



WHO WE ARE & WHAT WE DO

OUR FIRM & OUR SOLUTIONS

dynamicrisk management

ABOUT NEWFOUND RESEARCH LLC

We are a Boston-based **financial technology** and **product innovation** firm focused on **tactical risk management** through **dynamic event allocation**[™]

We research and develop innovative investment strategies and license the analytics necessary to construct and manage these portfolios

We strive to create partnerships with asset managers and work in concert to either enhance their already existing strategies or develop new strategies from the ground up

OUR SOLUTION: THE EXPOSURE RECOMMENDATION MODEL

Provides an absolute exposure recommendation for a wide range of asset classes, such as individual equities, indices, mutual funds, commodities and futures, in both domestic and international markets, **using the same repeatable and consistent process**

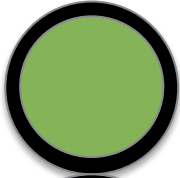
Key Components:

- Simple, non-optimized, purely mechanical logic
- One model for every asset class
- Reactive to the realized path of returns, not predictive on hypothetical ones
- Risk based only

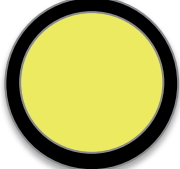
*The E.R. Model is a **building block** for constructing **dynamically risk-managed portfolios** that work in concert with the strategies employed by portfolio managers*

THE SIGNALS FROM THE ER™ MODEL

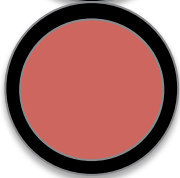
The model's output is similar to a stop light



When the signal is green, exposure is recommended



A yellow signal is transitory, and means a new market regime may be imminent



When the signal is red, exposure is not recommended

Newfound Research works closely with its clients to identify the best use and implementation of our model

HOW THE E.R. MODEL DIFFERS FROM TRADITIONAL RISK MODELS

reactive / predictive

timely / lagging

downside / volatility

general / specific

building block / package

model
delivery

focus

usage

product

HOW THE E.R. MODEL DIFFERS FROM TRADITIONAL RISK MODELS

Reactive Modeling: The majority of risk factor models attempt to predict future risk levels, and therefore their confidence is limited by the data they have been built on. **By being reactive, instead of predictive, our model's use is not restricted only to market environments or events that fall inside the training data.** For example, a reactive model can adapt to the untimely passing of a company's CEO; a predictive model would not have the appropriate historical data to accurately model such an event

Timely Delivery: Traditional macroeconomic and fundamental risk factor models are restricted to lagging monthly and quarterly information, forcing their predictions to not only be further out, and therefore less accurate, but also be less frequent. Since our models do not rely on quarterly information, they can **provide signals on a daily basis, capturing changing market environments in a timely manner**

HOW THE E.R. MODEL DIFFERS FROM TRADITIONAL RISK MODELS

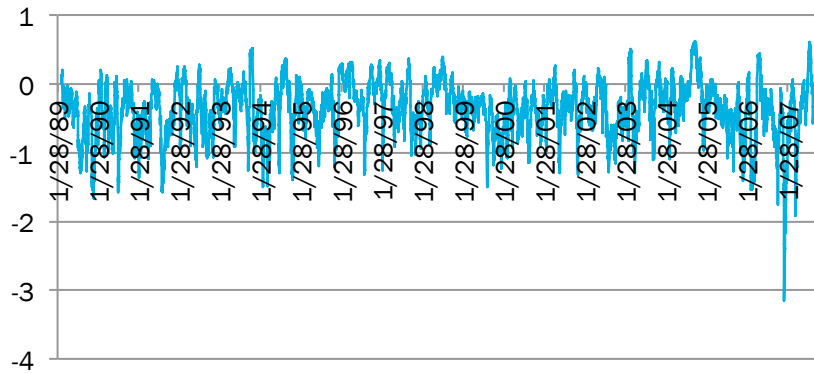
Focus on Downside Protection: The majority of traditional risk factor models predict volatility as a risk measure, ignoring investors' **desire to capture upside volatility and avoid the downside**

General Usage: Many industry models are designed, customized, and optimized for a specific subset of securities. Specific models can allow model developers to add insights, but they run the risk of being over-optimized and therefore too brittle to changing economic cycles. **General models tend sacrifice performance for robustness and confidence that models will work into the future**

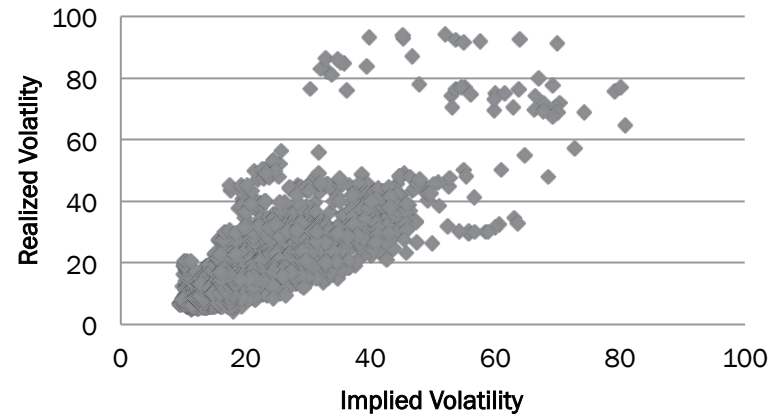
A Building Block: Traditional risk factor models exist as packaged products. **Our core model works as a building block**, giving portfolio managers control and flexibility around managing the risk in the portfolio

VOLATILITY AS RISK: PREDICTING VOLATILITY IS HARD

% Difference: Realized vs. Implied



Implied vs. Realized Volatility



The VIX is an index that represents the aggregate view of options traders on annualized volatility levels in the next 30 days (“implied volatility”). How have those predictions compared to realized volatility? **On average, realized volatility has been 35% less than the volatility predicted by the VIX**, and has ranged between 350% less to 50% greater than predicted levels since 1993.

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