

Market	Security	$r_i$	risk	Correlation <sub>A,B</sub>
I	A	0.22	0.3	0.15
	B	0.31	0.32	
II	A	0.26	0.29	-0.06
	B	0.34	0.33	
III	A	0.18	0.2	0.09
	B	0.41	0.38	

**I. Market covar\_m**

	0.09	0.0144				
	0.0144	0.1024				
	0.18	0.0288	1	0.22		0
	0.0288	0.2048	1	0.31		0
	1	1	0	0		1
	0.22	0.31	0	0		0.3
Inv_M						
	0	2.52E-15	3.444444	-11.1111	w1	0.111111
	0	-2.5E-15	-2.444444	11.111111	w2	0.888889
	3.444444	-2.444444	-2.87432	10.56691	lambda1	0.295753
	-11.1111	11.111111	10.56691	-40.3951	lambda2	-1.5516

Proof	1
Rp	0.3
Risk_p	0.291315

**II. Market covar\_m**

	0.0841	-0.00574				
	-0.00574	0.1089				
	0.1682	-0.01148	1	0.26		0
	-0.01148	0.2178	1	0.34		0
	1	1	0	0		1
	0.26	0.34	0	0		0.3
Inv_M						
	0	-3.9E-15	4.25	-12.5	w1	0.5
	0	3.87E-15	-3.25	12.5	w2	0.5
	4.25	-3.25	-5.65587	18.86038	lambda1	0.002242
	-12.5	12.5	18.86038	-63.9012	lambda2	-0.31

Proof	1
Rp	0.3
Risk_p	0.224056



0.111111 0.888889

0.001111 0.001422

0.001422 0.080909

Var\_P 0.084864

0.0228 0.092622

0.084864

0.291315

0.5 0.5

0.004672 -0.00255

-0.00032 0.0484

Var\_P 0.050201

0.039179 0.051579

0.045379

0.213023

0.478261 0.521739

0.002126 0.002908

0.000397 0.066968

Var\_P 0.072398

0.022699 0.07861

0.05187

0.22775

The betas of the following four stocks are:

$\beta_1 = 1.3; \beta_2 = 0.26; \beta_3 = 1.99; \beta_4 = 2.4$

$r_m = 14\%$

Assume that the market is in equilibrium with available risk-free asset of

. What will be the expected return of every of these stocks?

CAPM

$r_i$

$$r_i = r_f + \beta_i (R_m - r_f)$$

	$r_i$
1	0.1588
2	0.08144
3	0.21976
4	0.256

6 %.

beta1	1.235 Rm	0.14
beta2	0.268 rf	0.06
beta3	1.997	
beta4	2.45	







rf 7

**Stock\_j**  
aggressive  
aggressive  
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aggressive  
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aggressive

7  
14.6

