Extension of Asset Pricing Model

Carhart (1997)

- Extension of Fama-French three Factor Model

- Carhart, M. M. (1997), ‘On persistence in Mutual Fund Performance’, The Journal of Finance, Vol. 52, No.1, pp. 57-82

- Momentum Factor

Four Factor Asset Pricing Model

$R_i = (R_m - R_f)\,\beta_1 + R_f + \beta_2 * SMB + \beta_3 * HML + \beta_4 * UMD$

SMB= 1 monthly return of (Small Cap. Firms- Large Cap. Firms)

HML= 1 month return of (High Value Shares- Low value Shares)

UMD= 1 month return of (Uptrend shares – Down trend Shares)

β_1= Market Risk coefficient , β_2= Size Risk coefficient, β_3 = Value Risk coefficint, β_4 = Momentum coefficient

Ri=Return of individual stock; R_m=Return of Market; R_f=Risk free rate of return;

Fama & French (2017)

- Extension of asset pricing in another form

- More specifically extension of Fama & French three factor model, which is accepted as a standard model in acdemia

- Fama, E. & French, K. (2017), ‘International Test of a Five Factor Asset Pricing Model’, Journal of Finance, Vol.123(3)

Five Factor Asset Pricing Model

Ri = (Rm-Rf) β1 + Rf + β2 * SMB+ β3 *HML

Ri =Return of individual stock

Rm =Return of Market

Bm =Coefficient= Constant

Rf =Risk free rate of return

β 1, β2, β3= Co-efficient= Constant

β 1= Market Risk coefficient , β2= Size Risk coefficient, β3 = Value Risk coefficint

References

- https://www.cfainstitute.org/en/research/cfa-digest/2018/01/dig-v48-n1-4