Lecture 1

Example 1

Calculate return and risk of following stocks. Consider return for one day and return for two days.

Theoretical price of stock			
Trading day	*Stock-i*		
	Company 1	Company 2	Company 3
1.	100	200	1000
2.	110	210	1050
3.	121	205	1080
4.	95	150	1020
5.	98	210	950

Example 2

Calculate quarter return and risk of stocks (A-F). How will be the results of two-year return and risk?

Create a covariance and correlation matrix.

	Year							
	2014				2015			
Company	I.	II.	III.	IV.	I.	II.	III.	IV.
A	1010	1055	1100	1031	988	1065	918	1060
B	2650	3000	3848	3228	3638	4205	3979	4731
C	1505	2030	2190	2325	2250	2443	1700	1796
D	178	300	325	396	351	370	335	327
E	281	372	358	494	460	539	443	468
F	2645	3125	3400	3330	3400	3425	3475	4100
G	547	800	803	1070	975	952	997	944

Example 3

Download the closing prices for last year of Exxon Mobile, Apple and Godman Sachs (use Yahoo Finance). Then calculate expected return and risk for one day and one month. Further create covariance and correlation matrix from one day returns.