

Computation of volatility

Date	Closing Price (S_i)	Price relative (S_i/S_{i-1})	Daily return (u_i)	u_i^2
3/15/2018	1816.08			
3/16/2018	1811.76	0.998	-0.002	0.000006
3/19/2018	1799.79	0.993	-0.007	0.000044
3/20/2018	1799.84	1.000	0.000	0.000000
3/21/2018	1801.43	1.001	0.001	0.000001
3/22/2018	1798.55	0.998	-0.002	0.000003
3/23/2018	1794.21	0.998	-0.002	0.000006
3/26/2018	1801.1	1.004	0.004	0.000015
3/27/2018	1802.58	1.001	0.001	0.000001
3/28/2018	1784.99	0.990	-0.010	0.000096
3/29/2018	1766.92	0.990	-0.010	0.000104
3/30/2018	1776.26	1.005	0.005	0.000028
4/2/2018	1782.28	1.003	0.003	0.000011
4/3/2018	1765.24	0.990	-0.010	0.000092
4/4/2018	1724.98	0.977	-0.023	0.000532
4/5/2018	1739.92	1.009	0.009	0.000074
4/9/2018	1751.27	1.007	0.007	0.000042
4/10/2018	1760.95	1.006	0.006	0.000030
4/11/2018	1763.22	1.001	0.001	0.000002
4/12/2018	1767.17	1.002	0.002	0.000005
4/17/2018	1755.53	0.993	-0.007	0.000044

n	20
Sum u_i	-0.0339
Sum u_i^2	0.0011
Estimate of the sd of daily return	0.753%
an estimate for the volatility per annum	11.907%
SE of this estimate	1.883%