Security i	Return r_i v%	Excessive Return $r_i - r_f$	Beta β_i	Unsystematic risk $\sigma^2_{\epsilon i}$ v %	$\frac{r_i - r_f}{\beta_i}$			
1	15	10	1	50	10	0.2	0.2	0.02
2	17	12	1.5	40	8	0.45	0.65	0.05625
3	12	7	1	20	7	0.35	1	0.05
4	17	12	2	10	6	2.4	3.4	0.4
5	11	6	1	40	6	0.15	3.55	0.025
6	11	6	1.5	30	4	0.3	3.85	0.075
7	11	6	2	40	3	0.3	4.15	0.1
8	7	2	0.8	16	2.5	0.1	4.25	0.04
9	7	2	1	20	2	0.1	4.35	0.05
10	5.6	0.6	0.6	6	1	0.06	4.41	0.06
$r_f = 5\%$ $\sigma_M^2 = 1($								

rf	5	No short sell		Zi	wi	
sigm_M^2	10			0.090979	0.23477	
				0.095585	0.246657	
				0.077447	0.199851	
				0.109789	0.283309	
				0.013724	0.035414	
			sum_Zi	0.387524	1	
				Rp	15.31872	
				Var_p	symR	unsymR
					beta_p^2*s	sum_wi^2*
				beta_p	1.406637	
					19.78628	6.84104
				Var_P	26.62731	
				Sigma_p	5.160166	

Short allowed			
		Zi	wi
		0.109654	6.15451
		0.130602	7.330219
		0.124136	6.967301
		0.296543	16.64391
		0.037068	2.080489
		-0.02586	-1.45167
		-0.07586	-4.25799
		-0.10086	-5.66116
		-0.12586	-7.06432
		-0.35173	-19.7413
	sum_Zi	0.017817	1
			1
		Rp	343.935
		Var_p	
		beta_p	25.35393

	symR	unsymR
	6428.22	12595
Var_P	19023.23	
Sigma_p	137.9247	

	Ci	C*-selection	
0.02	1.666667	long	
0.07625	3.687943	long	
0.12625	4.41989	long	
0.52625	5.429142	long	
0.55125	5.451056	long	C*
0.62625	5.301205	short	
0.72625	5.022693	short	
0.76625	4.906205	short	
0.81625	4.747613	short	
0.87625	4.517286	short	C**

*sigma_epsilon^2

Security i	Return r_i %	Beta β_i	Unsystematic risk $\sigma^2_{\varepsilon i}$ %					
1	19	1	20	16	0.8	0.8	0.05	0.05
3	11	0.5	10	16	0.4	1.2	0.025	0.075
2	23	1.5	30	13.3333	1	2.2	0.075	0.15
6	9	0.5	50	12	0.06	2.26	0.005	0.155
4	25	2	40	11	1.1	3.36	0.1	0.255
5	13	1	20	10	0.5	3.86	0.05	0.305
7	14	1.5	30	7.33333	0.55	4.41	0.075	0.38
8	10	1	50	7	0.14	4.55	0.02	0.4
9	9.5	1	50	6.5	0.13	4.68	0.02	0.42
11	11	1.5	30	5.33333	0.4	5.08	0.075	0.495
10	13	2	20	5	1	6.08	0.2	0.695
12	8	1	20	5	0.25	6.33	0.05	0.745
14	7	1	20	4	0.2	6.53	0.05	0.795
13	10	2	40	3.5	0.35	6.88	0.1	0.895

r_f =3%
σ^2_M=1(

rf	3
sigma_M^2	10

short sell restriction

	Zi	wi
	0.323457	0.337411
	0.323457	0.337411
	0.190123	0.198326
	0.024691	0.025757
	0.073457	0.076626
	0.023457	0.024469
sum_Zi	0.958642	1

Rp	17.14939	
beta_p	0.994205	
VarP	sysR	unsysR
14.75983	9.884431	4.875394
Sigma_P	3.841852	

Short Sell allowed

	Zi	wi
1	0.454271	0.468066
2	0.454271	0.468066
3	0.320938	0.330684
4	0.050854	0.052399
5	0.204271	0.210475
6	0.154271	0.158956
7	0.020938	0.021574
8	0.001709	0.00176
9	-0.00829	-0.00854
10	-0.07906	-0.08146
11	-0.19146	-0.19727
12	-0.09573	-0.09864
13	-0.14573	-0.15015

			14	-0.17073	-0.17591		
		sum_Zi		0.970528	1		
				Rp	22.62617		
Ratio				beta_p	0.712455		
NO short	4.463834			VarP	sysR	unsysR	
Yes short	5.031497			20.22216	5.075922	15.14624	
				Sigma_P	4.496906		

Ci	select C*	
5.333333	long	
6.857143	long	
8.8	long	
8.862745	long	
9.464789	long	
9.530864	long	C*
9.1875	short	
9.1	short	
9	short	
8.537815	short	
7.647799	short	
7.491124	short	
7.296089	short	
6.914573	short	C**