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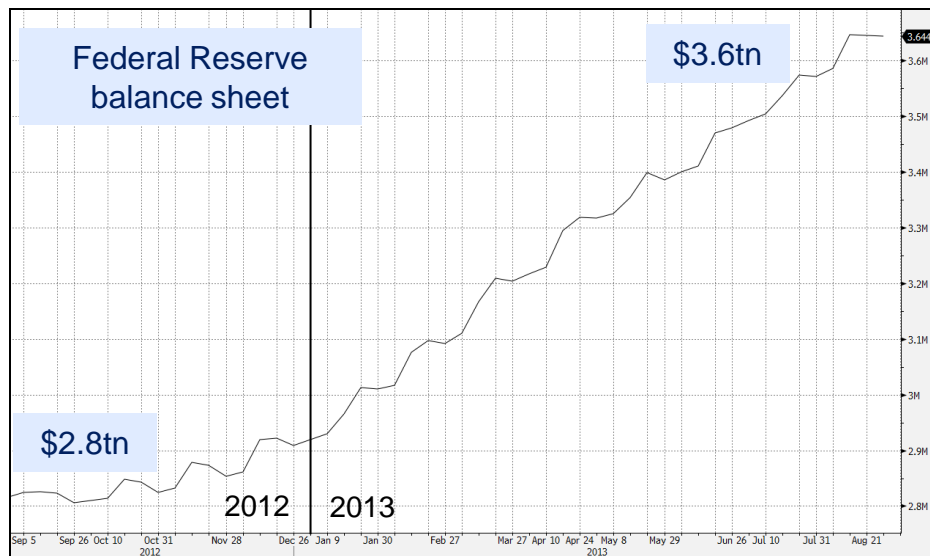
Navigating the Low Interest Rate Environment



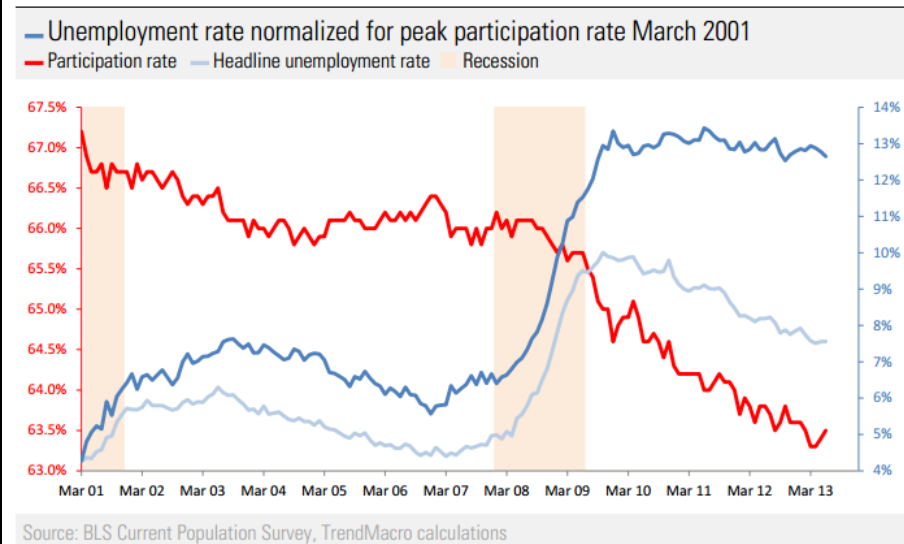
Scott Daniels, CFA, CPA
Managing Director

- ◆ Current economic environment
- ◆ Interest rates
- ◆ Impact on insurers
- ◆ Strategy options
- ◆ Modelling an asset allocation strategy

- ◆ What is sequestration worth?.....1.0-1.5%?
- ◆ What is QE worth?.....and what will tapering look like?
- ◆ So, what is sustainable rate of economic growth?
- ◆ Fed Balance sheet continues to expand – up 25% since end 2012
- ◆ Fed ‘forward guidance’ – clarity?....only in its uncertainty
- ◆ Unemployment target – flawed?

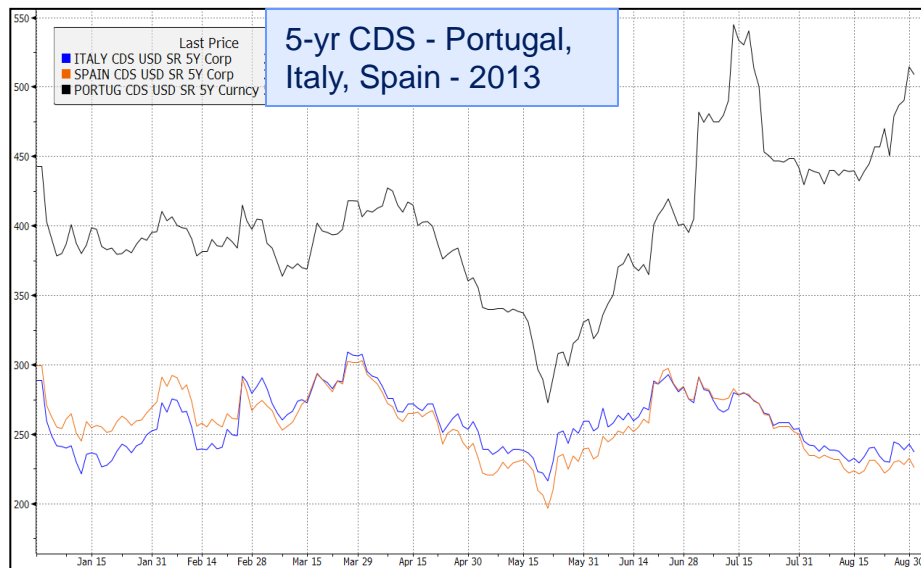


Source: Bloomberg

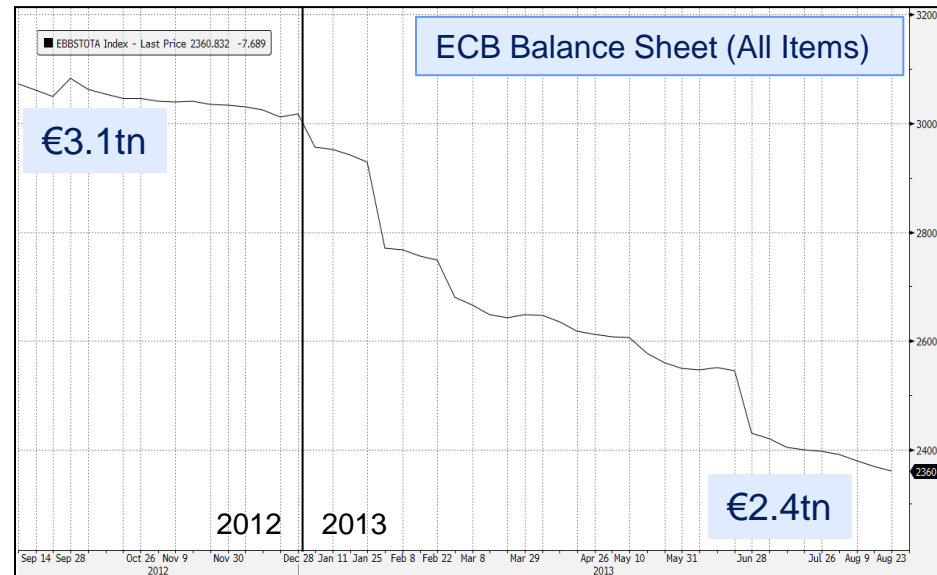


Source: BLS Current Population Survey, TrendMacro calculations

- ◆ Political risk moving back towards the top of the agenda
- ◆ Italy – the Berlusconi effect
- ◆ Portugal – split in fragile coalition
- ◆ Spain – Corruption scandal – is Rajoy next?
- ◆ Germany – focus on September elections
- ◆ ECB - “do whatever it takes”continues to act as backstop for markets
- ◆ ECB – do nothing for now – balance sheet declining – down 20% YTD

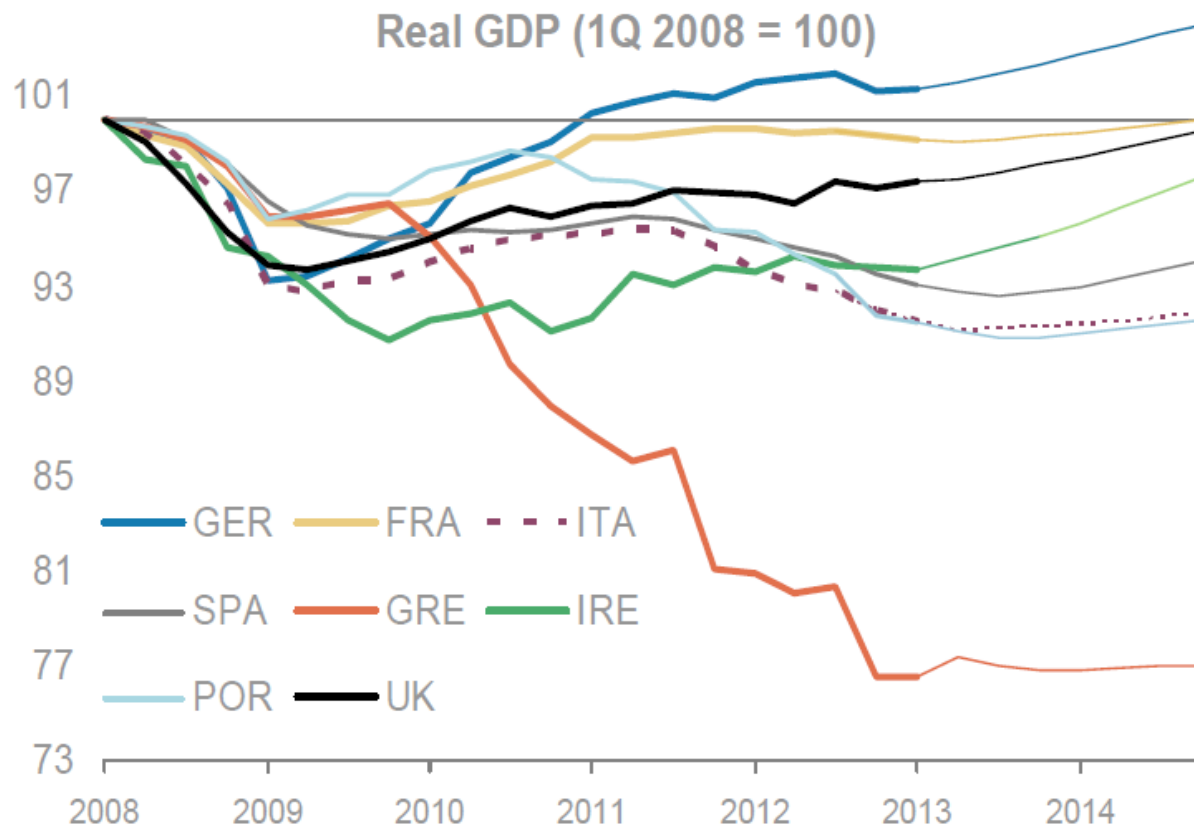


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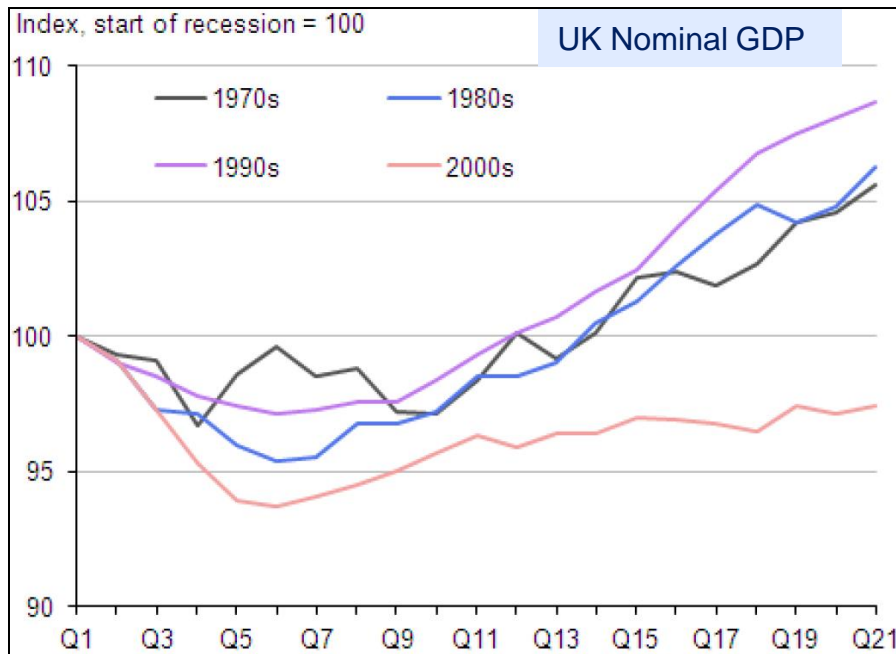
Most Countries Not Yet Back at Pre-Crisis Levels



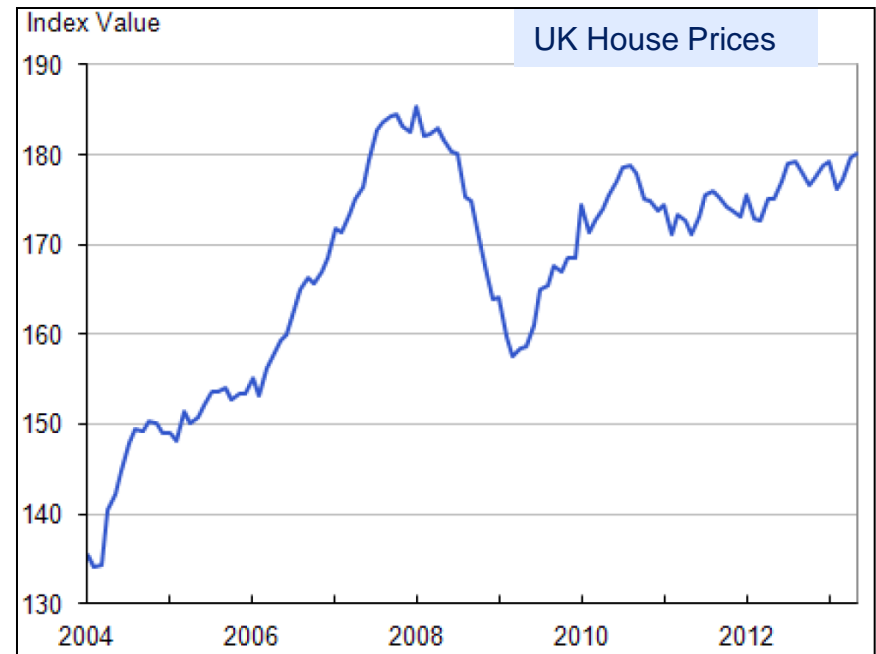
Source: Eurostat, Morgan Stanley Research estimates (2012-14)

Economics – U.K.

- ◆ Nominal GDP now 4% below 2008 peak - unlike previous recessions
- ◆ House prices up: big gains in London, weaker elsewhere – more FLS
- ◆ MPC: expected rise “not warranted”; forward guidance has not convinced markets
- ◆ Last meeting: Bank Rate, QE, forward guidance unchanged
- ◆ BOE – Balance sheet unchanged (approx. £750bn)

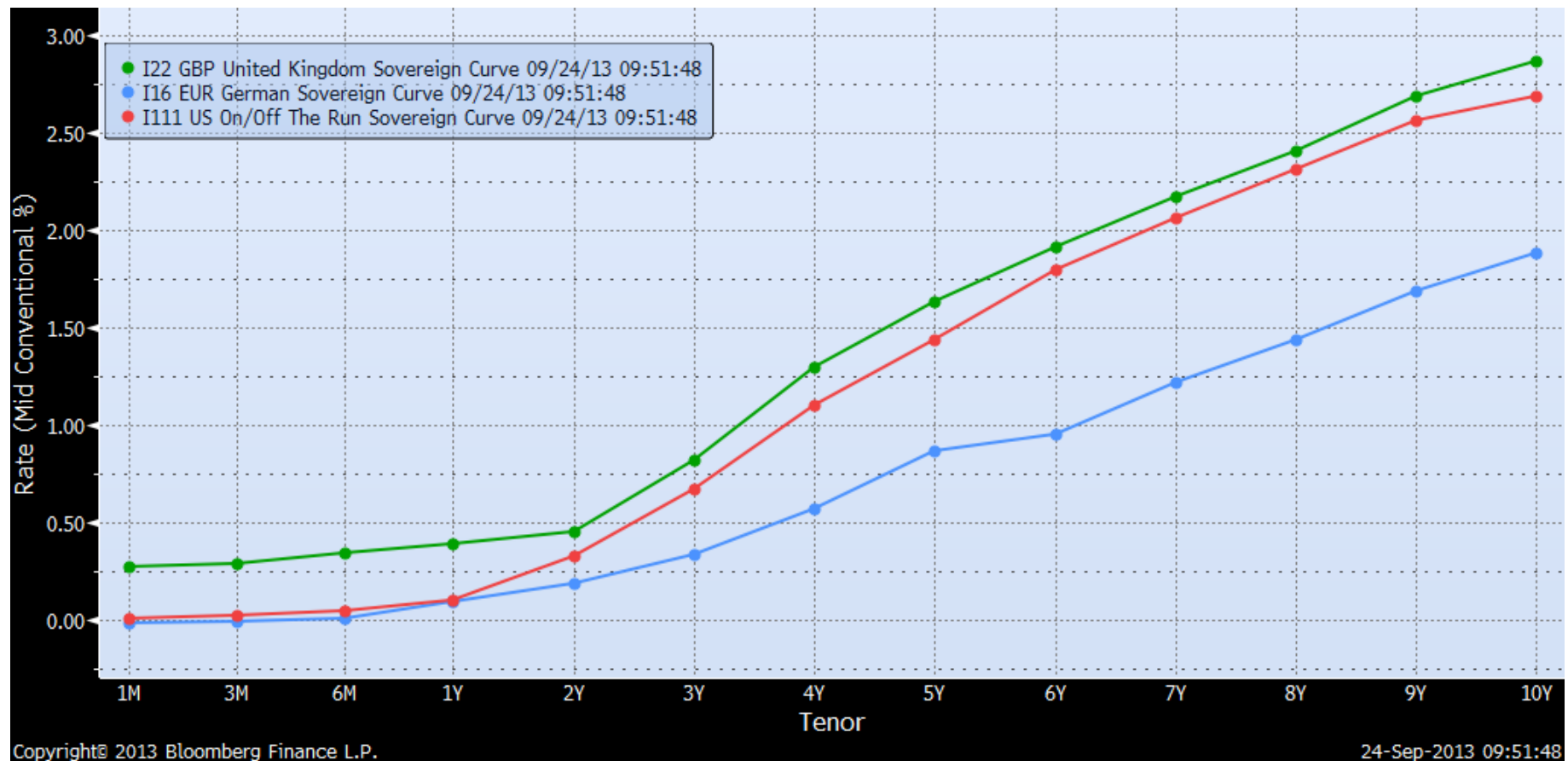


Source: ONS





Markets – Yield Curves



Source: Bloomberg

- ◆ Government bond yields <1.7% out to 5 year maturities, <2.9% out to 10 years
- ◆ Short yields to remain anchored by monetary policy and flight to quality.....for now
- ◆ Yield curves have steepened this year



US Interest Rates



Source: Global Financial Database; Bloomberg

UK Interest Rates

GUKG2 Index (UK Govt Bonds 2 Year Note Generic Bid Yield)

BP0003M Index (BBA LIBOR GBP 3 Month)

UKBRBASE Index (UK Bank of England Official Bank Rate)

UK Gilt 2 Year Yield, Bank of England Bank Rate and 3 Month LIBOR



Source: Bloomberg

20th September 2013

ITRBE Curncy (MARKIT ITRX EUROPE 12/18)

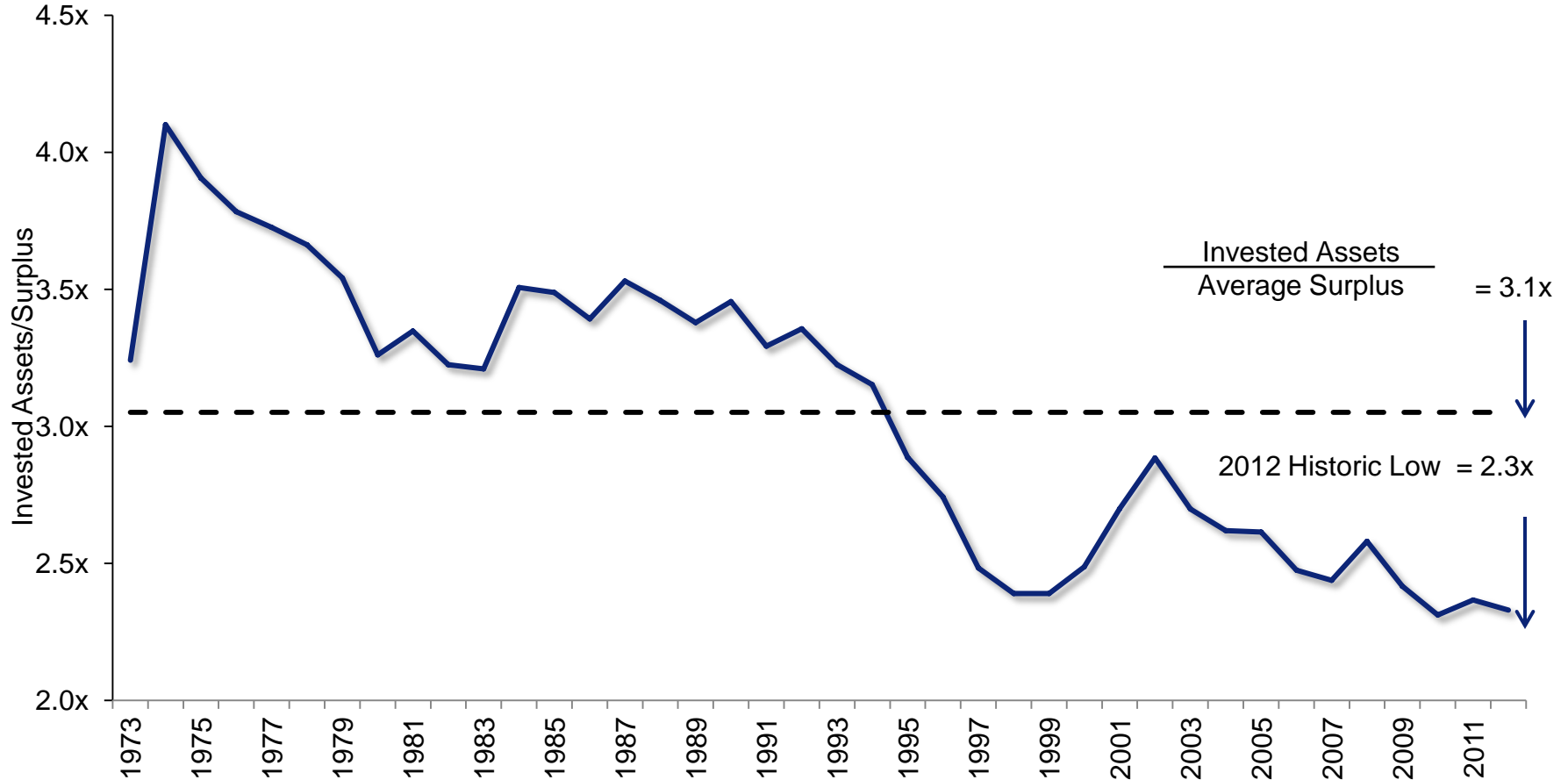
ITraxx Generic 5-year Corporate Index



Source: Bloomberg

20th September 2013

Property-Casualty Industry* Invested Asset Leverage

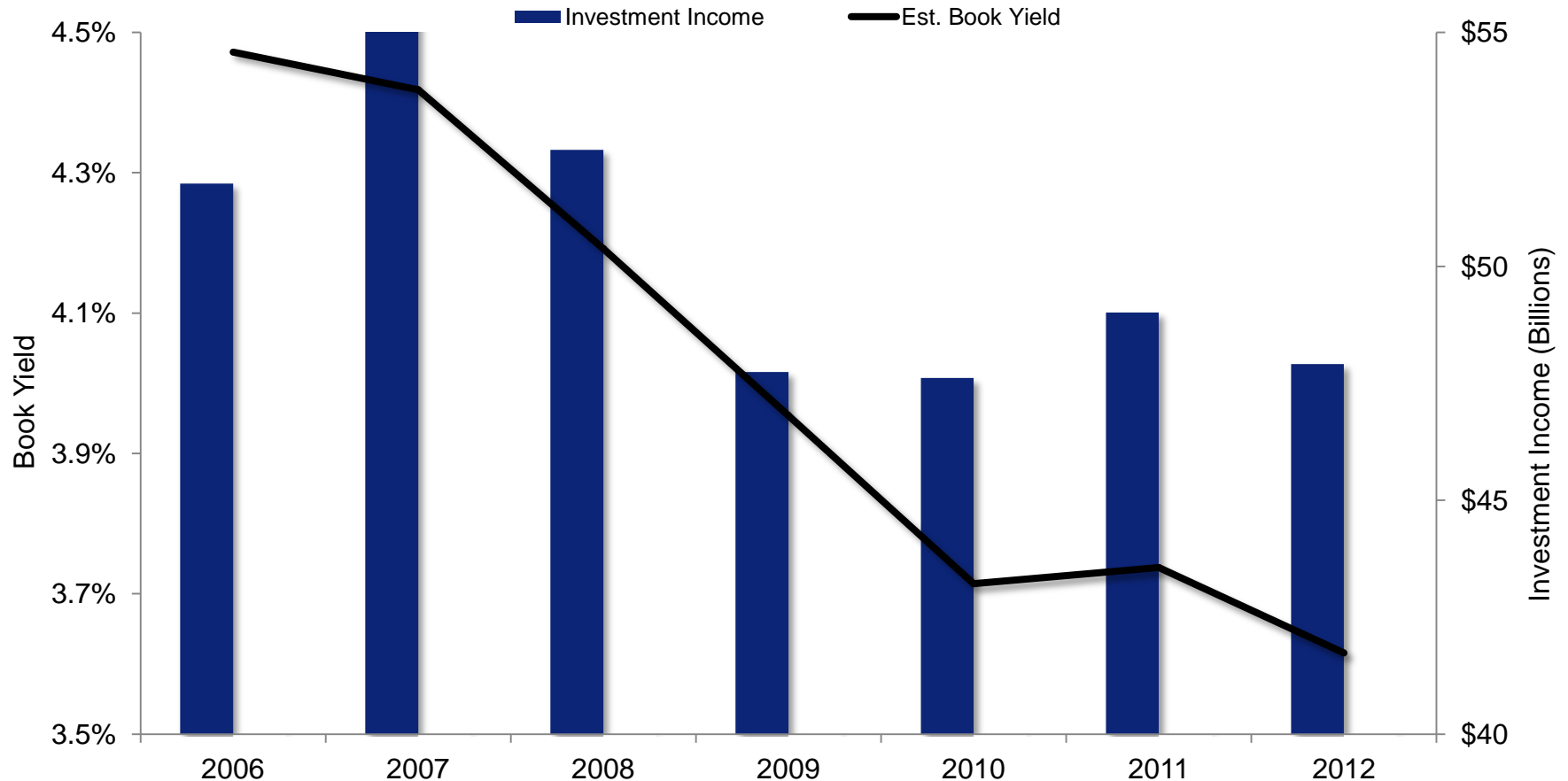


- ◆ Investment to capital leverage is at an all-time low
- ◆ Capacity for additional risk
- ◆ Need higher income to earn a given return

Source: ©A.M. Best Company—used by permission, Conning analysis and forecast

*Total U.S. Property-Casualty Industry

Property-Casualty Industry* Yields and Income



- ◆ Book yields are at all-time lows
- ◆ Absolute value of investment income maintained by positive cash flows
- ◆ Investment income relative to premiums and capital declined precipitously

Source: ©A.M. Best Company—used by permission, Conning analysis and forecast

*Total US Property-Casualty Industry



Evolving US Investment Portfolios

<i>Asset Allocation</i>	2007	2008	2009	2010	2011	2012
Net Cash	2.1%	2.1%	1.1%	1.8%	1.4%	2.1%
AAA-A Bonds	76.8%	78.3%	77.6%	75.9%	74.6%	71.9%
BBB Bonds	4.9%	7.0%	8.0%	8.2%	9.3%	10.7%
High Yield Bonds	1.7%	1.6%	1.8%	2.2%	2.3%	2.6%
Common Stock	8.1%	5.0%	5.9%	6.4%	6.4%	7.1%
Schedule BA	3.5%	3.4%	3.3%	3.4%	3.8%	3.6%
Other	2.8%	2.4%	2.1%	2.0%	1.9%	1.9%
<i>Bond Sector Allocation</i>	2007	2008	2009	2010	2011	2012
US Govt	12.7%	12.4%	13.8%	13.6%	13.2%	10.6%
Credit	23.2%	24.6%	26.9%	29.6%	31.0%	32.9%
Agency / Muni	40.3%	40.7%	37.4%	35.3%	32.5%	33.7%
Other Govt	1.3%	1.0%	1.5%	1.9%	2.3%	2.3%
Structured Securities	21.6%	20.2%	19.1%	18.2%	19.8%	19.5%
<i>Bond Market Allocation</i>	2007	2008	2009	2010	2011	2012
Publically-traded Bonds	96.4%	96.1%	95.0%	93.7%	92.2%	90.6%
Private Placement Bonds	3.6%	3.9%	5.0%	6.3%	7.8%	9.4%

Source: ©A.M. Best – used with permission; Conning analytics.

US P/C Industry, ex. Berkshire Hathaway and State Farm

Evolving US Bond Portfolios

<i>Quality Distribution</i>	2007	2008	2009	2010	2011	2012
A to AAA	92.2%	90.1%	88.8%	87.9%	86.5%	84.4%
BBB	5.9%	8.1%	9.2%	9.5%	10.8%	12.6%
Ba	1.0%	0.9%	1.1%	1.3%	1.4%	1.5%
B	0.7%	0.5%	0.6%	0.8%	0.9%	1.1%
C	0.2%	0.3%	0.2%	0.3%	0.2%	0.2%
D	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%

	2007	2008	2009	2010	2011	2012
Investment Grade	98.0%	98.1%	97.9%	97.5%	97.3%	97.0%
Below Investment Grade	2.0%	1.9%	2.1%	2.5%	2.7%	3.0%

<i>Maturity Distribution</i>	2007	2008	2009	2010	2011	2012
<=1 Yr	14.1%	15.6%	15.2%	15.0%	14.2%	15.5%
1-5 Yrs	30.7%	32.8%	36.9%	40.3%	41.9%	41.3%
5-10 Yrs	33.0%	29.9%	28.0%	26.5%	26.4%	26.7%
10-20 Yrs	13.4%	13.2%	12.1%	11.4%	10.7%	10.1%
>20 Yrs	8.8%	8.6%	7.7%	6.8%	6.9%	6.5%
Avg.	7.7	7.4	7.0	6.7	6.6	6.4

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US P/C Industry, ex. Berkshire Hathaway and State Farm

Political Risk:

- ◆ Difficult to predict
- ◆ Reactionary, driven by local political forces- Five Star movement/Spanish bribery scandal
- ◆ Headline risk
- ◆ Significant impact on macroeconomic outcome – Peripheral Europe

Interest Rate Risk:

- ◆ Yield levels remain low
- ◆ Risk is skewed away from 'normal' distribution
- ◆ Probability of negative total returns in 2013 is high
- ◆ Negative real interest rates

Systemic Risk:

- ◆ Banks remain at risk – regulatory, balance sheet, political risk
- ◆ National differences – Government exposures/control – central bank support
- ◆ Liquidity

Idiosyncratic Risk:

- ◆ Still have fragmented and unclear recovery story
- ◆ New products are introducing new risks – Bank Loans/CLOs/Trade Finance

New Environment:

- ◆ Risks have little or no historical precedent

Skewed risk profiles:

- ◆ Being at the extreme of any range
- ◆ Normalisation – skewed, non-normal risk distribution

New Products:

- ◆ Increase in structural/legal risk
- ◆ Bank balance sheets finding way onto Ins Co's balance sheet

- ◆ Underwriting strategy
 - ❖ Write more short tail, less long tailed business
 - ❖ Increase premium rates
 - ❖ More selective underwriting
 - ❖ Reduce expenses
 - ❖ Increase loss control efforts
 - ❖ Change product features (for life insurers with interest sensitive liabilities)
- ◆ Evaluate a wide range of options in a consistent framework
- ◆ Consider asset, liabilities, and underwriting; risk and reward; a wide range of possible outcomes

Diversification:

- ◆ Reduce idiosyncratic risk
- ◆ Mitigate political and systemic risk

Optimize Carry Trade:

- ◆ Mitigate interest rate risk
- ◆ Mitigate political and systemic risk

Duration/Curve Positioning:

- ◆ Mitigate interest rate risk, particularly combined with spread trade

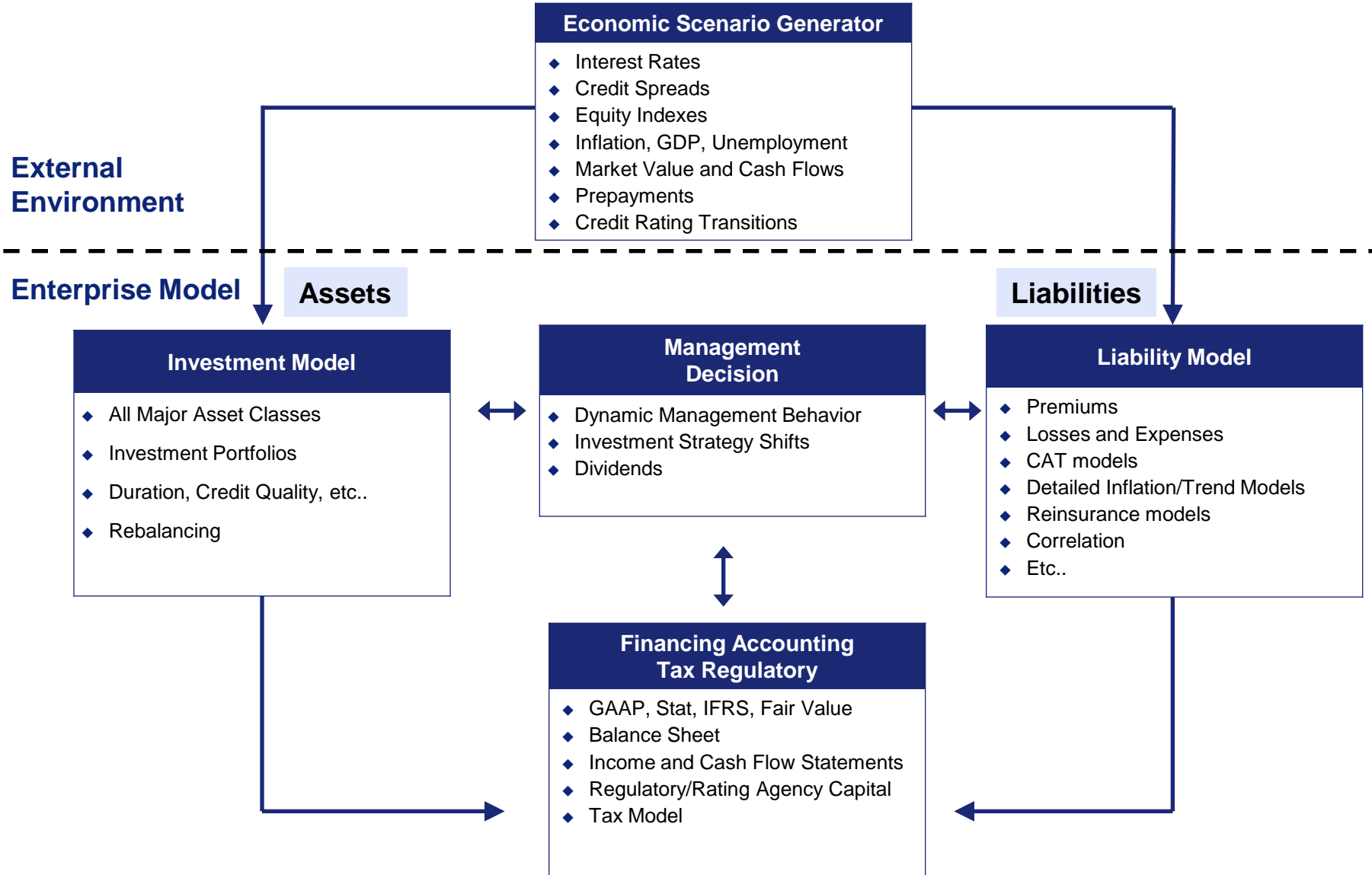
Fundamental Analysis:

- ◆ Reduce idiosyncratic risk
- ◆ Mitigate systemic risk

Tactical Trades:

- ◆ Diversifies sources of risk – α vs. β

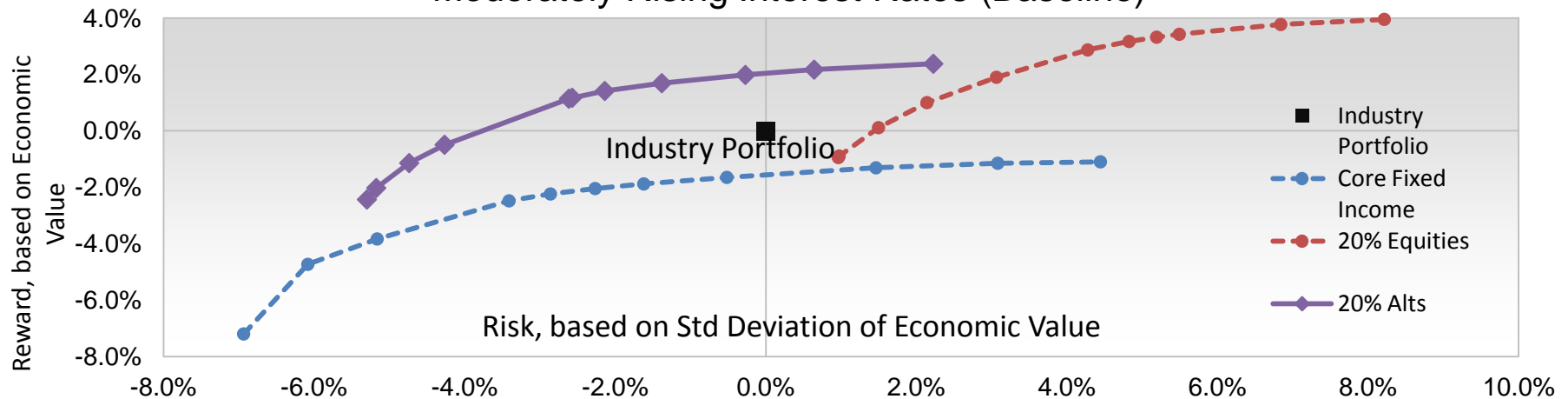
Modelling System for Strategy Evaluation



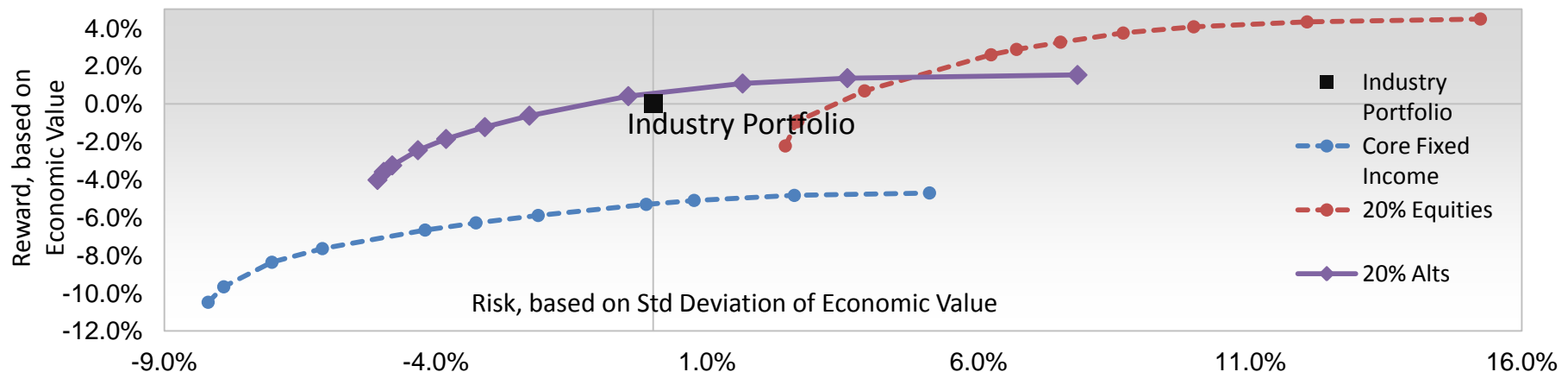


Alternatives Can Add Value in Many Different Environments

Moderately Rising Interest Rates (Baseline)



Inflation Scenarios



Industry portfolio: US P/C industry, ex. Berkshire Hathaway and State Farm

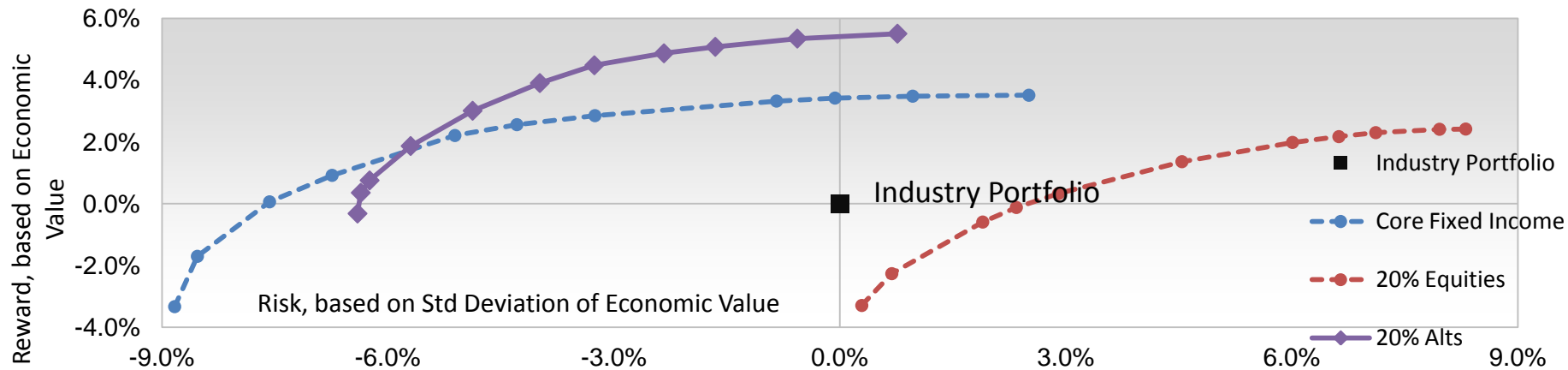
Risk and Reward : Percentage change over five years, relative to the industry portfolio

Source: ©A.M. Best - used with permission; Conning analytics. Please see page 22 for full disclosure of our data sources and methodology.

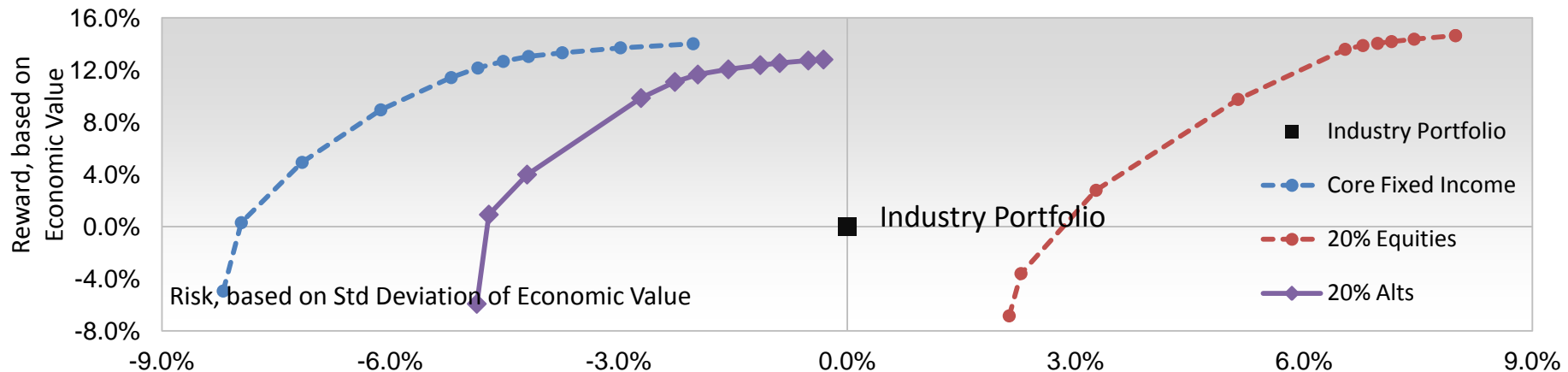


Alternatives Can Add Value in Many Different Environments

Stock Market Crash Scenarios



Continued Low Interest Rates



Industry portfolio: US P/C industry, ex. Berkshire Hathaway and State Farm

Risk and Reward : Percentage change over five years, relative to the industry portfolio

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- ◆ Impact on other financial metrics, including income and regulatory capital
- ◆ Defining and measuring risk and risk tolerance
- ◆ Tail risk in the extreme scenarios
- ◆ Accuracy of model assumptions and model dynamics
- ◆ Implementation of the new investment strategy

Frontiers were generated using ADVISE®, Conning's proprietary DFA model. The property-casualty industry, excluding State Farm and Berkshire Hathaway, was modeled as of year end 2012 using data from A.M. Best. Five years of future underwriting operations were modeled using premium growth, loss ratio and expense ratio assumptions from Conning's Property-Casualty Industry Forecast and Analysis as of the first quarter of 2013. Volatility and loss payout patterns assumptions were based on historical industry data from A.M. Best.

The industry's financial results were projected for 100,000 five-year economic scenarios. Subsets of 1,000 five-year projections were selected that matched our definitions of the four macro economic scenarios of rising interest rates, inflation, stock market crash, and flat interest rates.

Reward is based on average economic value at the end of the five-year horizon for the 1,000 scenarios in that macro economic scenario. Economic value is the sum of the fair values of all assets less the present values of all liabilities plus the discounted present value of operations beyond the five-year horizon. Reward is graphed as the percentage by which the economic values earned by an investment strategy differs from the economic value generated by the industry portfolio for that macro economic set of scenarios. Risk is percentage by which the standard deviation of ending economic values across the 1,000 economic scenarios for a given investment strategy differs from the standard deviation of economic value for the industry portfolio.

Three efficient frontiers were constructed for each macro economic scenario. For the first frontier, investments were constrained to core fixed income securities. Credit risk, structure risk and interest rate risk are the variables which affect future risk and reward. For the second frontier, 20% of fixed income was replaced by U.S. large cap stocks. For the third frontier, stocks were excluded and 20% of fixed income was replaced with non-traditional investments. Non-traditional investments ("Alternatives") consisted of an even weighting of Hedge Funds, Insurance-Linked Securities ("ILS"), Convertible Securities, and Master Limited Partnerships ("MLPs").

For comparison, the result after five years for the property-casualty industry's existing investment strategy is shown for each macro economic scenario.

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