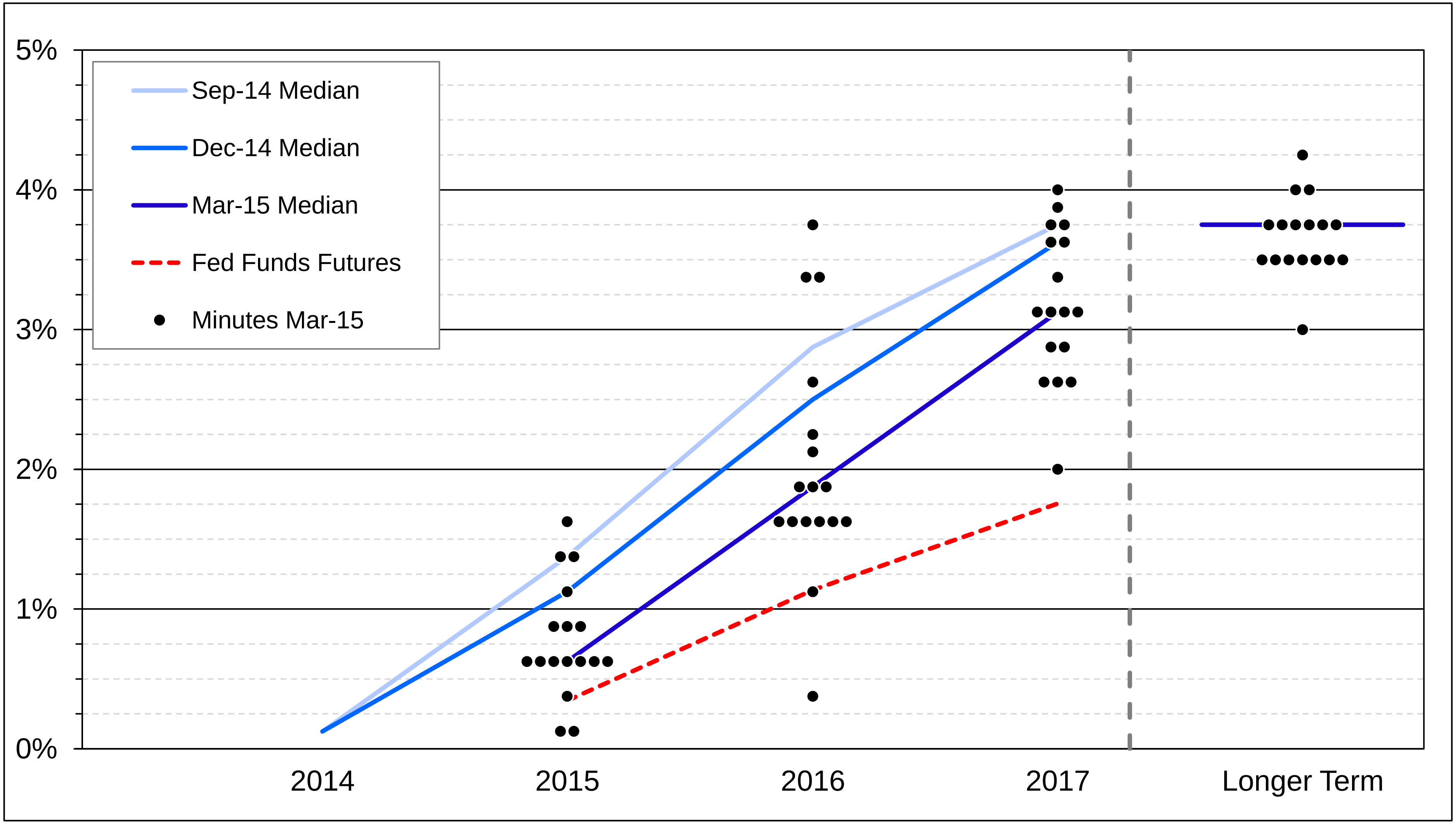
Committee membership changes at the first regularly scheduled meeting of the year.
†For the Federal Reserve Bank of New York, the First Vice President is the alternate for the President. *Return to table*

Question 2

When was the last time the Federal Open Market Committee (FOMC) initiated a tightening cycle (an increase) of the Fed Funds rate?

a. June 2015
b. June 2004
c. September 2007
d. June 2006

Projected Future Rates



Source: Bloomberg; Fed Funds Futures as of 6/3/2015

Rate Hike Expectations Have Fallen

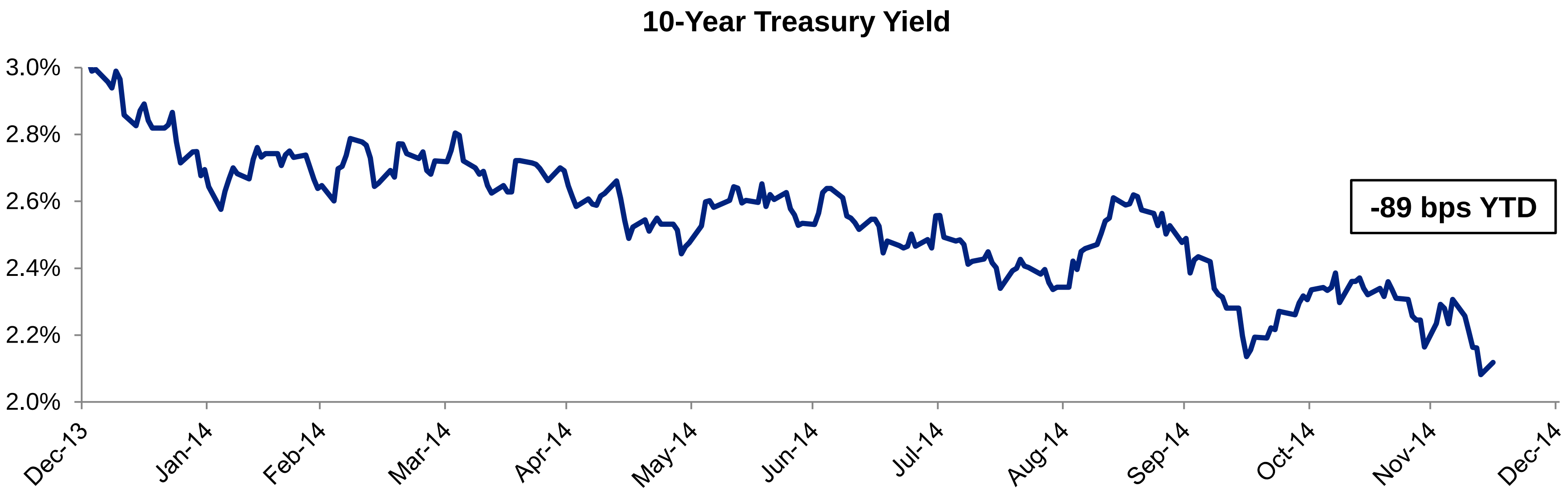
- Recent economic data, combined with FOMC statements have lead market participants to delay their expectations for a hike in the federal funds rate.
- Once normalization commences, the expectation is for a gradual shift towards higher rates.

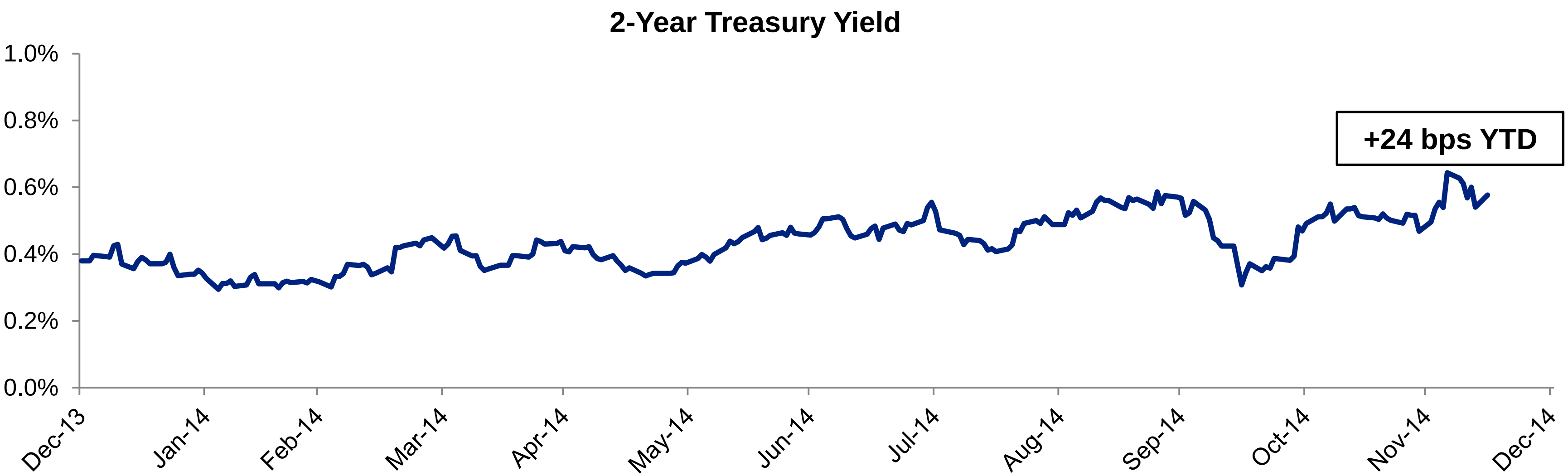
Source: Bloomberg. As of 5/31//2015.

Market Recap

"I keep hearing that the economy is in the toilet, so I want to be a plumber when I grow up."

2014: A Year of Divergence

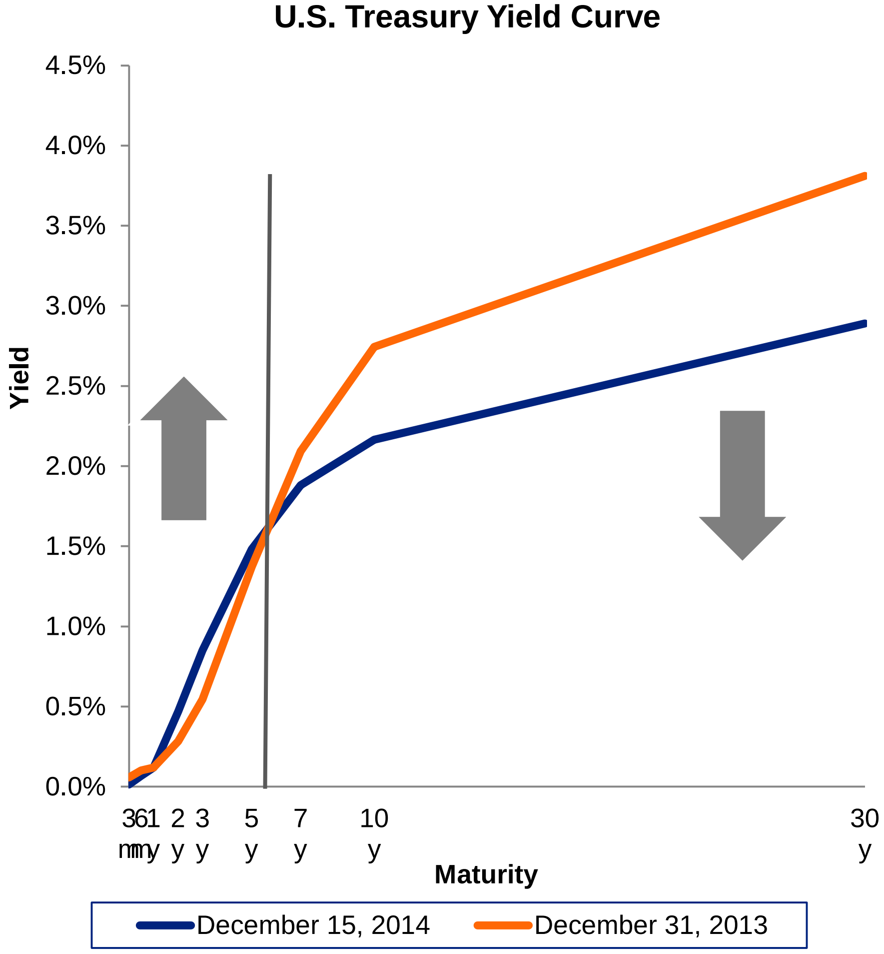


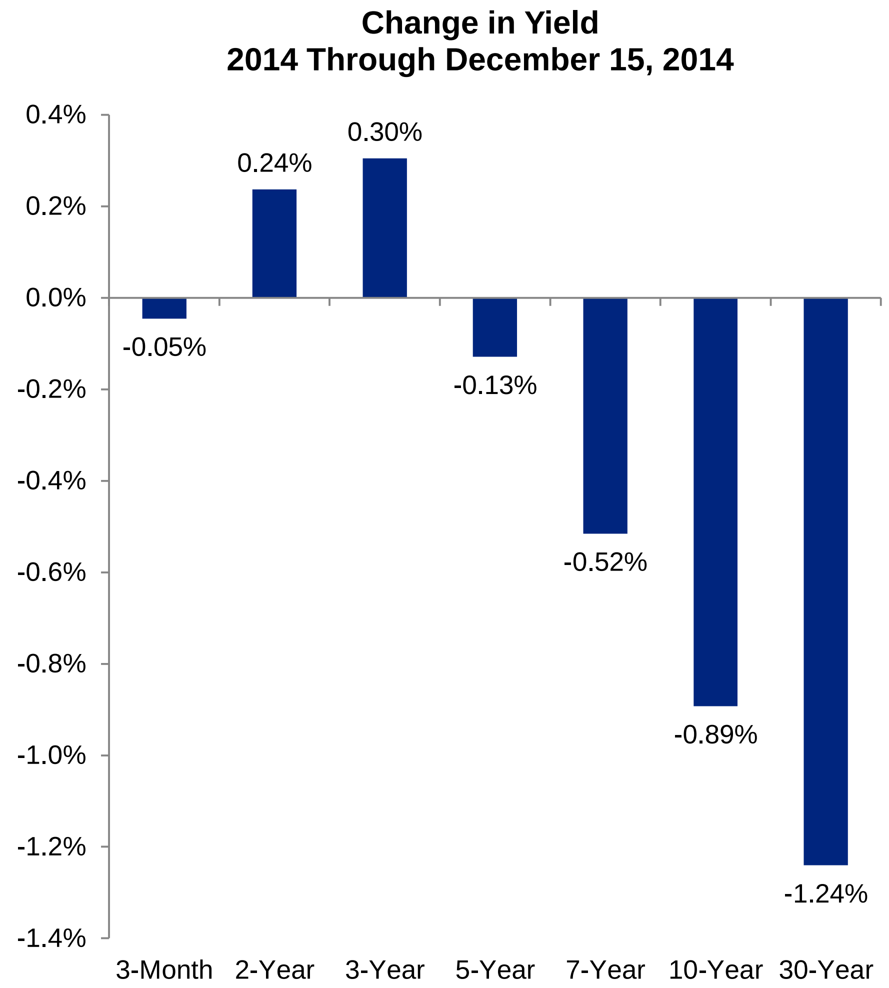


Source: Bloomberg. Data through December 15, 2014.

Yield Curve: Outlook for Long Rates Has Moderated

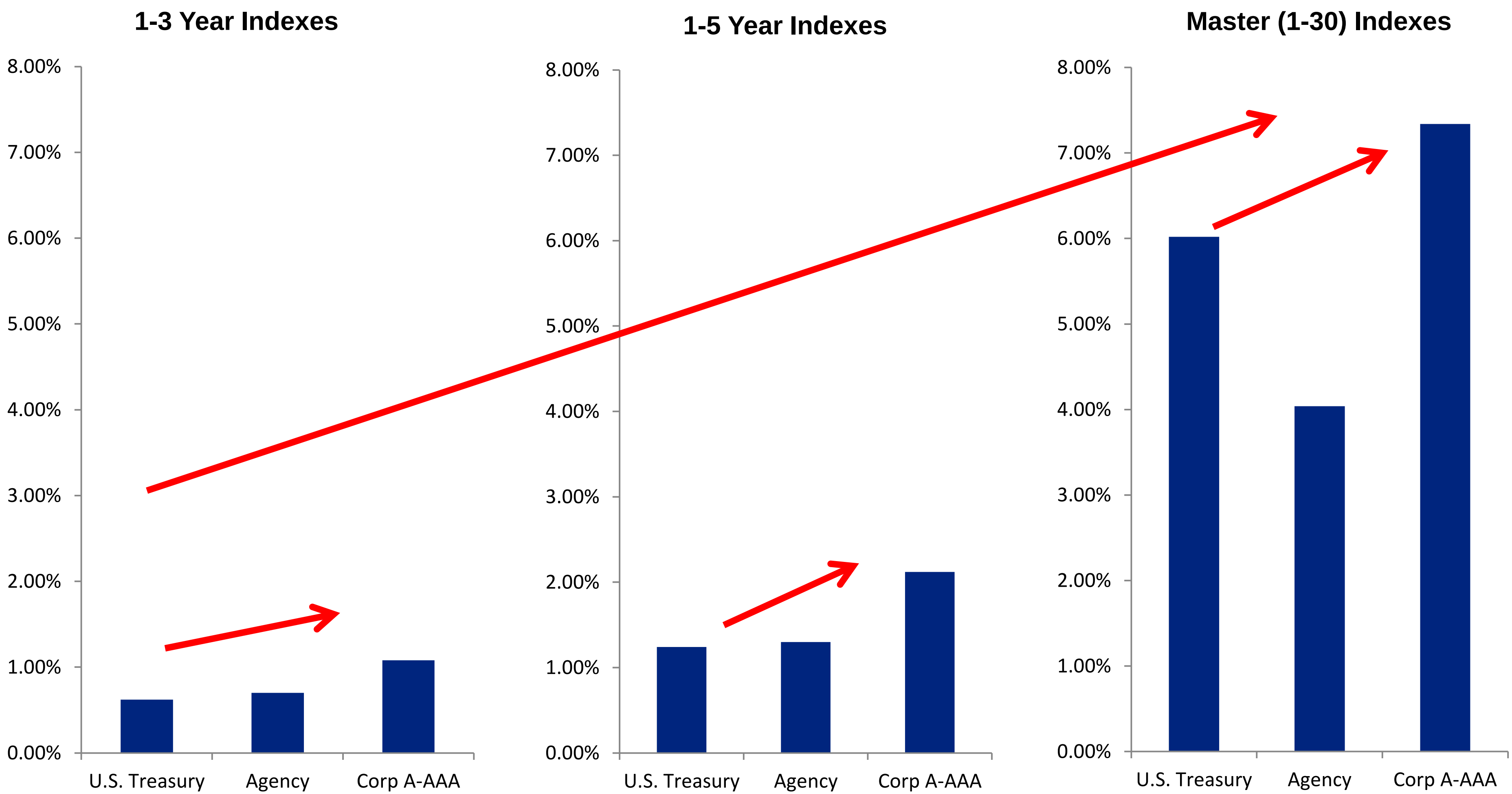
- Long-term rates declined while the yield curve flattened





Source: Bloomberg. As of December 15, 2014.

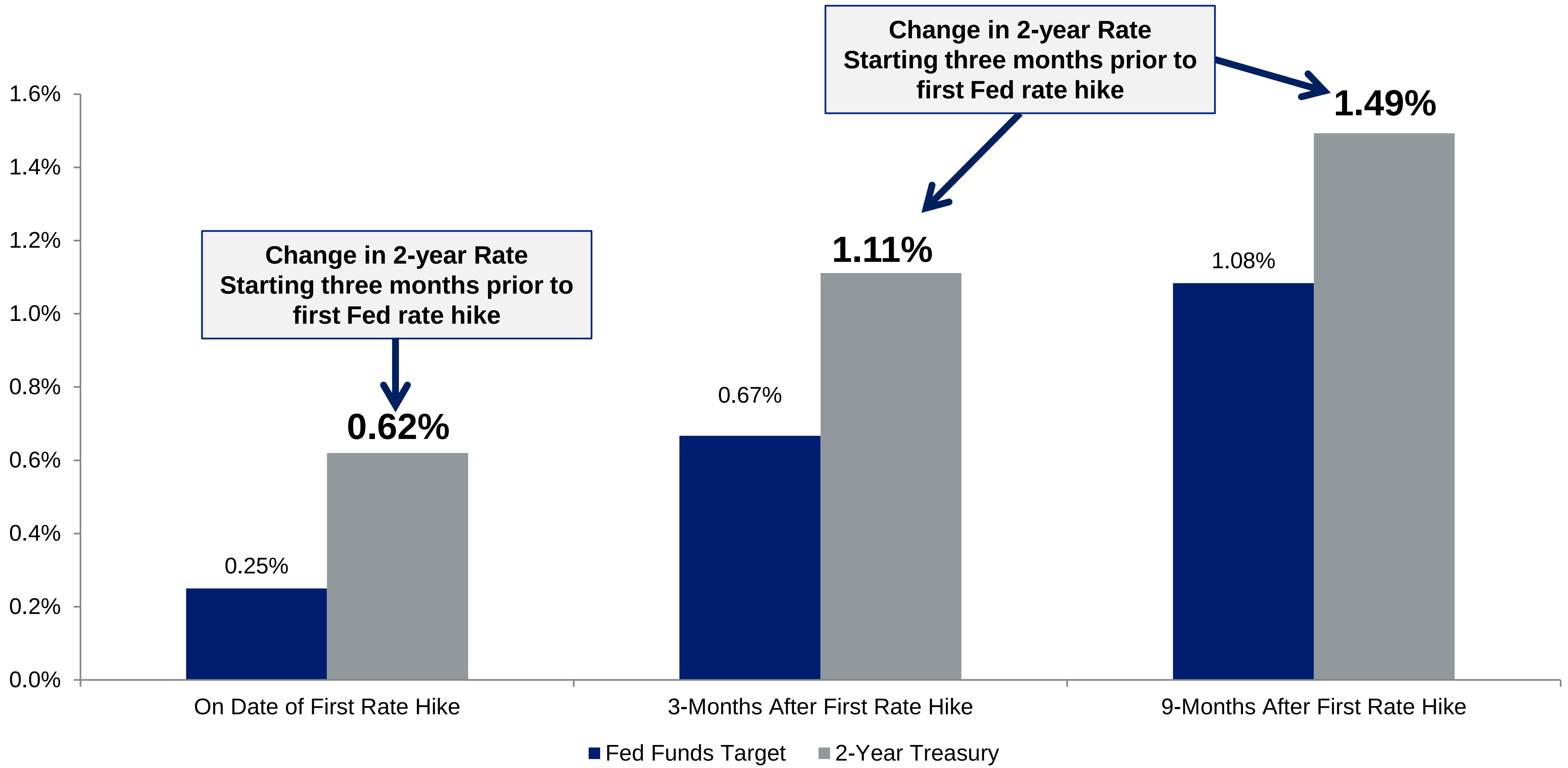
2014 Returns Favored Long Duration and Credit



Source: BofA Merrill Lynch Indexes. Year to date through December 31, 2014.

How Might the Market Respond to Fed Tightening?

- A look back at past Fed tightening suggests that approximately half of the market response **precedes** first move; curve flattening results



Source: Bloomberg. Change in federal funds and 2-year Treasury rates.
Data is an average of the February 1994, June 1999, and June 2004 rate hikes. Time period starts three months prior to first Fed rate hike.

Sector Analysis

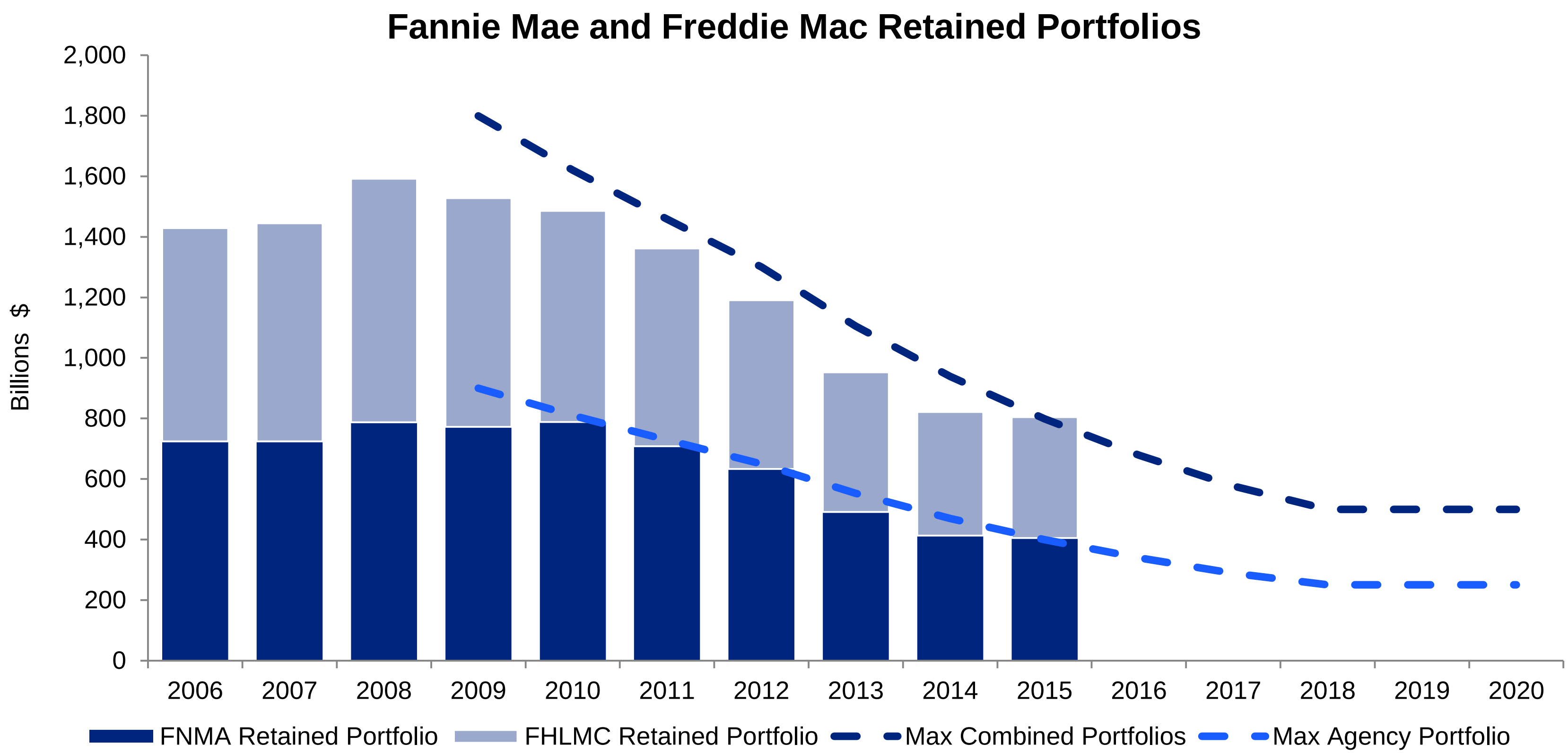
Question 3

What can an investor do to hedge risk within their portfolio?

a. Diversify security purchases among different issuers
b. Purchase securities with an active secondary market
c. Match portfolio maturities to expected cash flows
d. All of the above

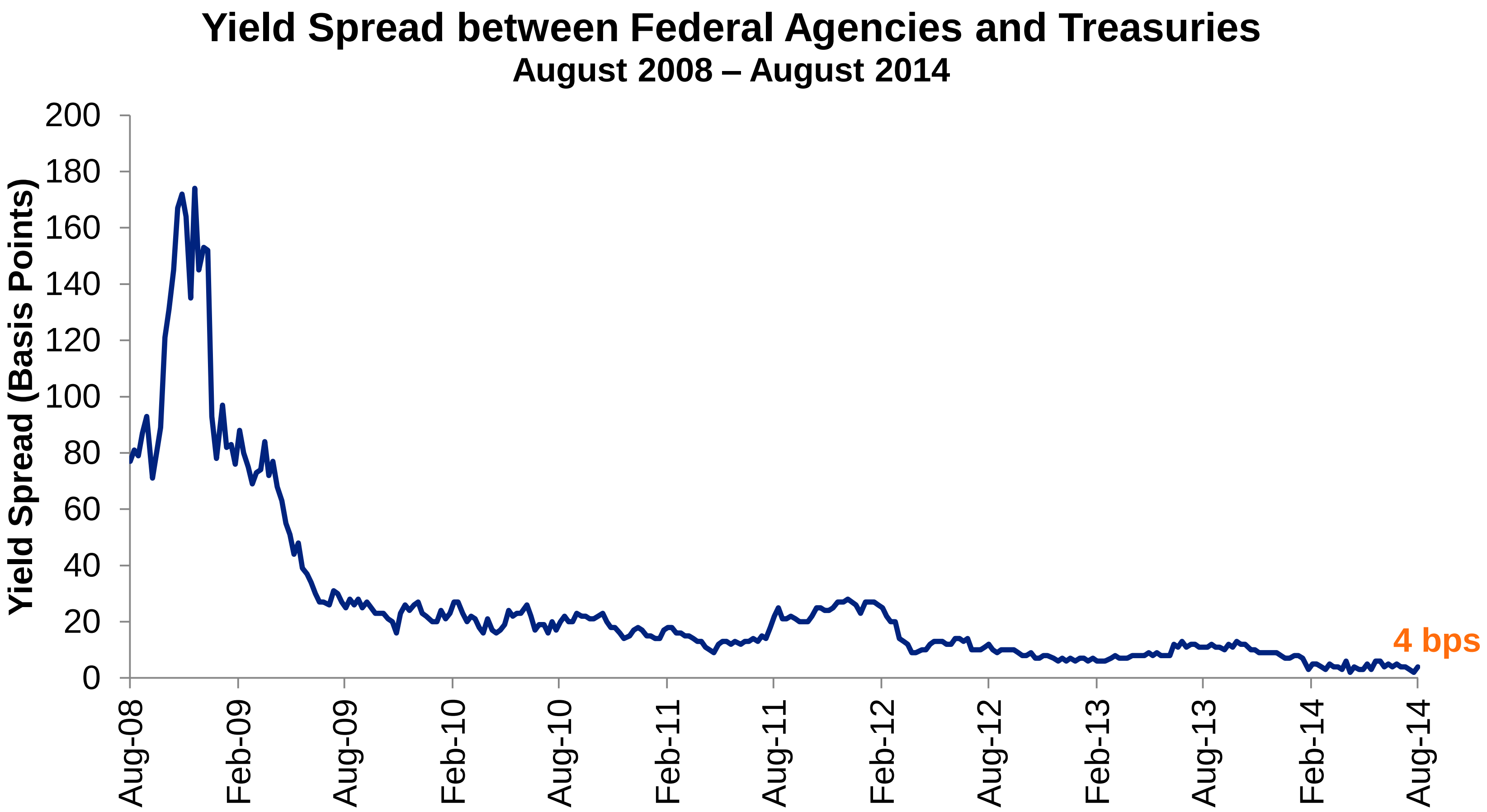
Mandated Reduction of Federal Agency Portfolios Continues

The U.S. Treasury Department mandated that Fannie and Freddie's maximum allowable retained mortgage portfolio decline by 15% annually until their individual portfolios reach $250 billion.



Source: Fannie Mae and Freddie Mac. Projected portfolio sizes represent legislatively mandated balance sheet maximums. Updated through 4/30/2015.

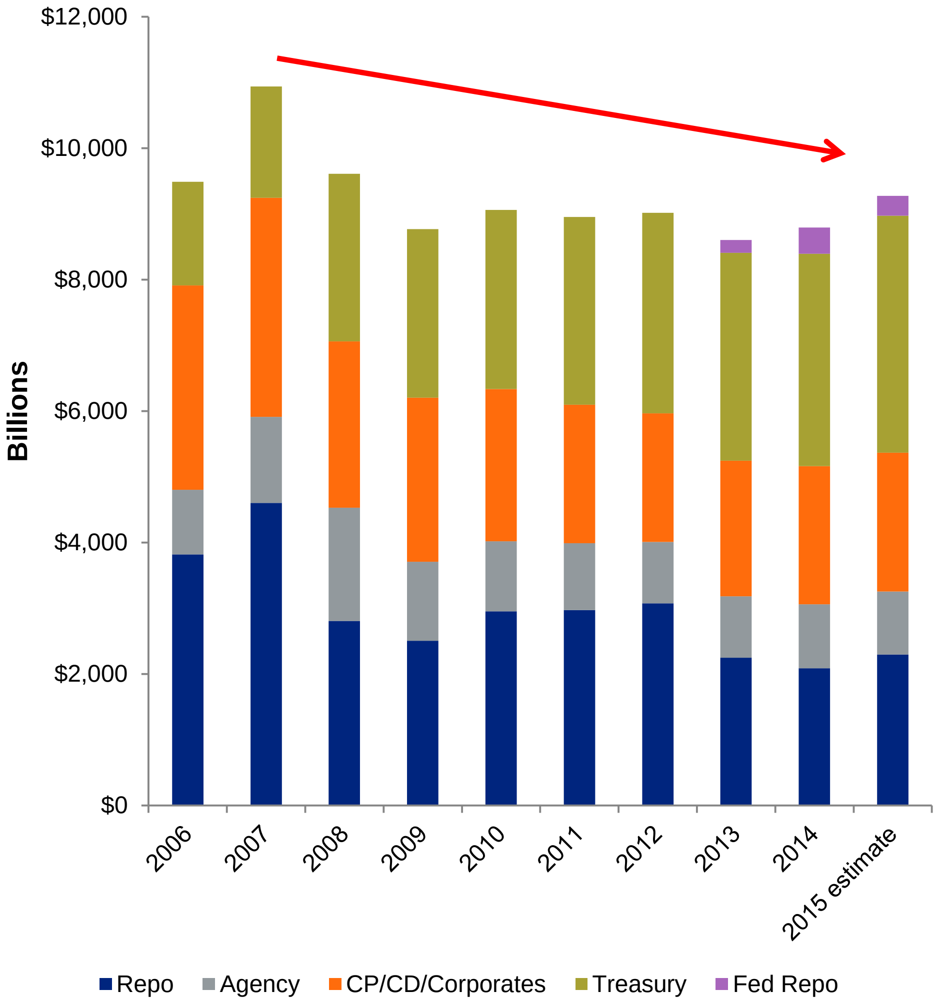
Agency Spreads Lowest Ever



Source: Bloomberg, Merrill Lynch. Spreads represented by ML 1-5 Year Treasury and 1-5 Year Agency indices

Money Markets: Changing Supply Dynamics

U.S. Money Market Instruments Outstanding

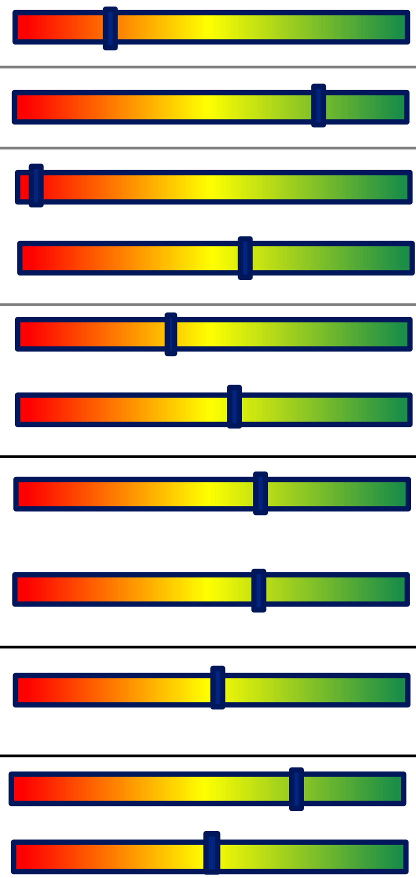


- MMF liquidity rules drive demand to shorter maturities
- Bank liquidity rules reduce supply 30 days
- Non-bank issuers less reliant on short-term funding
- Fed's purchases reduce collateral for repurchase agreements
- T-Bill supply will decline as budget improves and Treasury issues floating-rate T-Notes
- Short-term agency debt shrinking

Source: JP Morgan and the Federal Reserve; 2015 is year-end estimate

2015 Sector Preferences

Sector		PFMAM Investment Preference
MMF/LGIP		
Commercial Paper/CDs		
Treasury:	T-Bill	
	T-Note	
Agency:	<= 3 years	
	> 3 Years	
Corporates:	Financials	
	Industrials	
Municipal Bonds		
Asset-Backed		
Mortgage Backed		



Sector Considerations

CP/CDs
Supply is constrained for shorter maturities, but Fed expectations has improved value in 6-12 month maturities.

Treasuries
New issuance shrinking as federal deficit improves; 1-5 year maturities offer value near the upper end of recent trading ranges.

Federal Agencies
Housing GSEs continue to reduce issuance as they shrink their balance sheets; result is diminished supply and shrinking spreads, little value in short maturities.

Corporates
Positive macro environment is particularly supportive of industrial issuers which appear attractive; some new issues still contain price concessions; bank sector may come under ratings pressure in 2015, but still provide an opportunity to enhance returns.

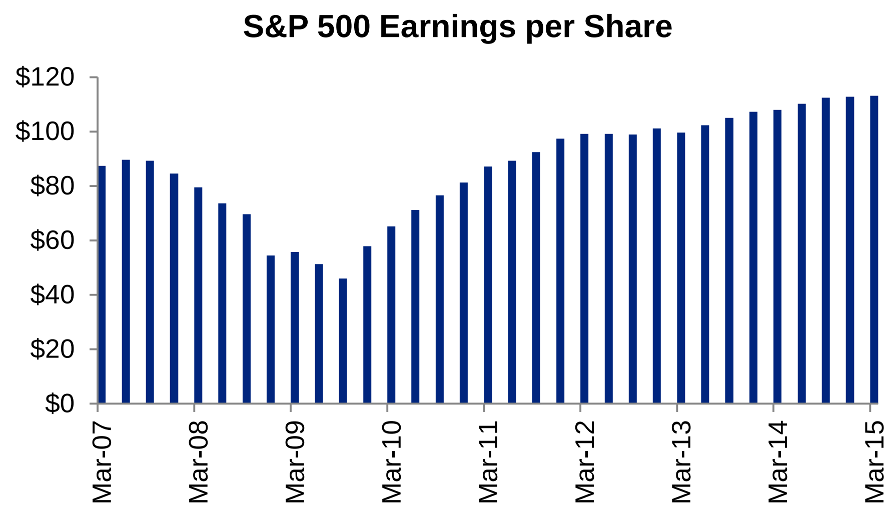
Municipals
Supply has increased of late as issuers look to lock in low rates; taxables offer occasional value compared to other spread products.

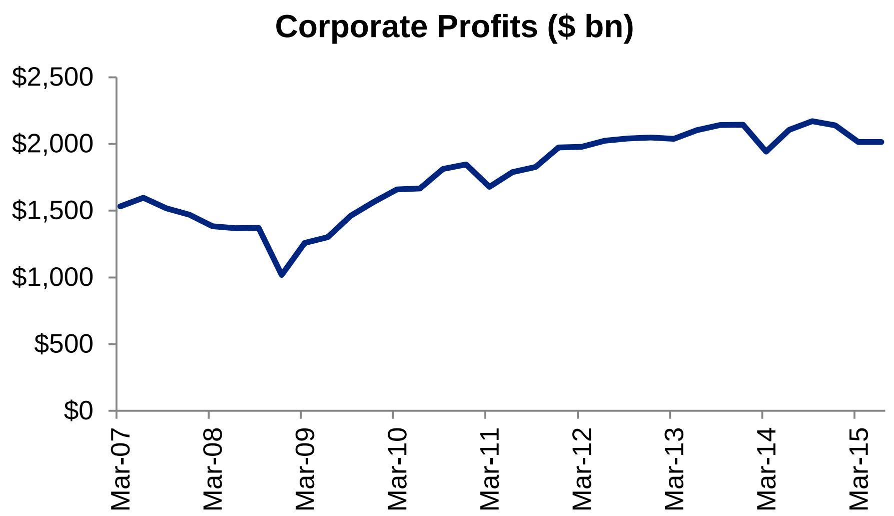
ABS
Economic outlook supports incremental value in AAA senior fixed-rate auto loan and credit card tranches.

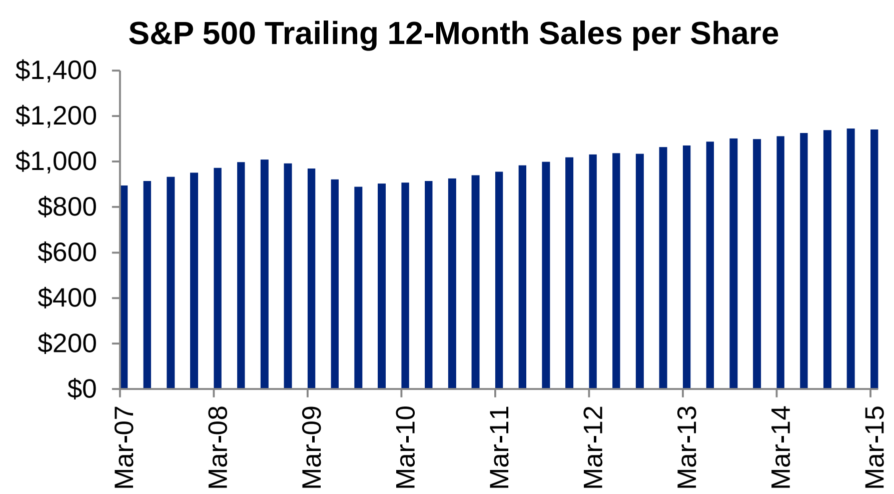
MBS
Sector remains vulnerable to a spike in volatility, given elevated historical valuations. Extension risk concerns likely to pressure lower coupons. The anticipated prepayment slowdown enhances the attractiveness of higher coupons.

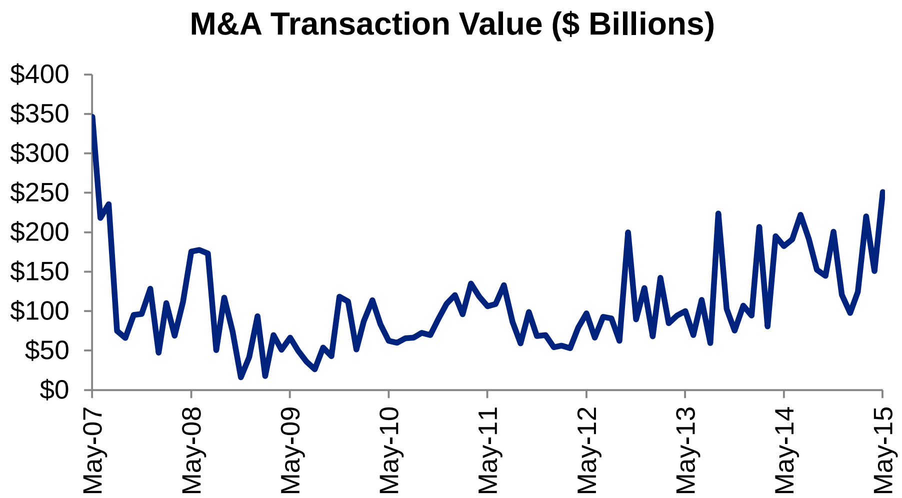
Source: PFMAM. As of June 3, 2015. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation. Analysis is subject to changes in the market environment, and may vary based on the client's particular circumstances.

Corporate Fundamentals Normalize









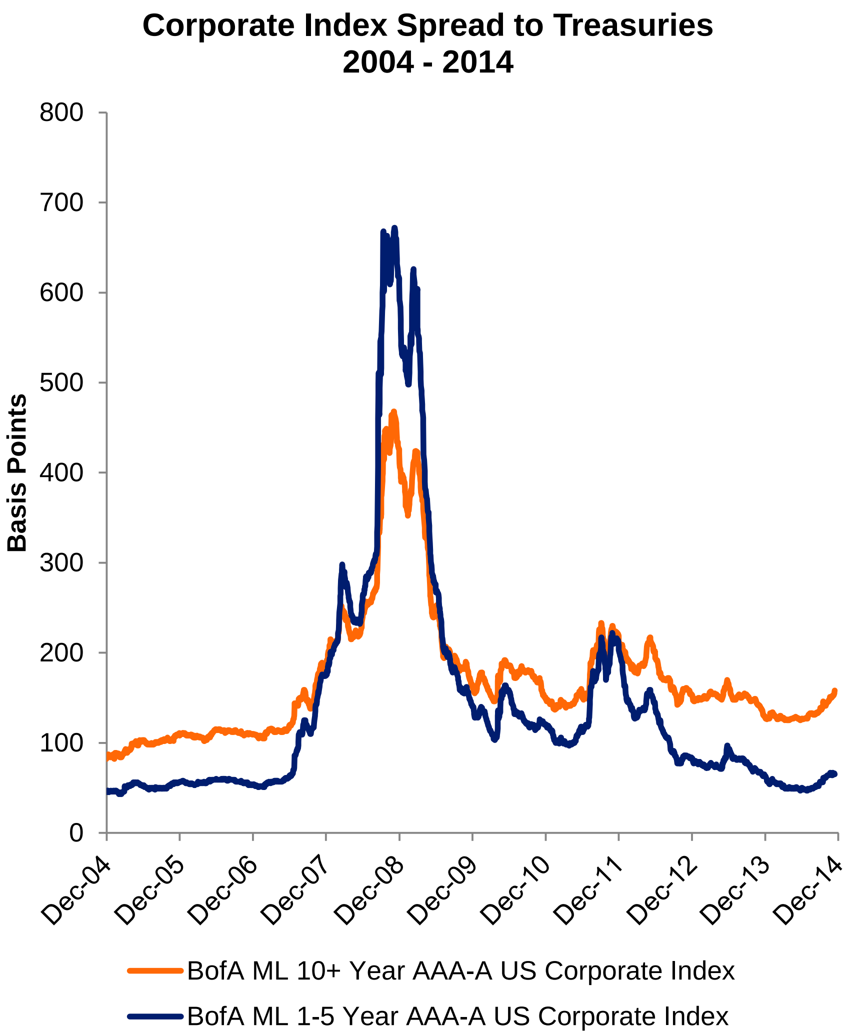
Source: Bloomberg

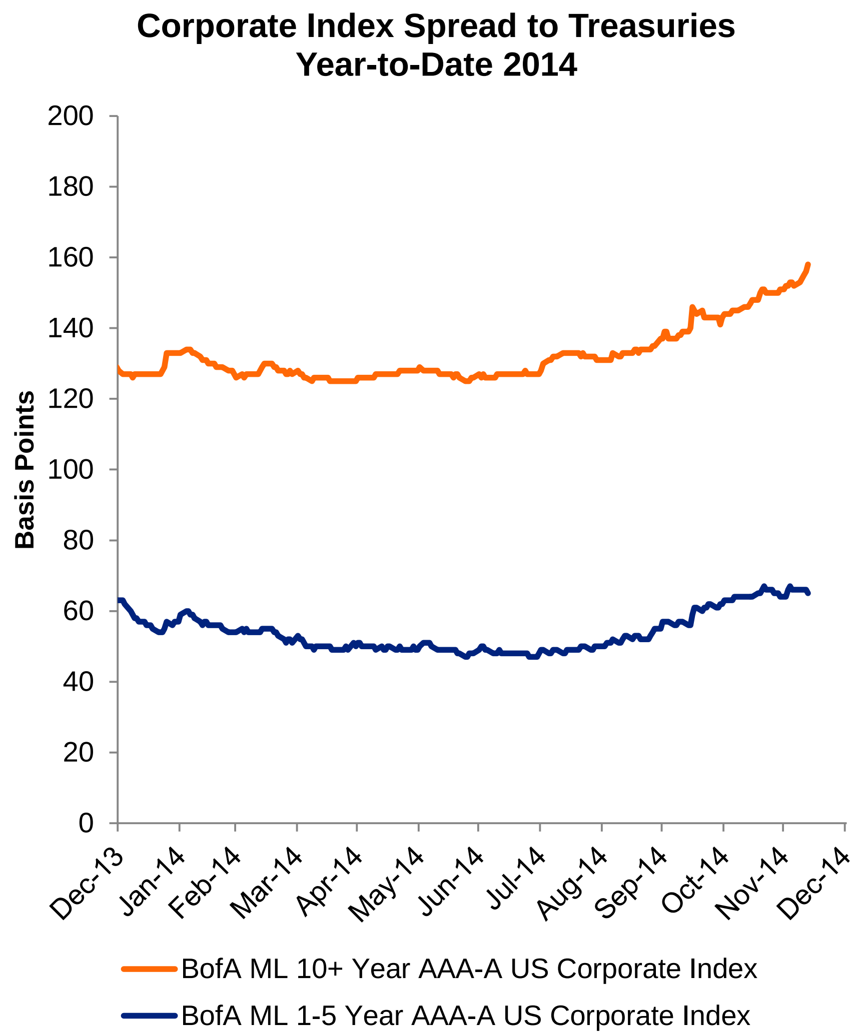
S&P 2015 Q1 Earnings Summary

Sector	Reported	% Beating Estimated Earnings	% Beating Estimated Revenue
All Securities	494/498	72.2%	47.2%
Energy	41/41	75.6%	48.8%
Materials	29/29	58.6%	37.9%
Industrials	64/65	64.1%	37.5%
Consumer Discretionary	82/83	68.3%	45.1%
Consumer Staples	35/37	79.4%	48.6%
Health Care	55/55	83.3%	60.0%
Financials	87/87	74.1%	49.4%
Information Technology	66/66	72.7%	56.1%
Telecommunication	5/5	60.0%	0.0%
Utilities	30/30	76.7%	36.7%

Source: Bloomberg. As of 6/3/2015.

Value Remains in Investment-Grade Corporates





Source: BofA Merrill Lynch Corporate Index option-adjusted spreads. As of December 15, 2014.

Supply/Demand Drives Value and Opportunity

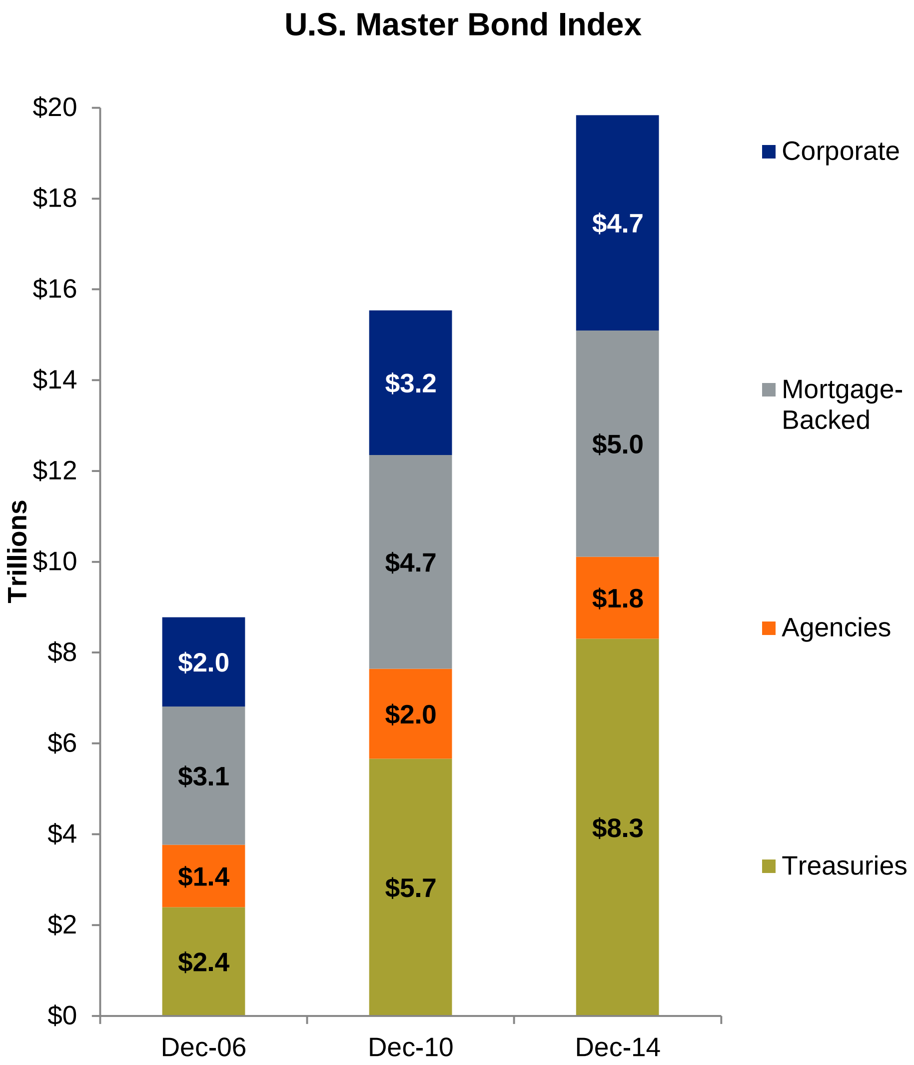
Source: SIFMA. 2014 as of through November 2014.

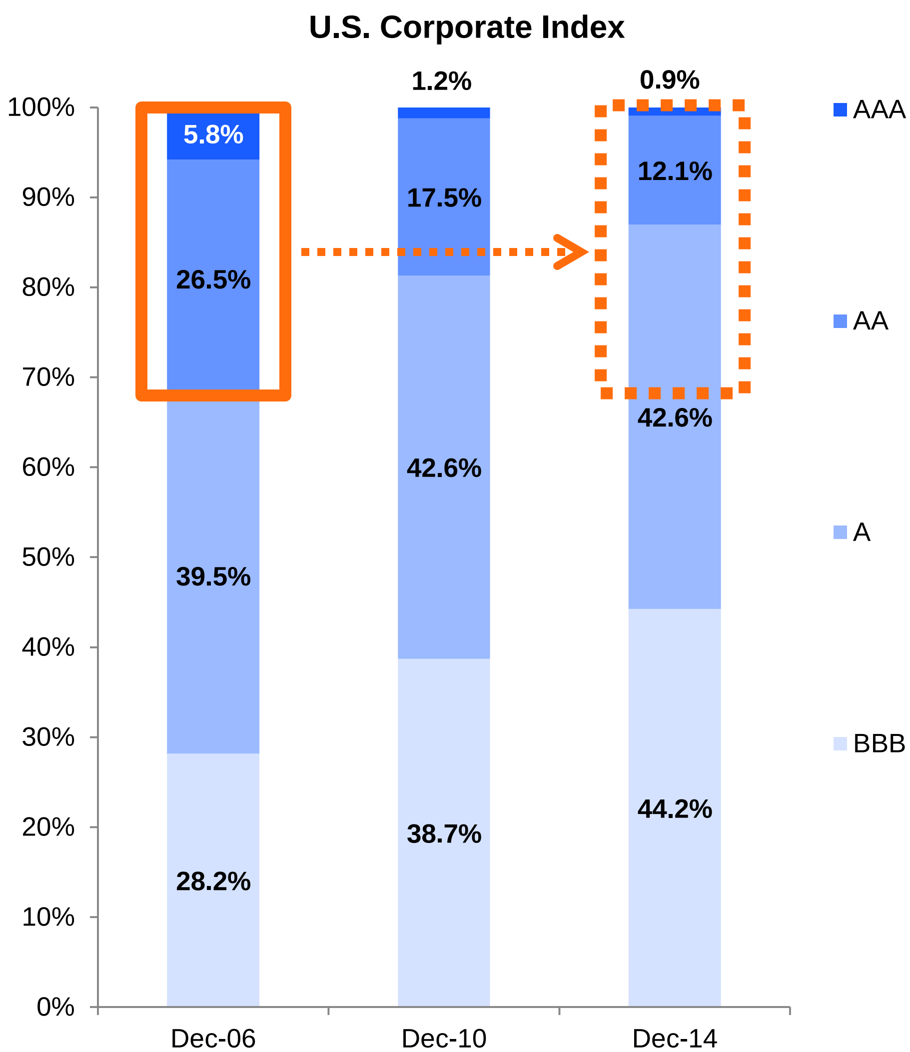
Question 4

How many “AAA” companies would you find in the B of A Merrill Lynch 1 to 3 Year Corporate Index?

a. 84
b. 13
c. 4
d. None of the above

Shifting Market Composition





Source: BofA Merrill Lynch U.S. Master Bond Index and U.S. Corporate Index. Year-end data, except December 2014 which is as of December 15, 2014.

Question 5

The World Bank is a component of which organization?

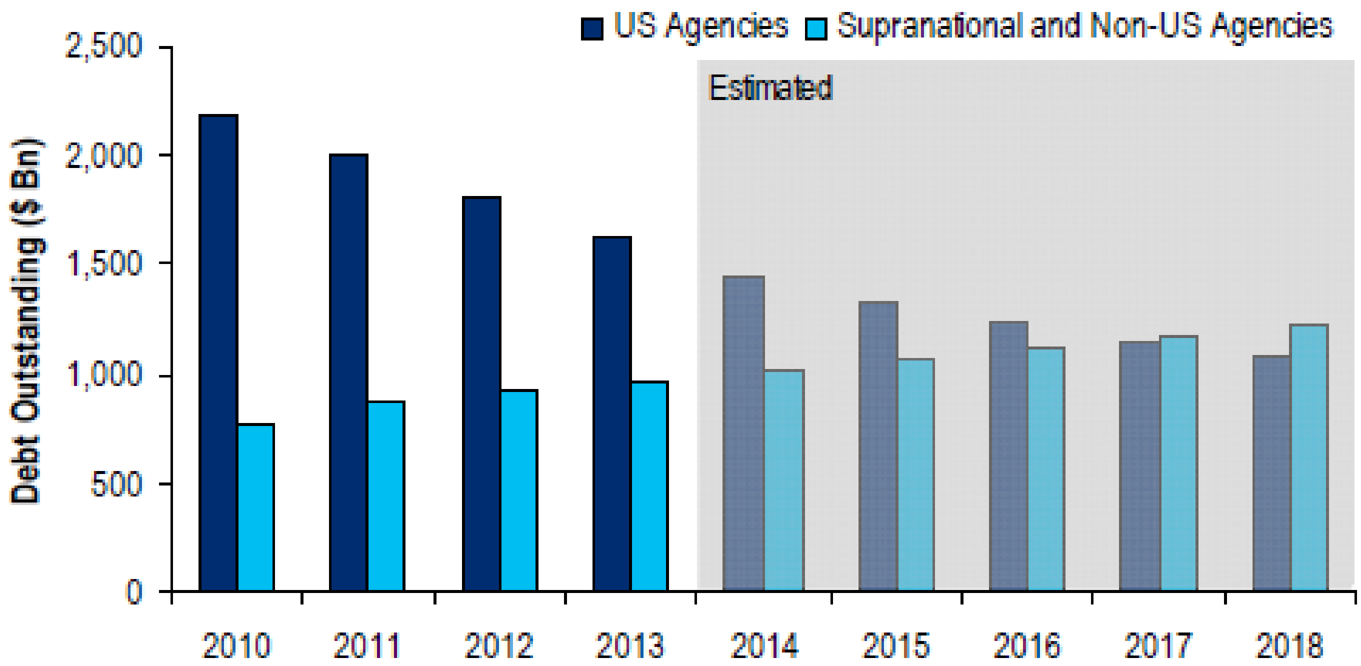
a. United States Export Import Bank
b. United Nations
c. International Money Fund
d. The United Way

What Are Supranationals?

- Multilateral international financial institutions
- Member nations contribute capital and participate in management
- Used to finance economic and infrastructure development, environmental protection, poverty reduction, and renewable energy around the globe
- Excellent credit quality because of:
  - *Multi-national ownership and commitment*
  - *A long and successful operating history*
  - *Significant capital commitments from a diverse capital base*
  - *More conservative lending and risk management practices than the private sector*
  - *Strong supervision and management*

Supranationals as an Alternative to Agencies

Figure 3. Market Size Projection



Source: Citi Research

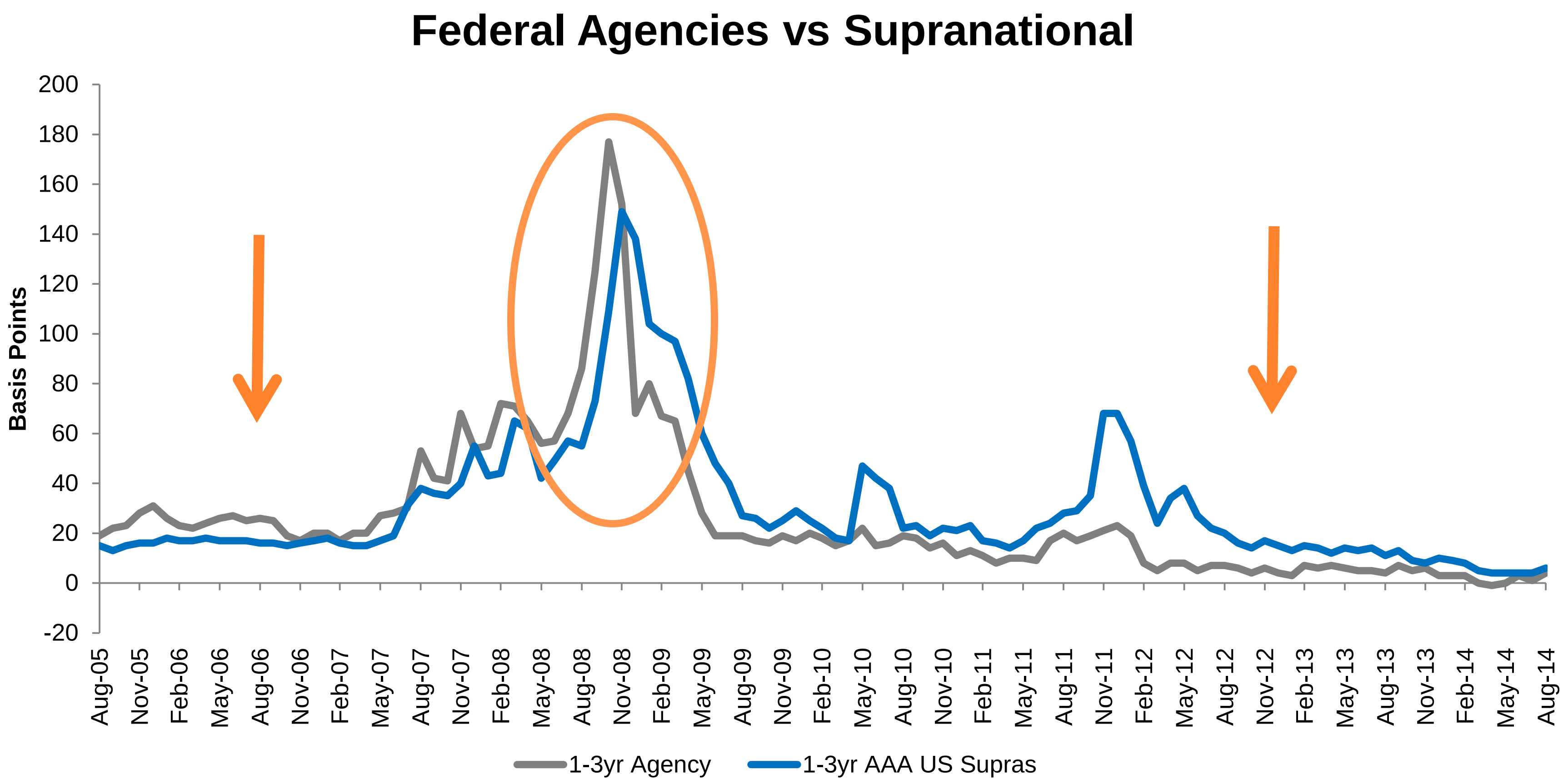
Characteristics of AAA Supranationals With U.S. as Shareholder

Name	Year Founded Headquarters	Top 3 Shareholders	Mission/Purpose	US$ Debt Outstanding	Capital to Loans Ratio
IBRD (World Bank)	1944 Washington D.C.	U.S. 15.9% Japan 8.9% China 5.7%	Reconstruction and poverty reduction through an inclusive and sustainable globalization.	$79.1B	27.5%
Inter-American Development Bank	1959 Washington D.C.	U.S. 30.0% Argentina 10.8% Brazil 10.8%	Providing financing and expertise for sustainable economic, social, and institutional development in Latin America and the Caribbean.	$40.6B	33.3%
International Finance Corporation	1956 Washington D.C.	U.S. 23.7% Japan 5.9% Germany 5.4%	Member of the World Bank Group, focused on the private sector in developing countries.	$25.1B	65.1%

For comparison, the top 5 US bank holding companies' equivalent ratios range from 15.0% to 19.5%

Source: PFMAM Perspectives – "Supranationals: A World of Opportunity", January 2014; Moody's, July 22, 2014; New York Fed Quarterly Trends 2014 Q4

Comparison of Yield Spread to US Treasuries



Source: Bloomberg, Merrill Lynch. Represents the historical Option Adjusted Spread of the 1-3yr Agency Bullet Index (G1PB), 1-3 Year AAA US Supranational Index (GS1S), AAA This material is for general information purposes only, is not intended to provide specific recommendations, and is subject to changes in the market environment.

Question 6

The first non-bank automobile financing company opened to consumers in what year?

a. 1947
b. 1886
c. 1919
d. 1901

Asset-Backed Securities (ABS)

Asset backed securities are securities backed by pools of loans, lease or receivables, the principal, and interest on which are used to pay ABS shareholders.

Most Common Types:

- Auto loans/leases
- Credit card receivables
- Equipment loans/leases
- Student loans
- Home equity loans

Credit Backing:

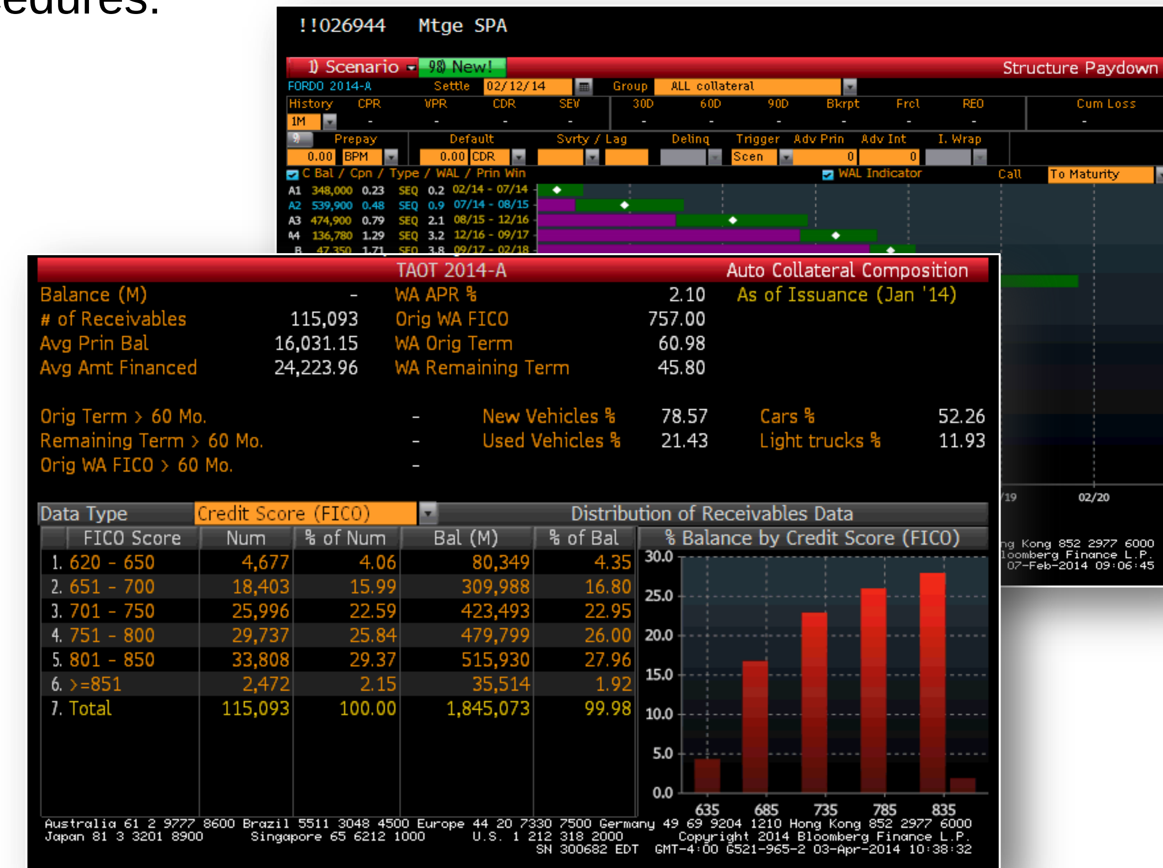
- Subordination and Credit Traunch
- Over-collateralization
- Reserve Accounts
- Excess Spread
- Letter of Credit

Why Buy ABS for Portfolios?

- Portfolio diversification
- Opportunity to seek enhanced return in a period of low rates

Credit Review and Monitoring Process for ABS

- ABS have risks that require careful analysis and monitoring. PFM's Approval Guidelines and Procedures:
  - ABS sub-committee
  - Permitted issuers/sponsors
  - Permitted structures
    - Document review
    - Structure review
    - Credit enhancement



- Purchase Criteria:
  - Permitted by policy
  - Met PFM's approval criteria
  - Suitability
  - Assessment of value

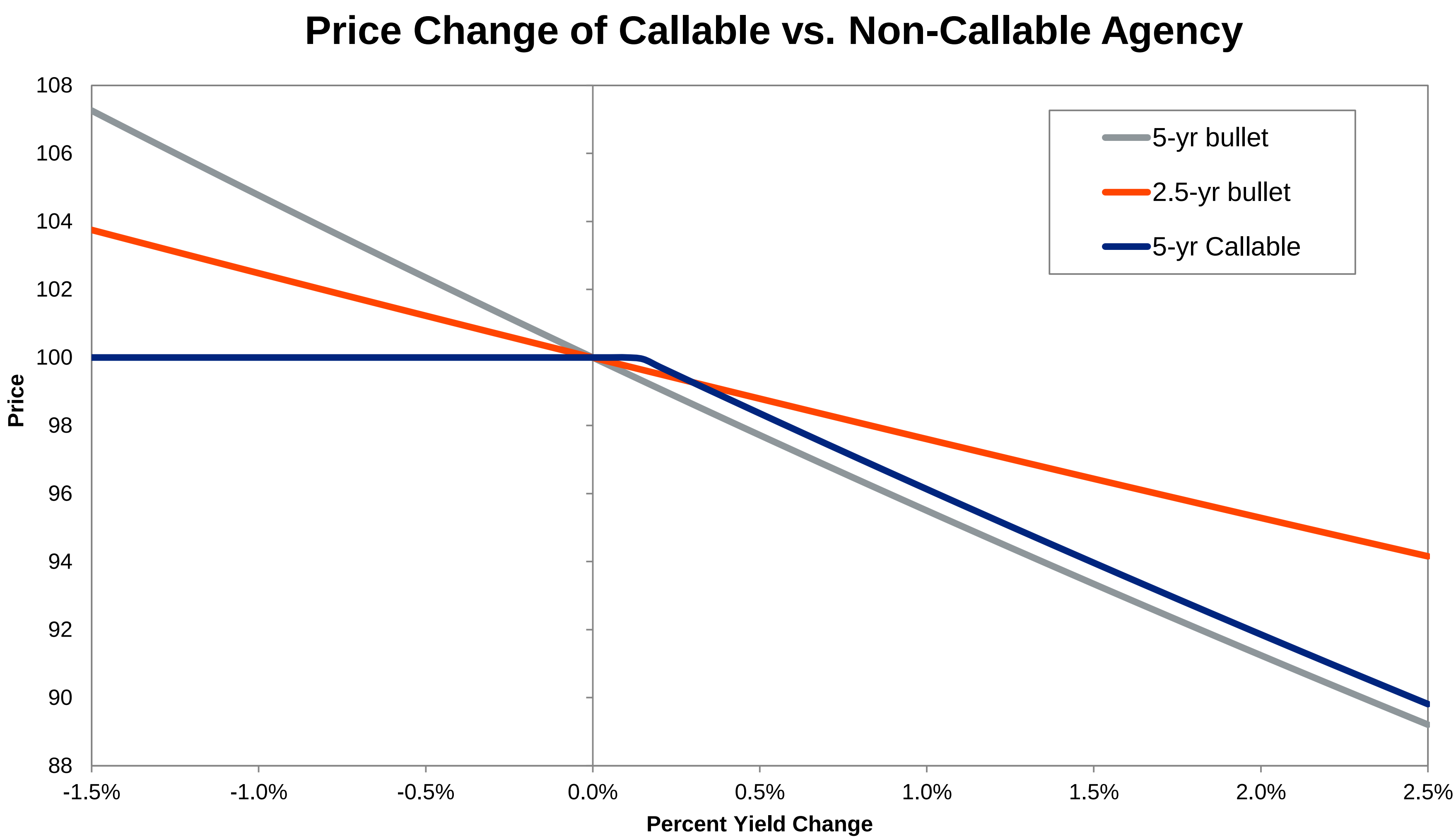
- Monitoring Procedures:
  - Credit ratings
  - Deal and collateral performance
  - Credit support metrics
  - Sector performance

Question 7

What is the predominant type of risk when investing in a callable Federal Agency security?

a. Credit Risk
b. Event Risk
c. Reinvestment Risk
d. Liquidity Risk

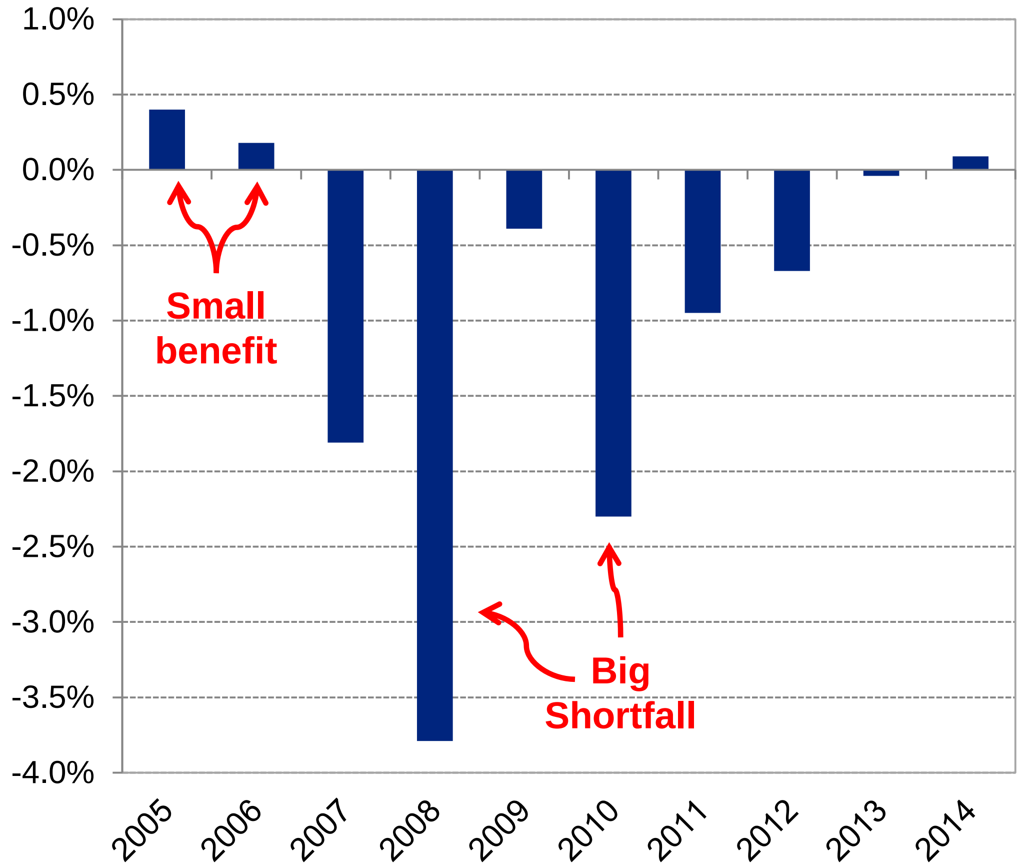
Price Performance of Callable Bonds



Callable security is Federal Farm Credit Bank 1.99% Coupon maturing on 12/26/2019 (Effectively called 4/27/2015). 5 year bullet and 2.5 year bullet are representative securities with similar settlement dates to the callable security. Data source: Bloomberg.

Callables Have Under-Performed

- The maximum benefit of a callable is the initial yield spread, but non-callables can generate significantly higher returns, especially in periods of falling rates.

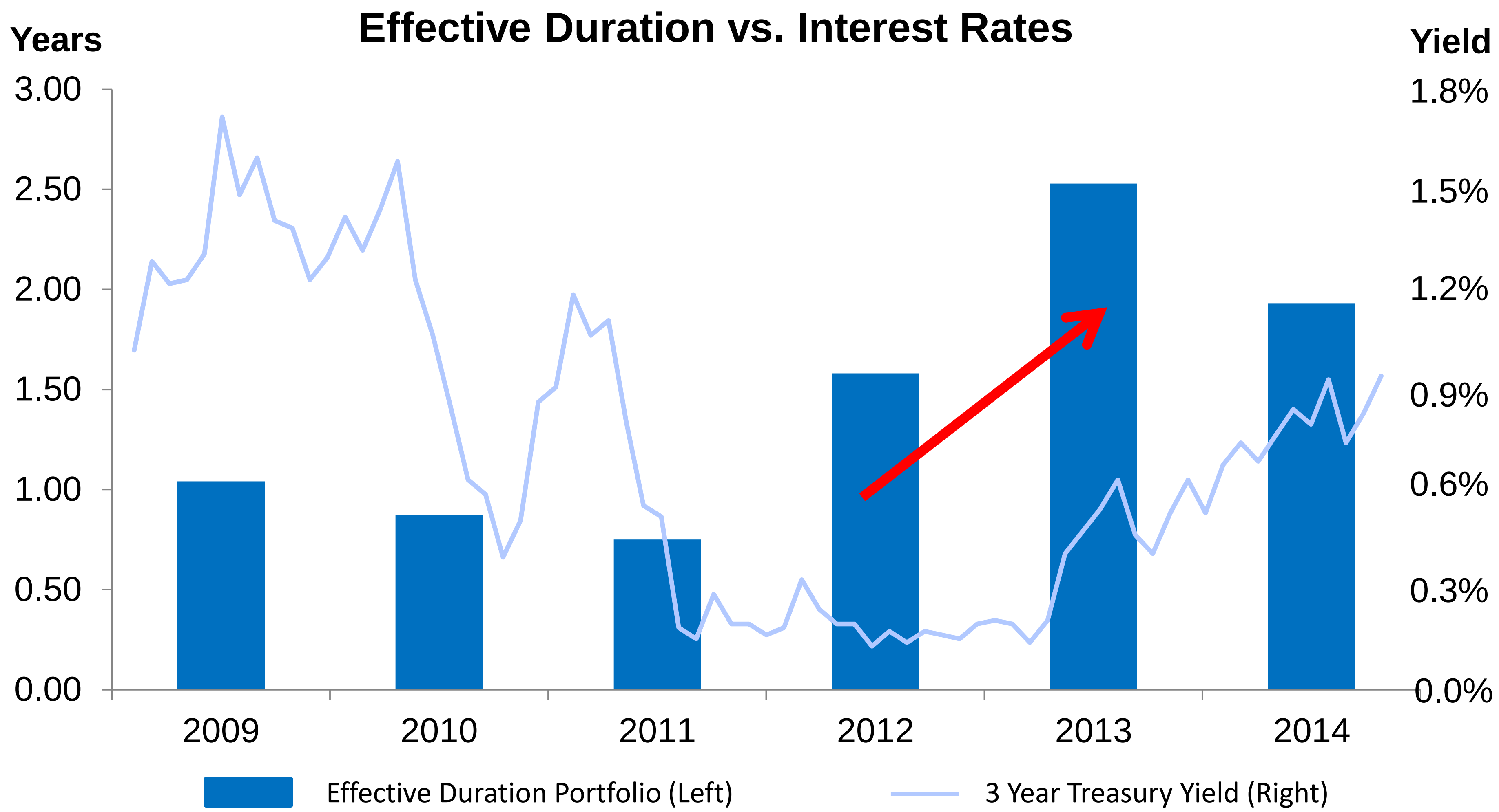


Annual Returns of Callable vs. Non-Callable Agencies

	Agency Callables	Agency Non-Callables	Difference
2005	1.86%	1.46%	0.40%
2006	4.67%	4.49%	0.18%
2007	6.00%	7.81%	-1.81%
2008	4.84%	8.63%	-3.79%
2009	2.14%	2.53%	-0.39%
2010	1.24%	3.54%	-2.30%
2011	1.67%	2.62%	-0.95%
2012	0.85%	1.52%	-0.67%
2013	-0.01%	0.03%	-0.04%
2014	1.38%	1.29%	0.09%
Average	2.44%	3.35%	-0.84%

Source: Merrill Lynch Index data, 1-5 year maturity agencies

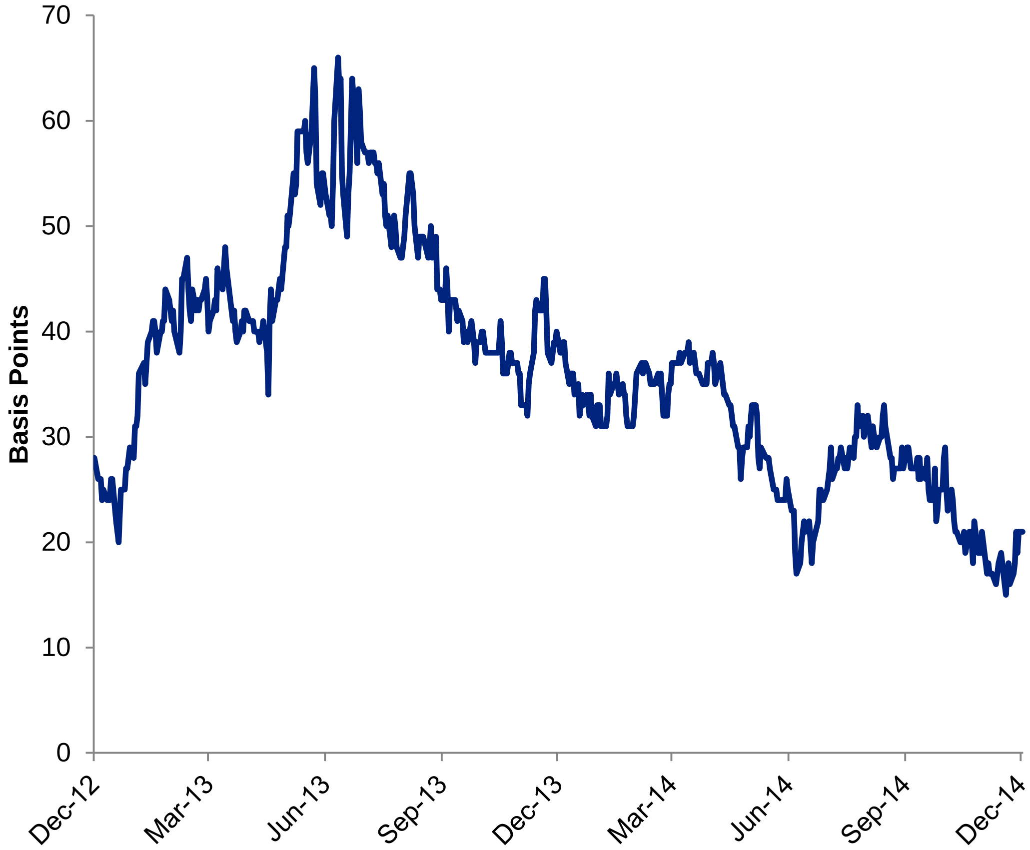
Impact of Callable Bonds on Portfolio Risk



Source: U.S. Treasury Yield, Bloomberg, Effective Duration, Sample Portfolio report. Values as of 12/31 for each year except 2014 which is 11/30.

Mortgage Backeds Have Less Value After Strong Rebound From 2013

MBS Index OAS

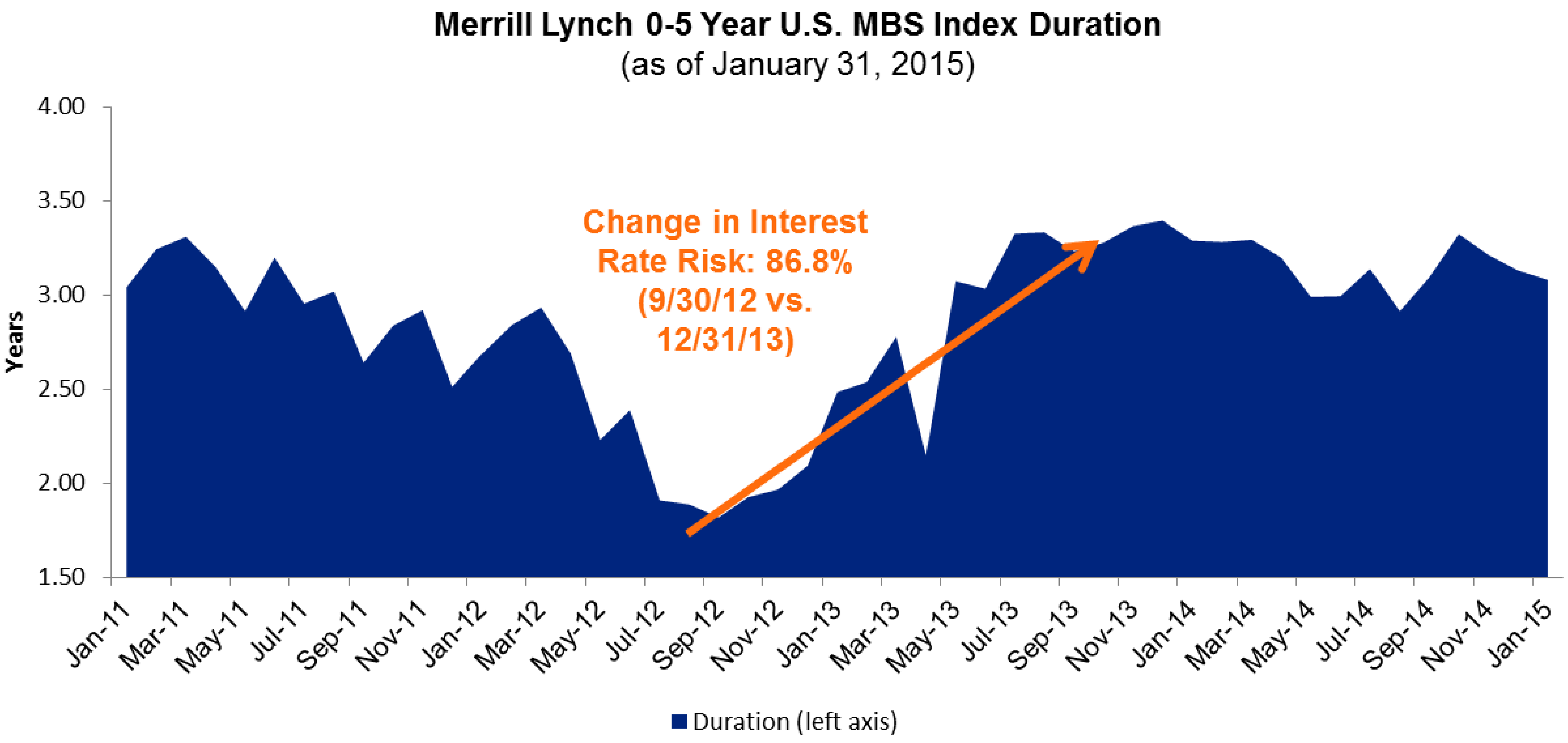


Total Returns in MBS Sector

	2013	2014
30-year by Issuer		
Agency MBS	-1.41%	5.92%
GNMA	-2.17%	5.93%
By Structure		
Hybrid ARM	0.10%	2.32%
30-year by Coupon		
3.0%	-6.43%	9.42%
3.5%	-3.85%	7.77%
4.0%	-1.42%	6.52%
4.5%	0.41%	5.11%
5.0%	1.83%	4.19%
5.5%	2.08%	3.89%
6.0%	2.69%	3.78%

Source: BofA Merrill Lynch MBS Index Data, YTD through December 15, 2014, Barclays as of November 30, 2014

Impact of Mortgage-Backed Securities



Question 8

Which of the following securities is the *least* liquid?

a. $5 million Municipal Bond maturing in September 2016 issued by the Town of Whispering Springs, TX (AA-rated issuer that issues GO debt every 5 years)

b. $5 million Corporate Bond maturing in September 2016 issued by Berkshire Hathaway (AA-rated issuer with over $74 B in debt outstanding)

c. $5 million U.S. Treasury note maturing in March 2017

d. $5 million Federal Agency note maturing in December 2017

How Liquid is this Security?

Before purchasing a security, ask yourself:

- Are securities issued by this issuer actively traded?
- Will I be able to receive multiple bids?
- What percentage of this issuer's debt will I own?
- What percentage of this issuer's debt maturing on this particular date will I own?
- When does the security mature?
- What is the credit quality of the issuer?
- What is the issuer's credit outlook?

Question 9

What are the two primary sources of risk associated with investing in certificates of deposit?

I. Credit Risk
II. Liquidity Risk
III. Purchasing Power Risk
IV. Extension Risk

a. I, II, III, IV
b. II, III
c. II only
d. I, II, III

Question 10

When a Florida local government chooses to liquidate a certificate of deposit they have the option to…

a. Pay early liquidation fees with the issuing bank
b. Sell it in an active secondary market through a broker
c. Sell the certificate of deposit to another public entity
d. None of the above

Pros & Cons of Investing in CD’s

PROS:

- Safety – CD’s from federally insured banks are backed by the US Gov’t up to $250,000
- Current CD yields are more attractive than comparable maturity treasuries
- No mark to market issues/principal fluctuation – GASB reporting
- Fixed, predictable return – if interest rates fall, your rate of return remains constant – earn higher income than the going rate

CONS:

- Fixed, predictable return – if interest rates rise, your rate of return remains constant – earn lower income than the going rate
- Limited liquidity/penalty for early withdrawal (lost interest or even principal penalty) if unanticipated need arises – full benefit of owning CD not realized over the original intended holding period
- Purchasing power/inflation risk – CD rates tend to lag rising inflation and drop more quickly than inflation on the way down

“A FIVE YEAR CD? WHO’S GOT TIME TO LISTEN TO THAT?!”

Pro's & Con's of Investing in CD's

Question 11

Shares in a Local Government Investment Pool (LGIP) must be registered with which of the following?

a. Security Exchange Commission (SEC)
b. Financial Industry Regulatory Authority (FINRA)
c. Municipal Security Rulemaking Board (MSRB)
d. None of the above

LGIP's Evaluating & Monitoring

- A description of eligible investment securities, and a written statement of investment policy and objectives.
- A description of interest calculations and how it is distributed, and how gains and losses are treated.
- A description of how the securities are safeguarded (including the settlement processes), and how often the securities are priced and the program audited.
- A description of who may invest in the program, how often, what size deposit and withdrawal are allowed.
- A schedule for receiving statements and portfolio listings.
- Are reserves, retained earnings, etc. utilized by the pool/fund?
- A fee schedule, and when and how is it assessed.
- Is the pool/fund eligible for bond proceeds and/or will it accept such proceeds?

Portfolio Analytics

Question 12

If interest rates go up, the market value on a U. S. Treasury Note will?

a. go up
b. stay the same
c. go down
d. can’t tell

Question 13

A security maturing in 5 years will generally have ______ market risk than a security maturing in 1 year?

a. more
b. less
c. the same
d. can’t tell

Keep Calm and Stay Invested…..

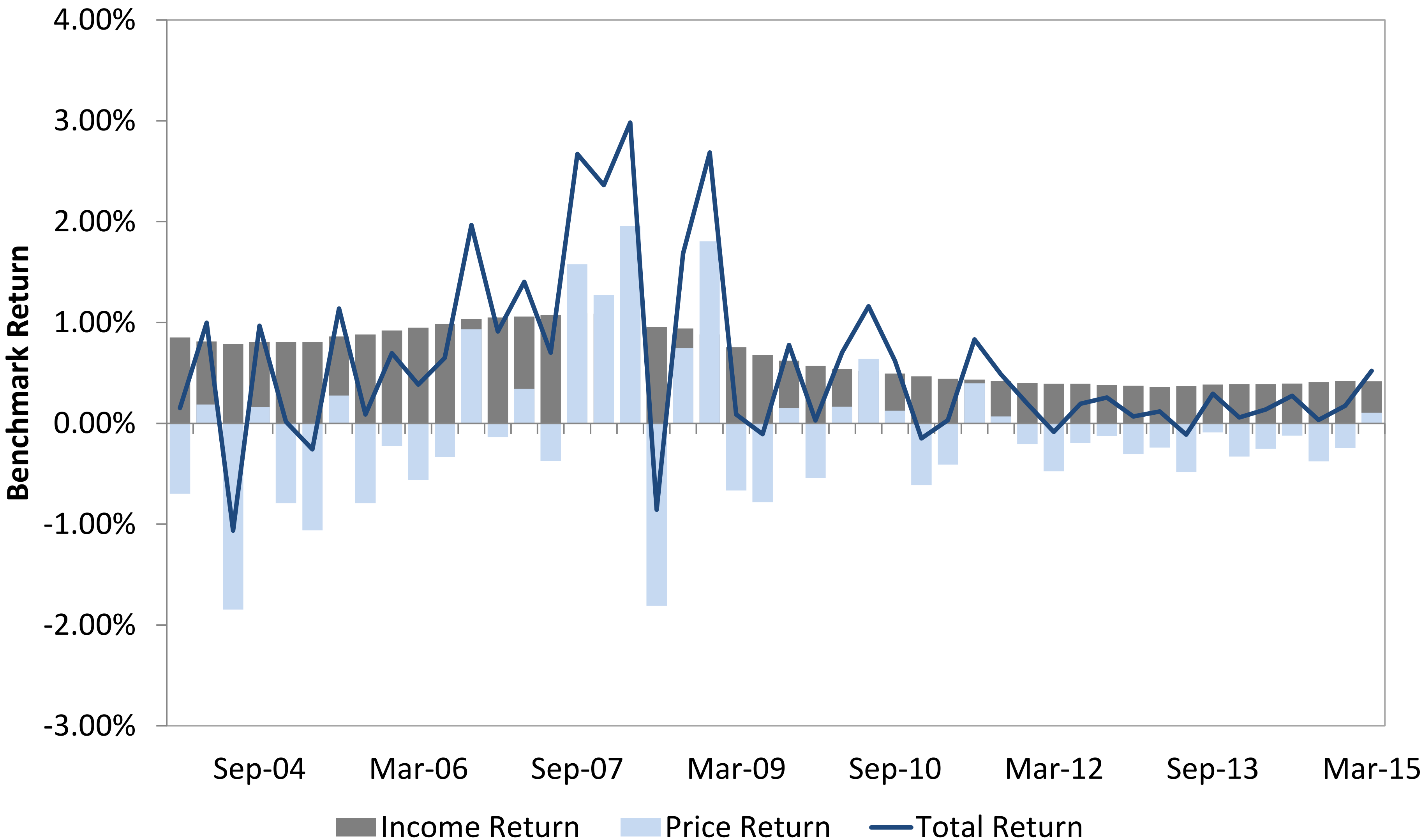
- The impact of rising rates over a short investment horizon can be detrimental to returns
  - a small rise in interest rates can result in negative returns for longer-duration portfolios However, for portfolios with longer time horizons the impact is less detrimental

Yield Curve Horizon Returns

Interest Rate Shock	-10	No Change	+20	+50	+100
3-Month Time Horizon					
1yr UST	0.21	0.14	-0.02	-0.24	-0.62
3yr UST	0.80	0.53	-0.02	-0.85	-2.22
5yr UST	0.99	0.52	-0.41	-1.80	-4.13
1-Year Time Horizon					
1yr UST	0.26	0.26	0.26	0.26	0.26
3yr UST	2.12	1.92	1.52	0.92	-0.08
5yr UST	2.71	2.31	1.51	0.31	-1.70

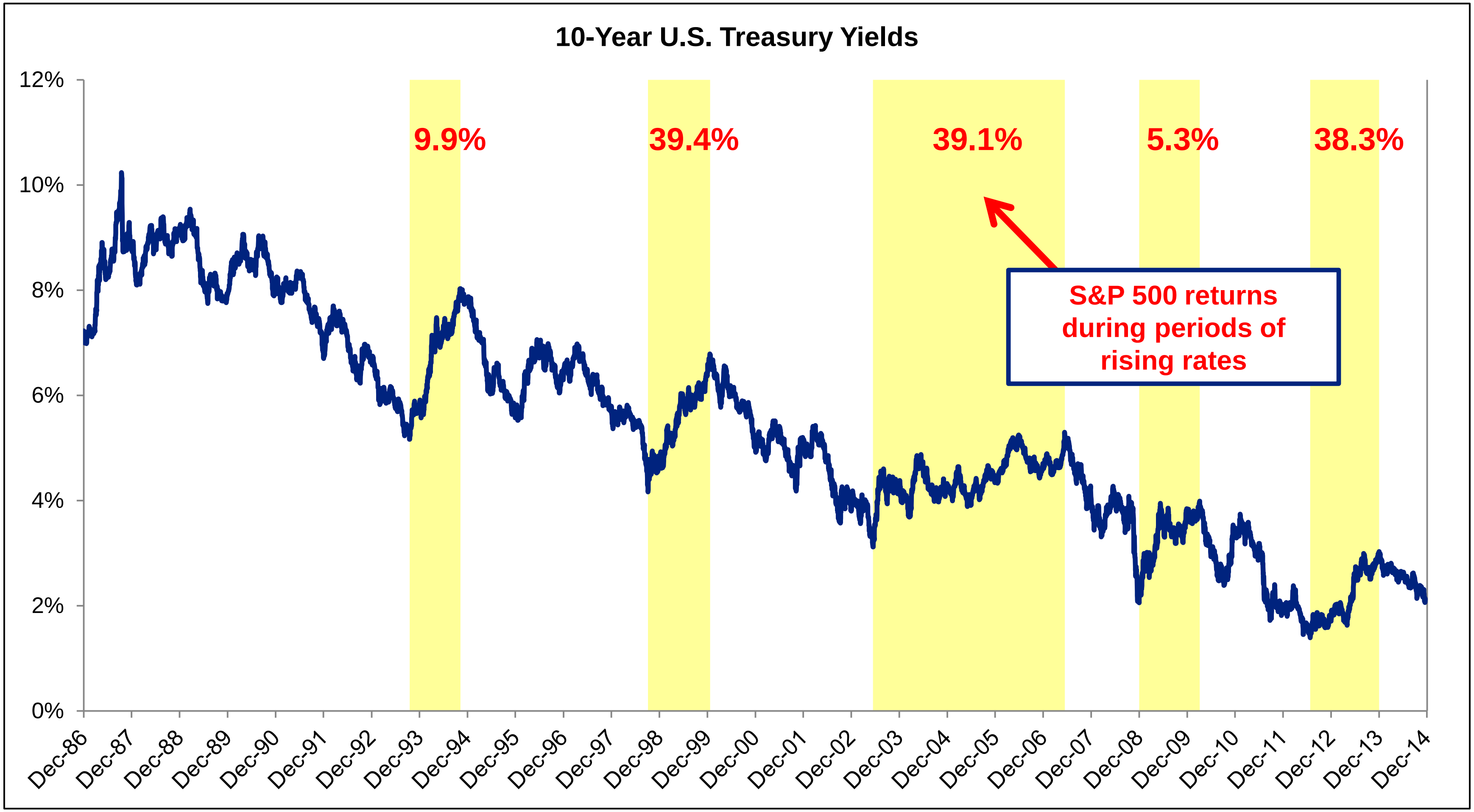
Source: Bloomberg, Bloomberg Survey of Economists

Historical Return Breakdown: Total Return
(1-3 Year BAML US Treasury Index – Quarterly Returns)



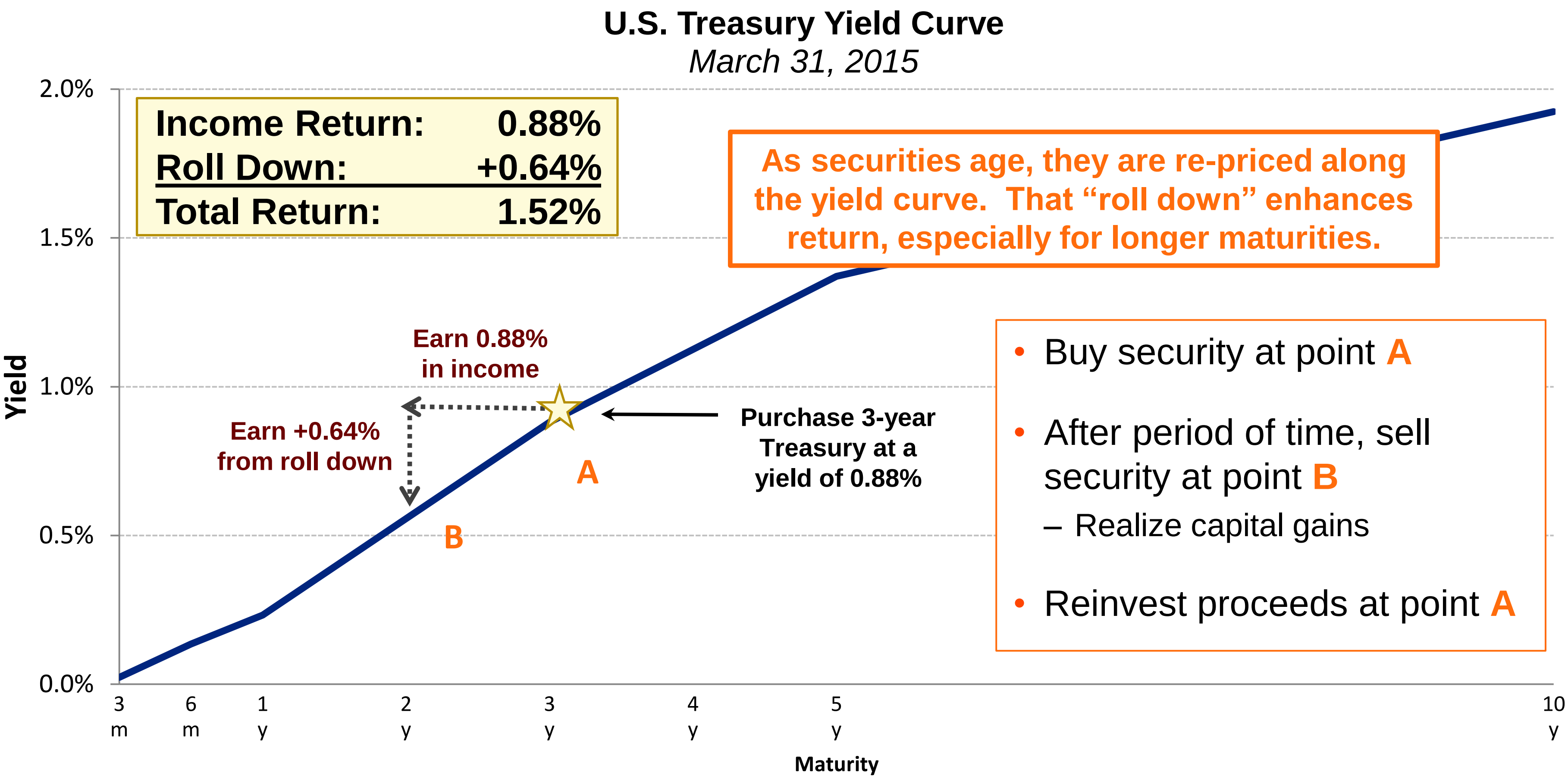
Source Bloomberg

U.S. Equities Have Performed Well in the Face of Rising Rates



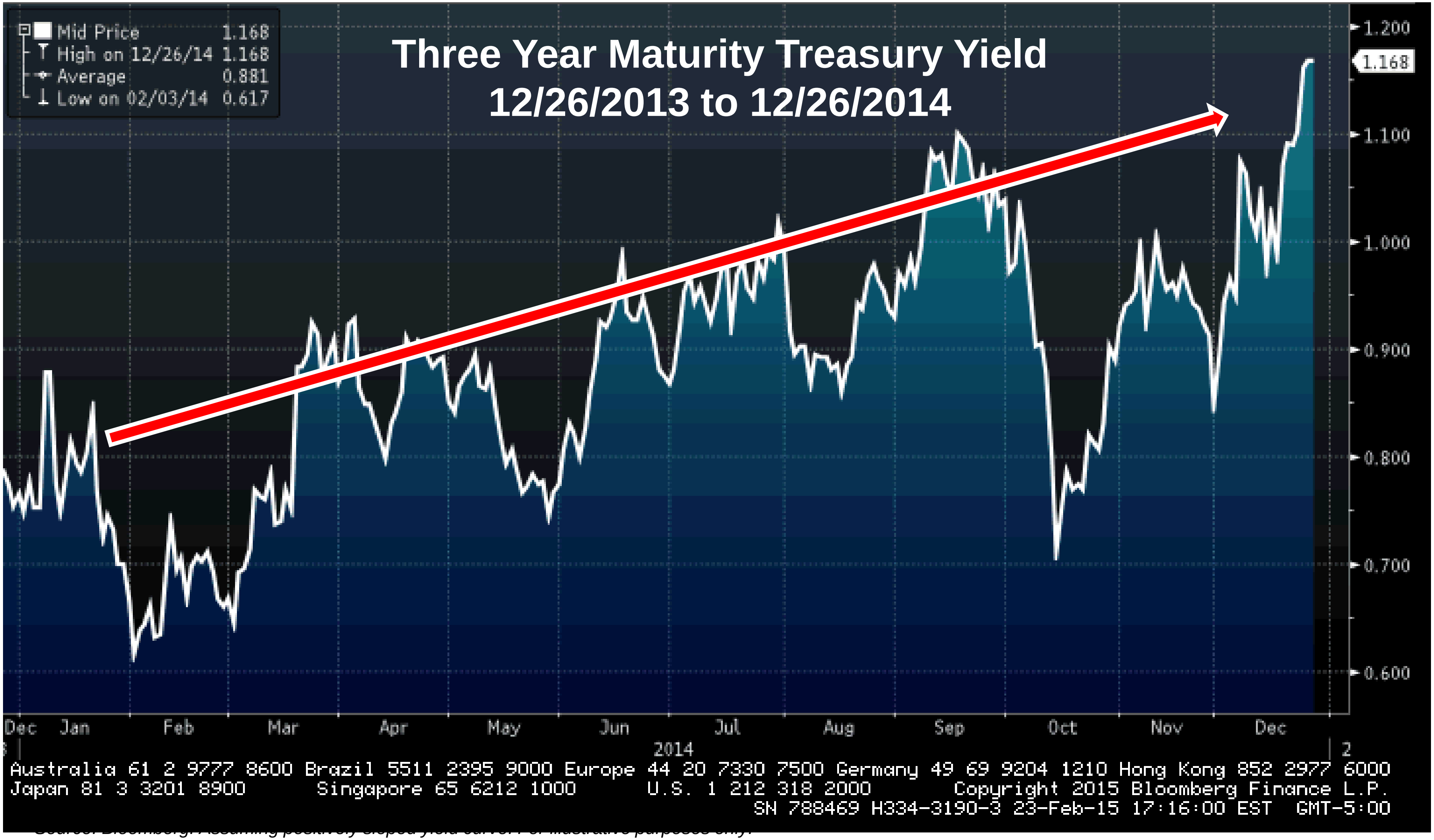
Source: Bloomberg

A Positively Sloped Yield Curve Creates Appreciation Potential (Rolling Down the Curve)



Source: Bloomberg. Assuming positively sloped yield curve. For illustrative purposes only.

Rolldown A Real World Example



Source: Bloomberg. Assuming positively sloped yield curve. For illustrative purposes only.

Rolldown A Real World Example: $10 Million UST

Yield Curve and Rate Increases

Maturity	12/26/2013	12/26/2014	Rate Increase
1yr UST	0.12	0.23	0.11
2yr UST	0.40	0.74	0.34
3yr UST	0.78	1.17	0.39
4yr UST	1.32	1.56	0.24
5yr UST	1.74	1.76	0.02

Percentage (%)

Income Return:	1.74%
Roll Down:	+0.69%
Total Return:	2.44%

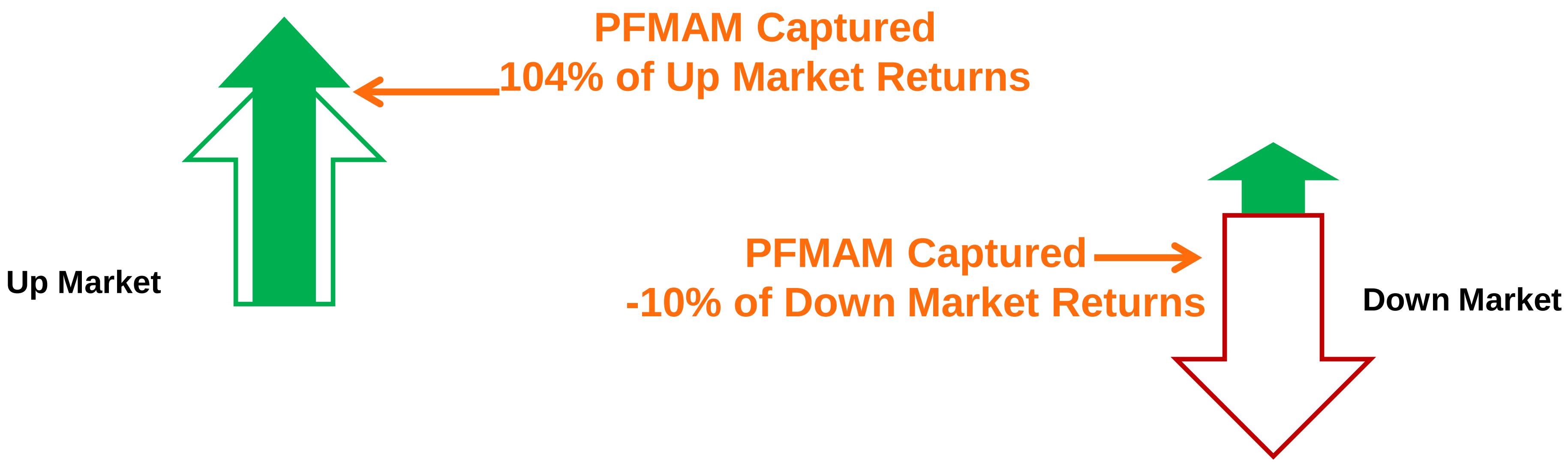
Dollars($)

Income Return:	$174,000
Roll Down:	+69,537
Total Return:	$244,537

Source: Bloomberg, Bloomberg Survey of Economists

Active vs Passive Management

Dissecting Return Performance



Cumulative Returns
10-Year Period Ended December 31, 2014

Up Markets		Down Markets
34	**# of Periods**	6
31.80%	**PFMAM 1-3 Year Composite**	0.16%
30.50%	***BAML 1-3 Year U.S. Treasury Index***	*-1.56%*
104%	**Capture Ratio**	**-10%**

For illustrative purposes only. All data as of 10-years ending December 31, 2014; up markets characterized as quarterly periods of positive index performance; down markets characterized as quarterly periods of negative index performance; Merrill Lynch index returns taken from Bloomberg. Investors cannot invest directly in an index. Additional information available upon request.

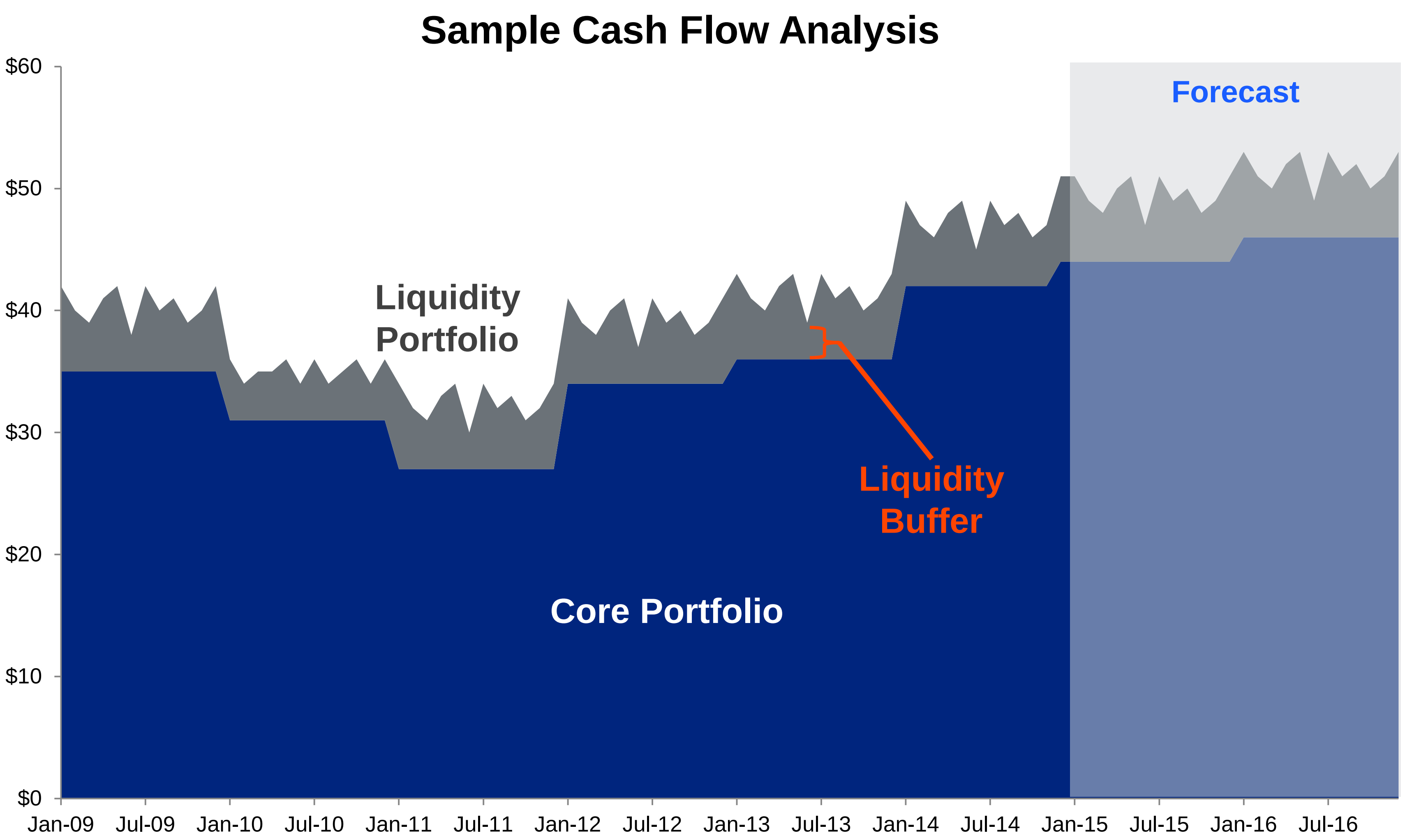
Cash Flow Analysis

Question 14

Which of the following is a major portfolio benefit of accurate cash flow forecasting?

a. Allows the cash manager to invest the greatest amount of money for the longest period of time
b. Reduces reinvestment risk
c. Allows the cash manager to more accurately time the market
d. Improves the budgeting process

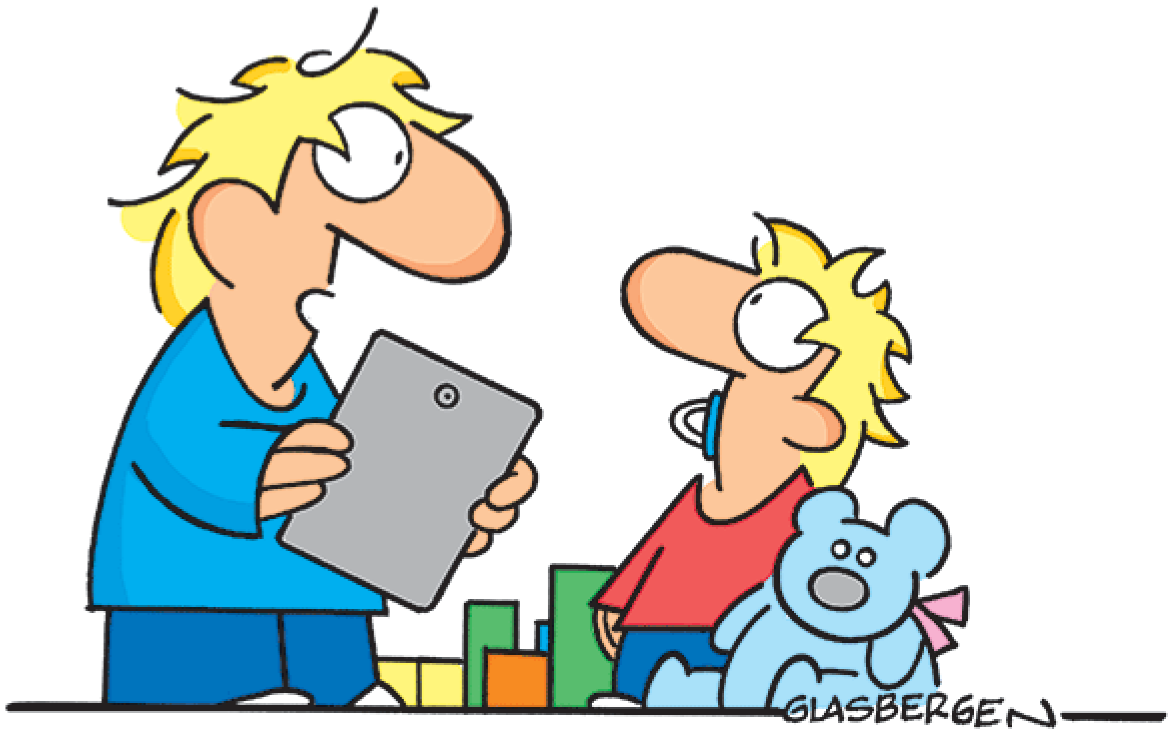
Optimal Cash Flow Planning
Portfolio Identification and Segmenting



Optimal Cash Flow Planning
Liquidity Optimization

Liquidity Optimization Model	
(Breakeven Analysis)	
Security Portfolio Alternative	
Investment Amount	$1,000,000
Commercial Paper Yield	0.22%
Gross Earnings (6 months)	$1,100
Investment Advisory and Custody Fees	0.10%
Total Fee $	$500
Net Earnings	$600
Liquidity Product Alternative	
Investment Amount	$1,000,000
Liquidity Product Yield	0.12%
Gross Earnings	$600
Investment Advisory and Custody Fees	0.00%
Total Fee $	$0
Net Earnings	$600
Differential	$0

Other Topics



"I'm not sure Mom and Dad are qualified to be parents. They're not on Angie's List."

Question 15

A local government with funds deposited with a QPD files their Public Depositor Annual Report in June. Which other requirement will allow the them to be protected by the State of Florida’s Public Deposit’s Program?

a. Contact the State Division of Treasury
b. Complete the Identification Acknowledgement Form
c. Notify the Qualified Public Depository
d. None of the Above

Question 16

What are the major compliance responsibilities of a Public Entity to be protected under the Florida Public Deposits Program?

I. Always use a QPD
II. Complete the Identification Acknowledgement Form
III. File the Public Depositors Annual Report by November 30, each year
IV. Register the Identification Acknowledgement Form with the State Department of Financial Services

a. I, II, III, IV
b. II only
c. I, II, III
d. II, III

Update on State Qualified Public Depository (QPD) Program

- QPD collateral requirement levels adjusted in last legislative session

- Local Governments should focus on three components of maintaining compliance in order to be protected by the program:

    1. Use a Qualified Public Depository

    2. Complete and retain Public Depository Identification and Acknowledgement Form(s)

    3. File Annual Report each year

- Recovery timeline under the extreme case scenario could be up to 30 days to settle all claims for a single failed bank

    - Government may be able to get a partial recovery under hardship

Wrapping Up

Summing It All Up

Key Takeaways:

- Solid growth in the U.S.
- Fed should undertake modest tightening
- Gradual recovery in Europe
- Inflation should remain low/ deflation trap will be avoided
- Global political uncertainty will be contained

Upside risks:

- Effective central bank policies
- Continued strengthening of U.S. economy

Downside risks:

- Deflation
- Global political instability
- Uncertain capital flows

Portfolio Strategy Implications

- Minimize unneeded liquidity to avoid earning zero on cash
- Seek opportunity in corporate/credit instruments
- Invest with an eye toward defending market values from modestly higher interest rates

Important Disclosures

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