Risk Premia approach to Asset Allocation & Risk Mitigation

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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

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

Why bother?

Assets are bundles of risk premia

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.

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
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

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The low volatility anomaly

The boring premium?

Stock market return statistics by volatility decile

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<tr>
<th></th>
<th>Decile 1</th>
<th>Decile 2</th>
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<tr>
<td>Average Qtrly Return</td>
<td>3.0%</td>
<td>2.8%</td>
<td>3.2%</td>
<td>3.2%</td>
<td>3.0%</td>
<td>3.1%</td>
<td>3.4%</td>
<td>3.1%</td>
<td>3.5%</td>
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<tr>
<td>Min Qtrly Return</td>
<td>-13.4%</td>
<td>-20.0%</td>
<td>-18.8%</td>
<td>-27.0%</td>
<td>-31.8%</td>
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<td>-32.8%</td>
<td>-35.8%</td>
<td>-53.7%</td>
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<td>Max Qtrly Return</td>
<td>16.8%</td>
<td>14.5%</td>
<td>15.0%</td>
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<td>19.6%</td>
<td>22.1%</td>
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<td>Annualised Average</td>
<td>11.9%</td>
<td>11.3%</td>
<td>12.8%</td>
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<td>12.1%</td>
<td>12.5%</td>
<td>13.8%</td>
<td>12.6%</td>
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<td>8.7%</td>
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<td>Annualised Std Dev</td>
<td>11.3%</td>
<td>13.0%</td>
<td>14.4%</td>
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<td>17.1%</td>
<td>18.1%</td>
<td>20.8%</td>
<td>23.1%</td>
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<td>Risk Adjusted Return</td>
<td><strong>1.05</strong></td>
<td>0.87</td>
<td>0.89</td>
<td>0.78</td>
<td>0.71</td>
<td>0.69</td>
<td>0.66</td>
<td>0.54</td>
<td>0.46</td>
<td><strong>0.22</strong></td>
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<td>Annual Geometric</td>
<td><strong>11.7%</strong></td>
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<td>9.6%</td>
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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

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

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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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