



USING THE E.R. MODEL

A BUILDING BLOCK FOR DYNAMIC EVENT ALLOCATION™

USING THE MODEL

ABSOLUTE EXPOSURE RECOMMENDATIONS

The model can be used as the **driver behind** asset class, individual security or risk factor **exposure** and allocation **decisions, enabling** greater **tail risk management**

Example

Given a negative exposure signal on a specific asset class or security, a manager may choose to underweight the holding, completely remove exposure, or even create a short position

USING THE MODEL

CREATING A COMPOSITE RISK INDEX

Multiple signals across different asset classes and risk factors **can be consolidated** to create a **composite risk index that drives overall portfolio composition decisions**

Example

By aggregating signals on multiple equity markets around the world, a composite risk index can be created. The index could act as a barometer for total market risk, and could then be used to drive transition decisions between stock and bond allocations.

A composite risk index can be used in several ways

- When risk is high, a manager may allocate to lower beta securities, or overweight defensive sectors
- To drive the overall stock versus bond allocation of the portfolio
- To select between multiple strategic portfolio allocations
- To select between different funds based on risk profile, allowing a new strategy to take advantage of the track-record of existing funds in the fund-family

USING THE MODEL

CREATING A SPECIFIC RISK MEASURE FOR SECURITIES

The model can be used as a signal on macro-economic risk factors to **construct a factor model to provide a risk measure on individual securities**

Example

Signals on major economic risk factors, such as U.S. Equity, Foreign Developed Equity, Emerging Market Equity, Credit, and Commodities, can be aggregated by their correlation to each individual security to create specific risk measures. A threshold risk level can then be set that each security must clear before being included in the portfolio

While the individual total risk measure can be used to **manage a security's allocation** in the portfolio, the loadings themselves can be used to **identify a security's contribution to**, and thereby **manage total portfolio exposure of, specific risk factors**

USING THE MODEL

INPUT TO AN EXISTING PORTFOLIO OPTIMIZATION PROCESS

The exposure recommendations from the ER™ model can be used as an **input to an already existing portfolio optimization** process

Example

In a Black-Litterman optimization process, the signals can be used to generate or bias the investor's views on excess return and the confidence in those predictions

The signals could be used in an optimization process in several ways, including

- Biasing expected returns for securities
- Biasing expected risk levels for securities
- Setting confidence in expected returns for securities
- Biasing the risk target for portfolio
- Biasing the diversification target for the portfolio

DISCLOSURES & CITATIONS

DISCLAIMERS

Copyright © Newfound Research LLC. All rights reserved. These materials are proprietary to Newfound Research LLC and may not be reproduced, modified, transmitted, transferred or distributed in any form without the prior written consent of Newfound Research LLC. These materials have been prepared solely for information and illustrative purposes. These materials are made available on an "as is", without representation or warranty basis. The information contained in these materials has been obtained from sources that Newfound Research LLC believes to be reliable, but accuracy and completeness are not guaranteed.

These materials are subject to confidentiality obligations that the recipient owes to Newfound Research LLC. Any disclosure of these materials without Newfound Research LLC's prior written consent is strictly prohibited and in violation of ongoing contractual restrictions. The recipient of these materials agrees to keep them and all contents confidential.

Unless otherwise noted, the performance returns of the Newfound Research LLC products presented in these materials reflect hypothetical, back-tested performance an investor may have obtained had it invested in the manner shown and do not represent returns that an investor actually attained (in other words, the Newfound Research LLC model performance is not based on live results produced by an asset manager's actual investing and trading, but was achieved by means of retroactive application of a model). Hypothetical, back-tested performance and model results have many inherent limitations, including as a result of data cleanliness and accuracy. The performance results of the back-tested products presented include periods prior to when the products were created by Newfound Research LLC. Actual, live client results may have materially differed from model results.

There have not been any material changes in the conditions, objectives or strategies of the model that have occurred that may affect results.

Unless otherwise stated, hypothetical, back-tested performance results are not adjusted for the payment of any fees, expenses, transaction costs, commissions or taxes. Actual results will vary from the returns presented herein for those accounts that are subject to taxation and for the provision of certain types of fees, expenses, transaction costs or commissions that may be paid for live, actual accounts. Newfound Research LLC's performance results do include reinvestment of dividends. Performance results are based on U.S. dollar returns.

These materials represent an assessment of the market environment at specific points in time and are intended neither to be a guarantee of future events nor as a primary basis for investment decisions. The performance results should not be construed as advice meeting the particular needs of any investor. Neither the information presented nor any opinion expressed herein constitutes a solicitation for the purchase or sale of any security. Past performance is not indicative of future performance and investments in equity securities do present risk of loss. Newfound Research LLC's results are historical and their ability to repeat could be affected by material market or economic conditions, among other things.