

The Factor **Market Risk** (Market Premium)

- Empirical Evidence: **Cyclical Stocks** that **co-move** with the overall Stock Market **outperform** **defensive Stocks** that are not/less linked to the Market.
- F&F Explanation: **Cyclical Stocks** are **riskier** (more vulnerable to external shocks)
- Consequence: Investors require **Market Risk Premium** for cyclical Stocks
- **Market Risk** is a **Systematic Risk Factor** for Stocks.

“Market Excess Return over Risk-Free Rate” (Market Premium):

Returns of highly diversified **Market Portfolio** – Returns of **Risk-Free Asset**

The Factor Size (SMB)

- Empirical Evidence: Small Stocks outperform large Stocks (Market Cap)
- F&F Explanation: Small Stocks are riskier (more vulnerable to shocks)
- Consequence: Investors require Size Risk Premium for small Stocks
- Size Risk is a Systematic Risk Factor that is not reflected in the Market Risk Factor

“Small minus Big” (SMB):

Returns of Portfolio(s) with Small Stocks – Returns of Portfolio(s) with Big Stocks

The Factor Value (HML)

- Empirical Evidence: Value Stocks with a high $\frac{\text{Book Value}}{\text{Market Value}}$ ratio outperform Growth Stocks with low $\frac{\text{Book Value}}{\text{Market Value}}$ ratio.
- F&F Explanation: Value Stocks have depressed Market Values as Investors do not expect future profits & growth → Financial Distress and Liquidation more likely
- Consequence: Investors require Risk Premium for Value Stocks
- Value Risk is a Systematic Risk Factor that is not reflected in the Market Risk Factor

“High minus low” (HML):

Returns of Portfolio(s) with Value Stocks – Returns of Portfolio(s) with Growth Stocks

The Factor Operating Profitability (RMW)

- Empirical Evidence: Stocks with **high Operating Profitability** outperform Stocks with **low Operating Profitability** (Operating Profits / book value equity)
- Investors get a **Quality Premium** for profitable Stocks

“Robust minus Weak” (RMW):

Returns of **Portfolio(s) with Profitable Stocks** – Returns of **Portfolio(s) with non-profitable Stocks**

The Factor Investment (CMA)

- Empirical Evidence: Stocks with conservative Investment Strategies outperform Stocks with aggressive Investment Strategies
- Investors get a Quality Premium for Stocks/Companies with fewer (but high-quality) Investments

“Conservative minus Aggressive” (CMA):

Returns of Portfolio(s) with Conservative Stocks – Returns of Portfolio(s) with Aggressive Stocks