Fall 2012: Final B for 4:00 class

P1 Portfolio = .625(54) − 29.733 = 4.017 < 5 (buy / short)

Trans	CF_0	CF_1 49	CF_1 65
Short call +5	+5	0	−10 +5
Buy .625 shares +5	−33.75 +5	+30.625 +5	+40.625 +5
Short Bonds +5	+29.733 +5	−30.625 +5	−30.625 +5
Total	+0.983 +5	∅ +5	∅ +5

P2 a. +5 $\beta_K = \frac{cov(R_K, R_{S\&P})}{var(R_{S\&P})}$

+4 $cov(R_K, R_{S\&P}) = \frac{1}{3}\left((13-\bar{R}_K)(12-\bar{R}_{S\&P}) + (10-\bar{R}_K)(0-\bar{R}_{S\&P}) + (11-\bar{R}_K)(13-\bar{R}_{S\&P}) + (-21-\bar{R}_K)(24-\bar{R}_{S\&P})\right)$ (+1, +8, +6)

+4 $\bar{R}_K = \frac{1}{4}(13+10+11-21)$ (+1, +8)

$\bar{R}_{S\&P} = \frac{1}{4}(12+0+13+24)$ (+1, +6)

+4 $var(R_{S\&P}) = \frac{1}{3}\left((12-\bar{R}_{S\&P})^2 + (10-\bar{R}_{S\&P})^2 + (13-\bar{R}_{S\&P})^2 + (24-\bar{R}_{S\&P})^2\right)$ (+1, +6)

b. +4 $\beta_p = \left(\frac{100}{100+300}\right)\beta_K + \left(\frac{300}{100+300}\right)1.39$ (+2, +2)

c. +4 $E(R_p) = \left(\frac{100}{100+300}\right)\bar{R}_K + \left(\frac{300}{100+300}\right)(10)$ (+2, +2)