Fama-French Five-Factor Model

The Factors Profitability and Investment

Fama-French extended by Profitability and Investment

$$StockReturn = r_f \quad + \beta^{Mkt} * MktPrem$$

$$+ \beta^{Size} * SMB \quad + \beta^{Value} * HML$$

„Small minus Big"   „High minus Low"

$$+ \beta^{OP} * RMW \quad + \beta^{Inv} * CMA$$

„Robust minus Weak"   „Conservative minus Aggressive"

CAPM

Three-Factor Model

Five-Factor Model

Risk Factors

Quality Factors

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

Interpretation of Slope Coefficient β^{OP}:

- $\beta^{OP} > 0$: Stock behaves like Robust Stocks (positive Quality Premium)

- $\beta^{OP} < 0$: Stock behaves like Weak Stocks (negative Quality Premium)

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

Interpretation of Slope Coefficient β^{Inv}:

- $\beta^{Inv} > 0$: Stock behaves like Conservative Stocks (positive Quality Premium)

- $\beta^{Inv} < 0$: Stock behaves like Aggressive Stocks (negative Quality Premium)