TheCaseSolutions.com

Portfolio Selection and the Capital Asset Pricing Model

Group A   Wednesday, March 18, 2015   FIN: 4980

CAPM

CAPM

CAPM Era = Rf + Ba (Rm - Rf)

Rf = the rate of return for a risk-free security
Rm = the broad market's expected rate of return
Ba = beta of the asset
        TheCaseSolutions.com

Example

Assume the following for Asset XYZ:

Rf = 3%
Rm = 10%
Ba = 0.75

By using CAPM, we calculate that you should demand the following rate of return to invest in Asset XYZ.

Era = 0.03 + [0.75 * (0.10 - 0.03)] = 0.0825 = 8.25%
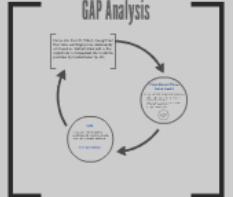
TheCaseSolutions.com

TheCaseSolutions.com

Let's take a closer look at the Market Risk Premium

The question we would all like to answer!

$$[E(R_M) - R_F]$$

CAPM Limitations/Beta Estimates

TheCaseSolutions.com

Fama and French found the differences in Betas over lengthy periods didn't explain the performance of different stocks.

TheCaseSolutions.com

One reason CAPM's expected returns sometimes do not match actual returns is that Betas are unstable through time.

Conclusion

- No alternative model as widely used and taught as CAPM

- Every model has its pros and cons

One has to recognize the advantages and disadvantages of every model and find the one that is the most appropriate for certain investment/educational needs

TheCaseSolutions.com

Jensen's Alpha

$\alpha = Rp - [Rf + (Rm - Rf) \beta]$

Rp = Realized return of portfolio
Rm = Market return
Rf = risk-free rate

TheCaseSolutions.com

GAP Analysis

TheCaseSolutions.com

Portfolio Selection and the Capital Asset Pricing Model

Group A   Wednesday, March 18, 2015   FIN: 4980

CAPM

CAPM

CAPM Era = Rf + Ba (Rm - Rf)

Let's take a closer look at the **Market Risk Premium**

The question we would all like to answer!

$$[E(R_M) - R_F)]$$

CAPM Limitations/Beta Estimates

CAPM

Example

Assume the following for Asset XYZ:

Rf = 3%
Rm = 10%
Ba = 0.75

By using CAPM, we calculate that you should demand the following rate of return to invest in Asset XYZ:

Era = 0.03 + [0.75 * (0.10 - 0.03)] = 0.0825 = 8.25%

TheCaseSolutions.com

TheCaseSolutions.com

CAPM

CAPM Era = Rf + Ba (Rm - Rf)

Rf = the rate of return for a risk-free security

Rm = the broad market's expected rate of return

Ba = beta of the asset

Example

Assume the following for Asset XYZ:

Rf = 3%
Rm = 10%
Ba = 0.75

By using CAPM, we calculate that you should demand the following rate of return to invest in Asset XYZ:

Era = 0.03 + [0.75 * (0.10 - 0.03)] = 0.0825 = 8.25%

TheCaseSolutions.com

Jensen's Alpha

$$\alpha = R_p - [R_f + (R_m - R_f)\,\beta]$$

R_p = Realized return of portfolio
R_m = Market return
R_f = risk-free rate

Fama and French found the differences in Betas over lengthy periods didn't explain the performance of different stocks.

One reason CAPM's expected returns sometimes do not match actual returns is that Betas are unstable through time.

Conclusion

- No alternative model as widely used and taught as CAPM

- Every model has its pros and cons

One has to recognize the advantages and disadvantages of every model and find the one that is the most appropriate for certain investment/educational needs

TheCaseSolutions.com