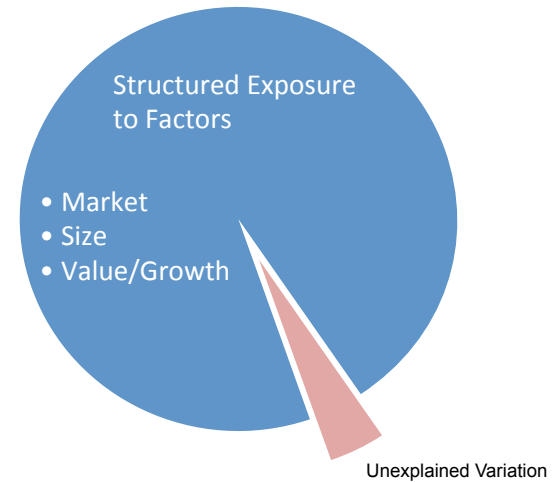
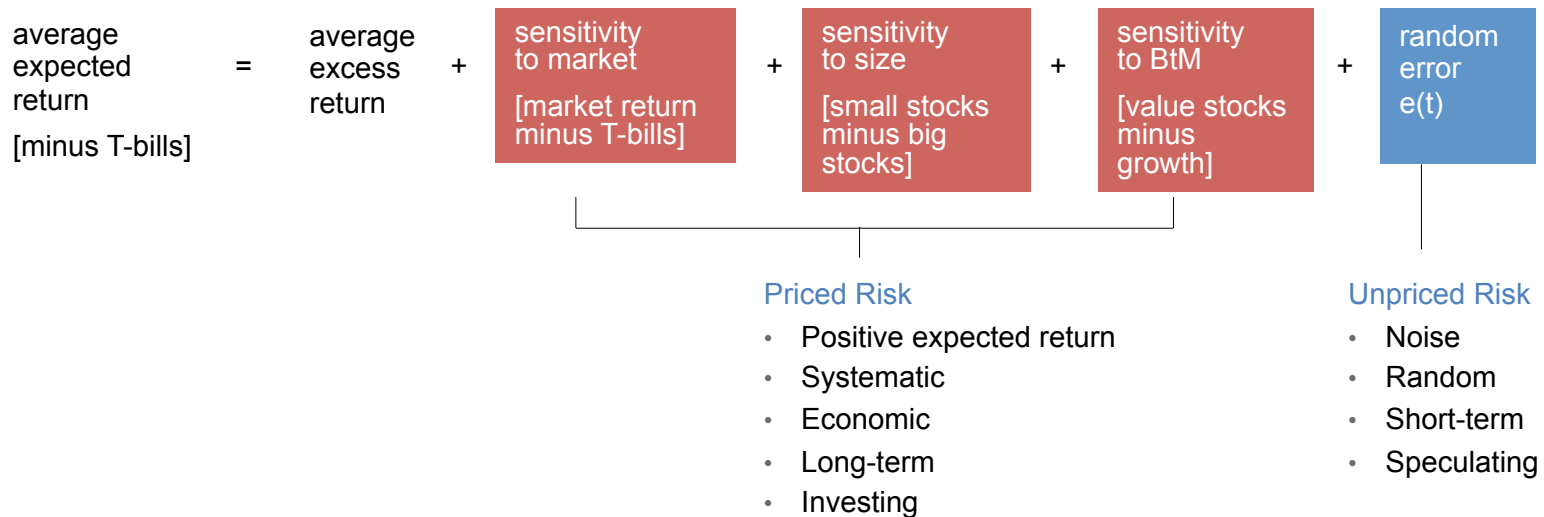


Structure Determines Performance

- The vast majority of the variation in returns is due to risk factor exposure.
- After fees, traditional management typically reduces returns.



THE MODEL TELLS THE DIFFERENCE BETWEEN INVESTING AND SPECULATING



Research shows that most of the variation in returns among equity portfolios can be explained by the portfolios' relative exposure to three compensated risk factors:

- Market factor—Stocks have higher expected returns than fixed income securities.
- Size factor—Small cap stocks have higher expected returns than large cap stocks.
- Book-to-Market (BtM) factor—Lower-priced “value” (high BtM) stocks have higher expected returns than higher-priced “growth” stocks (low BtM).

Structuring a portfolio around compensated risk factors can change priorities in the investment process. The focus shifts from returns chasing (through stock picking or market timing) to diversification across multiple asset classes in a portfolio.

The model in this slide illustrates this multifactor approach. Investors receive an average expected return (above T-bills) according to the relative risks they assume in their portfolios. The main factors driving expected returns are sensitivity to the market, sensitivity to small cap stocks (size factor), and sensitivity to value stocks (as measured by book-to-market ratio). Any additional average expected return in the portfolio may be attributed to unpriced risk.

Average explanatory power (R^2) is for the Fama/French equity benchmark universe. R^2 describes the goodness of fit of a regression model by indicating the proportion of the total variance of the dependent variable explained by the model.