Managing Assets/Liabilities in Anticipation of Rising Short-Term Rates

New Jersey Chapter of the FMS

April 20, 2015

Presenters: Peter Badger & Jim Clarke

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Peter was Chairman of the Financial Managers Society during 2006-2007 and served on its board from 2001 through 2008.

Peter is a frequent author and lecturer on institutional investment topics at national and regional conferences.

Peter has a B.S. in Math from the University of Houston and an M.B.A. in Finance from the University of Missouri. He sits on the advisory board to the Dean of the College of Natural Sciences and Mathematics at the University of Houston.

- **Jim Clarke, Ph.D**. has served on the faculty of the ABA's Stonier School of Banking, the New England School of Banking, and the Southwest Graduate School of Banking.

- Jim conducts seminars on ALM for both banking trade groups and individual banks. Dr. Clarke is a frequent convention speaker. In 2014 Jim will speak at the Connecticut Bankers and Pennsylvania Bankers Conventions, and the FMS Forum.

- Jim has a B.A. in Economics from LaSalle College and a Ph.D. in Economics from the University of Notre Dame. He was a faculty member in the Finance Department at Villanova University. He sits on the board of two community banks and an investment company. Jim is also on the editorial board of the RMA Journal.

Today's Discussion Points

- **Interest Rates →** #1. When ST rates will rise & #2 the path of an increase.
- **Managing a Bank Balance Sheet in anticipation of rising increase rates.**
- **Examiners Focus is on surge deposits.**
- Investment Strategies – **Hedging Uncertainty**!
- Loan Strategies – **Controlling duration**.
- Deposit Trends are scary!
- Maybe FHLB or Brokered CDs make sense in 2015.

State of the Economy

GDP ➔ 2014 = 2.3%
2015 = 2.3% - 2.9% (forecast – consensus range)

January/February/March Employment Reports

- ❑ January: 257,000 net job gains which was unexpected: Unemployment Rate rose to 5.7% in January as 700,000 people entered the labor force.

- ❑ February 288,000 net growth, Unemployment rate 5.5% in February. Also higher wage growth than past months.

- ❑ **All of the indicators were positive putting pressure on Yellen to raise the Fed Funds Rate sooner rather than later.**

- ❑ Then March comes in at 126,000 plus downward revisions - **The forecast have changed to maybe later in the year.**

Where is Yellen Focused? U3 vs. U6

U3: Total unemployed, as a % of civilian labor Force (this is the definition used for the official unemployment rate) ➔ NJ= **6.3% US = 5.5%**

U6: Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers. ➔ PA. = **11.9% US = 11.1%**

Fed has normally focused on U3, but Yellen appears focused on U6.

Market Interest Rates

- Very high bond market volatility over the last two years as indicated in following slides.
- The 10 year has moved above the 2% range, drive by international events, oil prices, inflation expectations (low) and international spreads (Euro, Japanese & Swiss rates are negative) .
- **If the US economy was driving rates the 10 year would likely be above 2.40%.**
- <u>After the January jobs report came out on February 6, it is more likely that the Fed will raise short-term interest rates at the June or July FOMC meeting. But since the January/February jobs reports, a lot of negative data.</u>

Current Interest Rate Forecast – March 11

	1-2015	2-2015	3-2015	4–2015	1-2016	2–2016
Fed Funds	**0.25%**	**0.50%**	**0.75%**	**1.00%**	**1.25%**	**1.75%**
3 Month LIBOR	0.30%	0.70%	0.95%	1.20%	1.45%	1.95%
Prime Rate	3.25%	3.50%	3.75%	4.00%	4.25%	4.75%
Conventional Mort.	3.60%	3.72%	3.87%	3.89%	4.07%	4.29%
2 Year Note	0.71%	0.89%	1.08%	1.28%	1.74%	2.05%
5 year Note	1.69%	1.79%	1.90%	1.99%	2.22%	2.33%
10 Year Note	2.20%	2.36%	2.40%	2.45%	2.51%	2.76%
30 Year Bond	**2.80%**	**2.91%**	**2.98%**	**3.08%**	**3.17%**	**3.35%**
2 to 10 year Spread	1.49%	1.47%	1.32%	1.17%	0.57%	0.71%

The Major Concerns of a Bank ALCO:
#1. When will the FOMC Change the Fed Funds Rate?

- What if they go too early and the economy stumbles in 2015 – this is a risk they are hesitant to take – especially the DOVES.
- 2014 was not terribly robust – 2.5% economic growth: Take your time say the DOVES.
- There is no inflation pressure partially due to oil prices and strength of dollar – if rates do not go up in June this will a major fall back for the committee.
- There are a lot of positive data – consumer confidence, leading indicators, manufacturing, etc. calling for a rate hike say the HAWKS – raises rate soon!
- But the January jobs report may be the determinant – it looks like June or July the Fed will act based on that report says a HAWK (me), but the DOVES have the votes.

#2: What path will the Fed Funds rate changes take on?

1. **2004 to 2006** ➔ Rates increased 425 basis points. 25 basis points every Fed meeting – 17 times. This is a nice orderly path that banks can handle at least up to +250 to 300 bps.
2. **2007 to 2008** ➔ Rates dropped 500 basis points in fifteen months in a less orderly fashion. If this is replicated on the way up it would create a problem for most community banks.

What does the future hold? **If the Fed starts <u>early</u> it could be orderly. If the committees holds out too long and inflation accelerates it could be messy and disruptive.**

Regulatory Focus – #1 is Interest Rate Risk

For a reference see FDIC's "Supervisory Insights", Winter 2014

1. **Governance: Board Limits** ➔ Rationale
2. **Key Assumptions** – Qualitative Adjustments
3. Developing an **In-House Independent Review**
4. **What to expect in the next exam?**

These are the four key issues the FDIC addresses in their supervisory insights

Qualitative Adjustments for Key Assumption

In light of a surge in deposits despite very low deposit interest rates, management could consider the following qualitative factors in determining whether to adjust assumptions.

- **Flight to quality**, seeking insured deposits over alternative investments
- **Rate differentials** between time deposits, non-maturity or non-bank investments
- Customer **decisions to park funds** in non-maturity deposits until rats rise
- Diminished impact of **early withdrawal penalties** on time deposits
- **Change** technology, demographics and competition

Regulatory Focus - Liquidity

1. We all need to have a **Liquidity Policy** – if you need a sample let me know.
2. Since 2009 we have been required to establish a **Liquidity Contingency Plan**, including a stress test.
3. The newest liquidity concern is **SURGE DEPOSITS:** Slide 11 discusses deposit trend since 2008. The concern is: There may be a lot of hot money in your deposit accounts and if rates rise do you have sufficient liquidity on-balance sheet and available sources to handle a surge?

Managing the Balance Sheet in Current Environment

- ❑ Managing Assets – Controlling Duration
  - **Investments ➔ Peter Badger**
  - Loans
- ❑ Managing Liabilities
  - Wholesale Strategies
  - Retail Deposits

Let’s Start with Investment Decisions

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This Presentation may contain forward-looking statements and there can be no guarantee that they will come to pass. Past performance is not indicative of future results. Prices and yields will vary.

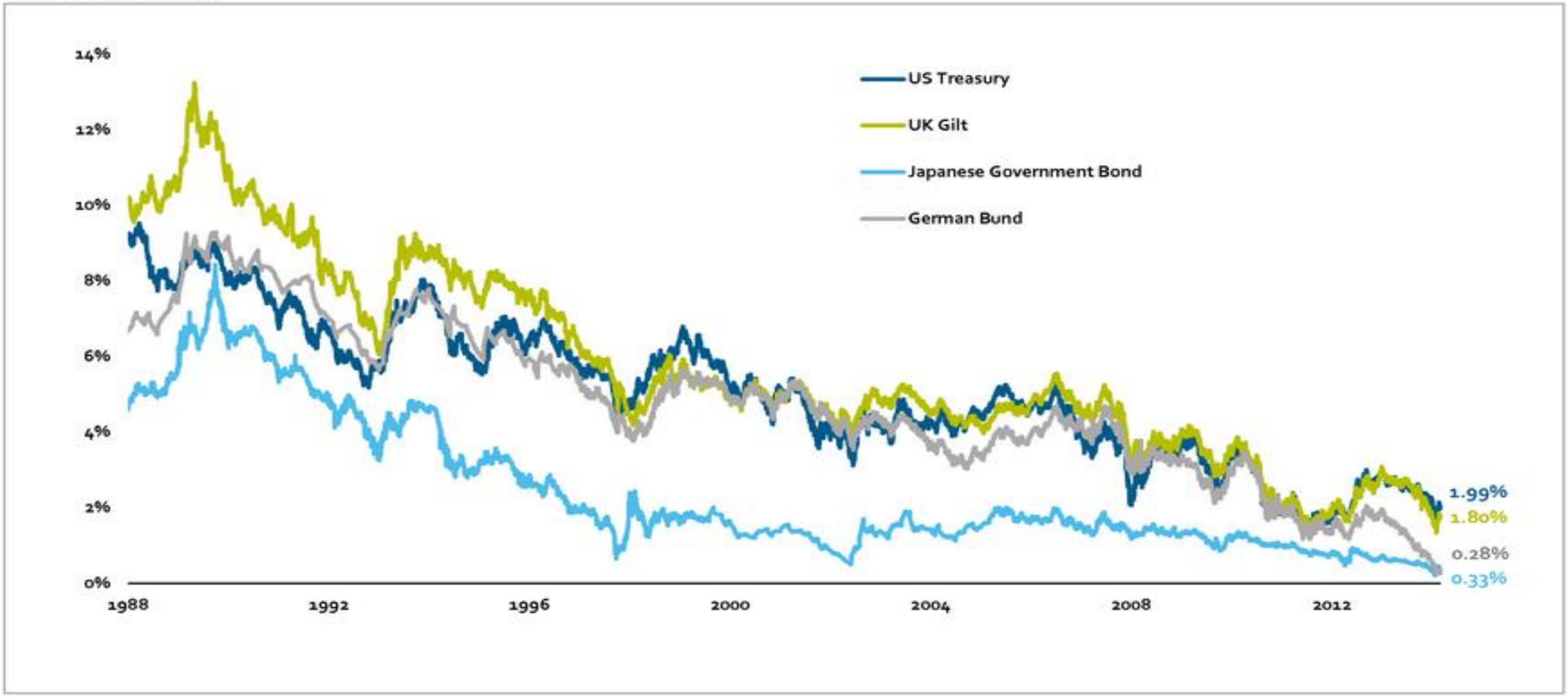
The strategies and views expressed herein are those of Peter Badger and not necessarily the views of Morgan Stanley or Morgan Stanley Wealth Management.

1. **The U.S. Economy**
    - Headwinds: Labor and Housing
    - Tailwinds: Oil Prices
    - Expansion vs Recession
    - Inflation vs Deflation
2. **Interest Rates**
    - Secular trend lower (but will it be for longer?)
    - QE: Us Jumps Out, Europe Jumps In
    - The US "Dollar Store"
    - Morgan Stanley Forecast
    - Lift-off ~ When Will it Occur?
3. **Key Strategies for 2015**
    - Bullets vs Callables
    - Move MBS Coupons Higher
    - Agency Step-Ups ~ MBS Alternative?
    - Boost Income Now ~ Fixed to Capped Floaters
    - Alternative Funding ~ Marketable CDs

Global Rates Have Fallen Over Last 30 Years

10-Year Sovereign Bond Yields

As of February 28, 2015



Source: FactSet

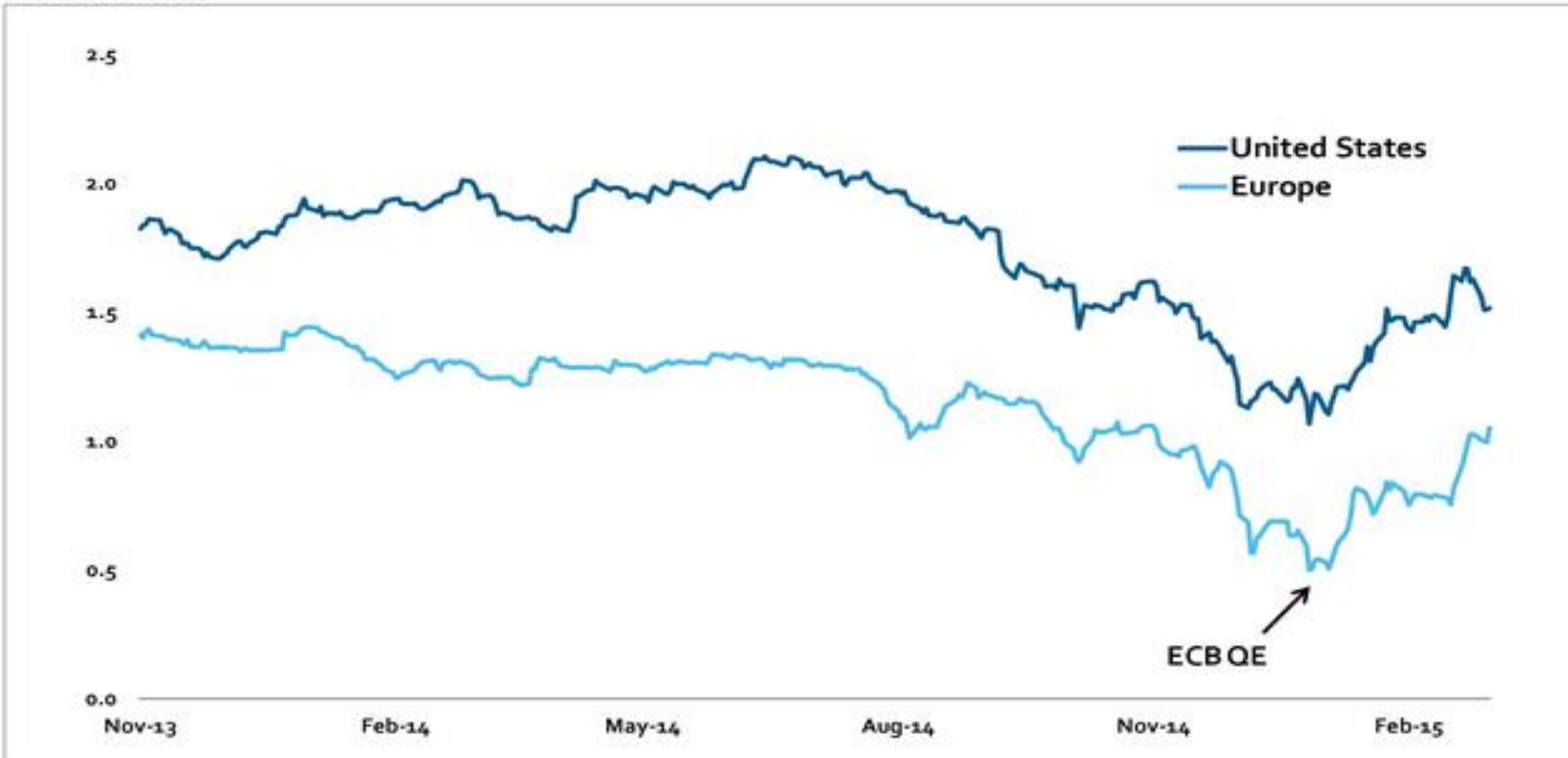
QE ~ What Have We Learned?

- **When interest rates reach the zero bound**, central banks need to be creative or else they run the risk of debt deflationary trap ~ think Japan between 1990 and 2012
- **After the financial crisis of 2008**, the Fed quickly reached the zero bound and found itself “out of bullets” ~ QE was the extraordinary tool of choice
- **In the end, QE simply acted like the additional rate cut** the Fed could no longer execute from the zero bound
- **While it took longer to see the typical characteristics of an economic recovery**, we are now seeing them in spades ~ tighter labor markets, credit growth, household formation, etc.
- **Therefore, it makes sense that the Fed exited QE last year** and is now contemplating interest rate hikes. From where we sit, we think the Fed is right on schedule.

ECB QE Is Getting a Vote of Confidence From Markets

Five-Year Inflation Breakevens for US and Europe

As of March 12, 2015

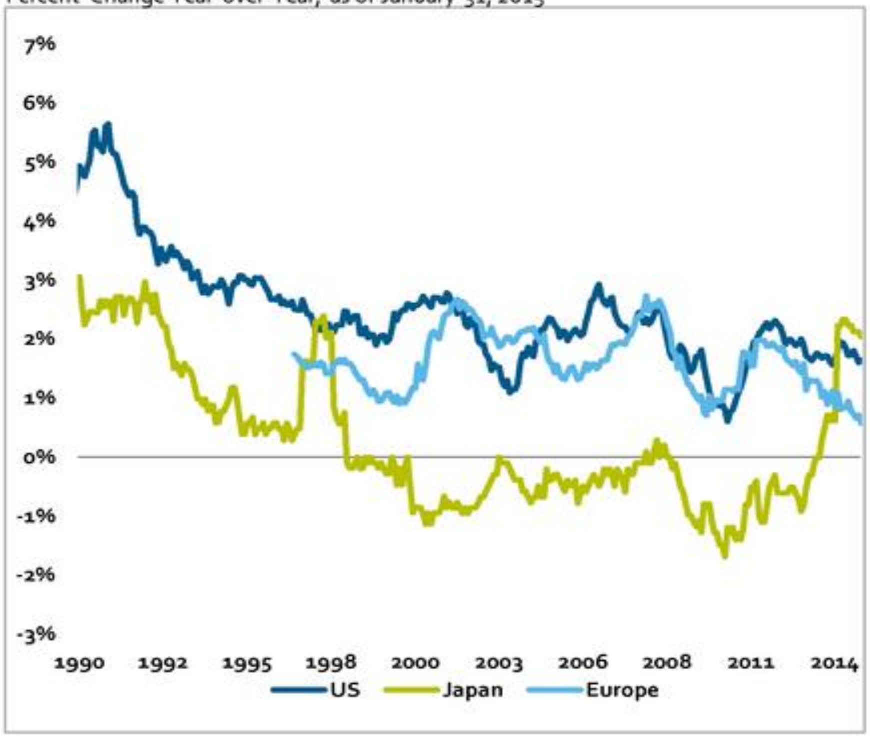


Source: Bloomberg, Morgan Stanley Wealth Management GIC

Stable US Growth and Inflation Have Created Attractive Relative Value in US Treasuries, Driving Demand for Dollars

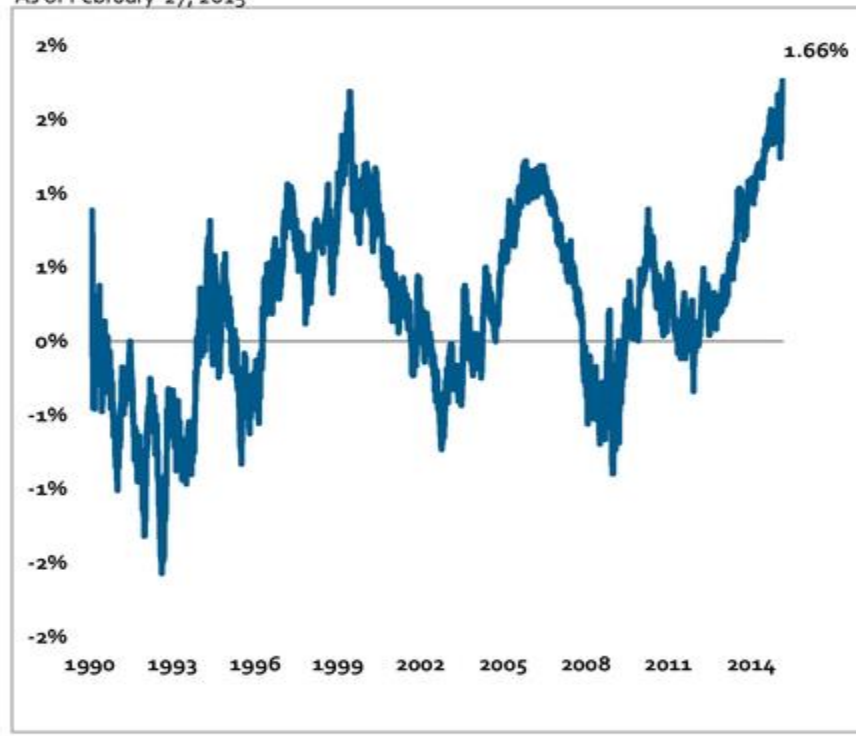
Inflation ex Food and Energy

Percent Change Year over Year, as of January 31, 2015



10 Year Treasury - 10 Year German Bund Yield Spread

As of February 27, 2015

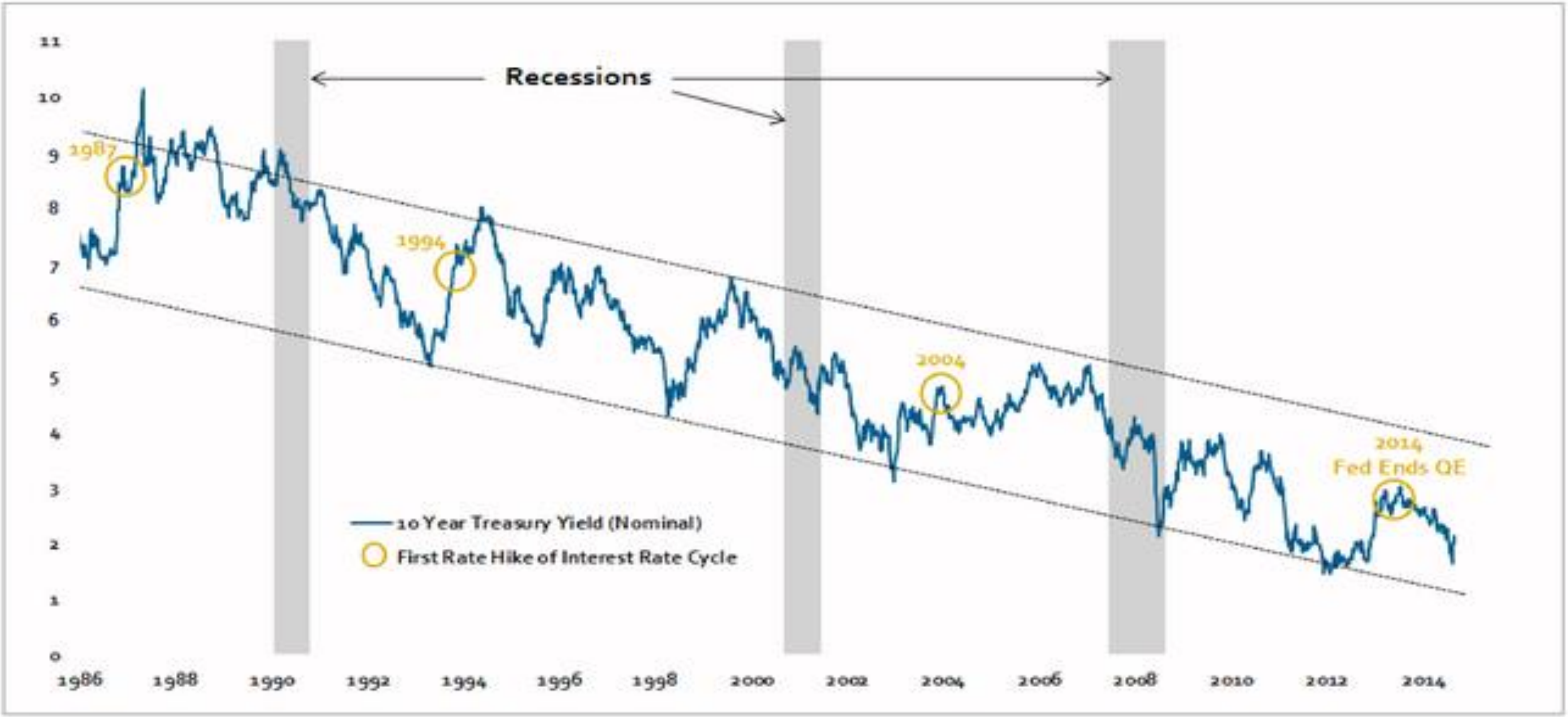


Source: Haver Analytics, Bloomberg, Morgan Stanley Wealth Management GIC

The Fed Tightens When It Believes The Economy Can Handle It

10-Year Treasury Yields (Nominal)

As of February 28, 2015



Source: Morgan Stanley & Co. Research, Bloomberg, Haver Analytics, National Bureau of Economic Research. Grey bars indicate periods of recession.

US Economics

Morgan Stanley

US Economics: Forecast Update

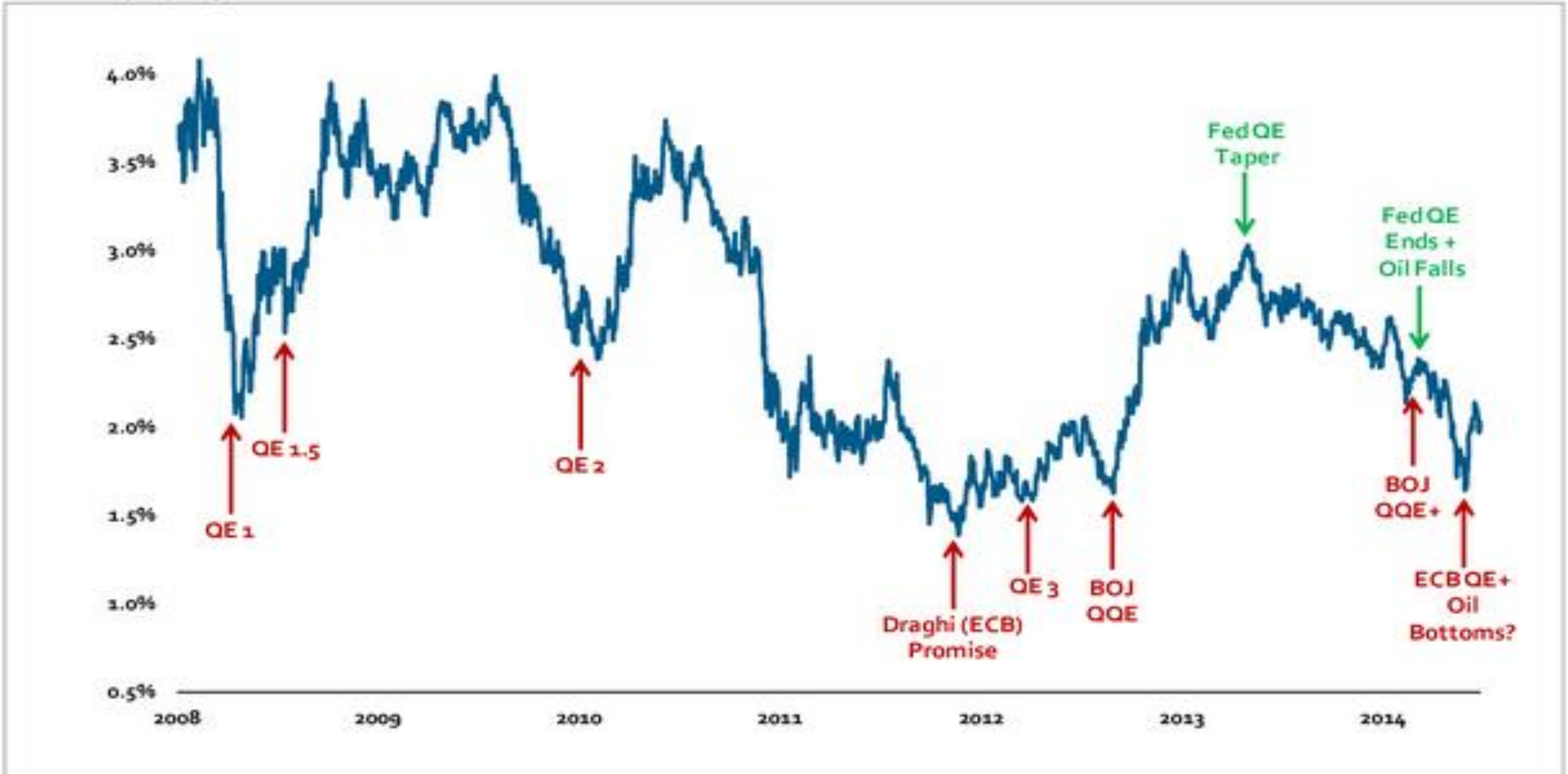
(4Q/4Q % change)	Actual	MS Forecast		Fed's SEP	
	2014	2015	2016	2015	2016
Real GDP	2.4	2.3	2.5	2.3 to 2.7	2.3 to 2.7
Previous		*2.8*	*2.1*		
CPI	1.2	0.5	2.1		
Previous		*0.3*	*2.3*		
Core PCEPI	1.4	1.2	1.8	1.3 to 1.4	1.5 to 1.9
Previous		*1.2*	*1.8*		
Unemployment (eop)	5.7	5.1	4.9	5.0 to 5.2	4.9 to 5.1
Previous		*5.1*	*4.8*		

Source: Morgan Stanley Research

US Interest Rates Are Moving Higher

10-Year Treasury Yield

As of February 28, 2015



Source: Bloomberg, Morgan Stanley Wealth Management GIC

Morgan Stanley Rate Forecast - 2015

	12-Mar-15	1Q15	2Q15	3Q15	4Q15	Change
Fed Funds	**0.10**	**0.13**	**0.13**	**0.24**	**0.40**	**0.30**
1-Year	0.39	0.42	0.62	0.67	0.80	
2-Year	**0.68**	**0.70**	**1.10**	**1.10**	**1.20**	**0.52**
3-Year	1.07	1.15	1.55	1.55	1.70	
5-Year	**1.60**	**1.80**	**2.10**	**2.15**	**2.35**	**0.75**
7-Year	1.90	2.20	2.45	2.45	2.65	
10-Year	**2.12**	**2.50**	**2.65**	**2.65**	**2.85**	**0.73**
30-Year	2.68	3.15	3.25	3.25	3.35	

Source: Morgan Stanley, March 15, 2015
Interest Rate Strategist

Fed Tightening ~ What Will it Look Like?

Consider fed funds pricing in the last three hiking cycles – in 1994, 1999-2000 and 2004-06.

•1994 delivered the most surprises

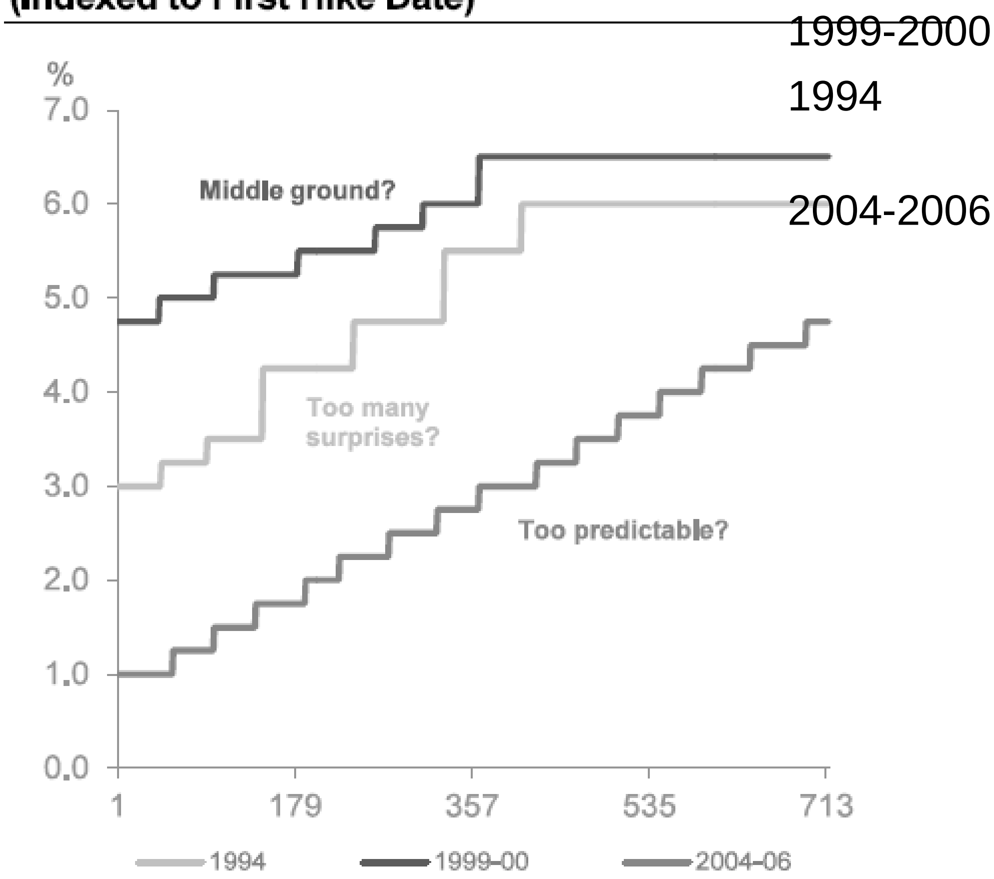
•2004-06 was close to predictable

•MS believes the upcoming cycle will be closer to the 1999-2000 cycle, which was somewhere in between the two extremes of 1994 and 2004-06.

Source: Morgan Stanley, March 15, 2015
Interest Rate Strategist

Exhibit 1

Fed Funds Target Rate in Previous Three Hike Cycles (Indexed to First Hike Date)

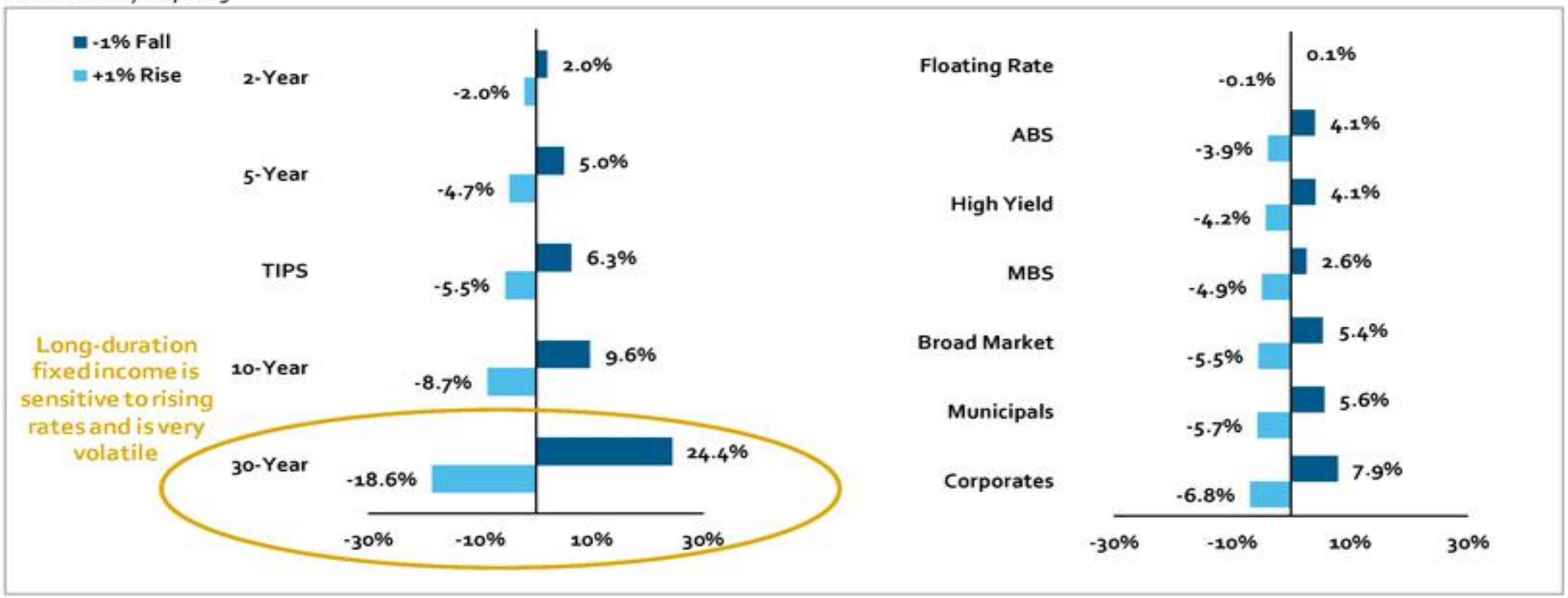


*CTD maturity based on the assumption that lowest maturity bond is the CTD in each basket
Source: Morgan Stanley Research

Long-Duration[1] Bonds Can Be Risky When Rates Rise

Total Return Impact of a 1% Rise/Fall in Interest Rates

As of February 28, 2015



Source: FactSet, Morgan Stanley Wealth Management GIC. The following Barclays indices were used for the sectors above : US Aggregate for Broad Market, US Aggregate Securitized – MBS Index for MBS, US Corporates for Corporate, Muni Bond 10-year Index for Municipals, Corporate High Yield Index for High Yield, US TIPS Index for TIPS, FRN (BBB) for Floating Rate, US Convertibles Composite for Convertibles and Barclays ABS + CMBS for ABS. Barclays US Treasury benchmark indices used for US Treasury data. (1) For more information about the risks to Duration please refer to the Risk Considerations section at the end of this material.

US Interest Rates

Path of Long-Term Rates

- **Strengthening dollar, European QE, Disinflationary Pressures (i.e. oil prices)** should continue to exert downward pressure on long-term rates
- **European QE** will keep European rates low through 2016
- **Foreign investment** will continue to flow into US Treasuries … where it is treated better
- **Long-term rates should continue to fall**, perhaps even as the Fed raises short-term rates
- **Sluggish economic growth**, with as many downward as upward surprises, should not exert much upward pressure on rates
- **Wild card:** Inflation ~ there is none. There won't be any inflation in the major countries in 2015. Can it stay down? Yes. The world is in an extraordinary moment.

Source: Morgan Stanley US Economics, FOMC: Change is Good, March 18, 2015.

US Inflation

Can it Stay Down?

- **Demand for goods is less than supply ~** oil has fallen from over $100/bbl to less than $50/bbl in no time. When demand for goods is less than supply, deflation kicks in (or at least *no inflation*, where we are now)
- **People are not spending ~** after the housing bust and the 2008-2009 recession, people are "once burned, twice shy"
- **Loans are difficult to get ~** going through the loan process in America these days is a tedious experience (and then you get turned down for the loan!)
- **Governments are scared to death of deflation,** so they will continue to (1) print more money and (2) push interest rates to the zero bound and below (to get money out of savings and into society) … but we're not taking the bait
- **The only government plan**, so far, is to add more bait

Source: Morgan Stanley US Economics, FOMC: Change is Good, March 18, 2015.

2015 is Turning Out to Be Another Challenging Year

- Replacement assets continue to be put on at lower levels
- Lower rate levels means Net Interest Margin continues to contract
  - Morgan Stanley Research (12/17/14) **calls for an additional 9 bps of compression in NIM** over the course of 2015
  - NIM compression has led an increased willingness by banks to engage additional tools outside of their typical arsenal to capture yield.
- Loan growth continues to be modest and replacement yields continue to be lower
- **Inactivity** over the past 24 months **has become increasingly costly**
- Positioning the portfolio to withstand a protracted period of low rates should be considered to moderate the negative impact to NIM

Strategy 1: Bullets or Callables?

Bullets Outperform When Rates are Stable/Declining
Callables Outperform When Rates are Rising

Representative 3-year Treasuries/Agencies

03/19/15

	Description	Coup	Maturity Date	Market Px	YTC	YTM	Over FF	Px Sensitivity		
							0.200%	+100	+200	+300
4	T 3yr Treasury	1.000	03/15/18	100.094	na	0.968%	0.768%	-2.9%	-5.7%	-8.4%
5	Agency 3yr Bullet	1.375	03/09/18	101.010	na	1.029%	0.829%	-2.9%	-5.6%	-8.3%
6	Agency 3yr NC 1yr	1.100	03/29/18	100.000	1.100%	1.100%	0.900%	-2.9%	-5.7%	-8.4%
7	Agency 3yr NC 6mo	1.200	03/23/18	100.000	1.200%	1.200%	1.000%	-2.9%	-5.7%	-8.4%
8	Agency 3yr NC 3mo	1.250	03/26/18	100.000	1.250%	1.250%	1.050%	-2.9%	-5.7%	-8.3%

Data Supplied by the Bloomberg Professional Service™

For Illustrative Purposes Only

Strategy 2: Step-Up Your MBS Coupon

Higher Coupons Capture Additional Yield w/ Lower Px Vol as Rates Rise

Representative MBS Securities

10 yr @ 100.54 1.94% 03/19/15

15 Year MBS (TBA)		Coup	Base WAL	+300 WAL	Last Px	Base	+100	+300	+100	+200	+300	Dur
1	G2JO 2.0 3/15	2.000	5.0	7.1	98.906	2.20	2.18	2.17	-4.3%	-10.1%	-15.4%	5.1
2	G2JO 2.5 3/15	2.500	5.0	7.1	101.906	2.11	2.13	2.14	-3.9%	-8.8%	-13.4%	4.5
3	G2JO 3.0 3/15	3.000	5.0	7.1	103.875	2.18	2.25	2.27	-3.5%	-8.3%	-13.0%	4.3
4	G2JO 3.5 3/15	3.500	4.8	6.0	104.938	2.34	2.50	2.56	-3.5%	-8.1%	-12.9%	4.3
5	G2JO 4.0 3/15	4.000	3.7	4.6	104.844	2.54	2.78	2.82	-2.7%	-6.5%	-10.2%	3.4

30 Year MBS						Base	+100	+300	+100	+200	+300	Dur
16	GNSF 2.50 3/15	2.500	8.6	10.5	99.734	2.54	2.53	2.53	-7.8%	-15.3%	-21.5%	7.2
17	GNSF 3.0 3/15	3.000	7.1	10.1	102.922	2.52	2.63	2.65	-7.1%	-14.1%	-20.5%	6.8
18	GNSF 3.5 3/15	3.500	5.5	9.7	105.141	2.43	2.80	2.85	-6.1%	-12.6%	-19.2%	6.4
19	GNSF 4.0 3/15	4.000	4.0	9.4	107.266	1.99	2.96	3.05	-4.4%	-10.5%	-16.9%	5.6
20	GNSF 4.5 3/15	4.500	3.4	8.9	109.984	1.37	3.00	3.12	-1.9%	-7.0%	-13.0%	4.3
21	GNSF 5.0 3/15	5.000	3.2	8.3	111.547	1.15	2.99	3.29	-1.4%	-5.0%	-10.4%	3.5

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Strategy 3: Agencies ~ Fixed Rate or Step-Ups

MS DOES NOT PROVIDE LEGAL OR ACCOUNTING ADVICE; CONSULT YOUR OWN PROFESSIONAL ADVISORS FOR FURTHER INFORMATION

- The callable agency Step-Up is attractive relative to traditional callable in that it reduces your risk of extension in a modest sell-off and outperforms a traditional callable in a significant sell-off

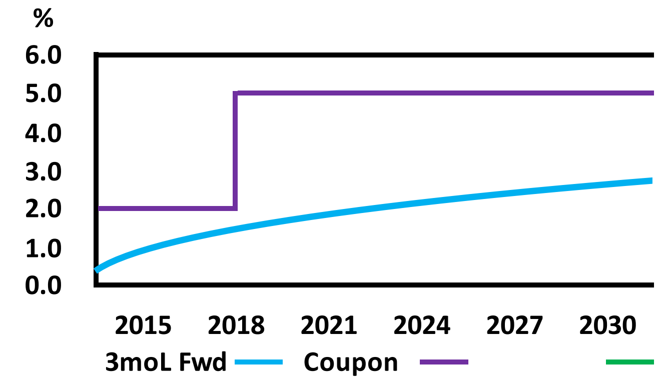
Risks (include but not limited to):

- If rates fall, the investor may have been better off in a traditional fixed-rate bullet

Illustrative Termsheet

Issuer:	**Federal Home Loan Bank**
Rating:	**AAA/AA+**
Maturity:	**15 Yr , subject to call feature**
Call Freq:	**Quarterly, 3 mo after issue date at PAR**
Coupon:	**Yr 1-4: 1.77%**
	Yr 5-15: 5.00%
Offer:	**PAR**
Average Life:	**3.45 Years**

Payout Profile ~ Illustrative



Source: Bloomberg, Morgan Stanley

Overview and Rationale

- **Alternative to MBS Pass-thrus**: for investors concerned about rising rates, step-ups provide less extension risk than traditional callables and MBS; if not called investors earn a higher coupon relative to MBS
- **Yield pick-up**: By selling the right to call, investors are able to enhance yield relative to the traditional bullet.
- **Step-ups provide a tool to target shorter expected lives** while earning yields significantly above those of similar maturity bullets

Source: Morgan Stanley, The Banker's Toolkit, Q1, 2015.

Strategy 4: Fixed to Capped Floater

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- Through the sale of forward caps that are still well above the present forward rates, the bank is able to generate a significant pick up in the near term

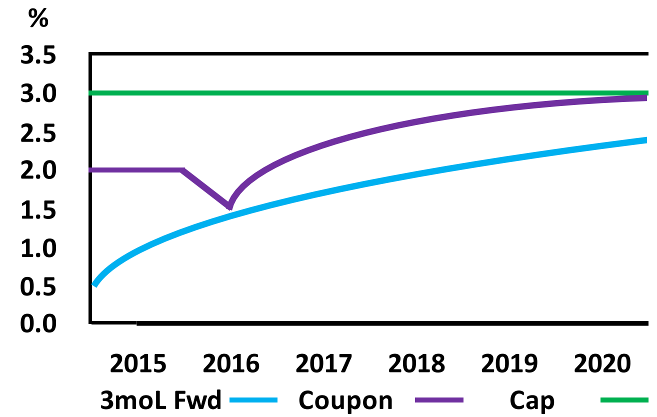
Risks (include but are not limited to):

- This structure will underperform a vanilla floating rate bond if 3mLibor moves above the strike for an extended period of time

Illustrative Termsheet

Notional:	**$5mm+**
Coupon:	**Yr 1: 2.00% Yr 2-5: 3mLibor + 0.71%** **Capped at 3.00%**
Price:	**100.000**
Bloomberg:	**US0003M Index**

Payout Profile ~ Illustrative



Source: Bloomberg, Morgan Stanley

- Take advantage of a steep interest rate curve as well as high levels of volatility
- By selling caps in the future, the bank is able to secure a higher fixed rate in the near term (2.00%) to supplement portfolio income during a period of near zero percent interest rates
- 3.00% coupon cap allows for considerable rise and is well above current 5-year swap rate

Source: Morgan Stanley, The Banker's Toolkit, Q1, 2015.

Strategy 4: 10-yr Corporate Fixed to Capped Floater

MS DOES NOT PROVIDE LEGAL OR ACCOUNTING ADVICE; CONSULT YOUR OWN PROFESSIONAL ADVISORS FOR FURTHER INFORMATION

- Through the sale of forward caps that are still well above the present forward rates, the bank is able to generate a significant pick up in the near term

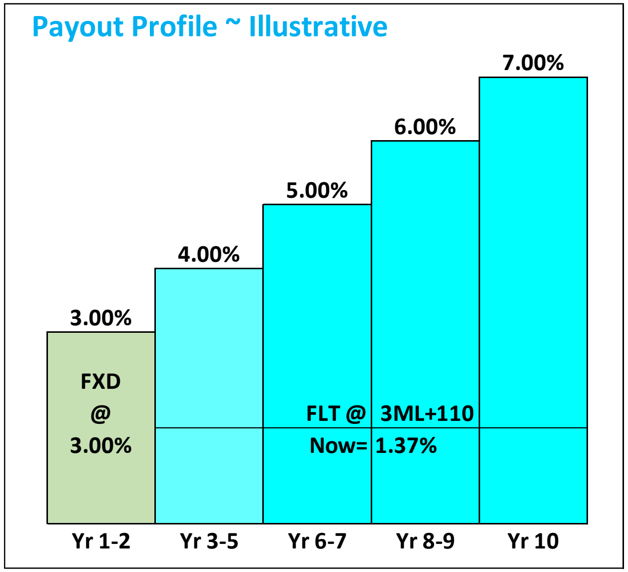
Risks (include but are not limited to):

- This structure will underperform a vanilla floating rate bond if 3mLibor moves above the cap for an extended period of time

Illustrative Termsheet

Notional:	$5mm+			
Rating:	Baa1/A+			
Coupon:	Yr 1-2:	FXD	3.00%	
	Yr 3-5:	FLT	3ML+1.10%	4.00%
	Yr 6-7:	FLT	3ML+1.10%	5.00%
	Yr 8-9:	FLT	3ML+1.10%	6.00%
	Yr 10:	FLT	3ML+1.10%	7.00%
Price:	100.000			
Freq/Pay:	Qtr/Qtr			
Index:	US0003M Index			

Source: Bloomberg, Morgan Stanley



- Take advantage of a steep interest rate curve as well as high levels of volatility
- By selling caps in the future, the bank is able to secure a higher fixed rate in the near term (3.00% for 2 years) to supplement portfolio income during a period of near zero percent interest rates
- Increasing coupon cap allows for considerable rise and is well above current 5-, 7- and 10-year swap rates

Source: Morgan Stanley, The Banker's Toolkit, Q1, 2015.

Strategy 5: Brokered Deposit Facility

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Reduces Deposit Sensitivity to rising rates

- Entering into a 5yr deposit increases the stickiness of your total deposits

Risks (include but not limited to)

- If 3mL remains low, the bank may have been better off with floating rate deposits

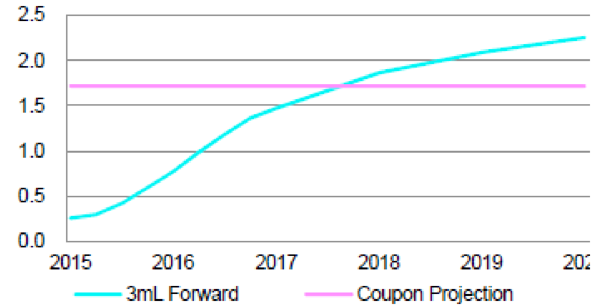
Illustrative Termsheet

Deposit CP	Brokerage Firm Clients
Deposit Amount	$1,000,000,000
Pricing Date	TBD
Maturity	5Y after Original Issue Date
Original Issue Date	Settlement Date + 2 Business Days
Interest Rate	1.72%
Day-Count	30/360
Individual Deposit Limits	$250,000 (subject to FDIC Limits)
Individual Deposit Maturity	1 Day

Payout Profile

Illustrative

%



Source Bloomberg, Morgan Stanley

Overview and Rationale

- The majority of deposits are short dated. A brokered deposit facility enables extension of term and reduction of exposure to deposit losses
- Provides a meaningful increase to the total level of deposits
- By entering into a fixed rate deposit, a bank reduces overall sensitivity to rising rates by mitigating some of the overall impact of replacement deposits being added in a rising rate environment
- Locking in a 5yr deposit at 1.72% is attractive compared to the still low level of rates from a historic standpoint

Managing the Loan Portfolio - Residential

- **10 year loans** – Hold in portfolio – great cash flow & acceptable duration, but only viable in a refi market.
- **15 year: (4% duration)** – Maybe if you are experiencing loan to asset ratio below 65% - duration isn't bad.
- **30 year: (8% duration)** – Even at 3.75% in 1st Q, 2015 some banks will rationalize holding in portfolio: **the key is, how liability sensitive is your balance sheet**? Also remember the average 30 year rate is 5.75% (we are 2% below average).
- **ARMs ➔** if you can make them, hold them, but activity is low and 7/1 are questionable.
- **Refinancing**: The refinancing boom was over, but with a 10 year at 2% it is back in the 1st Q of 2015.
- **Home Equity Loans** – I would push HELOC in 2015, but you will need to act quickly and price aggressively – Below Prime –2.99% prime floater makes a lot sense if rates are going to increase. Forget teaser rates, go for good credit quality (FICO > 700) and use low drawdowns.

Commercial Real Estate Lending

Note: In the lowest rate environment in 70 years a borrower desires long term maturity, but effective bank asset management requires short-term adjustable [5 years]. How do we reconcile this mismatch?

Investments are mathematical; whereas lending involves math and relationships.

- ❑ Large competitors are doing 7,10 year loans, but they are swapping fixed for floating. Community banks are not swapping and it is unlikely they will.
- ❑ As an ALM consultant I understand the need to control loan portfolio duration, but as a board member I understand borrower relationships.

How do you reconcile duration and relationships?

- ❑ Walk away from 10 year fixed rate loans – if your loan to asset ratio is >75% I would recommend walking.
- ❑ Compromise on the rate rather than the term – aggressively price 5 year adjustable.
- ❑ If the relationship is large – make the 10 year fixed rate loan.

There is no magic solution, but a major consideration should be the bank's present exposure to changing market interest rates – <u>asset or liability sensitive</u>?

Managing Liabilities

- The average cost of funds in every community bank peer group is the lowest on record – Peer Groups < $1B are dropping below 56 basis points. Rate on interest bearing deposits dropping below 60 bps.
- Cost of funds in every community bank peer group decreased again based on 2014 UBPR ➔ **down 7 bps in 2014**, but the marginal decline gets small every quarter.
- Wholesale opportunities provide excellent marginal options for banks that are making loans and/or have declining liquidity.
- Wholesale opportunities are an option for banks with excess liquidity if they are willing to allow deposits to flow out.
- Wholesale options also allow a bank to **lock in longer term rate** – this is going to be a problem with retail CDs **– penalties can slow down early termination, but penalties come with reputation risk.**
- Every ALCO has been focused on asset management, but in 2015 your ALCO needs to give some thought to liability management.
- I believe we will see deposit pricing pressure in 2015 either driven by funding loan growth or as liability sensitive institutions try to increase liability duration.
- **ALCOs need to be ready to react.**

Current FHLB Pricing – 4/6/2015

Product	Rate
Overnight	0.33%
1 Month	0.31%
3 Months	0.34%
1 year	0.56%
2 year	0.91%
3 Year	1.24%
5 Year	1.74%
10 Year	2.62%
Amortizing	
5 Year	1.43%
10 Year	2.62%

- Banks with advances maturing in 2015 or even 2016 are in a great position to restructure balance sheet – using laddering to **lengthen liability duration**.
- Look at the cost of advances and consider the flexibility you have in lengthening liability duration. **Think about a ladder (See term out Tuesday on next slide)**
- Think of the options if you are making loans- do I need to match maturity if rates will not to change until 2016?
- Borrowing is good options in lengthening liability duration, **but the cost of term advances moves with the slow of the Treasury yield curve. The cheapest five year ladder in last two years was February 2, 2015.**
- **How expense will advances be the day before Yellen raises rates – likely very expense!**

Deposit Management

Look at the trends in the last six years:

1. Community banks have experienced an increase in deposits – how much may partially depend on individual bank pricing ➔ FDIC estimate is $2.5 Trillion.

   Why? Household seeking safety of FDIC insurance; Outflow from investment companies [Vanguard], especially Money Market Mutual Funds which since 2008 pay very low rates; and large banks have pull back on rates.

2. Community banks have experienced an **increase in core deposits** [Transaction and Savings Accounts] and a decline in certificates.

   Why? Pricing differential by banks and also customers desiring liquidity.

3. Community banks are sitting on a lot of "HOT MONEY"?

   The FDIC calls this <u>surge deposits</u>.

Let's Rethink Core Deposits

<u>FDIC Definition of Core Deposits</u> : DDA + NOW + MMDA + SA + CD < $250,000

Note ➔ <u>Core Deposits are one of the best correlators to success in Community Banking; therefore an accurate definition is critical.</u>

<u>What is a core deposit? Practical Considerations</u>: Low cost over the rate cycle; relatively insensitivity to a change in market rates, and offers cross sell opportunities.

<u>My Definition of Core Deposits</u> : DDA + NOW + MMDA + SA

But let's talk about MMDA and maybe savings accounts

Has the Customer Profile changed since last time rates increased (2004-2006)?

Has customer behavior changed since 2006?

- Check the growth in on-line banking: Compare the % of checking customers who were on-line or had bill pay in 2006 versus the % today in 2015. I think you will be surprised at the growth

- Consider the options a **digital savvy customer** has in our tech focused world. Put two and two together and think of the potential outcomes when rates start to increase.

Deposit Strategies for 2015

- In 1st & 2nd quarters of 2015 someone in your market, a bank or credit union is going to begin to price up long-term CDs.
- This will cause some deposit outflow and if you have 10 to 12 % primary liquidity you will be able to handle the out flow up to a point.
- Once Yellen starts to raise rates the pressure on everyone will become greater as pricing long-term CD increases.
- As noted above, wholesale solutions [brokered CDs and FHLB Advances] may be the best initial reaction, but at some point we will need to turn to deposit strategies.
- As rates rise we need to force customers out of MMDA and Savings pools into CDs.
- Begin to think strategically of how to structure attractive CDs to attract the most rate sensitive customers [high tiers] from the pools.

Key Issues from Today's Session

- We will be closer to a **rate hike with June 2015** as earliest possible date.
- **Loan demand** is likely to gradually increase during 2015 slowly absorbing liquidity.
- We need to be focused on **asset duration** in both the loan and investment portfolio.
- **Deposit pricing and deposit outflows** are going to be a greater concern in 2015 [this was beginning to happen in the 4th quarter of 2014 in some markets.
- By late 2015 or early 2016 **liability sensitive banks** will begin to see an impact on their margin, but the real damage will likely hit in 2016 and 2017.
- Be prepared for the next exam, **regulators are focused on interest rate risk.**