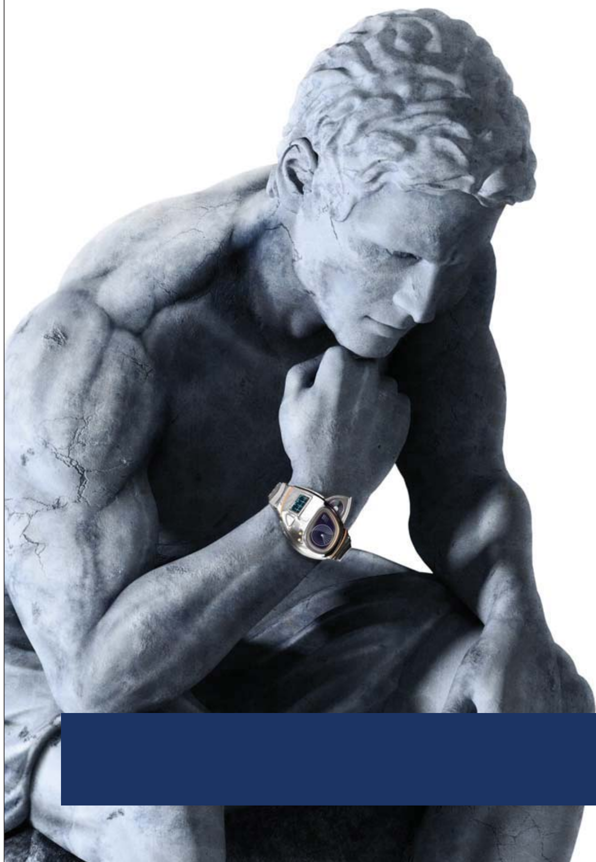

Risk Premia approach to Asset Allocation & Risk Mitigation

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Aug 13-15

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January 2012 | For professional investors only. This material is not suitable for retail clients

Talk outline

- A risk premia approach
  - What that means
  - Some key risks
  - Why bother?
- Putting it together – building risk premia portfolios
  - Target allocations to key risk categories
  - Diversify exposure within key risks categories
  - Offset the weaknesses of diversification

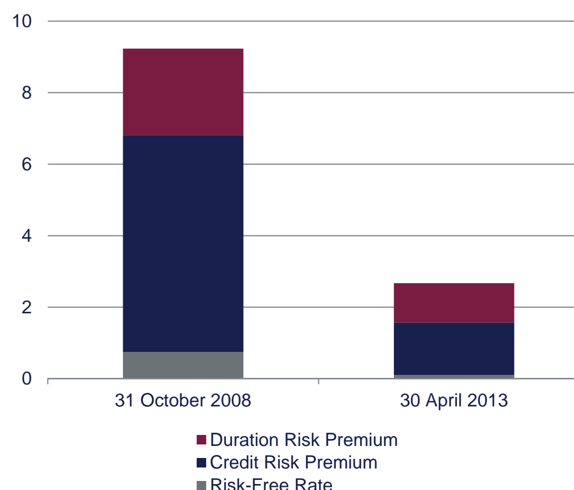
From asset classes to risk premia

Understanding risk and return drivers

- **Asset classes**: composed of one or more risk factors
- **Rewarded risk factors**: underlying drivers of asset returns
- **Risk premium**: expected return investors demand for assuming a source of risk

Breaking asset classes into risk premia

US investment grade credit



Source: Schroders, Bloomberg. US investment grade credit is represented by the BofA Merrill Lynch US Corporate Index. Shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Why bother?

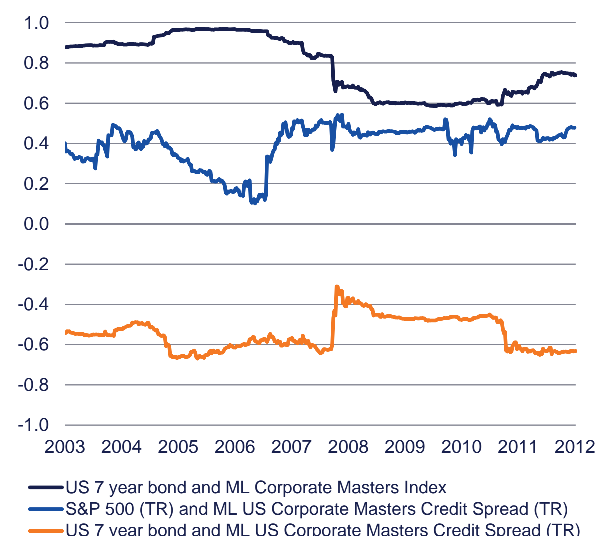
Assets are bundles of risk premia

Focusing on the underlying drivers of asset returns provides a

- Better understanding of the exposures in portfolio
  - Better starting point for forecasting
  - Better ability to manage risk
  - Better portfolio construction

Focusing on the risk premia provides more clarity

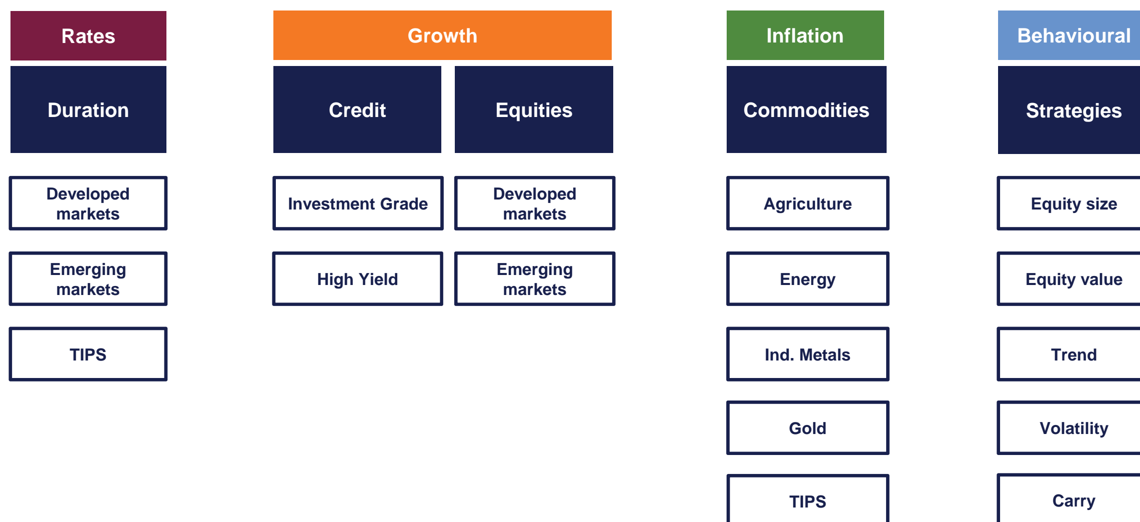
Rolling 3 year correlations



Source: Schroders, Datastream as of December 31, 2012. The views and opinions expressed are those of the Multi-Asset Team and are subject to change.

Types of risk premia

Market risk premia and behavioral risk premia

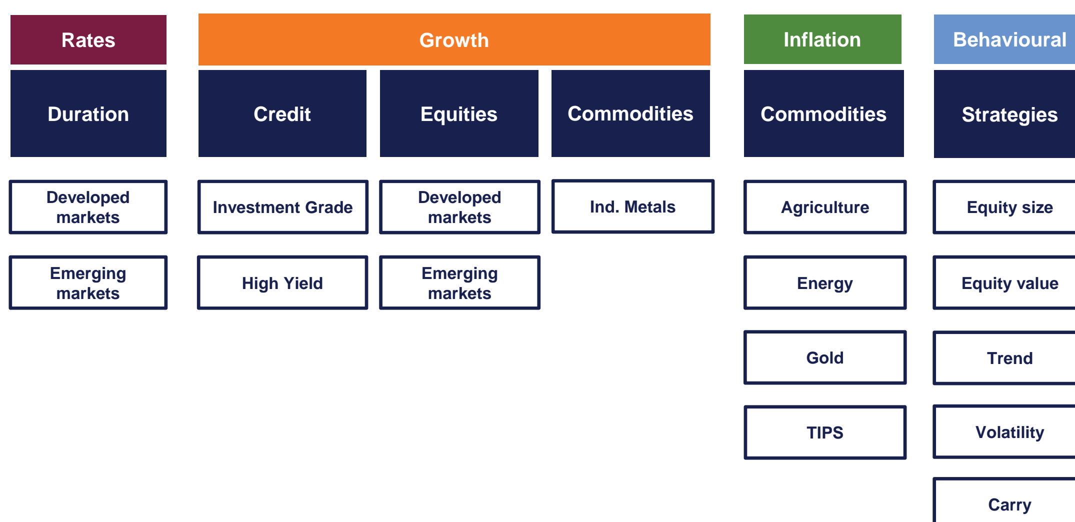


It's critical to isolate the risk premia within asset classes

Source: Schroders

Types of risk premia

Market risk premia and behavioral risk premia



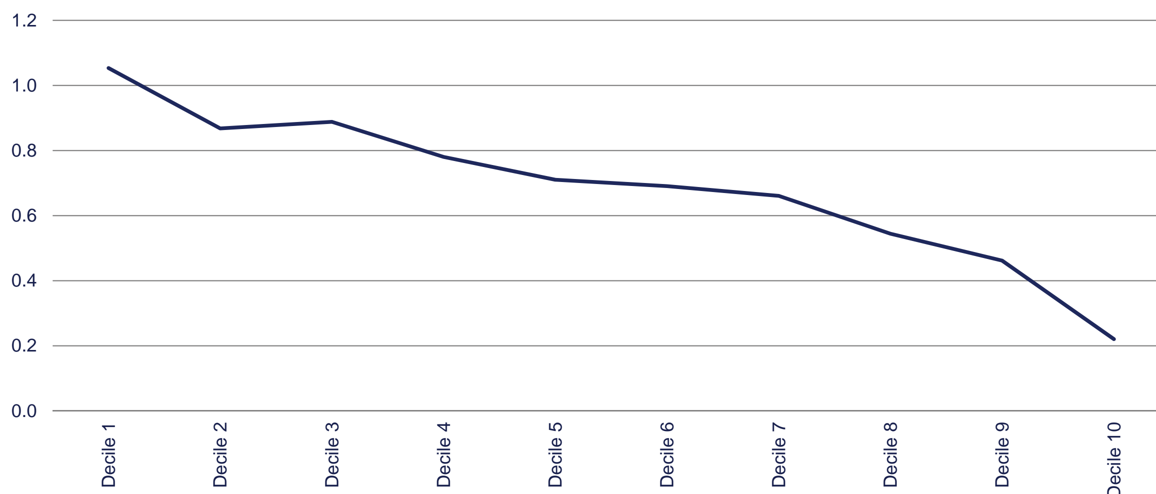
It's critical to isolate the risk premia within asset classes

Source: Schroders

Behavioral and structural risk premia

An example: The low volatility anomaly

Return to risk ratio of volatility decile



Source: FactSet, Schroders. Analysis from 1988 to 2012

The low volatility anomaly

The boring premium?

Stock market return statistics by volatility decile

	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Average Qtrly Return	3.0%	2.8%	3.2%	3.2%	3.0%	3.1%	3.4%	3.1%	3.5%	2.2%
Min Qtrly Return	**-13.4%**	-20.0%	-18.8%	-27.0%	-31.8%	-26.4%	-31.0%	-32.8%	-35.8%	**-53.7%**
Max Qtrly Return	**16.8%**	14.5%	15.0%	18.8%	19.6%	22.1%	26.3%	30.2%	40.2%	**67.7%**
Annualised Average	11.9%	11.3%	12.8%	12.7%	12.1%	12.5%	13.8%	12.6%	13.9%	8.7%
Annualised Std Dev	11.3%	13.0%	14.4%	16.3%	17.1%	18.1%	20.8%	23.1%	30.1%	39.6%
Risk Adjusted Return	**1.05**	0.87	0.89	0.78	0.71	0.69	0.66	0.54	0.46	**0.22**
Annual Geometric	**11.7%**	10.9%	12.3%	11.8%	11.1%	11.3%	12.1%	10.2%	9.6%	**0.6%**

Source: FactSet, Schroders. Analysis from 1988 to 2012

Putting it together

Portfolio construction and diversification

The final portfolio

- Allocate target exposure to rewarded risks
  - Look through the asset classes to underlying return drivers
  - Capital allocation vs risk allocation
- Diversify exposure within rewarded risks
  - Compensate for the weaknesses of diversification
    - Blind to asset valuations
    - Cannot diversify away a global systemic shocks

Source: Schroders

Compensating for diversification's weaknesses

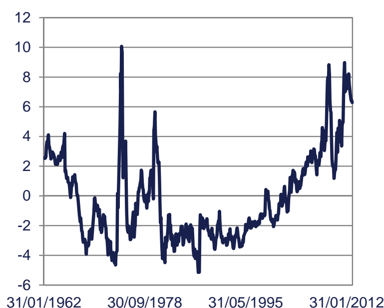
Gaining desired exposure in the most cost-effective way

Valuation measures

e.g. P/B, CAPE, slope of yield curve, credit spreads, carry costs

Example from equity risk premium research:

Bond equity yield gaps are above historical levels

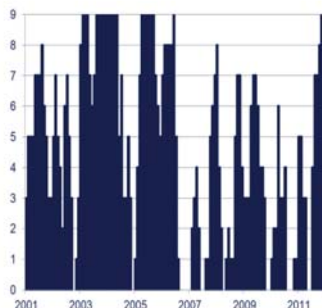


Market dynamics

e.g. momentum, put/call ratios, investor cash levels

Example from equity risk premium research:

US Value Growth CMI Momentum Score



Cyclical measures

e.g. political factors, liquidity conditions, leading indicators

Example from duration risk premium research:

Inflation & Growth Overview

	G-Tracker	I-Tracker
US	↓	↑
UK	↓	↓
Eurozone	↓	↓
Japan	↑	↑
Canada	↑	↑
Australia	↑	↓
Brazil	↑	↑
Russia	↓	↑
Indonesia	↑	↓

Source: Schroders for illustration. Chart 1 source: Datastream, FactSet, Schroders period ending December 31, 2012. Chart 2 sources: Schroders, Bloomberg May 31, 1992 to Dec ember 30, 2012. Regression based analysis of factors driving yield differential between US government 10 year and 2 year bonds. Chart 3 sources: Thomson Datastream, Economic Policy Uncertainty

Summary

- Risk premia provide a much clearer way of understanding asset returns. This leads to
  - Better ability to forecast
  - Better ability to manage risk
  - Better portfolio construction
- Risk premia include macro drivers as well as behavioral/structural factors
- Diversification is a powerful risk control tool but it has two weaknesses
  1. It is a blind to asset values
  2. It is a powerless against global systemic shocks
- The weaknesses of diversification call for a dynamic approach

A risk premia approach benefits a portfolio by seeking to deliver more return per unit risk

Source: Schroders. The views and opinions expressed are those of the Multi-Asset Team and are subject to change.

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