

Bond Realities: The Changing Landscape for Fixed Income

A Deeper Dive into Opportunistic 2.0

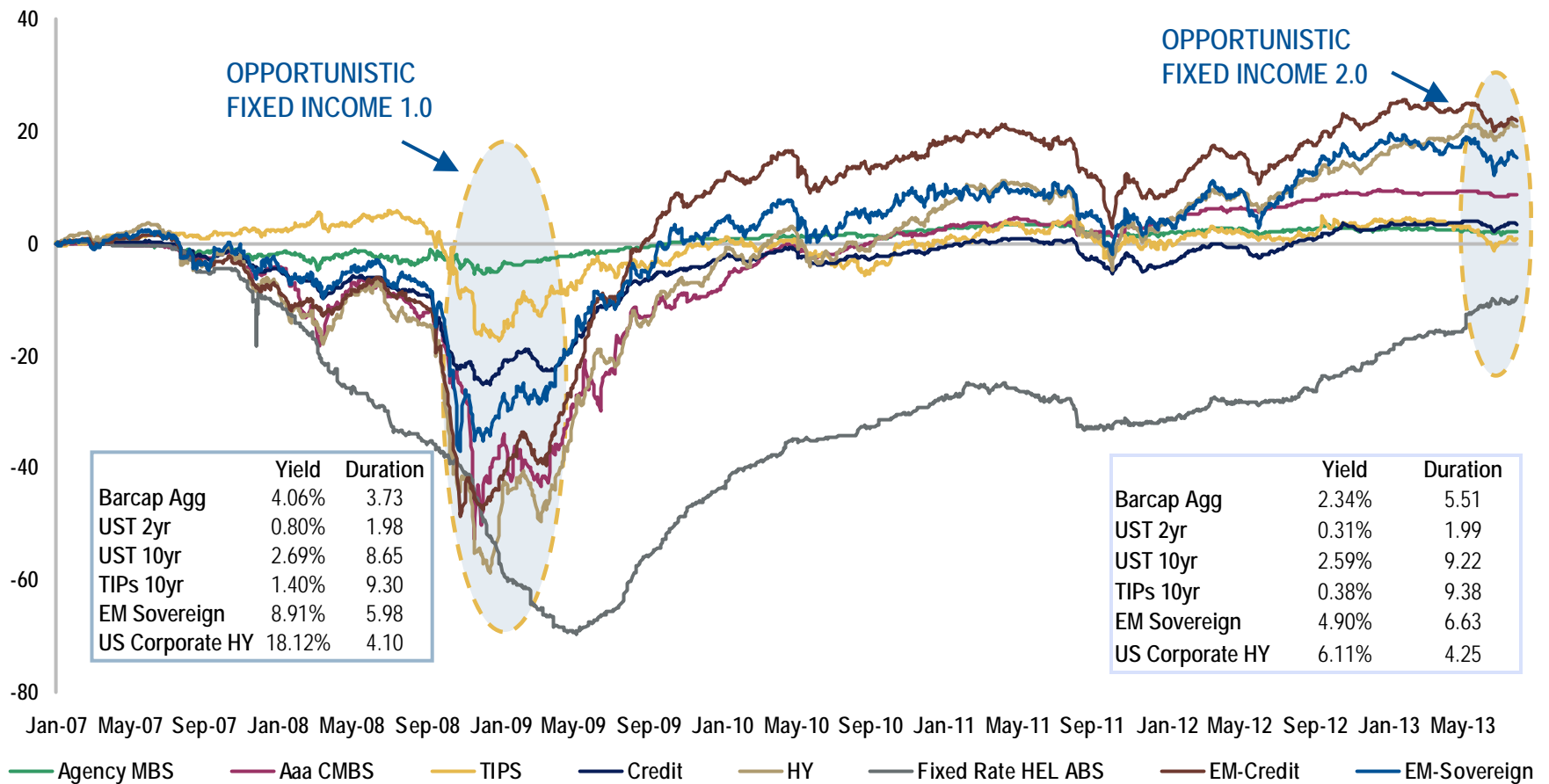
August 2013

OPENING REMARKS

From “Uncharted Waters” to Spread Normalization

Cumulative excess returns from 2007 through July 2013

SECTOR CUMULATIVE EXCESS RETURNS



Source: Bank of America Merrill Lynch, Barclays Capital, Neuberger Berman Fixed Income. Historical trends do not imply, forecast or guarantee future results. Yield and Duration data as of March 31, 2009 and May 31, 2013, respectively

Opportunistic 2.0: A “New” Problem but Same Old Challenges

- What’s the appropriate benchmark?
- What should the return objective and risk budget be?
- How do you manage tail risk?
- How do you determine the opportunity set?
- How is manager behavior affected by these choices (what have you incentivized)?

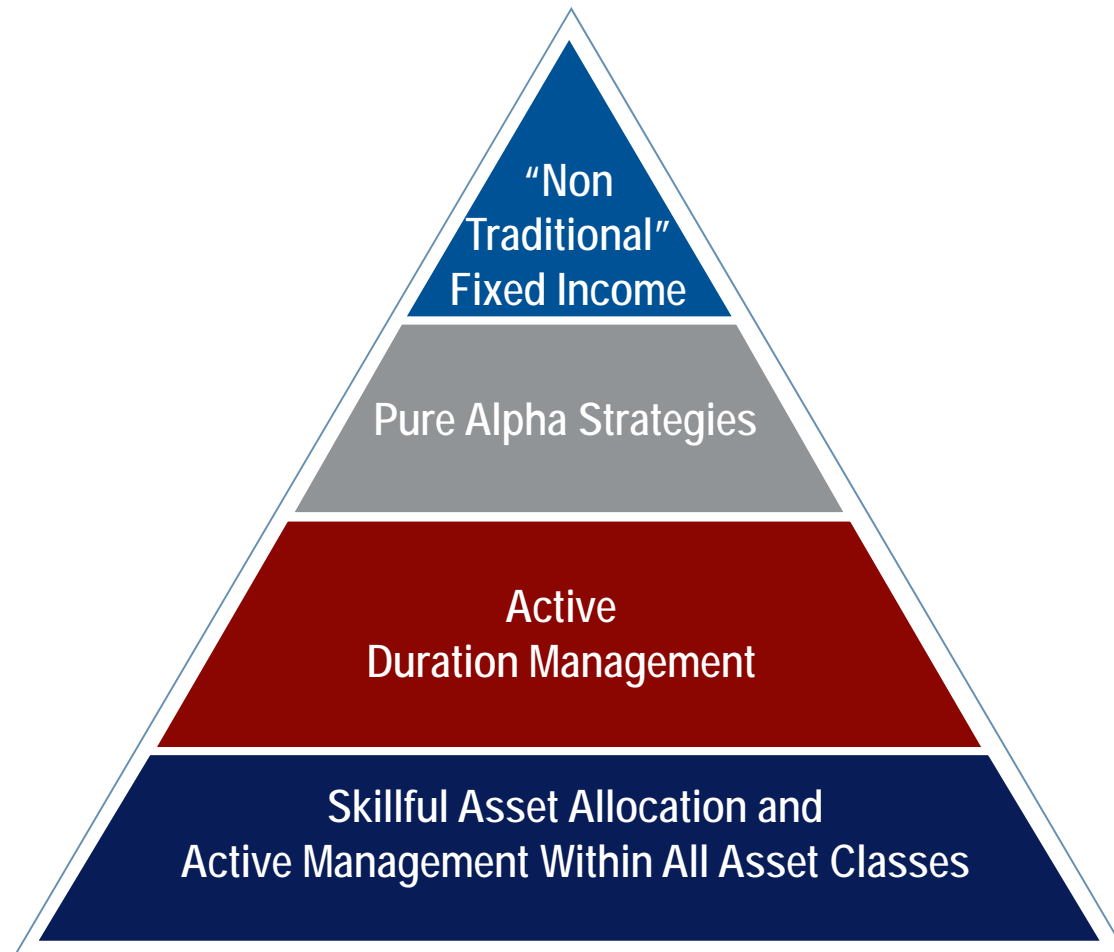
Opportunistic 2.0: A More Difficult Problem Requires a Expanded Toolkit

Multiple elements needed to succeed

- Skillful asset allocation within traditional fixed income sectors
- Active management within all asset classes
- Active duration management (expand duration band)
- Pure alpha strategies (e.g. diversified currency)
- Allocation to “non traditional” dislocated asset classes (e.g. residential whole loans, distressed debt)

Opportunistic 2.0: A More Difficult Problem Requires a Expanded Toolkit

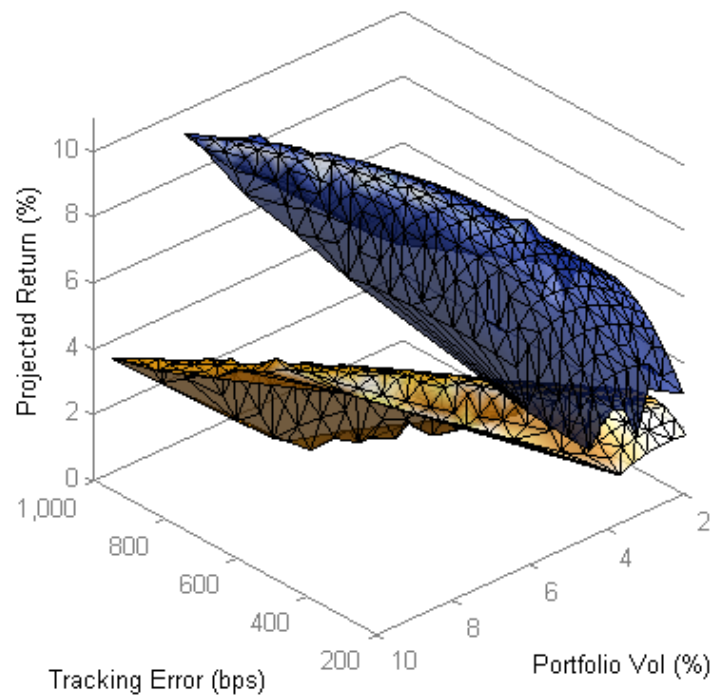
Multiple elements needed to succeed



Three Dimensional Risk-Return Surface

Hypothetical opportunity set

RISK-RETURN TRADEOFF



Opportunistic Constrained Opportunistic Unconstrained

THREE QUESTIONS TO EXPLOIT MARKET MISPRICINGS

What are the market's expectations?

Market's risk/reward tradeoff as expressed in asset's price

Where do we have investment insight?

Differentiated view and implications for the asset's price

How confident are we in our views?

Conviction level

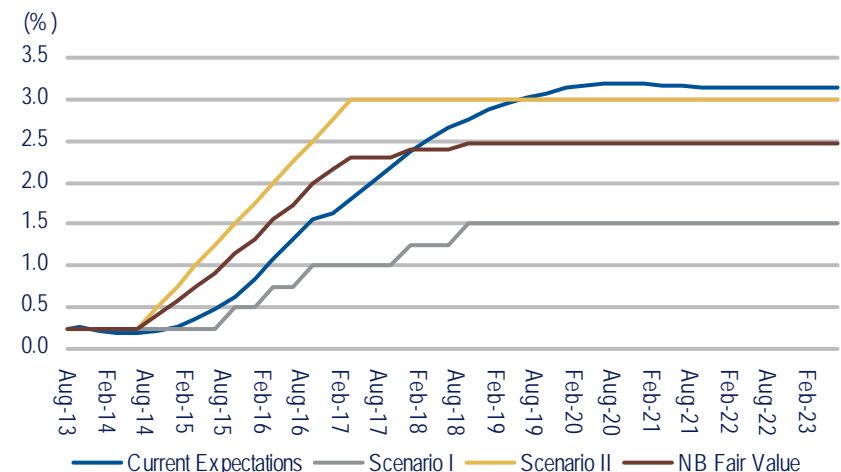
Global Interest Rate Decision Making

Current interest rate environment as of July 31, 2013

TREASURY RATES

Maturity Years	State I Treasuries	State II Treasuries	Fair Value	Current Treasuries
1Y	0.35	0.36	0.36	0.19
2Y	0.46	0.66	0.59	0.31
3Y	0.65	1.16	0.99	0.59
4Y	0.89	1.68	1.41	0.99
5Y	1.07	2.06	1.72	1.38
7Y	1.38	2.50	2.11	2.00
10Y	1.64	2.84	2.42	2.58
30Y	2.42	3.70	3.26	3.64

US CURVE DISTRIBUTION



PROCESS

- Describe the distribution of forward rates by defining 2 macro states and adjusting the probabilities of better or worse outcomes
- States are driven by trends in real rates and inflation
- Evaluate yield curve in context of these boundaries
- Implement duration position when current path reaches boundary
- Asymptotic value of the forward fed funds is the terminal fed funds whose properties are also studied

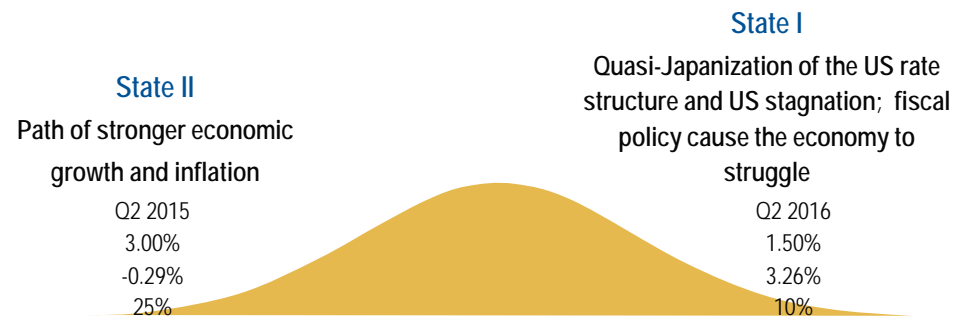
Source: Neuberger Berman internal calculations, Bloomberg.

US Treasuries

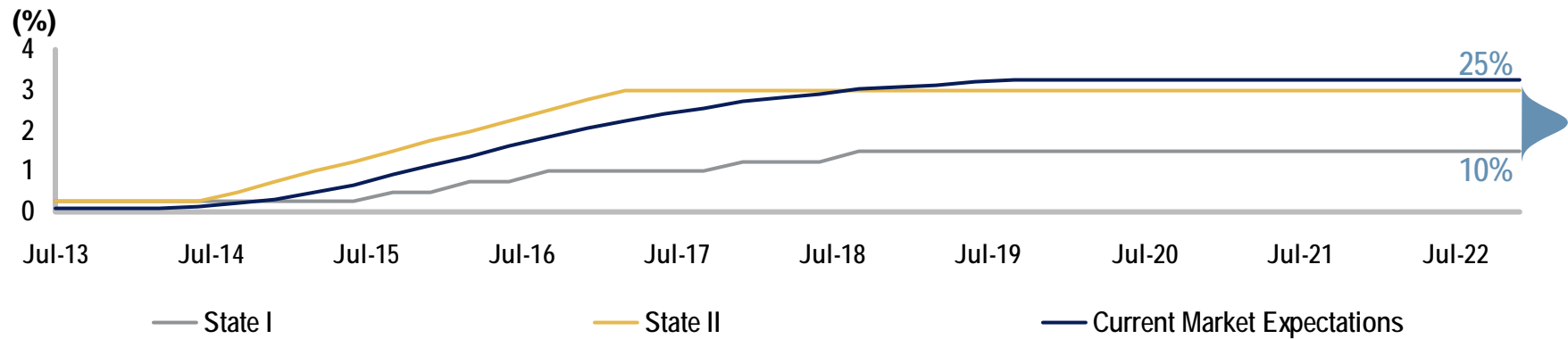
Return Expectations

US TREASURIES

ZIRP Exit Time
Terminal Fed Funds
Total Return
Probability of State Occurring



Standard Deviation of View	2.30%	Expected Total Return over 12 Months	1.43%
Duration	5.07	Standard Deviation of Asset Class	4.45%



Example as of July 23, 2013; Time horizon one year. Please see additional and important disclosures at the end of these materials.

Currency as an Asset Class

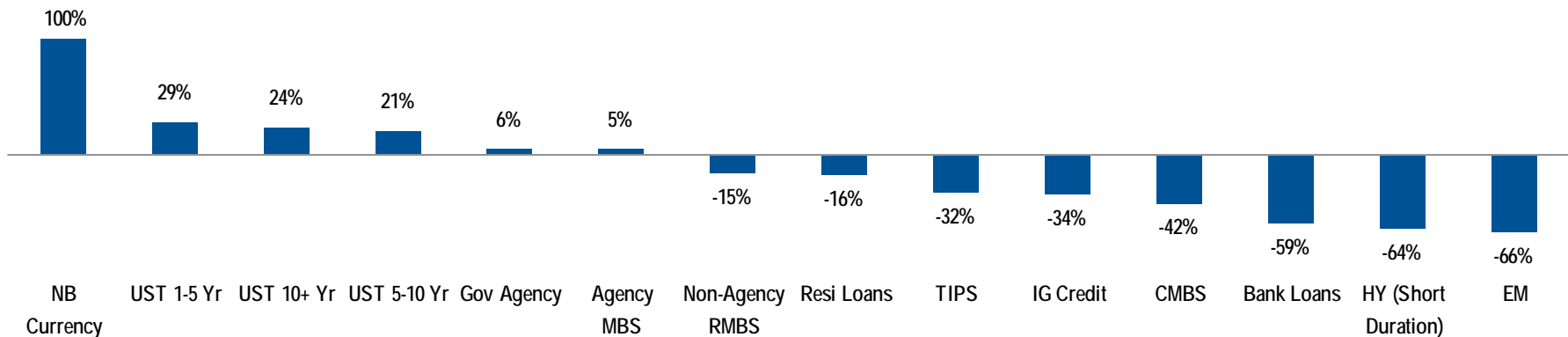
ALPHA POTENTIAL

- The currency market is an attractive place to look for alpha
 - volatility offers return opportunities
 - liquidity allows investors to trade frequently
- Currency flows can cause dislocations
 - currency managers can exploit such inefficiencies
- The most important feature of a good currency strategy is the potential to:
 - add value during both bull and bear markets
 - diversify a multi-asset class portfolio

CURRENCY MARKET PARTICIPANTS



A STRATEGY WITH LOW CORRELATION TO FIXED INCOME ASSET CLASSES



1. BIS Triennial Central Bank Survey, Foreign exchange and derivatives market activity in April 2010. Correlations from September 30, 2005 to September 30, 2012. Source: Neuberger Berman Fixed Income.

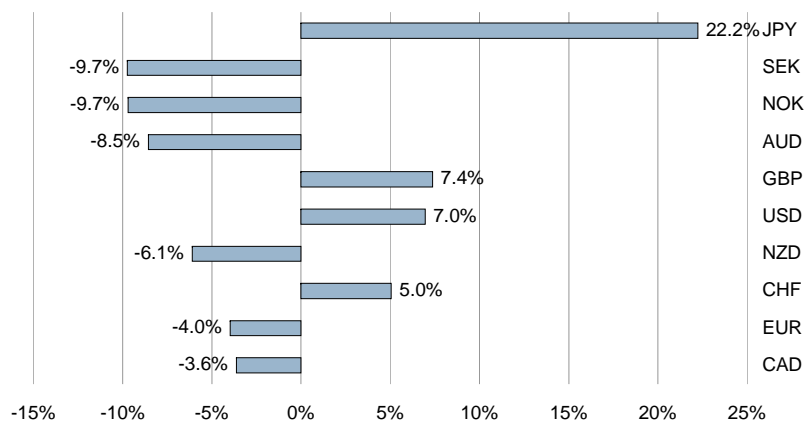
Diversified Currency Strategy Overlay

Expected Sector View

DIVERSIFIED CURRENCY STRATEGY AT 7.5% RISK TARGET

States of the World	I	II	III
Description	Pessimistic	Neutral	Optimistic
Price Return Expectation over 12 Months	-1.47%	4.50%	10.47%
Carry Return Expectation	-0.67%	-0.67%	-0.67%
Total Return Expectation	-2.14%	3.83%	9.80%
Probability of State Occurring	20%	60%	20%

Expected Total Return over 12 Months (Local Currency)	3.83%	Expected Total Return over 12 Months (USD Hedged)	3.83%
Standard Deviation of Views	3.78%	Standard Deviation of Asset Class	4.90%



VIEW SUMMARY

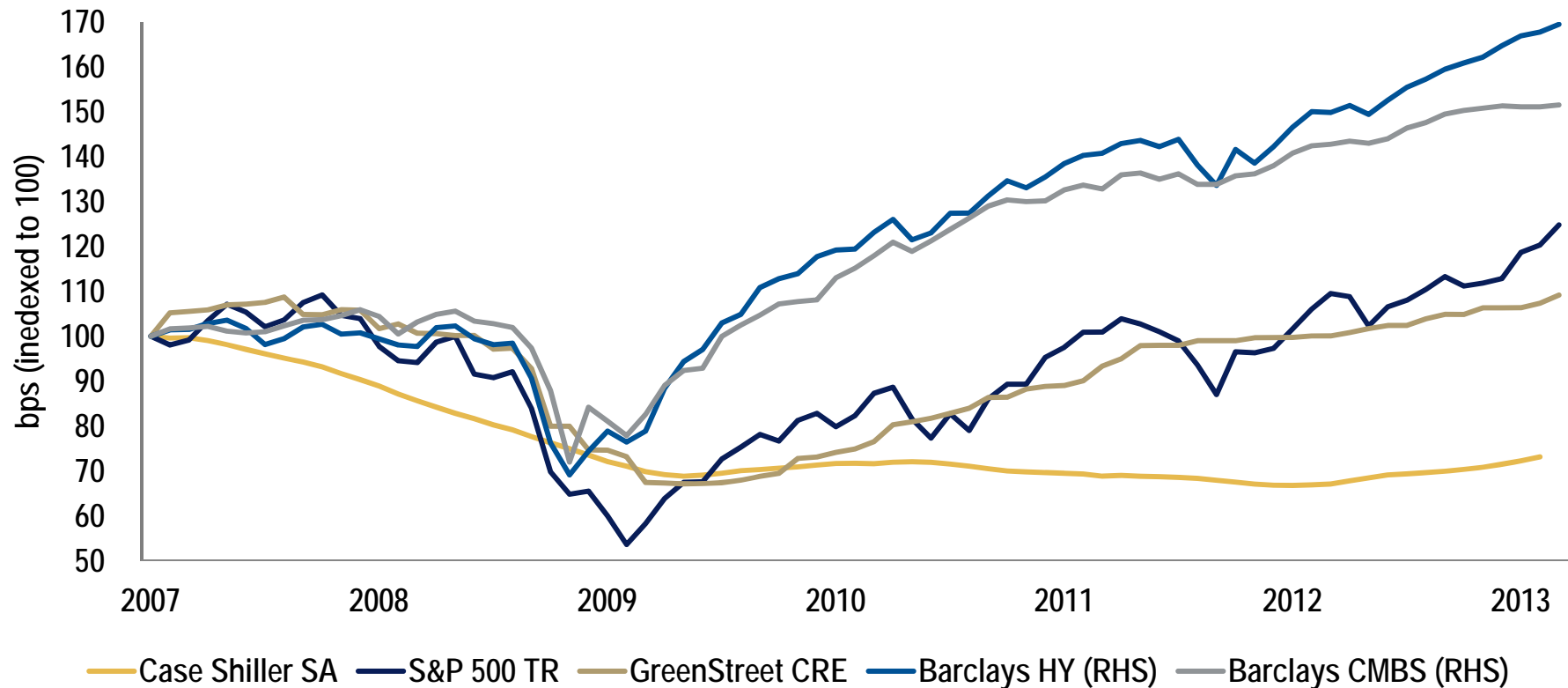
- We expect greater growth dispersion and greater divergence in monetary policy among developed countries. This should translate into higher volatility in the currency market and offer greater opportunities to generate alpha in 2013.
- The relative outperformance of the US economy should help supporting the USD against the EUR, especially if US yields rise gradually from extremely low levels.
- The yen looks considerably oversold and we expect to see a consolidation and possibly a reversal in the coming weeks. In our opinion, the likelihood of a very aggressive change in BoJ policy has been priced in by the market and the speed and the magnitude of the yen depreciation was probably exacerbated by lower liquidity around year-end. Interest rate differentials (historically a major driver of the yen) have been completely ignored by the market over the last couple of months and are now pointing towards a much stronger yen in the near term.
- While we believe that the Swedish economy still has sound fundamentals, short term dynamics suggest that the krona is expensive in a number of currency crosses. The Swedish krona has recently overshot compared to the level of yield differentials versus other G10 currencies.

Example as of July 23, 2013; Time horizon one year.
Please see additional and important disclosures at the end of these materials.

The Opportunity – U.S. Housing Poised for Recovery

We believe U.S. residential home prices are cheap relative to other asset classes

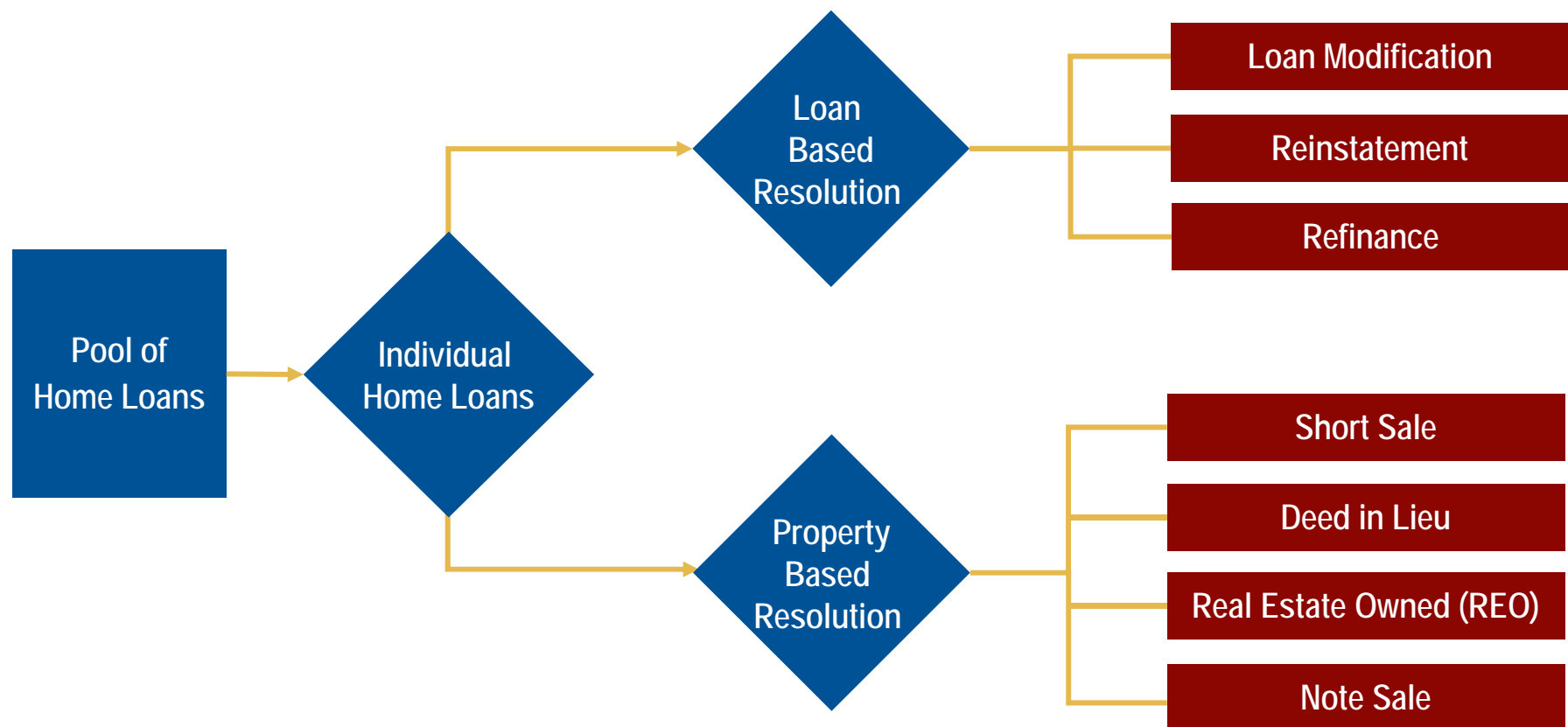
U.S. HOUSING: A RELATIVE PERSPECTIVE¹



1. Bloomberg and Green Street Advisors, as of March 2013. SA = Seasonally Adjusted, TR = Total Return, CRE = Commercial Real Estate, HY = High Yield, RHS = Right-Hand Side of Chart, CMBS = Commercial Mortgage-Backed Securities. Green Street's CPPI (CRE) is a time series of current and historical unleveraged commercial property values. It is not a forecast and does not reflect performance of REIT stocks. Historical trends do not imply, forecast or guarantee future results. Please see the descriptions of the indices referenced above in the last section of this presentation. Please refer to the Disclosures and Risk Considerations in the last section of this presentation.

“Borrower Centric” Loan Resolution

Key to realize the inherent value in each loan



For illustration purposes only. The processes described above have only been recently utilized in any actual residential mortgage loan portfolio. There can be no assurance that Neuberger Berman will be able to generate profits or meet any particular return objective. Please refer to the Disclosures and Risk Considerations in the last section of this presentation.

U.S. Residential Mortgage Whole Loans

Return Expectations

	State I Highly Optimistic Conditions	State II Moderately Positive Conditions	State III Stable Macroeconomic Conditions	State IV Moderately Negative Conditions	State IV Highly Pessimistic Conditions
Housing Price Change	20	10	0	-10	-15
Non-Performing Asset Workout Effectiveness	Better than Expected	Base	Base	Worse than Expected	Worse than Expected
Total Return	25.3%	18.9%	13.7%	0.4%	-7.4%
Probability of State Occurring	15%	35%	30%	15%	5%

Expected Excess Return over 12 Months	14.21%	Expected Total Return over 12 Months (USD Hedged)	14.88%
Standard Deviation of View	8.87%	Standard Deviation of Asset Class	9.00%

Example as of July 23, 2013; Time horizon one year. Please see additional disclosures at the end of these materials.

CONCLUSION

Opportunistic 2.0

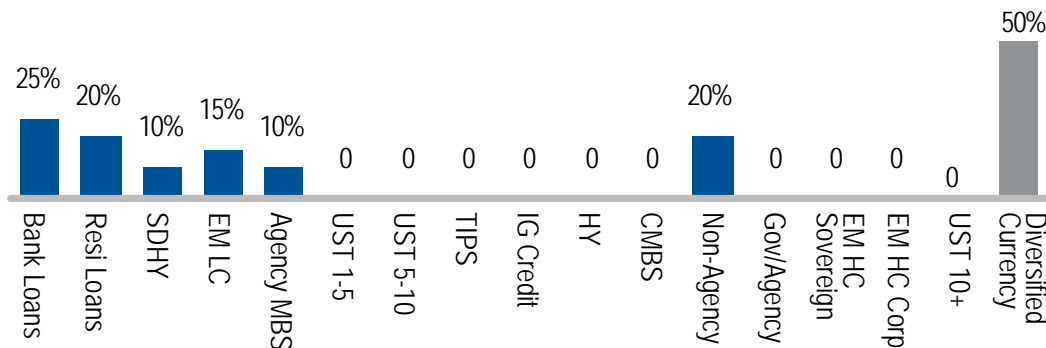
Expanded opportunity set offers greater alpha potential

	Bank Loans	Resi Loans	SDHY	EM LC	Agency MBS	UST 1-5	UST 5-10	TIPS	IG Credit	HY	CMBS	Non-Agency	Gov/ Agency	EM HC Sovereign	EM HC Corp	UST 10+	Diversified Currency
Expected Total Return	4.21%	14.21%	3.72%	8.10%	2.46%	0.45%	1.63%	2.95%	3.69%	4.62%	1.55%	3.94%	1.67%	5.92%	5.64%	2.57%	3.83%
Expected Excess Return vs. UST	4.21%	14.88%	3.41%	5.71%	1.63%	0.00%	0.00%	1.54%	1.98%	3.75%	1.03%	3.88%	0.00%	4.71%	4.25%	0.00%	3.83%
Standard Deviation of View	2.83%	8.87%	1.56%	3.54%	1.59%	0.48%	3.01%	6.41%	2.49%	4.62%	0.87%	5.39%	3.01%	4.72%	3.98%	7.68%	3.78%
Historical Risk	6.2%	9.0%	7.3%	12.4%	3.3%	2.1%	6.0%	6.7%	5.6%	9.2%	11.1%	6.9%	4.5%	8.1%	9.7%	12.1%	4.9%

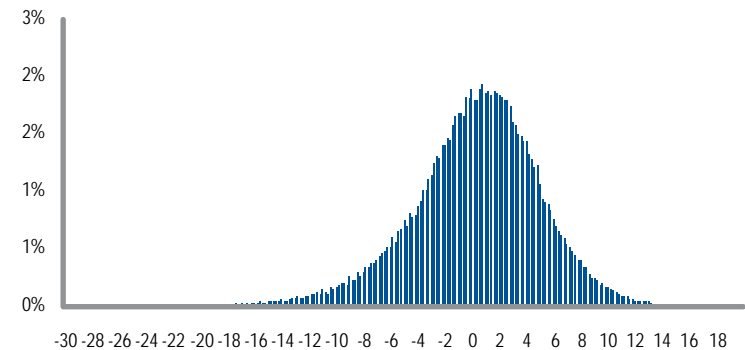
PUTTING IT ALL TOGETHER: SAMPLE OPPORTUNISTIC 2.0 PORTFOLIO

ALLOCATION

Expected Tracking Error: 6.6% Yield to Worst: 5.96%
 Expected Volatility: 5.2% Duration: 2.4 years
 Expected Shortfall (CVaR): 12.0%



SIMULATED RETURN DISTRIBUTION



Example as of July 23, 2013; Time horizon one year. Please see additional disclosures at the end of these materials.

Expected Return Forecast May Not Materialize. The expected returns contained herein are being shown to illustrate the investment decision-making process and are not intended to provide any guarantee or assurance about the future returns of any security, asset class or portfolio. Projections or other forward-looking statements regarding future events, targets or expectations are only current as of the date indicated. There is no assurance that such events or projections will occur, and may be significantly different than that shown here. The information in this presentation, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.

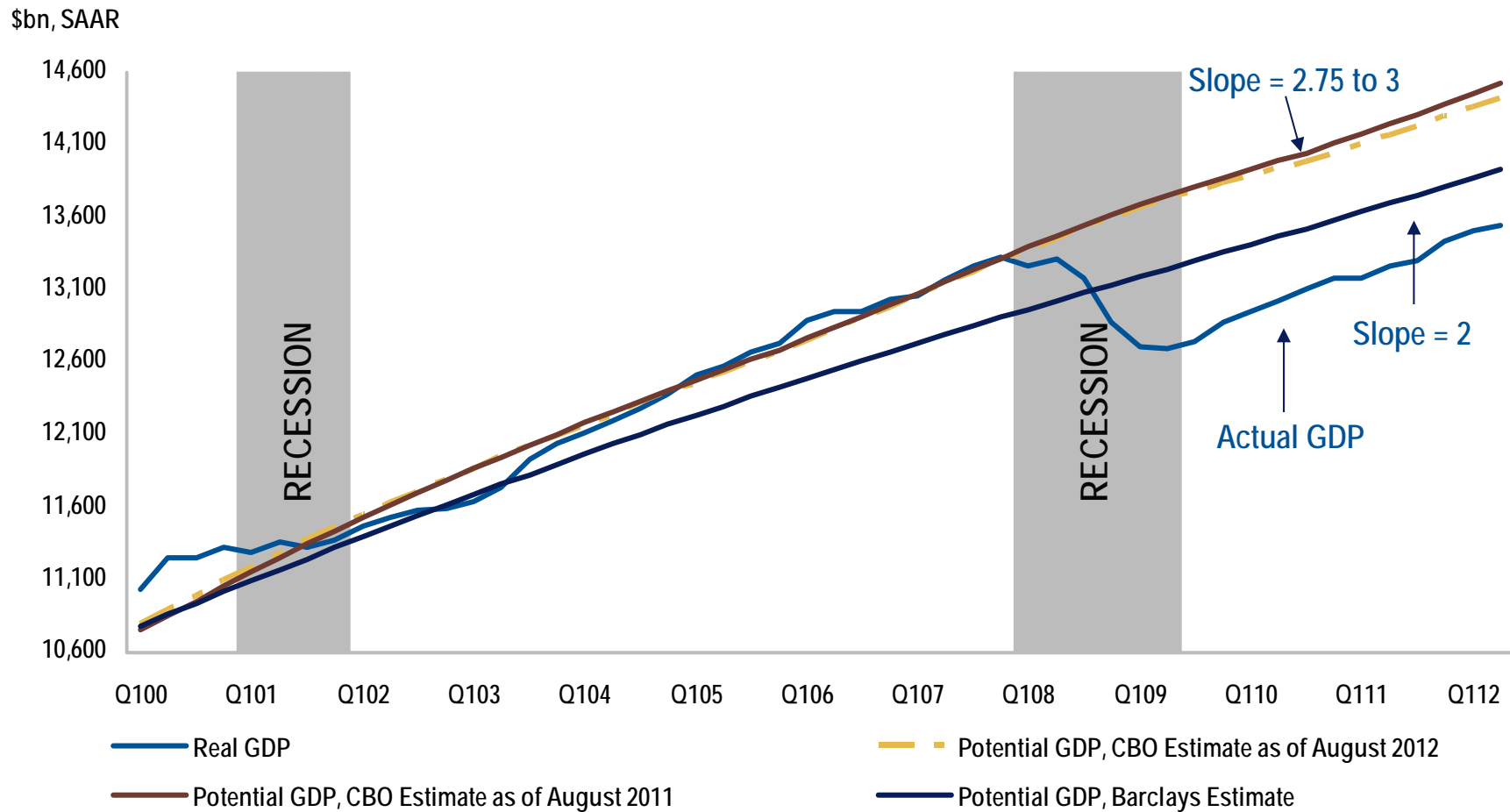
APPENDICES

Some Questions We Are Asking

- 1 Are we in a prolonged or secular low growth period for developed market economies and what are the implications?
- 2 What is the growth potential for the U.S. economy and other developed market economies?
- 3 What will be the timing and pace of the FED's exit from current monetary policy?
- 4 Are bubbles being created in the fixed income market?
- 5 Has the ECB ended the Eurozone crisis?

Potential GDP Growth

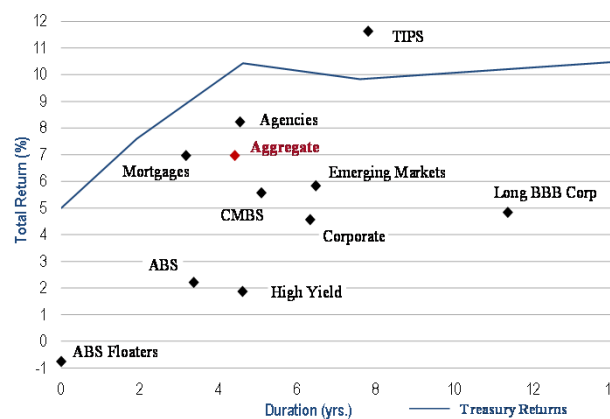
Trend isn't what it used to be, but it's good enough



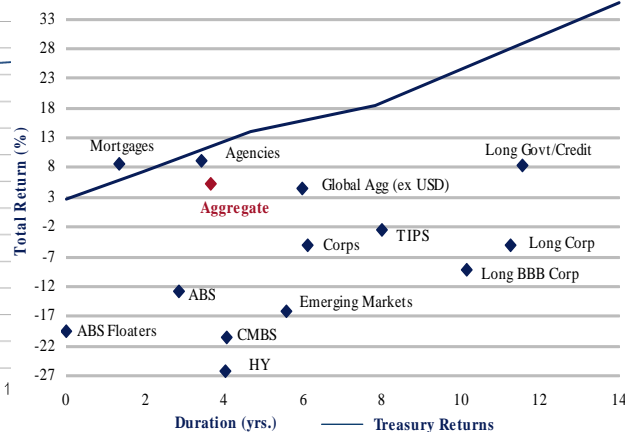
Source: Barclays

Volatility of Fixed Income Returns

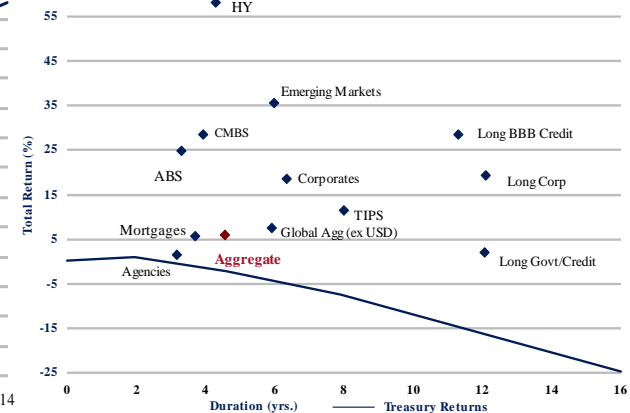
MARKET RETURNS 2007



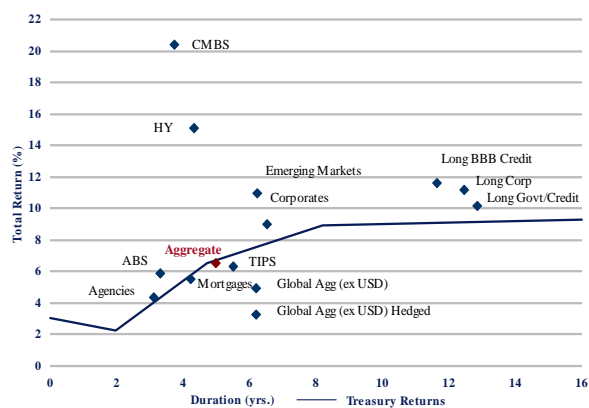
MARKET RETURNS 2008



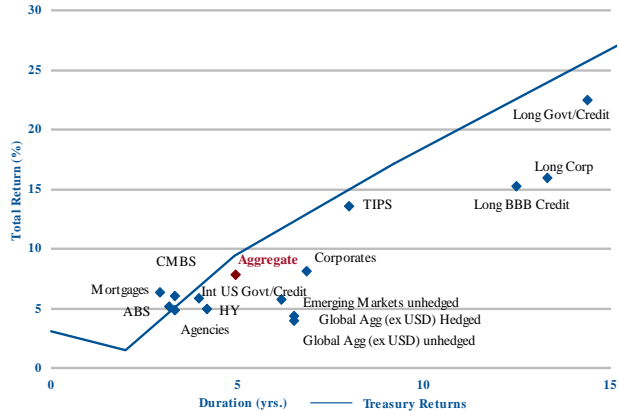
MARKET RETURNS 2009



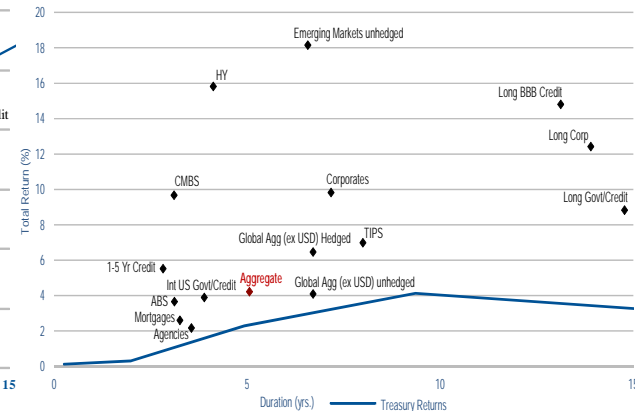
MARKET RETURNS 2010



MARKET RETURNS 2011



MARKET RETURNS 2012



Source: Index - Barclays. For illustrative purposes only.

Risk Management: Art or Science

- Tracking Error, Risk, VAR, Expected Shortfall (i.e. CVaR), etc.
- Risk metrics are by definition estimates. As a corollary practitioners must be mindful of false precision
- Risk metrics are by necessity based on historical data. Consequently, risk metrics for “new” asset classes should be treated with caution
- Monitor for “distribution reshaping” and be willing to admit when you no longer understand the return dynamics of an asset class
- Deleveraging and other market “technical” factors can, under certain circumstances, overwhelm fundamental value for a prolonged period of time
- Return and risk go hand in hand. It is our responsibility to be realistic in our expectations for both

Disclosures

For discussion and informational purposes only. The projected returns presented represent approximate mid-points within a range of targeted yields, spreads and returns and are presented only as an example of how Neuberger Berman Fixed Income ("NBFI") constructs a portfolio based on its views of the credit markets and sub-markets. The returns presented are an economic prediction and are the views of the portfolio manager as of the date hereof and are subject to change. Projected returns are based on qualitative and quantitative analysis of historical and current information. There is no assurance that the returns presented will be realized or that the investment strategy will be successful. Investors should keep in mind that markets are volatile and unpredictable. There are no guarantees that the historical performance of an investment, portfolio, or asset class will have a direct correlation with its future performance. Generally, our 12-month and 24-month forecasts are reflected by our decisions to over- or underweight client portfolios versus the benchmark. The representative portfolio represents the approximate diversification of portfolios in the composite as of a recent date, and is subject to change. Each client account is individually managed; actual holdings will vary for each client and there is no guarantee that a particular client's account will have the same characteristics as described above. Please refer to endnote for additional information.

NBFI believes the projected returns set forth herein is reasonable based on a combination of factors, including the investment team's general experience and assessment of prevailing market conditions and investment opportunities. There are, however, numerous assumptions that factor into the targeted return that may not be consistent with future market conditions and that may significantly affect actual investment results. Such assumptions include, but are not limited to, 1) current monetary policy, inflation expectations and other fundamental and technical factors determine interest rate levels in the credit markets, 2) historical data and trends in the fixed income asset classes presented and 3) anticipated interest rate movements. NBFI does not make any representation as to the reasonableness of the assumptions or that all the assumptions used in calculating the projected returns have been stated or fully considered. NBFI's ability to achieve investment results consistently, in the aggregate or with regard to any particular fixed income sector, with the returns set forth herein depends significantly on a number of factors in addition to the accuracy of its assumptions. These include NBFI's ability to identify a sufficient number and mix of suitable investments. Changes in the assumptions may have a material impact on the targeted returns presented. All data is shown before fees, transaction costs and taxes and does not account for the effects of inflation. Management fees, transaction costs and potential expenses are not considered and would reduce returns. Actual results experienced by clients may vary significantly from the illustrations shown.

Neuberger Berman investment views are formulated by our specialty fixed income teams. For a variety of fixed income sectors we identify a range of outcomes that either may occur or alternatively be anticipated and then priced into the market. For each sector we formulate an investment view based on proprietary fundamental research and quantitative analysis which are used to project expected returns and a confidence level of the return expectation. Each sector team will establish an independent view based on internal research, and a level of confidence in the outlook. The sector view is formulated by identifying various states of the economy and market (i.e. outcomes) expected typically over a 12-month horizon. Each state or outcome is probability weighted to determine the overall sector view. The reassessment of sector views is ongoing and formally updated at least monthly.

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