

$$w_0 = -.05124$$

The adjustment for beta is

$$w^* = -.0486$$

The position in the index portfolio is 1.0486

Seconda parte

$$S = .3662$$

The contribution of the active portfolio is .0184.

$$M^2 = 0.423\%$$

d. The final positions of the complete portfolio are:

Bills	43.15%	
M:	59.61	
A:	1.70	
B:	- 3.11	
C:	3.37	
D:	- 4.71	
	100.00	[sum is subject to rounding error]

6) a. Since the market portfolio by definition has a beta of 1, its expected rate of return is 12%.

b. $\beta = 0$ means no systematic risk. Hence, the portfolio's fair return is the risk-free rate, 5%.

c. Using the SML, the *fair* rate of return of a stock with $\beta = -0.5$ is:

$$E(r) = 5 + (-.5)(12 - 5) = 1.5\%$$

The *expected* rate of return, using the expected price and dividend for next year:

$$E(r) = 44/40 - 1 = .10 \text{ or } 10\%$$

Because the expected return exceeds the fair return, the stock must be underpriced.

7a. Spiega in che cosa consiste il market timing.

b. In cosa consiste quando i rendimenti sono generati da un processo stocastico con due fattori di rischio sistematico?