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OCTOBER 27–30, 2013 | LAS VEGAS

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Global Central Bank QE Programs: How to Navigate Short Term Markets in a Time of Changing Monetary Policies

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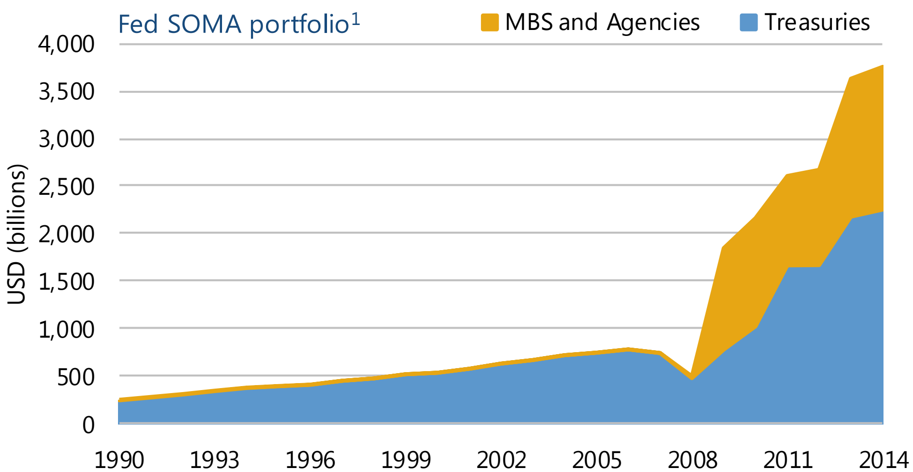
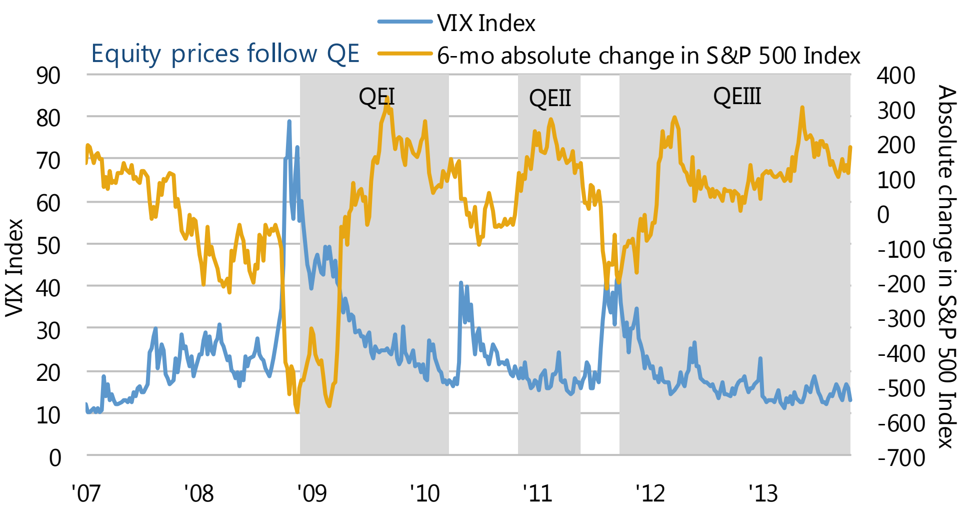
United States: Fed extends low rates, QE

- Federal Reserve SOMA purchases nearing $3.5 trillion
  - Since 2008, massive reduction in Treasury bill and commercial paper issuance as well

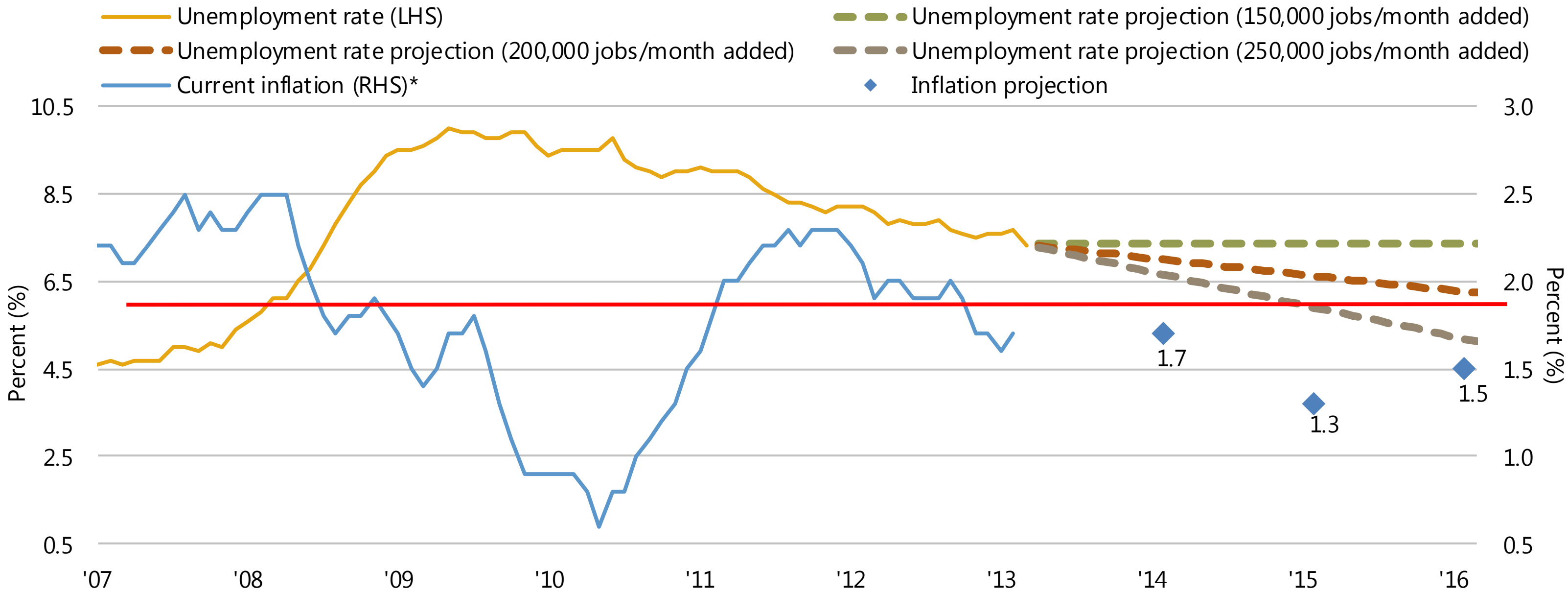


- Continued quantitative easing measures drive asset prices
  - Prices less reflective of fundamentals



As of 17 October 2013
1 As of 30 September 2013
Source: Federal Reserve, Bloomberg
System Open Market Account (SOMA)

United States: Economy still well shy of targets



- U.S. unemployment and inflation are still well away from Forward Guidance targets (6.5% and 2%, respectively)
  - Unemployment remains high and inflation expectations are underwhelming
  - Fed unlikely to raise target rate for a long time – PIMCO expects that it will hover near zero until 2016

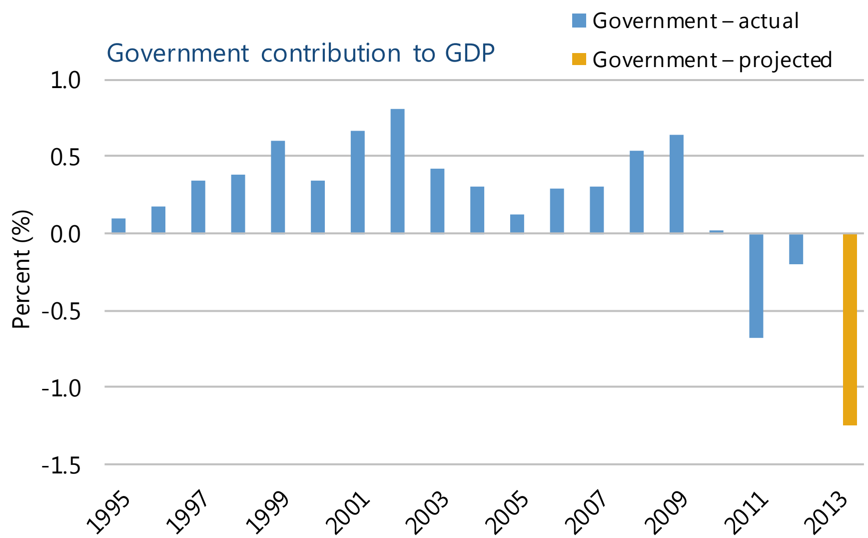
As of 31 August 2013
SOURCE: Haver Analytics, BEA
Inflation data is current as of 31 August 2013 and reflect recently released comprehensive revisions to the national income and product accounts published by the BEA every five years to more accurately portray the evolving U.S. economy given improved methodologies and newly available data. Assumption of 150,000 for breakeven level of jobs added

* Year-over-year percentage change in the core CPI, forward projections based on BEI

United States: Default averted by short-term compromise

- Congress reaches a temporary resolution
  - Government funded through January 15th at 2013 sequester levels ($986 billion annualized)
  - Committee tasked with delivering a reconciled budget, but no penalty if it fails to deliver
- Growth impact of decline in federal spending
  - Shutdown may result in an annualized drag of 0.1-0.2% of GDP
  - Knock-on effects may harm consumer and business confidence
- Markets shrug off shutdown uncertainty
  - S&P 500 reached a new high in October following Congress' last-minute deal
  - Fed may extend current pace of purchases into 2014 on continued uncertainty and data delays

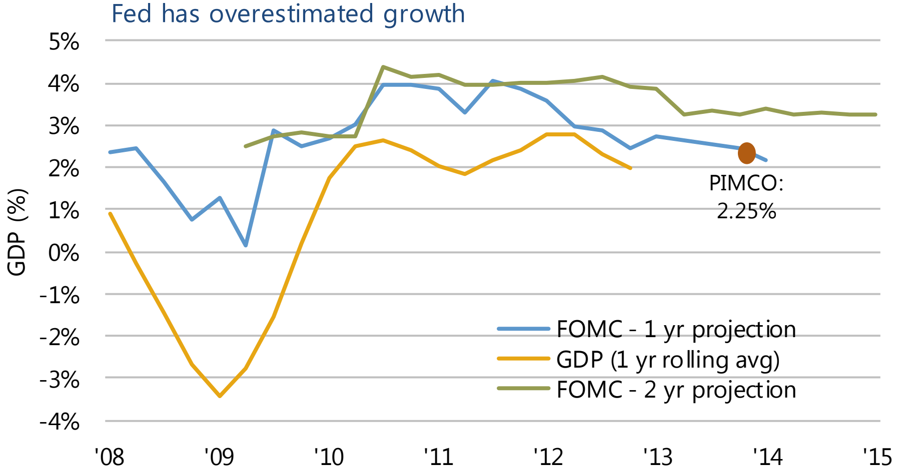
Key policy dates	
13 Dec	Congressional budget committee delivers budget report for 2014 fiscal year
15 Jan	Continuing resolution expires
7 Feb	Debt ceiling suspended until this date, but likely through March with use of extraordinary measures



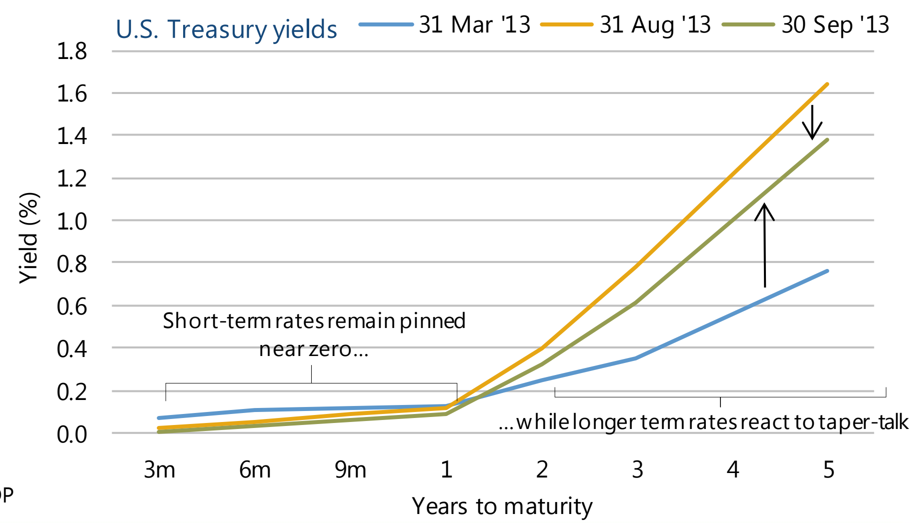
As of 18 October 2013
SOURCE: BEA, Haver Analytics, PIMCO

United States: Longer-term forecasts create uncertainty

- Fed struggles to gauge economy, leads to conservative decisions (e.g. non-taper)
  - Fed has consistently overestimated GDP growth over prior several years

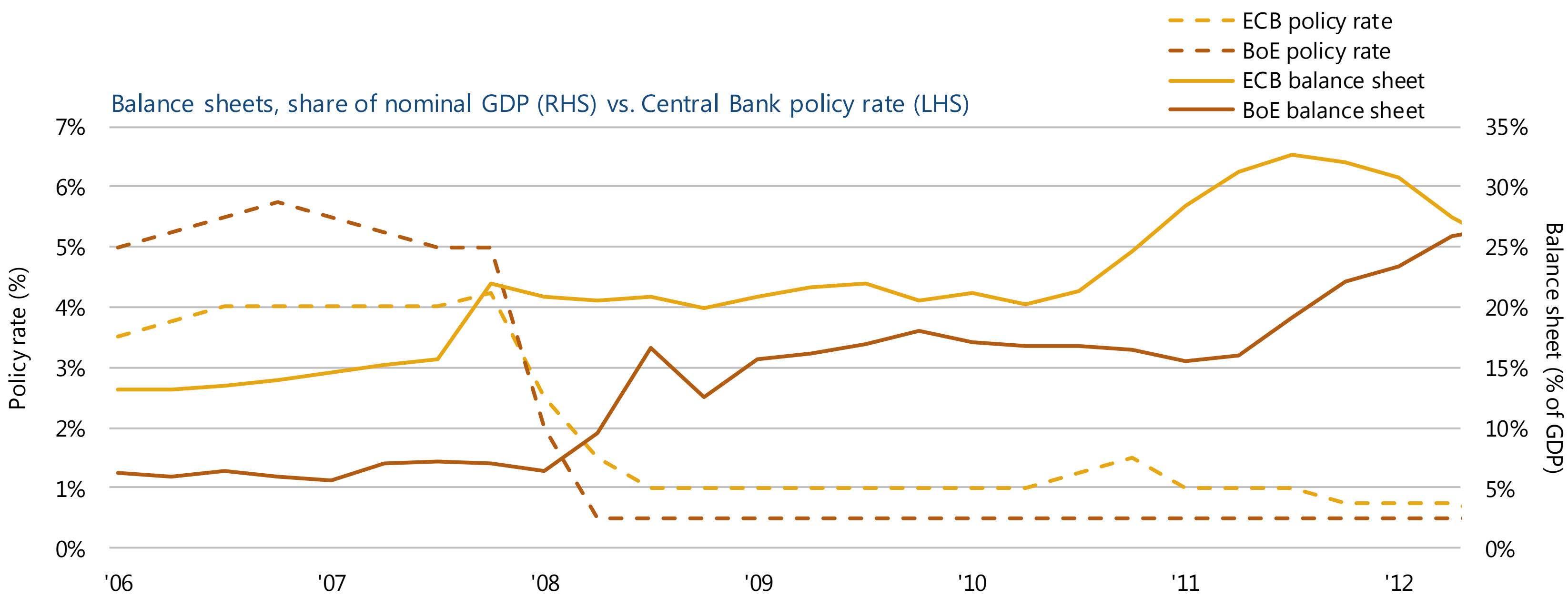


- Short-term yields may act differently than longer-maturity yields
  - Intermediate and long term yields rose, then fell on September taper announcement
  - Short-term yields remained relatively stable



As of 30 September 2013
SOURCE: FOMC Summary of Economic Projections, PIMCO, Bloomberg
FOMC projections represent the mean of the Central Tendency for FOMC Real GDP predictions 1 and 2 years ahead, respectively.

UK and Eurozone

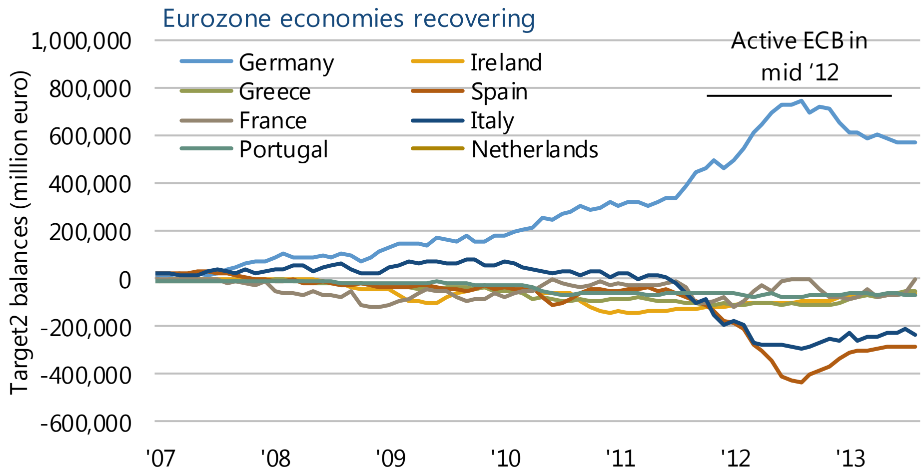


- Active BoE and ECB employ own strategies but rates still closely linked to Fed policy
  - Both banks have initiated Forward Guidance measures
  - ECB promised "whatever it takes" in 2012, clipped left tail of a European bank run

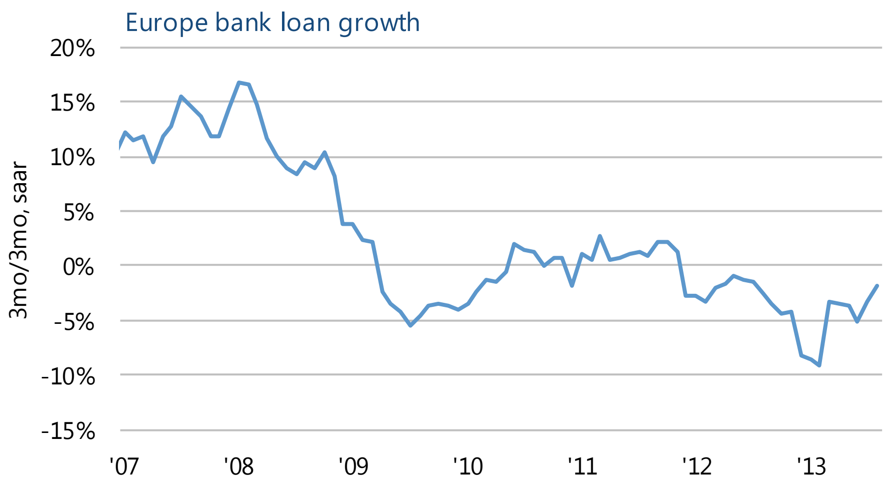
As of 30 June 2013
Source: Bloomberg, National Central Banks

ECB serves as stabilizing force

- Target2 data suggests improving Eurozone periphery
  - Target2: represents interbank payment system across Eurozone, proxy for surplus versus deficit countries
  - Trend of positive German balance reversed in 2012 and continues to decline



- Europe still struggling for sustainable growth, reflected in bank loans
  - Short-term investors must continue to distinguish across Eurozone countries
  - Implementation of Eurozone banking union ongoing – key to European financial stability



As of 31 Aug 2013
SOURCE: Institute of Empirical Economic Research – Osnabruck University, Bloomberg

Japan: Three Arrows of Abenomics – waiting for Arrow #3

#1 Monetary

Double monetary base w/ large-scale asset purchases

Encourage bank lending; raise inflation expectations

#2 Fiscal

$50b for public works, $100b in additional spending

RISK: Consumption tax planned to help halve deficit

#3 Reforms

List of potential measures (below), but lack details

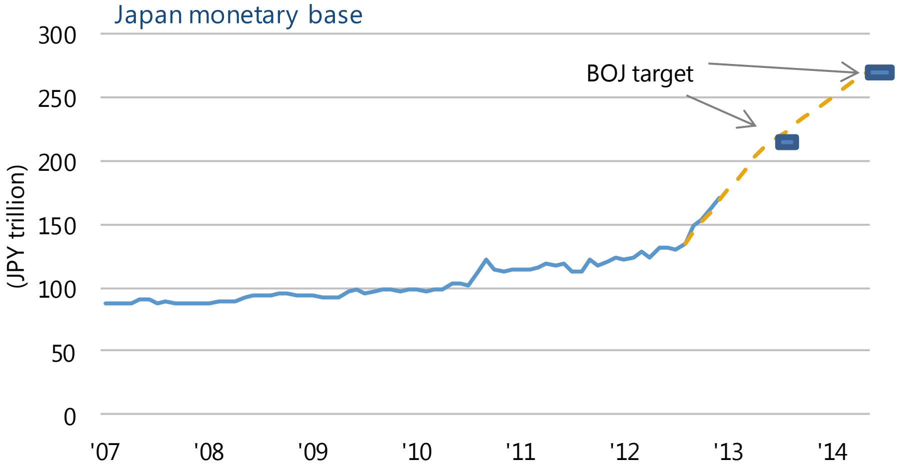
Ruling LDP controls both houses with ample clout to pass reforms

Pillars of Reform

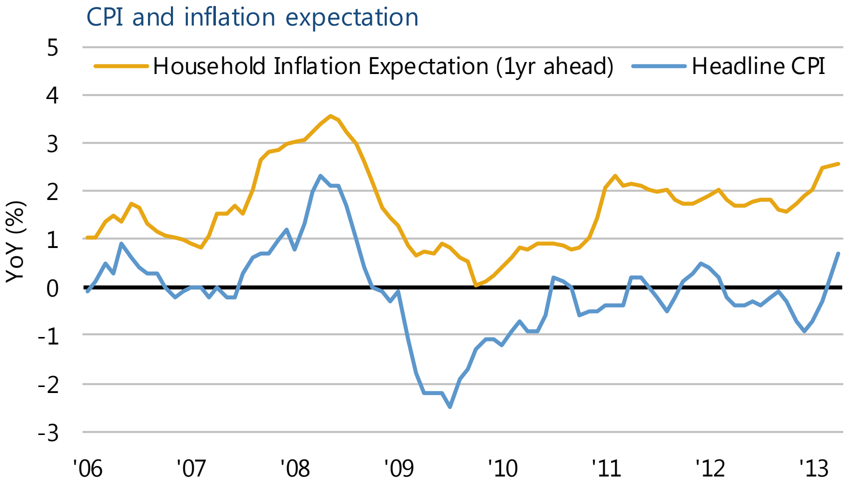
- *Improve productivity of private industry*
- *Increase labor efficiency & inclusion*
- *Develop new markets – home & export*

Japan: Employing aggressive fiscal and monetary policy

- BoJ articulated a goal of massive monetary base expansion
  - Committed to doubling the monetary base to 55% of GDP by 2015 – seeks to reach 2% inflation level

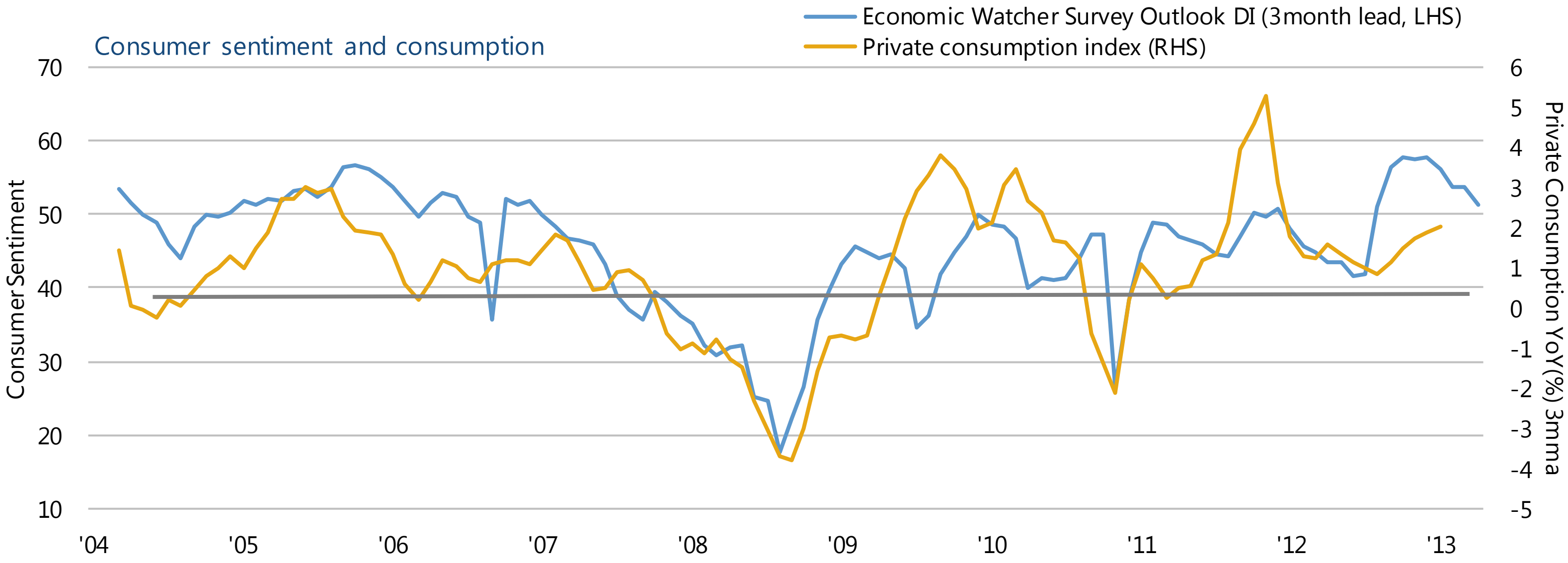


- Central bank activity has effectively translated to market expectations
  - Headline CPI and inflation expectations adjusted upward
  - Key will be long-term continued increase and sustainability



As of 30 June 2013
SOURCE: MIAC, Cabinet Office, Bloomberg, PIMCO

Japan: Continued growth requires tricky "handoff"



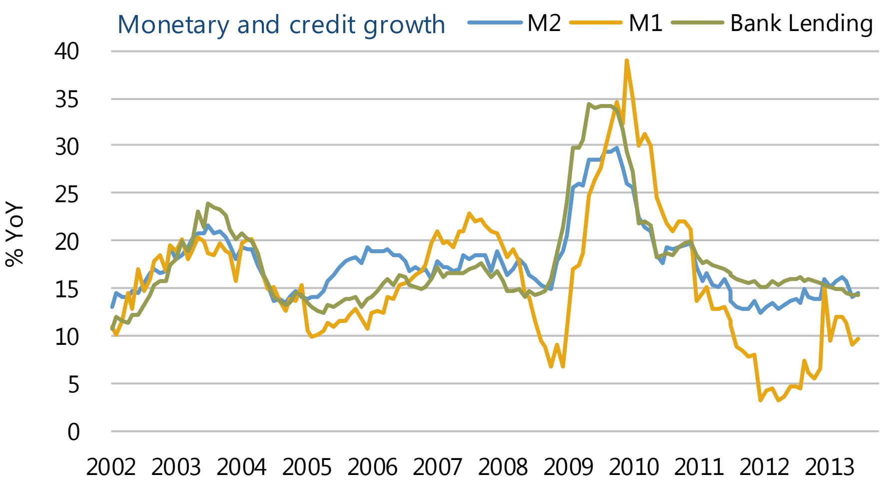
- BoJ is testing the limits of fiscal and monetary policy, needs to facilitate "handoff"
  - Must translate improving inflation expectations and sentiment to business/private industry
  - Investors need to watch for higher company productivity and profitability, and a more robust workforce
  - Downside risk remains, including: uneasy stock market, vague and slowly-implemented "Third Arrow" policies, impending increase in consumption tax

As of 30 June 2013
SOURCE: Cabinet Office, Bloomberg

China: Expanding financial system, seeking to stabilize growth

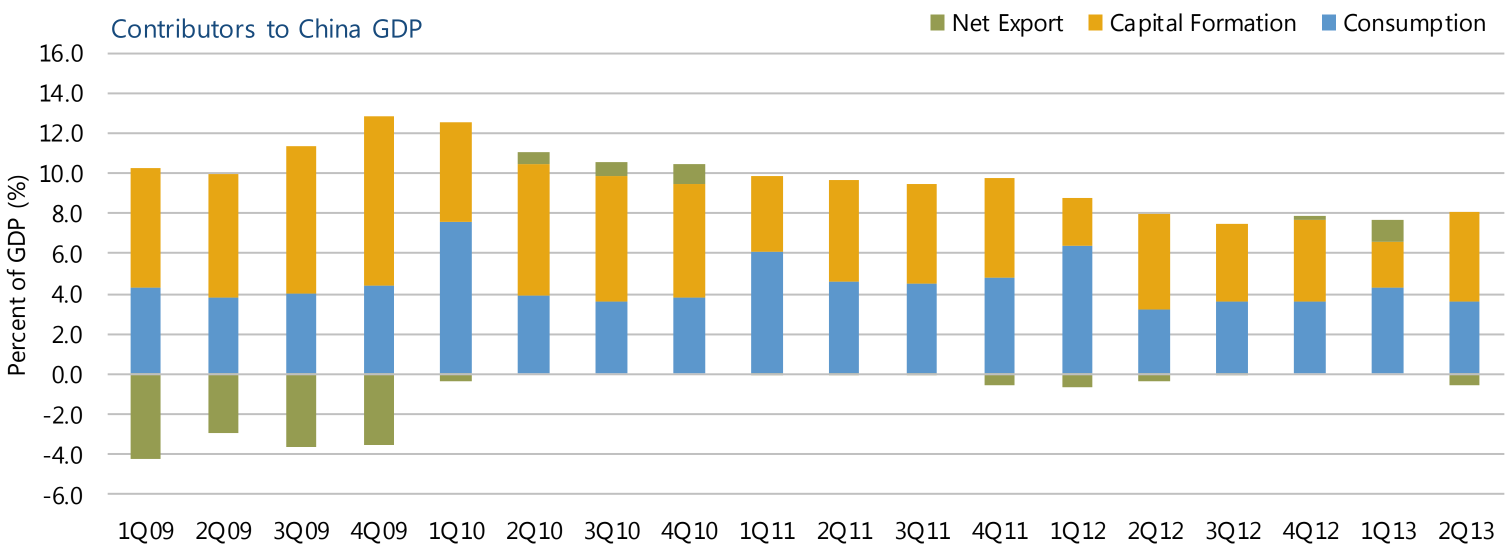
- Chinese economy underwent rapid expansion, reflected in industrial activity and GDP growth
  - Rebounded from 2009 downturn, but growth seems to have moderate

- China experienced massive growth in money and credit creation
  - Aggressive central bank policies have spurred economic activity
  - Shadow banking system also witnessed expansion



As of 30 June 2013
SOURCE: CEIC, NBS, PBOC, PIMCO

China: Must undergo transition to consumption-driven economy

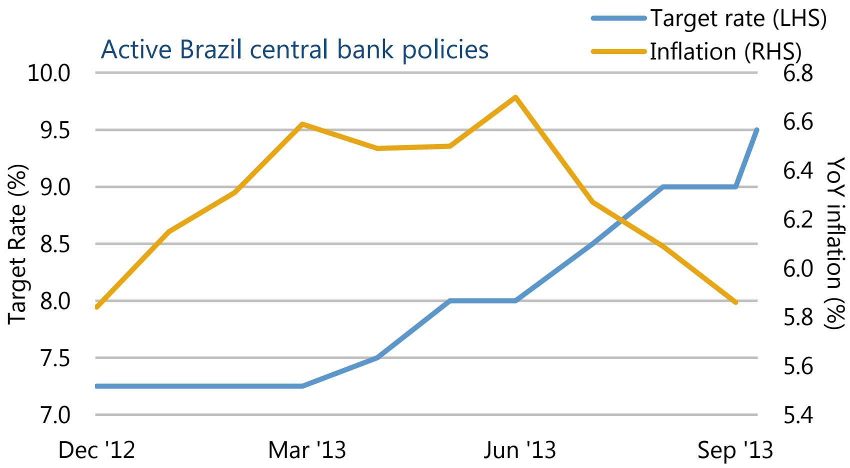


- Despite strong growth, China still must effectuate transition to a consumption-driven economy
  - China’s outsized impact on growth prospects worldwide acts as drag on expectations
  - PIMCO believes China will experience below-forecast growth over the next year

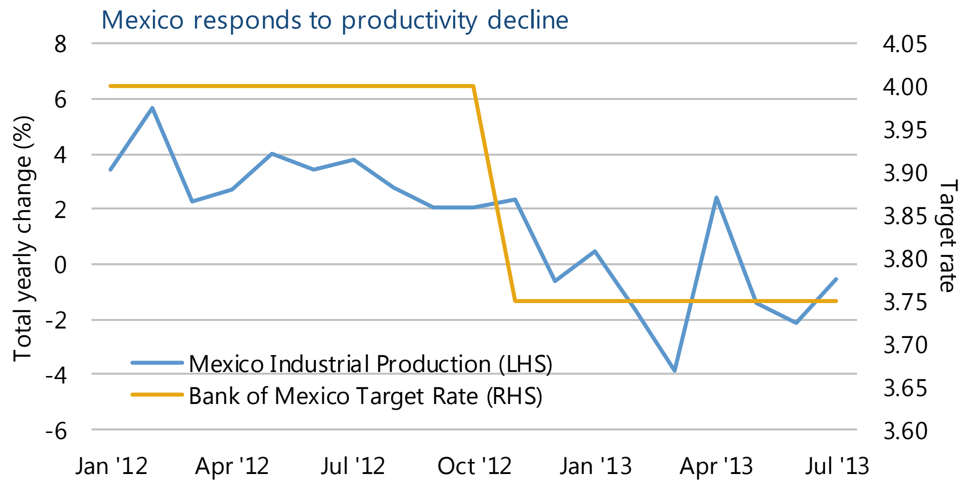
As of 30 June 2013
SOURCE: NBS

Developing economy central banks

- Other active, high quality emerging economy central banks may provide stability
  - Brazil adjusted target rate in response to inflation



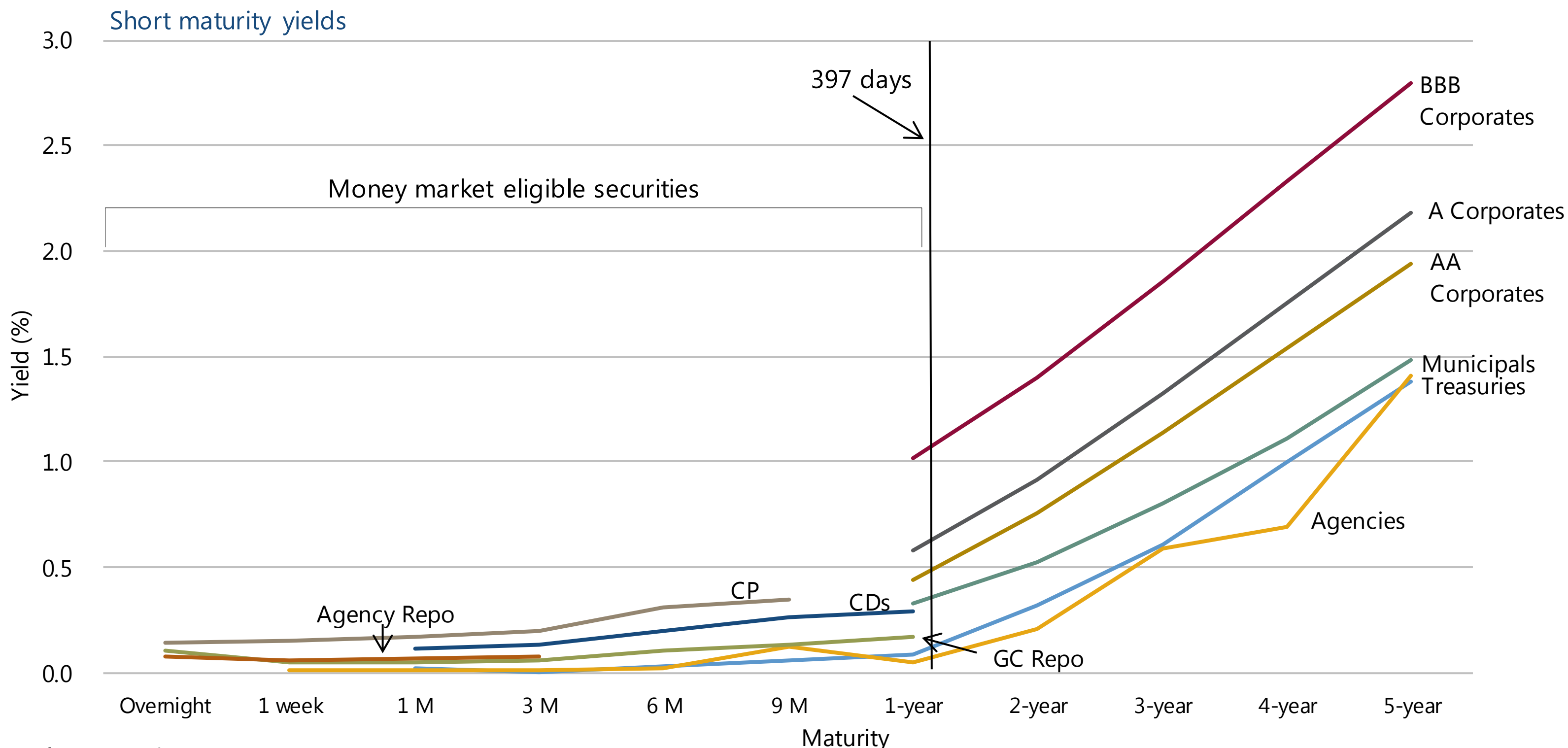
- Mexico responded to declining productivity by lowering rates
  - Appears to have had positive impact
  - However, central bank activity still has potential to cause or exacerbate instability and encumber growth, e.g. India



As of 10 October 2013
As of 31 July 2013
SOURCE: Bloomberg

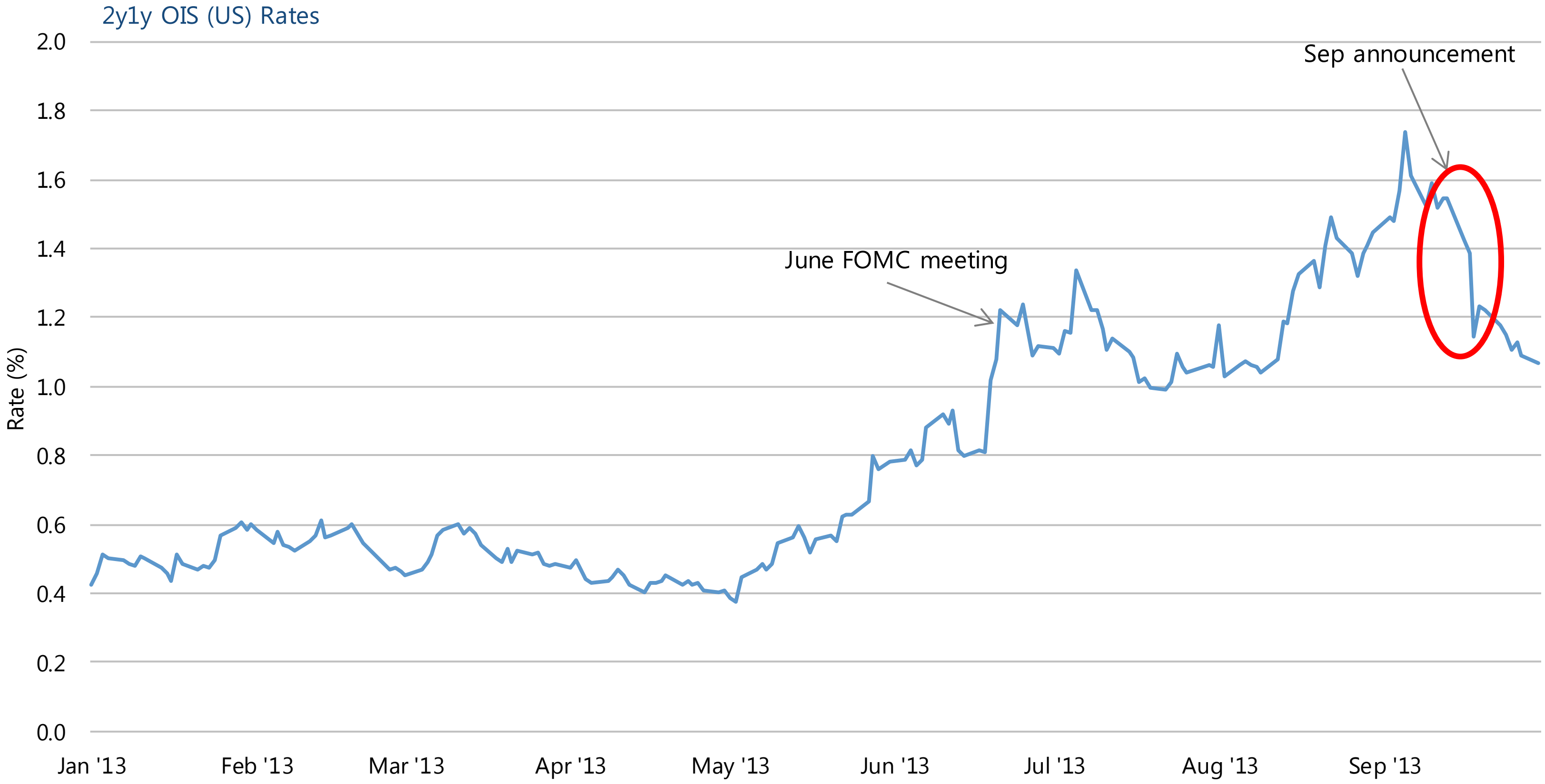
Short-Term strategy examples

Targeting opportunities outside of money market securities



As of 30 September 2013
SOURCE: Bloomberg, Municipal Market Advisors, and ICAP; BofA Merrill Lynch
Agencies: Agency discount note (composite of discount offered levels received from brokers and dealers for U.S. Agency discount notes); Treasuries (U.S. on-the- run government bill/ note/ and bond indices); Commercial paper, certificate of deposit and corporate are composite curves provided by Bloomberg; General repo (consolidated data provided by ICAP); Agency repo: Consolidated data provided by ICAP; Municipals represented by the Municipal Market Advisors AAA General Obligation 1-5 Yr Indices; AA, A, and BBB corporate curves represented by their respective generic Bloomberg USD US Corporate curves. MBS, CMBS and ABS data are represented by their respective BofA Merrill Lynch indices and use weighted average life in place of final maturity.

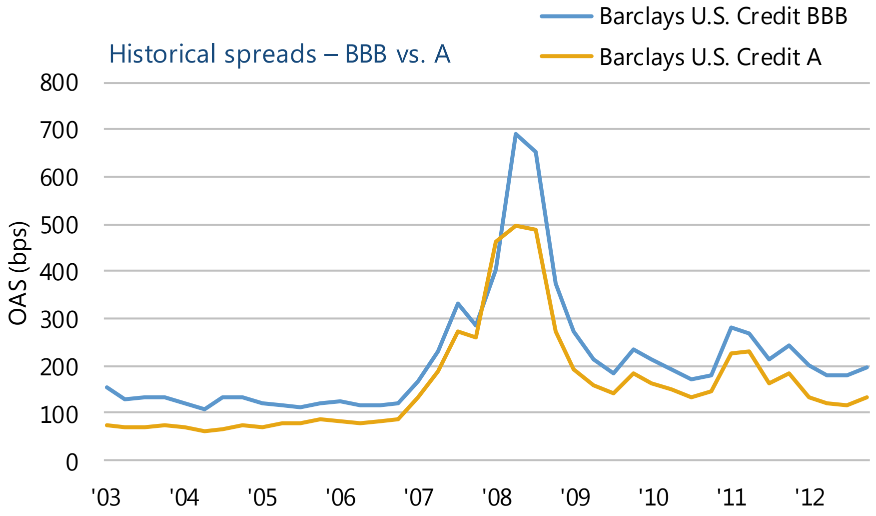
Elevated rates create opportunity



As of 30 September 2013
Source: FOMC Summary of Economic Projections, Bloomberg

Credit diversification, potential for higher yield with similar risk

- Flexibility within the investment-grade space may allow for additional yield within a disciplined risk-reward framework
- Historical default rates for BBB-rated securities averaged only 0.18% since 1975
- The BBB universe broadens the investment grade universe
  - Can add diversification benefits in sectors that are normally defensive, such as industrials and utilities
- Structural seniority and savvy credit research can add potential alpha without stretching for yield



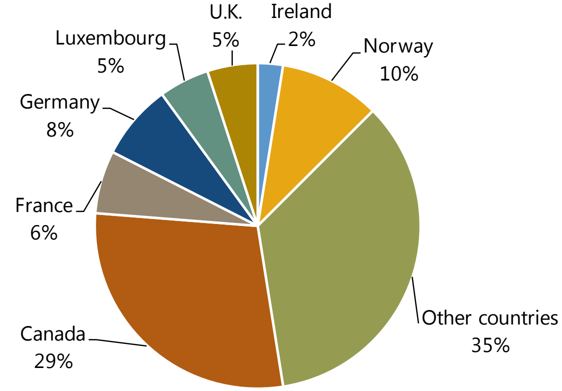
Historical default rates[1]		
	A	Baa
Average default rates (1975 to present)	0.04%	0.18%
Maximum default rate (1975 to present)	0.47%	1.12%
Maximum default rate year	2008	2002
2008 default rates	0.47%	0.49%
2009 default rates	0.19%	0.87%
2010 default rates	0.23%	0.00%
St. dev. of default rates (1975 to present)	0.10%	0.30%

As of 30 June 2013
SOURCE: Moody's, Barclays
1 Based on Moody's Annual Issuer-Weighted Corporate Default Rates by Letter Rating

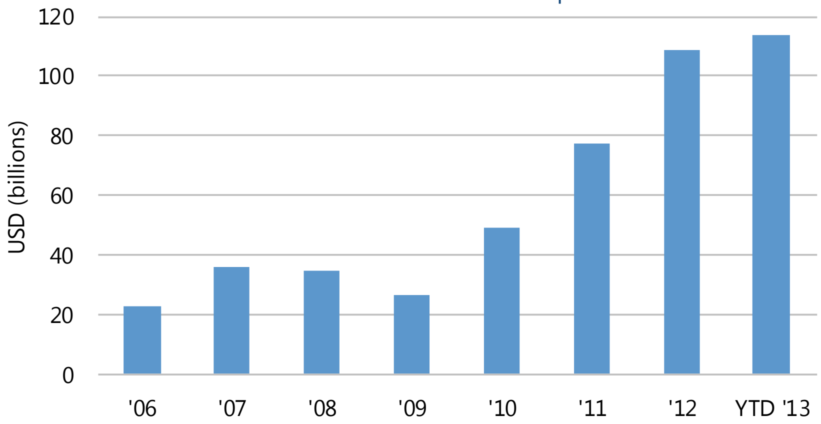
Covered bonds

- Covered bonds are typically high-quality instruments backed by collateral as well as the guarantee of the issuing bank, and sometimes the guarantee of the sovereign government where the security is issued*
- USD covered bond issuance has increased over the last three years, primarily in Canada, France, U.K., and Norway
- Total amount outstanding of USD covered bonds is around $114 billion

Composition of outstanding USD denominated covered bonds by issuer domicile



USD denominated covered bond annual production



As of 30 September 2013
SOURCE: Barclays

* Covered bonds are generally affected by changing interest rates and credit spread; there is no guarantee that covered bonds will be free from counterparty default. Represented by the Barclays Global Covered Bonds Index – the sub index is the USD-denominated covered bonds

Appendix

Past performance is not a guarantee or a reliable indicator of future results.

CHART
Performance results for certain charts and graphs may be limited by date ranges specified on those charts and graphs; different time periods may produce different results.

CREDIT QUALITY
The credit quality of a particular security or group of securities does not ensure the stability or safety of an overall portfolio. The Quality ratings of individual issues/issuers are provided to indicate the credit worthiness of such issues/issuer and generally range from AAA, Aaa, or AAA (highest) to D, C, or D (lowest) for S&P, Moody's, and Fitch respectively.

RISK
Investing in the **bond market** is subject to certain risks, including market, interest rate, issuer, credit and inflation risk; investments may be worth more or less than the original cost when redeemed. Investing in **foreign-denominated and/or -domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. **Mortgage- and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and their value may fluctuate in response to the market's perception of issuer creditworthiness; while generally supported by some form of government or private guarantee, there is no assurance that private guarantors will meet their obligations. **Derivatives** may involve certain costs and risks, such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested.

The value of most bond strategies and fixed income securities are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and more volatile than securities with shorter durations; bond prices generally fall as interest rates rise.

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Global Central Bank QE Programs: How to Navigate Short Term Markets in a Time of Changing Monetary Policies

Chris Ginieczki,

Visa

Are you prepared?

Quantitative Easing?

Political Divide?

Benchmark Rates?

New Leadership?

Tapering?

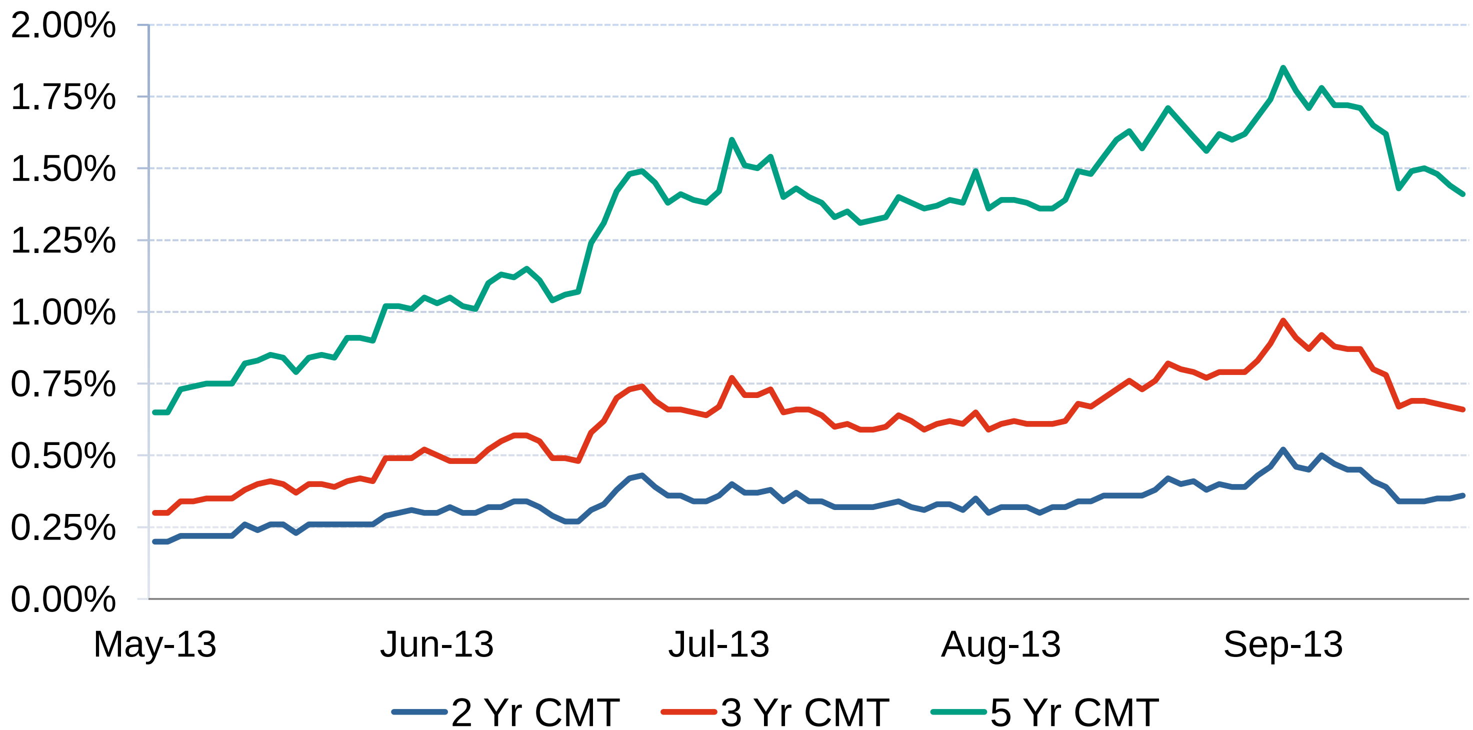
Forward Guidance?

Numerical Thresholds?

Taper = Tightening?

Rates reacted quickly to Fed speak about tapering

"the Committee currently anticipates that it would be appropriate to moderate the monthly pace of purchases later this year" - June FOMC



SOURCE: Federal Reserve

Taper = Tightening?

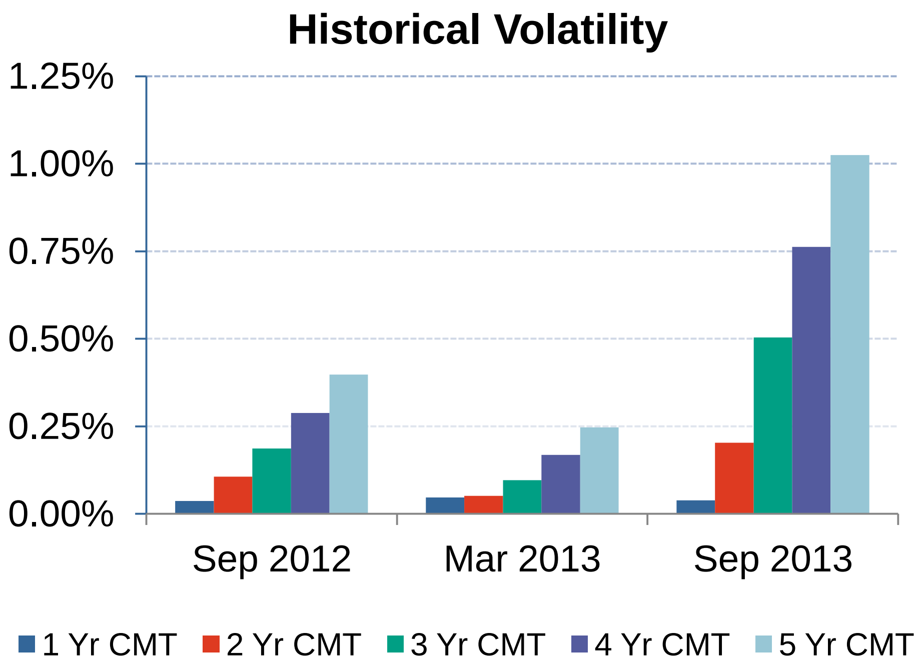
…but Fed participants aren’t forecasting a quick rise in rates

Target federal funds rate at year-end (%)	2013	2014	2015	2016	Longer run
0.25	17	14	2		
0.50			1	1	
0.75			5		
1.00		2	3	1	
1.25		1	1		
1.50			2	1	
1.75				5	
2.00				2	
2.25					
2.50				2	
2.75				2	
3.00			2		
3.25			1		1
3.50					2
3.75					1
4.00				2	10
4.25				1	3

SOURCE: Federal Reserve

Taper Talk = Volatility

Expectations that the Fed would taper its bond purchases also elevated market volatility



Note: Historical volatility depicted as two standard deviation using 6 months of historical data annualized

SOURCE: Federal Reserve

Performance during Taper Tantrum

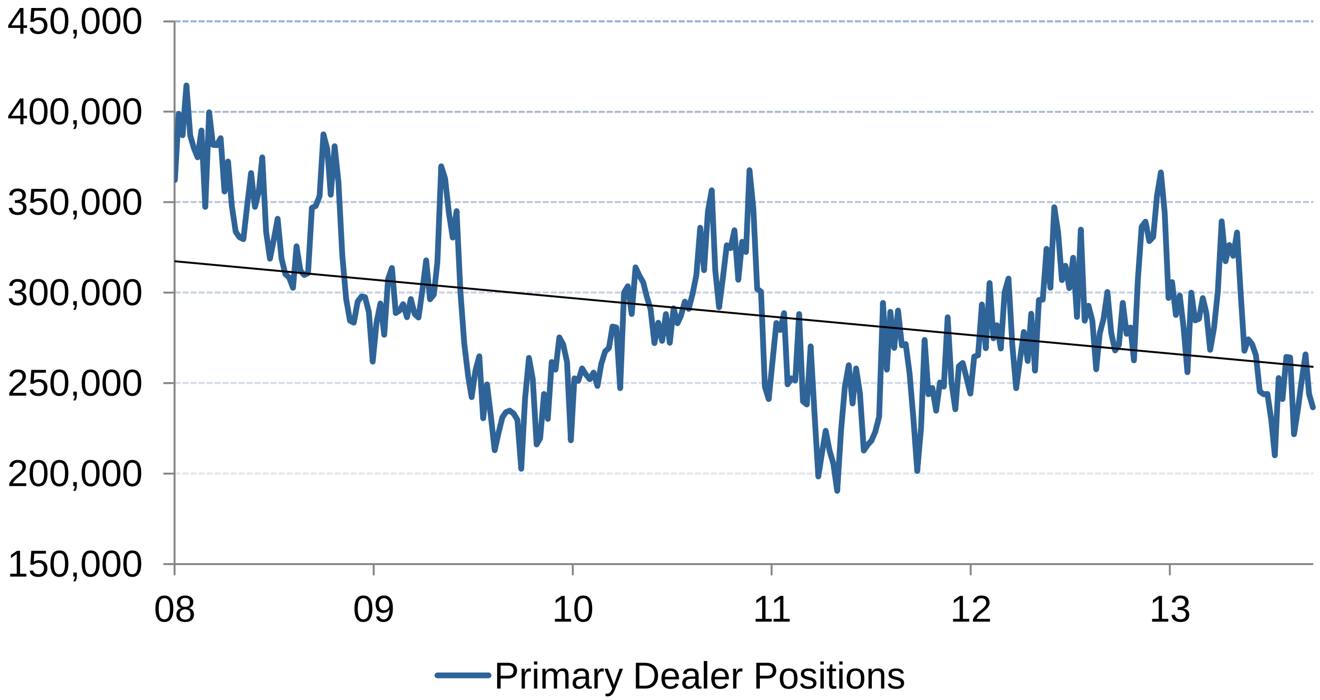
The dramatic shift up in rates negatively impacted total return

Period	Yield	Mark to Market	Total Return
1 month	.04%	-.58%	-.54%
2 months	.09%	-.87%	-.78%
3 months	.13%	-.53%	-.40%
4 months	.18%	-.39%	-.21%
5 months	.22%	-.45%	-.23%

SOURCE: Bloomberg raw data

Dealer Balance Sheets - Liquidity

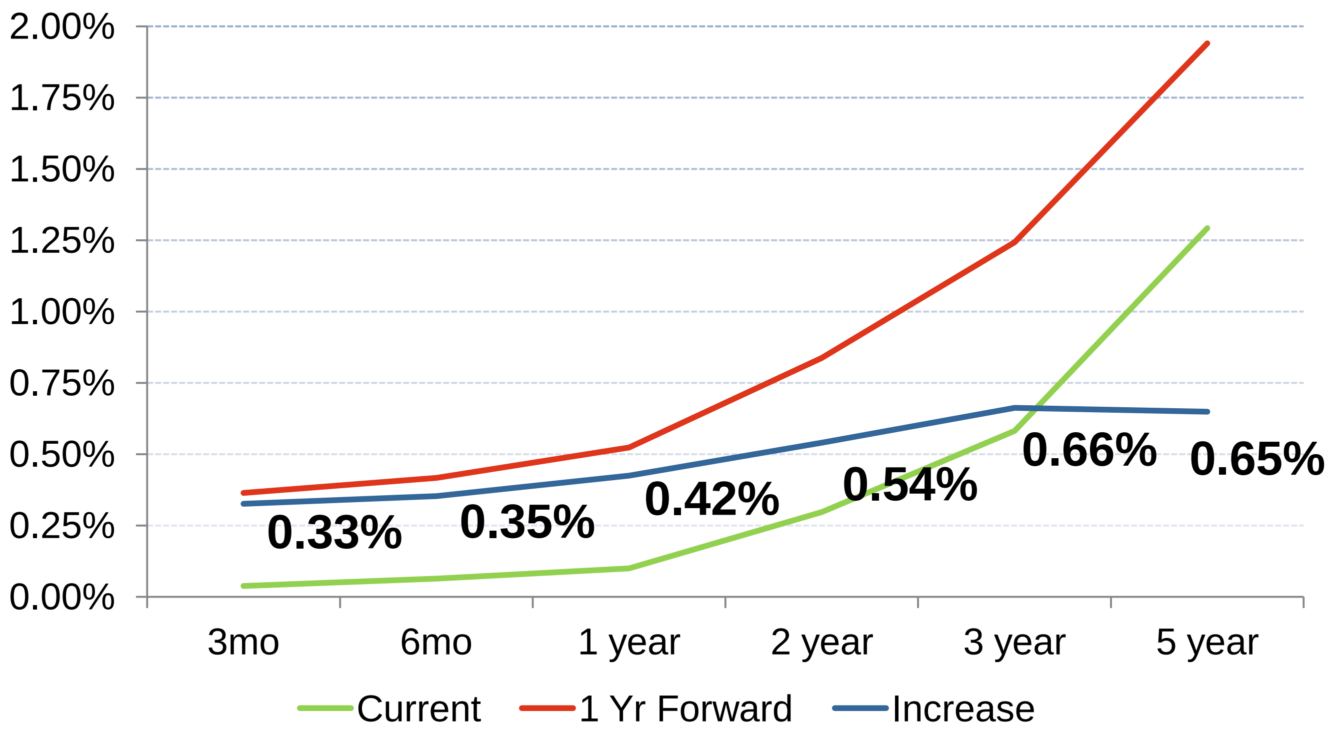
Primary dealers are not providing liquidity as they have done historically



SOURCE: Federal Reserve

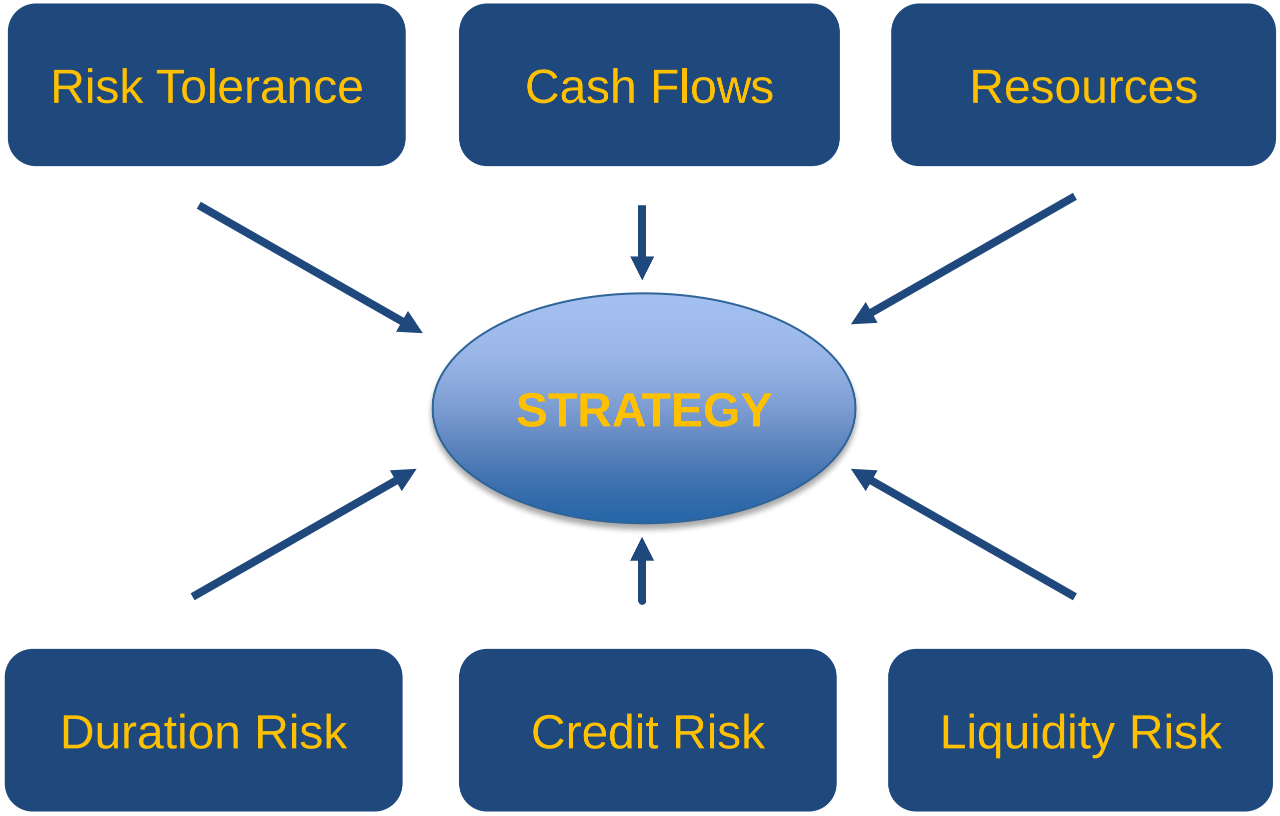
Taper = Rate Shock Redux?

Forward curve is predicting a near parallel shift in the yield curve



SOURCE: Bloomberg raw data

Company Specific Factors



Investment Characteristics

Company Specific Factors

Risk Tolerance

- Quantity your risk tolerance
- Consider VaR and market to market metrics

Cash Flow

- Onshore vs. offshore segmentation
- Understand how corporate strategy affect s cash flows

Resources

- Manage in house vs. SMA
- Trading systems, compliance, accounting, and performance analytics

Investment Characteristics

Duration Risk

- Price sensitivity to changes in interest rates
- Can drive total return in low coupon environment

Credit Risk

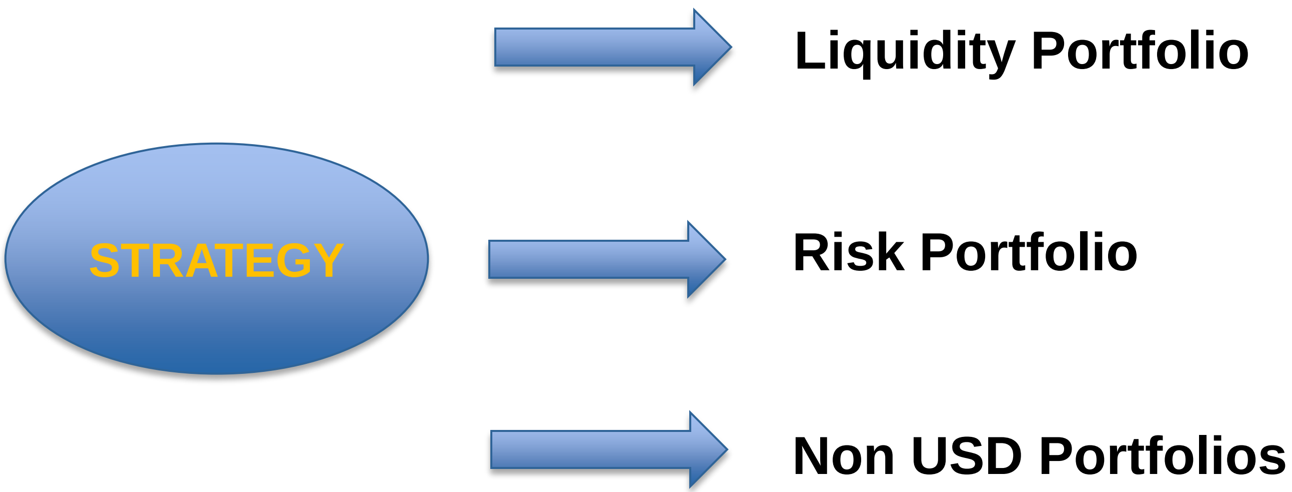
- Idiosyncratic to exposure
- Ratings risk
- Spread duration

Liquidity

- Varies within and among asset types
- Not necessarily aligned with credit ratings
- Test your liquidity assumptions

Segmentation and Strategy

Results from a factor analysis may point to the creation of several portfolios, each will their own strategy



Where to invest? – Liquidity Portfolio

Investment	Considerations
Bills	• Same day liquidity, tight bid/ask • Relatively volatile given supply technicals
ECR	• Relatively high yield vs. interest bearing deposits, time deposit • Counterparty risk
Money Market Funds	• Diversified portfolios adhering to very conservative credit and liquidity rules • Regulatory risk
Commercial Paper	• Dominated by financials • Credit risk, 90 days and in market
Treasuries/Agencies	• US Gov't credit, deepest liquidity • Supply technicals, duration risk

Navigating Risk

Duration	Credit	Liquidity
Laddering fixed rate investments – including time deposits - shortens duration	Limit and diversify counterparty risk from bank products (ECR, deposits)	Understand market technicals and regulations

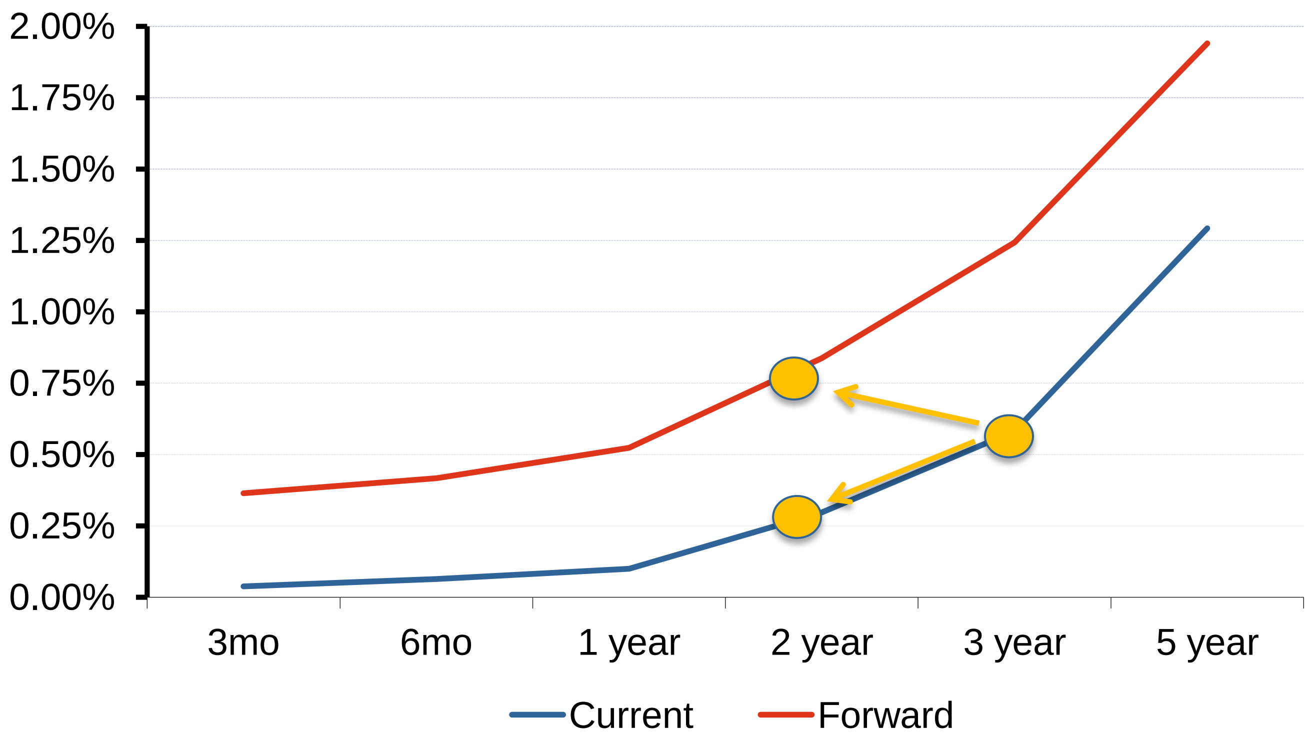
Where to invest? – Risk Portfolio

These assets require a deep understanding of portfolio construction as well as knowledge of their associated credit, duration and liquidity risks

Investment	Considerations
High Grade	• Spread duration
ABS	• Structures differ by asset type • Follow the cash flow waterfall
MBS	• Prepayment characteristics • Regulatory risk
High Yield	• Default risk
ETFs/Funds	• Index exposure • Fees, withdrawn limitations

Roll Down?

Total return will differ based on realized roll down



SOURCE: Bloomberg raw data

Navigating Risk

Duration	Credit	Liquidity
• Floating rate notes will limit price volatility • Laddered portfolios shorten duration	• Re-leveraging via shareholder friendly activities can affect coverage ratios and ratings	• Avoid crowded trades – liquidity can be impacted at exit

Where to invest? – Non USD Portfolio

Investing is much more tactical depending upon whether cash is "trapped" and the hedging philosophy

Investment	Considerations
Bank products	• Structured deposits include optionality • Counterparty risk
Money Market Funds	• Yields attractive vs. bank products • Portfolio constraints different from 2a-7
Bonds	• Spread duration • Local market expertise
ETFs/Funds	• Index exposure • Fees, withdrawn limitations

Navigating Risk

Duration	Credit	Liquidity
• Be aware of the local interest rate environment – rates may be decreasing	• Global businesses diversify exposure to local market	• Understand structured deposit withdrawal limitations • Consider converting exposure to USD