

## 2.9 Volatility

Compute close-close volatility using the following data:

Closing		
Day	Price	Dividend
0	8.32	0
1	8.67	0
2	8.85	0
3	9.42	0
4	8.78	0
5	8.66	0.5
6	7.87	0
7	7.96	0
8	7.63	0
9	7.68	0
10	8.05	0
11	8.60	0

SOLUTION:

Day	Returns	ln>Returns)
1	1.0421	0.0412
2	1.0208	0.0205
3	1.0644	0.0624
4	0.9321	-0.0704
5	1.0433	0.0424
6	0.9088	-0.0957
7	1.0114	0.0114
8	0.9585	-0.0423
9	1.0066	0.0065
10	1.0482	0.0471
11	1.0683	0.0661

Daily volatility = standard deviation of  $\ln(\text{Returns}) = 0.0520$ ;

Annualized volatility (multiply by  $\sqrt{365}$ ) = 0.9933;