MA374 Lab 4 report

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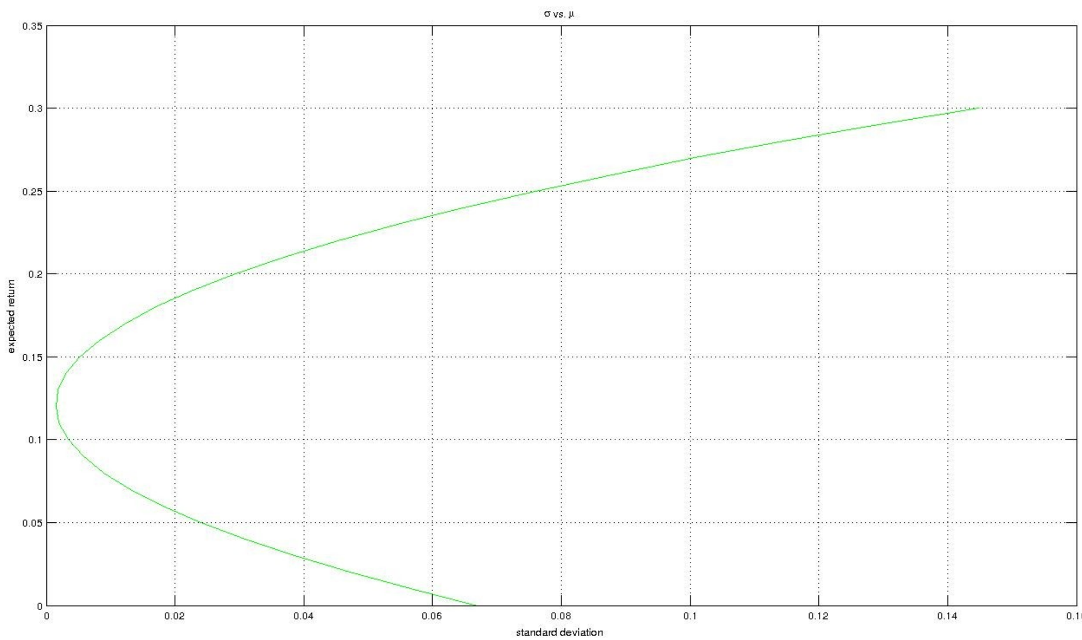
1.

A) The Markowitz efficient frontier is:-



B)
For mean = 0.01000000, variance = 0.05659413

weights =

2.4073 -0.3927 -1.0147

For mean = 0.03000000, variance = 0.03852147

weights =

2.1211   -0.2789   -0.8422

For mean = 0.05000000, variance = 0.02402752

weights =

1.8349   -0.1651   -0.6697

For mean = 0.07000000, variance = 0.01311229

weights =

1.5486   -0.0514   -0.4972

For mean = 0.09000000, variance = 0.00577578

weights =

1.2624   0.0624   -0.3248

For mean = 0.11000000, variance = 0.00201798

weights =

0.9761   0.1761   -0.1523

For mean = 0.13000000, variance = 0.00183890

weights =

0.6899   0.2899   0.0202

For mean = 0.15000000, variance = 0.00523853

weights =

0.4037   0.4037   0.1927

For mean = 0.17000000, variance = 0.01221688

weights =

0.1174   0.5174   0.3651

For mean = 0.19000000, variance = 0.02277394

weights =

-0.1688   0.6312   0.5376

C)

Returns are
0.1896
0.0524

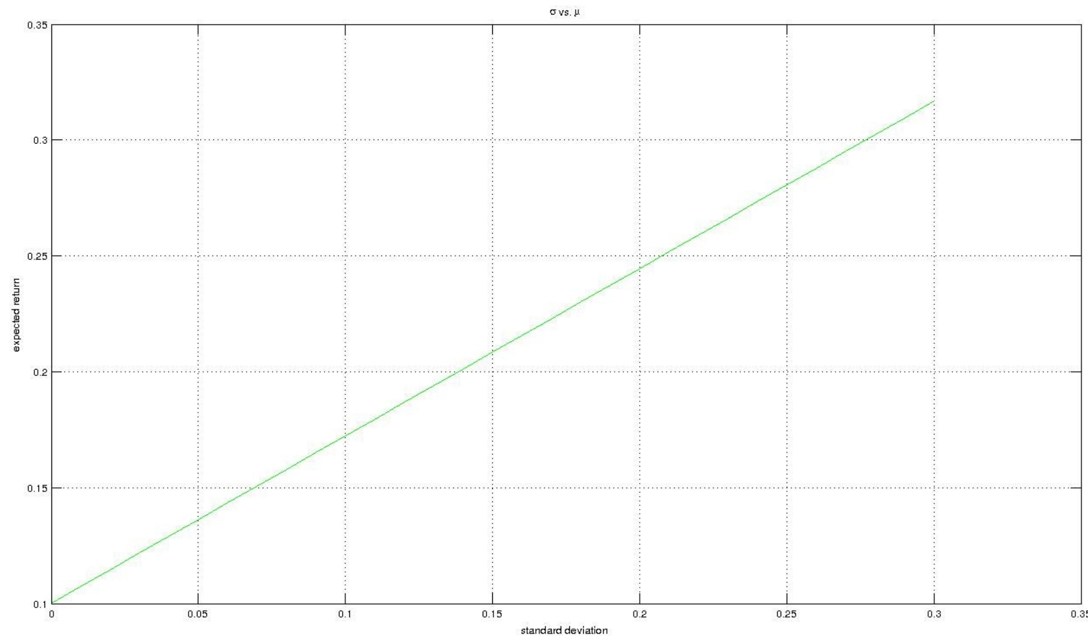
D)

Minimum Risk is
0.0170

E)

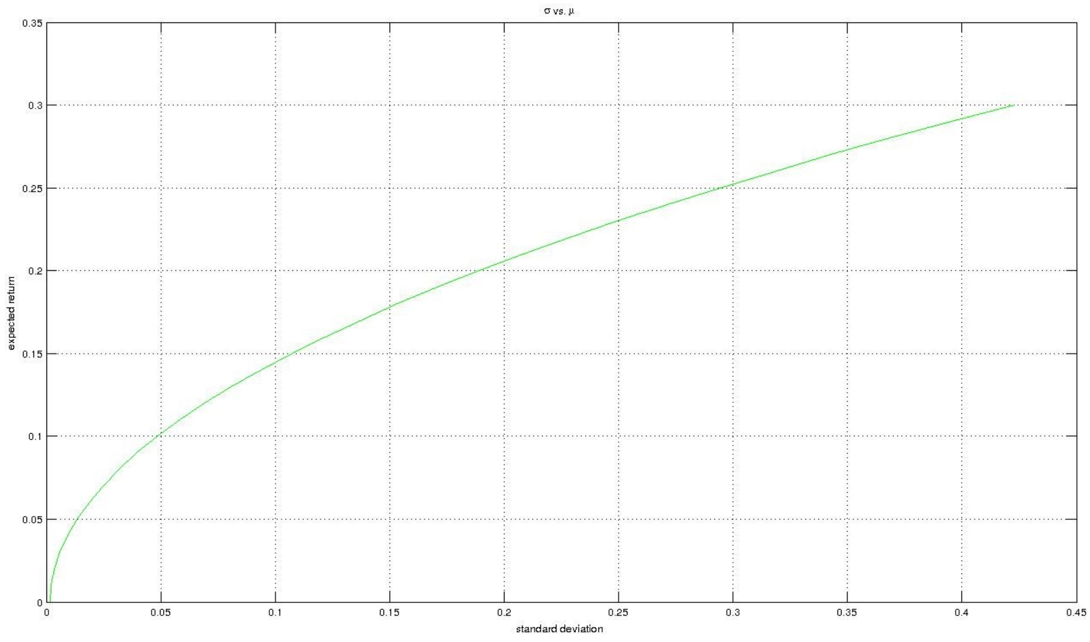
The Market Portfolio has weights
0.5938   0.3281   0.0781

The Capital Market Line is :-



2.

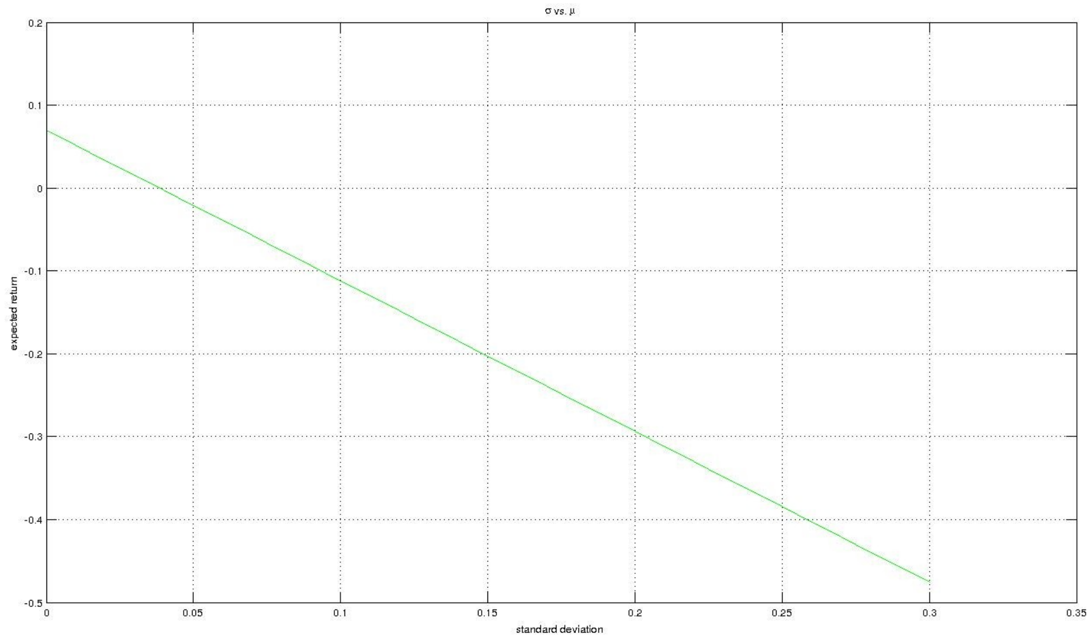
a) The Markowitz Efficient Frontier is:-



b) The Market Portfolio has weights:-

0.347025256233099, 0.250619815421355, -0.087226854582322, -0.076440180608388, 0.052366699315659, 0.046895339223592, -0.035720766443429, 0.004720874674299, 0.359815798353330, 0.137944018412804

c) The Capital Market Line is:-



d) The Security Market Line is:-