

Theoretical price of stock			
Trading day	Stock- <i>i</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

Returns (1-day)

Company 1 Company 2 Company 3

0.09531018 0.04879016 0.04879016
 0.09531018 -0.0240976 0.02817088
 -0.24191365 -0.3123747 -0.0571584
 0.03109059 0.33647224 -0.0710959

E(X) -0.00505068 0.01219754 -0.0128233 Var(X)

fce

Sigma(X)

Company 2 Company 3

0.014541 0.010758

0.057878 4.96E-06

0.014398 0.010301

0.043408 0.010532

0.043408 0.010532

0.208347 0.102626

Compa ny	Year							
	2014				2015			
	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

1	-0.38225	0.688288	0.226756	0.340369	0.667638	-0.16979	0.098067
0.720674	1	0.392109	-0.03026	-0.23152	0.594603	-0.46366	0.146364
0.688288	0.392109	1	0.766101	0.778153	0.517375	0.455353	0.198645
0.226756	-0.03026	0.766101	1	0.782114	0.429199	0.890092	0.220938
0.340369	-0.23152	0.778153	0.782114	1	0.122128	0.719859	0.190778
0.667638	0.594603	0.517375	0.429199	0.122128	1	0.154941	0.077418
-0.16979	-0.46366	0.455353	0.890092	0.719859	0.154941	1	0.181996

Returns (Q)

								E(X)
A	0.04359	0.041769	-0.06478	-0.0426	0.075047	-0.14853	0.143827	0.006903
B	0.124053	0.248941	-0.17569	0.119571	0.14484	-0.05524	0.173106	0.082797
C	0.299243	0.075866	0.059818	-0.03279	0.082297	-0.3626	0.054934	0.025253
D	0.521999	0.080043	0.197589	-0.12063	0.052717	-0.09937	-0.02417	0.086882
E	0.280539	-0.03836	0.322003	-0.07131	0.158489	-0.19615	0.054899	0.072873
F	0.166763	0.084341	-0.0208	0.020803	0.007326	0.014493	0.165392	0.062617
G	0.380163	0.003743	0.287059	-0.09298	-0.02387	0.046186	-0.05462	0.077954

Return(2-years)

A	0.048319
B	0.579577
C	0.176769
D	0.608177
E	0.510114
F	0.438316
G	0.545677

Covar_M

	A	B	C	D	E	F	G
A	0.009617	-0.00549	0.013408	0.004913	0.006368	0.005069	-0.00303
B	0.010344	0.021422	0.0114	-0.00098	-0.00646	0.006738	-0.01235
C	0.013408	0.0114	0.03946	0.033623	0.02949	0.007957	0.016462
D	0.004913	-0.00098	0.033623	0.048813	0.032966	0.007341	0.03579
E	0.006368	-0.00646	0.02949	0.032966	0.036396	0.001804	0.024994
F	0.005069	0.006738	0.007957	0.007341	0.001804	0.005994	0.002183
G	-0.00303	-0.01235	0.016462	0.03579	0.024994	0.002183	0.033122
	0.098067	0.146364	0.198645	0.220938	0.190778	0.077418	0.181996
	0.098067	0.146364	0.198645	0.220938	0.190778	0.077418	0.181996

Correl_M

	1	-0.38225	0.688288	0.226756	0.340369	0.667638	-0.16979
	0.720674	1	0.392109	-0.03026	-0.23152	0.594603	-0.46366
	0.688288	0.392109	1	0.766101	0.778153	0.517375	0.455353
	0.226756	-0.03026	0.766101	1	0.782114	0.429199	0.890092
	0.340369	-0.23152	0.778153	0.782114	1	0.122128	0.719859
	0.667638	0.594603	0.517375	0.429199	0.122128	1	0.154941
	-0.16979	-0.46366	0.455353	0.890092	0.719859	0.154941	1

0.009617	0.010344	0.013408	0.004913	0.006368	0.005069	-0.00303
0.010344	0.021422	0.0114	-0.00098	-0.00646	0.006738	-0.01235
0.013408	0.0114	0.03946	0.033623	0.02949	0.007957	0.016462
0.004913	-0.00098	0.033623	0.048813	0.032966	0.007341	0.03579
0.006368	-0.00646	0.02949	0.032966	0.036396	0.001804	0.024994
0.005069	0.006738	0.007957	0.007341	0.001804	0.005994	0.002183
-0.00303	-0.01235	0.016462	0.03579	0.024994	0.002183	0.033122

Correl_M

	A	B	C	D	E	F	G
A	1	0.720674	0.688288	0.226756	0.340369	0.667638	-0.16979
B	0.720674	1	0.392109	-0.03026	-0.23152	0.594603	-0.46366
C	0.688288	0.392109	1	0.766101	0.778153	0.517375	0.455353
D	0.226756	-0.03026	0.766101	1	0.782114	0.429199	0.890092
E	0.340369	-0.23152	0.778153	0.782114	1	0.122128	0.719859
F	0.667638	0.594603	0.517375	0.429199	0.122128	1	0.154941
G	-0.16979	-0.46366	0.455353	0.890092	0.719859	0.154941	1

Var(X)

							Var(X)	Sigma(X)
0.001346	0.001216	0.005139	0.002451	0.004644	0.02416	0.018748	0.009617	0.098067
0.001702	0.027604	0.066816	0.001352	0.003849	0.019055	0.008156	0.021422	0.146364
0.075071	0.002562	0.001195	0.003369	0.003254	0.150429	0.000881	0.03946	0.198645
0.189326	4.68E-05	0.012256	0.043061	0.001167	0.034691	0.012333	0.048813	0.220938
0.043125	0.012373	0.062065	0.020789	0.00733	0.072371	0.000323	0.036396	0.190778
0.010847	0.000472	0.006959	0.001748	0.003057	0.002316	0.010563	0.005994	0.077418
0.09133	0.005507	0.043725	0.029217	0.010369	0.001009	0.017577	0.033122	0.181996

Covar(X,Y)

A	0.036688	0.034867	-0.07168	-0.0495	0.068145	-0.15544	0.136924
B	0.041256	0.166145	-0.25849	0.036775	0.062044	-0.13804	0.090309
C	0.27399	0.050613	0.034566	-0.05804	0.057044	-0.38785	0.029681
D	0.435117	-0.00684	0.110707	-0.20751	-0.03417	-0.18625	-0.11105
E	0.207666	-0.11123	0.249129	-0.14418	0.085616	-0.26902	-0.01797
F	0.104147	0.021725	-0.08342	-0.04181	-0.05529	-0.04812	0.102776
G	0.302209	-0.07421	0.209105	-0.17093	-0.10183	-0.03177	-0.13258

Covar(X,Y)

A-A	0.001346	0.001216	0.005139	0.002451	0.004644	0.02416	0.018748	0.009617
A-B	0.001514	0.005793	0.018529	-0.00182	0.004228	0.021456	0.012366	0.010344
A-C	0.010052	0.001765	-0.00248	0.002873	0.003887	0.060286	0.004064	0.013408
A-D	0.015963	-0.00024	-0.00794	0.010273	-0.00233	0.028951	-0.01521	0.004913
A-E	0.007619	-0.00388	-0.01786	0.007138	0.005834	0.041815	-0.00246	0.006368
A-F	0.003821	0.000757	0.00598	0.00207	-0.00377	0.00748	0.014073	0.005069
A-G	0.011087	-0.00259	-0.01499	0.008462	-0.00694	0.004938	-0.01815	-0.00303

0.001346	0.001216	0.005139	0.002451	0.004644	0.02416	0.018748	0.009617
0.001514	0.005793	0.018529	-0.00182	0.004228	0.021456	0.012366	0.010344
0.010052	0.001765	-0.00248	0.002873	0.003887	0.060286	0.004064	0.013408
0.015963	-0.00024	-0.00794	0.010273	-0.00233	0.028951	-0.01521	0.004913
0.007619	-0.00388	-0.01786	0.007138	0.005834	0.041815	-0.00246	0.006368
0.003821	0.000757	0.00598	0.00207	-0.00377	0.00748	0.014073	0.005069
0.011087	-0.00259	-0.01499	0.008462	-0.00694	0.004938	-0.01815	-0.00303

0.009617
0.010344
0.013408
0.004913
0.006368
0.005069
-0.00303

Date	Exxon	Appl	Goldman	Return			Variance
2/26/2015	88.65	130.42	192.2				
2/27/2015	88.54	128.46001	189.78999	-0.00124	-0.01514		-0.01262
3/2/2015	88.04	129.09	191.78999	-0.00566	0.004892		0.010483
3/3/2015	87.62	129.36	191.27	-0.00478	0.002089		-0.00271
3/4/2015	87.18	128.53999	189.67	-0.00503	-0.00636		-0.0084
3/5/2015	86.74	126.41	190.08	-0.00506	-0.01671		0.002159
3/6/2015	85.63	126.6	186.91	-0.01288	0.001502		-0.01682
3/9/2015	85.16	127.14	187.92999	-0.0055	0.004256		0.005442
3/10/2015	84.26	124.51	182.71001	-0.01062	-0.0209		-0.02817
3/11/2015	84.02	122.24	184.17999	-0.00285	-0.0184		0.008013
3/12/2015	84.22	124.45	189.95	0.002378	0.017918		0.030847
3/13/2015	83.87	123.59	189.34	-0.00416	-0.00693		-0.00322
3/16/2015	84.76	124.95	191.89999	0.010556	0.010944		0.01343
3/17/2015	84.08	127.04	190.57001	-0.00806	0.016588		-0.00695
3/18/2015	86.07	128.47	192.32001	0.023392	0.011193		0.009141
3/19/2015	84.41	127.5	189.97	-0.01947	-0.00758		-0.01229
3/20/2015	84.54	125.9	193.13001	0.001539	-0.01263		0.016497
3/23/2015	85.43	127.21	191.96001	0.010473	0.010351		-0.00608
3/24/2015	84.52	126.69	191.28	-0.01071	-0.0041		-0.00355
3/25/2015	84.86	123.38	187.35001	0.004015	-0.02647		-0.02076
3/26/2015	84.32	124.24	187.24001	-0.00638	0.006946		-0.00059
3/27/2015	83.58	123.25	188.06	-0.00881	-0.008		0.00437
3/30/2015	85.63	126.37	191.02	0.024231	0.024999		0.015617
3/31/2015	85	124.43	187.97	-0.00738	-0.01547		-0.0161
4/1/2015	84.46	124.25	192.23	-0.00637	-0.00145		0.02241
4/2/2015	84.3	125.32	191.55	-0.0019	0.008575		-0.00354
4/6/2015	85.13	127.35	192.05	0.009798	0.016069		0.002607
4/7/2015	85.75	126.01	192.39	0.007257	-0.01058		0.001769
4/8/2015	84.06	125.6	192.56	-0.01991	-0.00326		0.000883
4/9/2015	84.65	126.56	194.89	0.006994	0.007614		0.012028
4/10/2015	85.56	127.1	195.64	0.010693	0.004258		0.003841
4/13/2015	85.34	126.85	195.58	-0.00257	-0.00197		-0.00031
4/14/2015	86.63	126.3	197.72	0.015003	-0.00435		0.010882
4/15/2015	88.08	126.78	201.10001	0.016599	0.003793		0.01695
4/16/2015	87.73	126.17	200.21001	-0.00398	-0.00482		-0.00444
4/17/2015	86.93	124.75	197.35001	-0.00916	-0.01132		-0.01439
4/20/2015	87.24	127.6	198.10001	0.00356	0.022589		0.003793
4/21/2015	86.88	126.91	196.84	-0.00414	-0.00542		-0.00638
4/22/2015	87.46	128.62	198.32001	0.006654	0.013384		0.007491
4/23/2015	87.54	129.67	199.31	0.000914	0.00813		0.004979
4/24/2015	86.97	130.28	197.99001	-0.00653	0.004693		-0.00664
4/27/2015	87.01	132.64999	196.52	0.00046	0.018028		-0.00745
4/28/2015	87.8	130.56	197.49001	0.009038	-0.01588		0.004924
4/29/2015	87.87	128.64	198.56	0.000797	-0.01482		0.005403
4/30/2015	87.37	125.15	196.42	-0.00571	-0.0275		-0.01084
5/1/2015	88.85	128.95	197.53	0.016798	0.029912		0.005635
5/4/2015	89.11	128.7	199.3	0.002922	-0.00194		0.008921
5/5/2015	88.61	125.8	197.28999	-0.00563	-0.02279		-0.01014
5/6/2015	88.19	125.01	196.25	-0.00475	-0.0063		-0.00529

5/7/2015	87.6	125.26	197.39	-0.00671	0.001998	0.005792
5/8/2015	88.99	127.62	200.5	0.015743	0.018666	0.015633
5/11/2015	86.78	126.32	201.73	-0.02515	-0.01024	0.006116
5/12/2015	87.02	125.87	200.53	0.002762	-0.00357	-0.00597
5/13/2015	86.56	126.01	201.42999	-0.0053	0.001112	0.004478
5/14/2015	86.97	128.95	202.62	0.004725	0.023063	0.00589
5/15/2015	87.35	128.77	202.97	0.00436	-0.0014	0.001726
5/18/2015	86.85	130.19	204.66	-0.00574	0.010967	0.008292
5/19/2015	86.99	130.07001	205.39999	0.001611	-0.00092	0.003609
5/20/2015	87.13	130.06	205.08	0.001608	-7.7E-05	-0.00156
5/21/2015	87.21	131.39	204.95	0.000918	0.010174	-0.00063
5/22/2015	86.52	132.53999	207.8	-0.00794	0.008714	0.01381
5/26/2015	85.35	129.62	206.38001	-0.01362	-0.02228	-0.00686
5/27/2015	85.11	132.03999	209.06	-0.00282	0.018498	0.012902
5/28/2015	85.11	131.78	208.48	0	-0.00197	-0.00278
5/29/2015	85.2	130.28	206.19	0.001057	-0.01145	-0.01105
6/1/2015	85.13	130.53999	207.81	-0.00082	0.001994	0.007826
6/2/2015	85.14	129.96001	206.42999	0.000117	-0.00445	-0.00666
6/3/2015	84.95	130.12	208.28999	-0.00223	0.00123	0.00897
6/4/2015	84.22	129.36	208.87	-0.00863	-0.00586	0.002781
6/5/2015	84.28	128.64999	210.45	0.000712	-0.0055	0.007536
6/8/2015	84.85	127.8	209.78999	0.00674	-0.00663	-0.00314
6/9/2015	84.58	127.42	209.02	-0.00319	-0.00298	-0.00368
6/10/2015	85.21	128.88001	213.13001	0.007421	0.011393	0.019472
6/11/2015	85.09	128.59	213.94	-0.00141	-0.00225	0.003793
6/12/2015	84.02	127.17	213.06	-0.01265	-0.0111	-0.00412
6/15/2015	83.72	126.92	211.76	-0.00358	-0.00197	-0.00612
6/16/2015	84.68	127.6	213.56	0.011402	0.005343	0.008464
6/17/2015	84.73	127.3	212.92999	0.00059	-0.00235	-0.00295
6/18/2015	85.48	127.88	214.60001	0.008813	0.004546	0.007812
6/19/2015	85.21	126.6	213.19	-0.00316	-0.01006	-0.00659
6/22/2015	85.17	127.61	216.51	-0.00047	0.007946	0.015453
6/23/2015	85.07	127.03	218.39999	-0.00117	-0.00456	0.008692
6/24/2015	84.68	128.11	214.42999	-0.0046	0.008466	-0.01834
6/25/2015	83.93	127.5	212.82001	-0.0089	-0.00477	-0.00754
6/26/2015	83.86	126.75	213.17	-0.00083	-0.0059	0.001643
6/29/2015	82.82	124.53	207.64999	-0.01248	-0.01767	-0.02624
6/30/2015	83.2	125.43	208.78999	0.004578	0.007201	0.005475
7/1/2015	82.37	126.6	209.94	-0.01003	0.009285	0.005493
7/2/2015	83.14	126.44	209.2	0.009305	-0.00126	-0.00353
7/6/2015	82.53	126	208.03999	-0.00736	-0.00349	-0.00556
7/7/2015	82.87	125.69	208.21001	0.004111	-0.00246	0.000817
7/8/2015	81.97	122.57	204.06	-0.01092	-0.02514	-0.02013
7/9/2015	81.6	120.07	204.81	-0.00452	-0.02061	0.003669
7/10/2015	82.22	123.28	207.19	0.007569	0.026383	0.011554
7/13/2015	82.42	125.66	210.12	0.00243	0.019122	0.014043
7/14/2015	83.11	125.61	212.16	0.008337	-0.0004	0.009662
7/15/2015	82.76	126.82	212.96001	-0.00422	0.009587	0.003764
7/16/2015	82.91	128.51	211.17999	0.001811	0.013238	-0.00839
7/17/2015	82.61	129.62	212.46001	-0.00362	0.0086	0.006043

7/20/2015	81.76	132.07001	212.39	-0.01034	0.018725	-0.00033
7/21/2015	81.66	130.75	211.5	-0.00122	-0.01005	-0.0042
7/22/2015	81.79	125.22	213.25	0.001591	-0.04321	0.00824
7/23/2015	81.14	125.16	211.05	-0.00798	-0.00048	-0.01037
7/24/2015	79.94	124.5	207.35001	-0.0149	-0.00529	-0.01769
7/27/2015	79.26	122.77	205.02	-0.00854	-0.01399	-0.0113
7/28/2015	82.48	123.38	206.24001	0.039822	0.004956	0.005933
7/29/2015	83.14	122.99	206.84	0.00797	-0.00317	0.002905
7/30/2015	83.01	122.37	207.2	-0.00156	-0.00505	0.001739
7/31/2015	79.21	121.3	205.07001	-0.04686	-0.00878	-0.01033
8/3/2015	78.06	118.44	204.69	-0.01462	-0.02386	-0.00185
8/4/2015	77.17	114.64	205.17	-0.01147	-0.03261	0.002342
8/5/2015	77.17	115.4	205.7	0	0.006608	0.00258
8/6/2015	78.09	115.13	205.09	0.011851	-0.00234	-0.00297
8/7/2015	76.83	115.52	203.44	-0.01627	0.003382	-0.00808
8/10/2015	78.75	119.72	205.97	0.024683	0.035712	0.012359
8/11/2015	77.49	113.49	201.7	-0.01613	-0.05344	-0.02095
8/12/2015	78.79	115.24	201.13001	0.016637	0.015302	-0.00283
8/13/2015	78.65	115.15	200.74001	-0.00178	-0.00078	-0.00194
8/14/2015	78.36	115.96	202.02	-0.00369	0.00701	0.006356
8/17/2015	78.77	117.16	202.57001	0.005219	0.010295	0.002719
8/18/2015	77.9	116.5	201.17999	-0.01111	-0.00565	-0.00689
8/19/2015	76.23	115.01	200.95	-0.02167	-0.01287	-0.00114
8/20/2015	74.57	112.65	196.75	-0.02202	-0.02073	-0.02112
8/21/2015	72.13	105.76	187.74001	-0.03327	-0.06311	-0.04688
8/24/2015	68.72	103.12	179.46001	-0.04843	-0.02528	-0.04511
8/25/2015	68.71	103.74	178.22	-0.00015	0.005994	-0.00693
8/26/2015	72.5	109.69	184.39999	0.053692	0.05577	0.034089
8/27/2015	74.85	112.92	189.21001	0.0319	0.029021	0.02575
8/28/2015	75.07	113.29	187.75	0.002935	0.003271	-0.00775
8/31/2015	75.24	112.76	188.60001	0.002262	-0.00469	0.004517
9/1/2015	72.08	107.72	182.12	-0.04291	-0.04573	-0.03496
9/2/2015	73.23	112.34	184.51	0.015829	0.041995	0.013038
9/3/2015	73.79	110.37	185.06	0.007618	-0.01769	0.002976
9/4/2015	72.46	109.27	180.38001	-0.01819	-0.01002	-0.02561
9/8/2015	73.5	112.31	185.88001	0.014251	0.027441	0.030036
9/9/2015	72	110.15	185.67999	-0.02062	-0.01942	-0.00108
9/10/2015	72.52	112.57	185.91	0.007196	0.021732	0.001238
9/11/2015	72.69	114.21	185.27	0.002342	0.014464	-0.00345
9/14/2015	72.49	115.31	183.94	-0.00276	0.009585	-0.0072
9/15/2015	72.86	116.28	187.45	0.005091	0.008377	0.018902
9/16/2015	74.3	116.41	188.64	0.019571	0.001117	0.006328
9/17/2015	74.46	113.92	186.45	0.002151	-0.02162	-0.01168
9/18/2015	72.68	113.45	180.94	-0.0242	-0.00413	-0.03
9/21/2015	73.39	115.21	183.35001	0.009721	0.015394	0.013231
9/22/2015	72.74	113.4	179.72	-0.0089	-0.01584	-0.02
9/23/2015	72.3	114.32	179.41	-0.00607	0.00808	-0.00173
9/24/2015	72.73	115	176.91	0.00593	0.005931	-0.01403
9/25/2015	73.23	114.71	179.83	0.006851	-0.00252	0.016371
9/28/2015	72.6	112.44	173.02	-0.00864	-0.01999	-0.0386

9/29/2015	72.97	109.06	171.86	0.005084	-0.03052	-0.00673
9/30/2015	74.35	110.3	173.76	0.018735	0.011306	0.010995
10/1/2015	74.06	109.58	176.02	-0.00391	-0.00655	0.012923
10/2/2015	75.88	110.38	177.01	0.024278	0.007274	0.005609
10/5/2015	76.81	110.78	180.7	0.012182	0.003617	0.020632
10/6/2015	77.89	111.31	180.32001	0.013963	0.004773	-0.00211
10/7/2015	79.2	110.78	182.23	0.016679	-0.00477	0.010537
10/8/2015	80.03	109.5	181.07001	0.010425	-0.01162	-0.00639
10/9/2015	79.26	112.12	179.19	-0.00967	0.023645	-0.01044
#####	79.3	111.6	180.23	0.000505	-0.00465	0.005787
#####	79.16	111.79	180.97	-0.00177	0.001701	0.004097
#####	80.16	110.21	179.51	0.012554	-0.01423	-0.0081
#####	81.48	111.86	184.96001	0.016333	0.01486	0.029909
#####	82.48	111.04	185.17999	0.012198	-0.00736	0.001189
#####	80.99	111.73	185.74001	-0.01823	0.006195	0.00302
#####	80.83	113.77	185.51	-0.00198	0.018094	-0.00124
#####	80.21	113.76	179.7	-0.0077	-8.8E-05	-0.03182
#####	82.89	115.5	183.56	0.032866	0.01518	0.021253
#####	82.98	119.08	185.5	0.001085	0.030525	0.010513
#####	81.22	115.28	187.01	-0.02144	-0.03243	0.008107
#####	81.09	114.55	186.31	-0.0016	-0.00635	-0.00375
#####	82.28	119.27	191.32001	0.014568	0.040378	0.026536
#####	82.23	120.53	189.89	-0.00061	0.010509	-0.0075
#####	82.74	119.5	187.5	0.006183	-0.00858	-0.01267
11/2/2015	85.28	121.18	189.67999	0.030237	0.013961	0.01156
11/3/2015	86.85	122.57	190.69	0.018243	0.011405	0.005311
11/4/2015	85.98	122	191.64999	-0.01007	-0.00466	0.005022
11/5/2015	84.81	120.92	192.02	-0.0137	-0.00889	0.001929
11/6/2015	84.47	121.06	199.17	-0.00402	0.001157	0.036559
11/9/2015	81.95	120.57	196.76	-0.03029	-0.00406	-0.01217
#####	82.35	116.77	197.81	0.004869	-0.03202	0.005322
#####	81.62	116.11	197.39	-0.0089	-0.00567	-0.00213
#####	79.41	115.72	192.77	-0.02745	-0.00336	-0.02368
#####	78.1	112.34	190.39	-0.01663	-0.02964	-0.01242
#####	80.9	114.18	192.16	0.035224	0.016246	0.009254
#####	79.96	113.69	190.57001	-0.01169	-0.0043	-0.00831
#####	80.74	117.29	193.66	0.009708	0.031174	0.016084
#####	80.3	118.78	193.03	-0.00546	0.012624	-0.00326
#####	79.79	119.3	191.47	-0.00637	0.004368	-0.00811
#####	80.28	117.75	189.19	0.006122	-0.01308	-0.01198
#####	81.88	118.88	188.67	0.019734	0.009551	-0.00275
#####	81.25	118.03	189.14999	-0.00772	-0.00718	0.002541
#####	81.23	117.81	190.47	-0.00025	-0.00187	0.006954
#####	81.66	118.3	190.02	0.00528	0.004151	-0.00237
12/1/2015	81.89	117.34	193.07001	0.002813	-0.00815	0.015924
12/2/2015	79.55	116.28	190.26	-0.02899	-0.00907	-0.01466
12/3/2015	78.41	115.2	185.2	-0.01443	-0.00933	-0.02696
12/4/2015	78.86	119.03	189.99001	0.005723	0.032706	0.025535
12/7/2015	76.8	118.28	185.49001	-0.02647	-0.00632	-0.02397
12/8/2015	74.63	118.23	182.92	-0.02866	-0.00042	-0.01395

12/9/2015	75.63	115.62	180.71001	0.01331	-0.02232	-0.01216
#####	75.69	116.17	182.11	0.000793	0.004746	0.007717
#####	74.34	113.18	176.56	-0.018	-0.02608	-0.03095
#####	76.03	112.48	176.39999	0.022479	-0.0062	-0.00091
#####	79.43	110.49	182.01	0.043748	-0.01785	0.031307
#####	79.15	111.34	186.21001	-0.00353	0.007664	0.022814
#####	77.96	108.98	182.61	-0.01515	-0.02142	-0.01952
#####	77.28	106.03	175.49001	-0.00876	-0.02744	-0.03977
#####	77.26	107.33	177.75	-0.00026	0.012186	0.012796
#####	77.65	107.23	180.05	0.005035	-0.00093	0.012857
#####	80.19	108.61	182.95	0.032187	0.012787	0.015978
#####	79.33	108.03	182.47	-0.01078	-0.00535	-0.00263
#####	78.74	106.82	181.62	-0.00747	-0.01126	-0.00467
#####	79.16	108.74	183.53	0.00532	0.017815	0.010462
#####	78.11	107.32	182.01	-0.01335	-0.01314	-0.00832
#####	77.95	105.26	180.23	-0.00205	-0.01938	-0.00983
1/4/2016	77.46	105.35	177.14	-0.00631	0.000855	-0.01729
1/5/2016	78.12	102.71	174.09	0.008484	-0.02538	-0.01737
1/6/2016	77.47	100.7	169.84	-0.00836	-0.01976	-0.02472
1/7/2016	76.23	96.449997	164.62	-0.01614	-0.04312	-0.03122
1/8/2016	74.69	96.959999	163.94	-0.02041	0.005274	-0.00414
1/11/2016	73.69	98.529999	165.73	-0.01348	0.016063	0.010859
1/12/2016	75.2	99.959999	165.71001	0.020284	0.014409	-0.00012
1/13/2016	75.65	97.389999	158.99001	0.005966	-0.02605	-0.0414
1/14/2016	79.12	99.519997	161.39	0.044848	0.021635	0.014982
1/15/2016	77.58	97.129997	155.61	-0.01966	-0.02431	-0.03647
1/19/2016	76.4	96.660004	156.82001	-0.01533	-0.00485	0.007746
1/20/2016	73.18	96.790001	153.75	-0.04306	0.001344	-0.01977
1/21/2016	74.1	96.300003	151.64999	0.012493	-0.00508	-0.01375
1/22/2016	76.57	101.42	156.86	0.03279	0.051802	0.033778
1/25/2016	73.98	99.440002	151.12	-0.03441	-0.01972	-0.03728
1/26/2016	76.7	99.989998	154.45	0.036107	0.005516	0.021796
1/27/2016	75.29	93.419998	153.72	-0.01855	-0.06796	-0.00474
1/28/2016	76.99	94.089996	157.06	0.022328	0.007146	0.021495
1/29/2016	77.85	97.339996	161.56	0.011108	0.033958	0.028249
2/1/2016	76.29	96.43	159.64999	-0.02024	-0.00939	-0.01189
2/2/2016	74.59	94.480003	151.7	-0.02254	-0.02043	-0.05108
2/3/2016	78.48	96.349998	152.67999	0.050837	0.019599	0.006439
2/4/2016	79.83	96.599998	156.49001	0.017056	0.002591	0.024648
2/5/2016	80.08	94.019997	156.47	0.003127	-0.02707	-0.00013
2/8/2016	81.16	95.010002	149.25	0.013396	0.010475	-0.04724
2/9/2016	80.08	94.989998	148.25	-0.0134	-0.00021	-0.00672
2/10/2016	79.35	94.269997	147.23	-0.00916	-0.00761	-0.0069
2/11/2016	79.6	93.699997	140.69	0.003146	-0.00606	-0.04544
2/12/2016	81.03	93.989998	146.13001	0.017805	0.00309	0.037938
2/16/2016	81.22	96.639999	149.02	0.002342	0.027804	0.019584
2/17/2016	82	98.120003	150.94	0.009558	0.015199	0.012802
2/18/2016	82.45	96.260002	147.73	0.005473	-0.01914	-0.0215
2/19/2016	82.5	96.040001	146.91	0.000606	-0.00229	-0.00557
2/22/2016	82.39	96.879997	148.78999	-0.00133	0.008708	0.012716

2/23/2016	81.23	94.690002	144.91	-0.01418	-0.02286	-0.02642
2/24/2016	81.52	96.099998	145.56	0.003564	0.014781	0.004475
2/25/2016	82.01	96.760002	148.25	0.005993	0.006844	0.018312
2/26/2016	81.75	96.910004	150.25	-0.00318	0.001549	0.013401
2/29/2016	80.15	96.690002	149.53	-0.01977	-0.00227	-0.0048
3/1/2016	81.28	100.53	154.64999	0.014	0.038946	0.033667
3/2/2016	82.7	100.75	154.2	0.01732	0.002186	-0.00291
3/3/2016	82.4	101.5	155.33	-0.00363	0.007417	0.007301
3/4/2016	82.29	103.01	156.84	-0.00134	0.014767	0.009674
3/7/2016	84.46	101.87	155.35001	0.026028	-0.01113	-0.00955
3/8/2016	82.63	101.03	151.60001	-0.02191	-0.00828	-0.02444
3/9/2016	82.4	101.12	149.91	-0.00279	0.00089	-0.01121
3/10/2016	82.18	101.17	151.02	-0.00267	0.000494	0.007377
3/11/2016	82.19	102.26	153.94	0.000122	0.010716	0.019151
3/14/2016	82.41	102.52	153.49001	0.002673	0.002539	-0.00293
3/15/2016	82.82	104.58	152.03	0.004963	0.019894	-0.00956
3/16/2016	82.87	105.97	150.53999	0.000604	0.013204	-0.00985
3/17/2016	84.1	105.8	152.91	0.014733	-0.00161	0.015621
3/18/2016	84.2	105.92	157.60001	0.001188	0.001134	0.030211
3/21/2016	83.62	105.91	156.28999	-0.00691	-9.4E-05	-0.00835
3/22/2016	84.12	106.72	154.2	0.005962	0.007619	-0.01346
3/23/2016	83.75	106.13	154.08	-0.00441	-0.00554	-0.00078
3/24/2016	83.98	105.67	153	0.002743	-0.00434	-0.00703
3/28/2016	84.22	105.19	153.84	0.002854	-0.00455	0.005475
3/29/2016	84.53	107.68	155.03	0.003674	0.023396	0.007706
3/30/2016	84.52	109.56	156.5	-0.00012	0.017308	0.009437
3/31/2016	83.59	108.99	156.98	-0.01106	-0.00522	0.003062
4/1/2016	82.96	109.99	159.82001	-0.00757	0.009133	0.01793
4/4/2016	83.16	111.12	157.77	0.002408	0.010221	-0.01291
4/5/2016	82.21	109.81	155.35001	-0.01149	-0.01186	-0.01546
4/6/2016	83.31	110.96	155.19	0.013292	0.010418	-0.00103
4/7/2016	82.37	108.54	150.41	-0.01135	-0.02205	-0.03129
4/8/2016	83.21	108.66	150.28	0.010146	0.001105	-0.00086
4/11/2016	83.32	109.02	152.2	0.001321	0.003308	0.012695
4/12/2016	84.35	110.44	154.31	0.012286	0.012941	0.013768
4/13/2016	84.83	112.04	159.85001	0.005674	0.014384	0.035272
4/14/2016	85.43	112.1	160.91	0.007048	0.000535	0.006609
4/15/2016	84.97	109.85	158.52	-0.0054	-0.02028	-0.01496
4/18/2016	85.78	107.48	159.02	0.009488	-0.02181	0.003149
4/19/2016	86.21	106.91	162.64999	0.005	-0.00532	0.022571
4/20/2016	86.8	107.13	166.98	0.00682	0.002056	0.026273
4/21/2016	86.79	105.97	165.32001	-0.00012	-0.01089	-0.00999
4/22/2016	87.53	105.68	166.75	0.00849	-0.00274	0.008613
4/25/2016	87.33	105.08	165.09	-0.00229	-0.00569	-0.01
4/26/2016	87.63	104.35	165.84	0.003429	-0.00697	0.004533
4/27/2016	88.46	97.82	166.92	0.009427	-0.06462	0.006491
4/28/2016	88.03	94.830002	164.28999	-0.00487	-0.03104	-0.01588
4/29/2016	88.4	93.739998	164.11	0.004194	-0.01156	-0.0011
5/2/2016	89.13	93.639999	166.17999	0.008224	-0.00107	0.012535
5/3/2016	88.11	95.18	163.14	-0.01151	0.016312	-0.01846

5/4/2016	87.94	94.190002	160.07001	-0.00193	-0.01046	-0.019
5/5/2016	88.04	93.239998	159.53	0.001136	-0.01014	-0.00338
5/6/2016	88.51	92.720001	158.85001	0.005324	-0.00559	-0.00427
5/9/2016	88.57	92.790001	157.51	0.000678	0.000755	-0.00847
5/10/2016	89.99	93.419998	161.42	0.015905	0.006767	0.024521
5/11/2016	88.81	92.510002	159.42	-0.0132	-0.00979	-0.01247
5/12/2016	89.67	90.339996	158.07001	0.009637	-0.02374	-0.0085
5/13/2016	88.66	90.519997	155.34	-0.01133	0.001991	-0.01742
5/16/2016	89.57	93.879997	155.38001	0.010212	0.036447	0.000258
5/17/2016	89.53	93.489998	154.64999	-0.00045	-0.00416	-0.00471
5/18/2016	89.35	94.559998	159.94	-0.00201	0.01138	0.033634
5/19/2016	90.11	94.199997	154.7	0.00847	-0.00381	-0.03331
5/20/2016	89.74	95.220001	154.51	-0.00411	0.01077	-0.00123
5/23/2016	89.6	96.43	155.45	-0.00156	0.012627	0.006065
5/24/2016	89.67	97.900002	157.59	0.000781	0.015129	0.013673
5/25/2016	90.26	99.620003	161.25	0.006558	0.017416	0.022959
5/26/2016	89.8	100.41	159.22	-0.00511	0.007899	-0.01267
5/27/2016	90.01	100.35	159.53	0.002336	-0.0006	0.001945
5/31/2016	89.02	99.860001	159.48	-0.01106	-0.00489	-0.00031
6/1/2016	89.24	98.459999	159.97	0.002468	-0.01412	0.003068
6/2/2016	88.53	97.720001	159.28	-0.00799	-0.00754	-0.00432
6/3/2016	88.37	97.919998	155.67	-0.00181	0.002045	-0.02293
6/6/2016	89.34	98.629997	157.06	0.010917	0.007225	0.00889
6/7/2016	90.71	99.029999	155.17	0.015218	0.004047	-0.01211
6/8/2016	90.79	98.940002	154.64	0.000882	-0.00091	-0.00342
6/9/2016	90.67	99.650002	153.17	-0.00132	0.00715	-0.00955
6/10/2016	89.98	98.830002	149.89	-0.00764	-0.00826	-0.02165
6/13/2016	90.59	97.339996	148.63001	0.006756	-0.01519	-0.00844
6/14/2016	90.43	97.459999	146.19	-0.00177	0.001232	-0.01655
6/15/2016	90.16	97.139999	146.16	-0.00299	-0.00329	-0.00021
6/16/2016	91.22	97.550003	146.63001	0.011688	0.004212	0.003211
6/17/2016	90.72	95.330002	145.64	-0.0055	-0.02302	-0.00677
6/20/2016	91.12	95.099998	147.75	0.0044	-0.00242	0.014384
6/21/2016	91.53	95.910004	148.35001	0.004489	0.008481	0.004053
6/22/2016	91.17	95.550003	148.14	-0.00394	-0.00376	-0.00142
6/23/2016	91.8	96.099998	152.66	0.006886	0.00574	0.030055
6/24/2016	89.39	93.400002	141.86	-0.0266	-0.0285	-0.07337
6/27/2016	88.86	92.040001	139.51	-0.00595	-0.01467	-0.0167
6/28/2016	90.91	93.589996	142.41	0.022808	0.0167	0.020574
6/29/2016	92.46	94.400002	145.5	0.016906	0.008618	0.021466
6/30/2016	93.74	95.599998	148.58	0.013749	0.012632	0.020947
7/1/2016	93.84	95.889999	148.25	0.001066	0.003029	-0.00222
7/5/2016	93.02	94.989998	144.45	-0.00878	-0.00943	-0.02597
7/6/2016	94.09	95.529999	145.58	0.011437	0.005669	0.007792
7/7/2016	92.96	95.940002	147	-0.01208	0.004283	0.009707
7/8/2016	93.54	96.68	150.38001	0.00622	0.007684	0.022733
7/11/2016	93.89	96.980003	152.19	0.003735	0.003098	0.011964
7/12/2016	94.95	97.419998	156.92	0.011227	0.004527	0.030606
7/13/2016	94.88	96.870003	157.92	-0.00074	-0.00566	0.006352
7/14/2016	94.95	98.790001	162.53999	0.000738	0.019626	0.028836

7/15/2016	95.12	98.779999	161.64	0.001789	-0.0001	-0.00555
7/18/2016	94.82	99.830002	163.33	-0.00316	0.010574	0.010401
7/19/2016	94.47	99.870003	161.41	-0.0037	0.000401	-0.01182
7/20/2016	93.93	99.959999	161.77	-0.00573	0.000901	0.002228
7/21/2016	93.85	99.43	160.05	-0.00085	-0.00532	-0.01069
7/22/2016	94.01	98.660004	160.41	0.001703	-0.00777	0.002247
7/25/2016	92.2	97.339996	160.51	-0.01944	-0.01347	0.000623
7/26/2016	91.53	96.669998	161.16	-0.00729	-0.00691	0.004041
7/27/2016	90.91	102.95	160.99001	-0.0068	0.06294	-0.00106
7/28/2016	90.2	104.34	160.53	-0.00784	0.013411	-0.00286
7/29/2016	88.95	104.21	158.81	-0.01396	-0.00125	-0.01077
8/1/2016	85.86	106.05	158.17999	-0.03536	0.017503	-0.00397
8/2/2016	87.04	104.48	156.06	0.01365	-0.01492	-0.01349
8/3/2016	87.49	105.79	158.34	0.005157	0.01246	0.014504
8/4/2016	87.48	105.87	158.05	-0.00011	0.000756	-0.00183
8/5/2016	87.56	107.48	162.09	0.000914	0.015093	0.02524
8/8/2016	88.59	108.37	162.83	0.011695	0.008247	0.004555
8/9/2016	88.7	108.81	163.44	0.001241	0.004052	0.003739
8/10/2016	86.41	108	162.19	-0.02616	-0.00747	-0.00768
8/11/2016	86.72	107.93	163.86	0.003581	-0.00065	0.010244
8/12/2016	87.85	108.18	163.25	0.012946	0.002314	-0.00373
8/15/2016	87.81	109.48	165.55	-0.00046	0.011945	0.013991
8/16/2016	87.92	109.38	165.64999	0.001252	-0.00091	0.000604
8/17/2016	88.11	109.22	165.67	0.002159	-0.00146	0.000121
8/18/2016	88.91	109.08	166.06	0.009039	-0.00128	0.002351
8/19/2016	87.8	109.36	166.23	-0.01256	0.002564	0.001023
8/22/2016	87.99	108.51	166.26	0.002162	-0.0078	0.00018
8/23/2016	87.72	108.85	166.08	-0.00307	0.003128	-0.00108
8/24/2016	88.02	108.03	165.3	0.003414	-0.00756	-0.00471
8/25/2016	87.46	107.57	165.89999	-0.00638	-0.00427	0.003623
8/26/2016	87.27	106.94	165.97	-0.00217	-0.00587	0.000422
8/29/2016	87.84	106.82	166.87	0.00651	-0.00112	0.005408
8/30/2016	87.52	106	169.37	-0.00365	-0.00771	0.014871
8/31/2016	87.14	106.1	169.46001	-0.00435	0.000943	0.000531
9/1/2016	86.84	106.73	168.51	-0.00345	0.00592	-0.00562
9/2/2016	87.42	107.73	169.17999	0.006657	0.009326	0.003968
9/6/2016	88.57	107.7	169.33	0.013069	-0.00028	0.000886
9/7/2016	88.24	108.36	169.67	-0.00373	0.006109	0.002006
9/8/2016	89.05	105.52	171.66	0.009138	-0.02656	0.01166
9/9/2016	86.84	103.13	168.57001	-0.02513	-0.02291	-0.01816
9/12/2016	87.29	105.44	171.06	0.005169	0.022152	0.014663
9/13/2016	85.21	107.95	167	-0.02412	0.023526	-0.02402
9/14/2016	84.6	111.77	166.16	-0.00718	0.034775	-0.00504
9/15/2016	85.08	115.57	168.08	0.005658	0.033433	0.011489
9/16/2016	84.03	114.92	166	-0.01242	-0.00564	-0.01245
9/19/2016	83.83	113.58	166.21001	-0.00238	-0.01173	0.001264
9/20/2016	82.54	113.57	166.47	-0.01551	-8.8E-05	0.001563
9/21/2016	83.3	113.55	167.03	0.009166	-0.00018	0.003358
9/22/2016	83.54	114.62	168.02	0.002877	0.009379	0.00591
9/23/2016	83.45	112.71	165.13001	-0.00108	-0.0168	-0.01735

9/26/2016	83.06	112.88	161.48	-0.00468	0.001507	-0.02235
9/27/2016	83.24	113.09	162.89	0.002165	0.001859	0.008694
9/28/2016	86.9	113.95	163.45	0.04303	0.007576	0.003432
9/29/2016	86.46	112.18	158.95	-0.00508	-0.01566	-0.02792
9/30/2016	87.28	113.05	161.27	0.009439	0.007726	0.01449
10/3/2016	87.05	112.52	161.07001	-0.00264	-0.0047	-0.00124
10/4/2016	86.25	113	162.27	-0.00923	0.004257	0.007423
10/5/2016	87	113.05	166.39999	0.008658	0.000442	0.025133
10/6/2016	87.04	113.89	167.14999	0.00046	0.007403	0.004497
10/7/2016	86.74	114.06	169.83	-0.00345	0.001492	0.015906
#####	88.44	116.05	171.03999	0.019409	0.017297	0.007099
#####	87.74	116.3	169.03999	-0.00795	0.002152	-0.01176
#####	87.13	117.34	169.3	-0.00698	0.008903	0.001537
#####	86.56	116.98	167.42	-0.00656	-0.00307	-0.01117
#####	86.54	117.63	170.52	-0.00023	0.005541	0.018347
#####	86.54	117.55	169	0	-0.00068	-0.00895
#####	86.77	117.47	172.63001	0.002654	-0.00068	0.021252
#####	87.17	117.12	174.51	0.004599	-0.00298	0.010831
#####	87.21	117.06	174.51	0.000459	-0.00051	0
#####	86.62	116.6	174.67	-0.00679	-0.00394	0.000916
#####	86.91	117.65	175.12	0.003342	0.008965	0.002573
#####	86.72	118.25	175.55	-0.00219	0.005087	0.002452
#####	87.09	115.59	177.07001	0.004257	-0.02275	0.008621
#####	86.92	114.48	177.75	-0.00195	-0.00965	0.003833
#####	84.78	113.72	177.14	-0.02493	-0.00666	-0.00344
#####	83.32	113.54	178.24001	-0.01737	-0.00158	0.006191
11/1/2016	83.65	111.49	178.06	0.003953	-0.01822	-0.00101
11/2/2016	83.45	111.59	176.58	-0.00239	0.000897	-0.00835
11/3/2016	83.66	109.83	176.21001	0.002513	-0.0159	-0.0021
11/4/2016	83.57	108.84	175.92	-0.00108	-0.00905	-0.00165
11/7/2016	85.45	110.41	181.48	0.022247	0.014322	0.031116
11/8/2016	85.31	111.06	181.92	-0.00164	0.00587	0.002422
11/9/2016	86.25	110.88	192.63001	0.010958	-0.00162	0.057204
#####	87.05	107.79	200.87	0.009233	-0.02826	0.041887
#####	85.67	108.43	203.94	-0.01598	0.00592	0.015168
#####	85.28	105.71	209.17999	-0.00456	-0.02541	0.025369
#####	86.82	107.11	211.19	0.017897	0.013157	0.009563
#####	85.75	109.99	206.26	-0.0124	0.026533	-0.02362
#####	85.23	109.95	209.63001	-0.00608	-0.00036	0.016207
#####	85.28	110.06	210.35001	0.000586	0.001	0.003429
#####	86.49	111.73	211.08	0.014089	0.01506	0.003464
#####	86.68	111.8	211.11	0.002194	0.000626	0.000142
#####	86.92	111.23	212.31	0.002765	-0.00511	0.005668
#####	87.12	111.79	211.38001	0.002298	0.005022	-0.00439
#####	86.47	111.57	210.35001	-0.00749	-0.00197	-0.00488
#####	85.9	111.46	211.75	-0.00661	-0.00099	0.006633
#####	87.3	110.52	219.28999	0.016167	-0.00847	0.034989
12/1/2016	87.24	109.49	226.63001	-0.00069	-0.00936	0.032924
12/2/2016	87.04	109.9	223.36	-0.0023	0.003738	-0.01453
12/5/2016	87.48	109.11	228.55	0.005042	-0.00721	0.02297

12/6/2016	87.56	109.95	231.38001	0.000914	0.007669	0.012306
12/7/2016	88.07	111.03	235.56	0.005808	0.009775	0.017904
12/8/2016	88.32	112.12	241.45	0.002835	0.009769	0.024697
12/9/2016	89	113.95	241.85001	0.00767	0.01619	0.001655
#####	90.98	113.3	237.17	0.022003	-0.00572	-0.01954
#####	92.58	115.19	238.55	0.017433	0.016544	0.005802
#####	90.58	115.19	239.92999	-0.02184	0	0.005768
#####	90.89	115.82	243	0.003417	0.005454	0.012714
#####	91.18	115.97	238.89999	0.003186	0.001294	-0.01702
#####	90.42	116.64	239.07001	-0.00837	0.005761	0.000711
#####	90.43	116.95	243.09	0.000111	0.002654	0.016675
#####	90.28	117.06	241.44	-0.00166	0.00094	-0.00681
#####	90.87	116.29	240.12	0.006514	-0.0066	-0.00548
#####	90.71	116.52	240.97	-0.00176	0.001976	0.003534
#####	90.75	117.26	241.56	0.000441	0.006331	0.002445
#####	90.3	116.76	240.64999	-0.00497	-0.00427	-0.00377
#####	90.35	116.73	238.17999	0.000554	-0.00026	-0.01032
#####	90.26	115.82	239.45	-0.001	-0.00783	0.005318
1/3/2017	90.89	116.15	241.57001	0.006956	0.002845	0.008815
1/4/2017	89.89	116.02	243.13001	-0.01106	-0.00112	0.006437
1/5/2017	88.55	116.61	241.32001	-0.01502	0.005072	-0.00747
1/6/2017	88.5	117.91	244.89999	-0.00056	0.011087	0.014726
1/9/2017	87.04	118.99	242.89	-0.01663	0.009118	-0.00824
1/10/2017	85.93	119.11	242.57001	-0.01283	0.001008	-0.00132
1/11/2017	86.81	119.75	245.76	0.010189	0.005359	0.013065
1/12/2017	86.34	119.25	243.84	-0.00543	-0.00418	-0.00784
1/13/2017	86.35	119.04	244.3	0.000116	-0.00176	0.001885
1/17/2017	87.36	120	235.74001	0.011629	0.008032	-0.03567
1/18/2017	86.28	119.99	234.28999	-0.01244	-8.3E-05	-0.00617
1/19/2017	84.73	119.78	231.41	-0.01813	-0.00175	-0.01237
1/20/2017	85.89	120	232.2	0.013598	0.001835	0.003408
1/23/2017	84.97	120.08	232.67	-0.01077	0.000666	0.002022
1/24/2017	85.09	119.97	233.67999	0.001411	-0.00092	0.004331
1/25/2017	85.34	121.88	237.25	0.002934	0.015795	0.015162
1/26/2017	85.6	121.94	239.58	0.003042	0.000492	0.009773
1/27/2017	85.51	121.95	236.95	-0.00105	8.2E-05	-0.01104
1/30/2017	84.86	121.63	233.89999	-0.00763	-0.00263	-0.01296
1/31/2017	83.89	121.35	229.32001	-0.0115	-0.0023	-0.01978
2/1/2017	82.94	128.75	230.67	-0.01139	0.059194	0.00587
2/2/2017	83.45	128.53	230.41	0.00613	-0.00171	-0.00113
2/3/2017	83.54	129.08	240.95	0.001078	0.00427	0.044729
2/6/2017	83.31	130.28999	239.98	-0.00276	0.00933	-0.00403
2/7/2017	82.77	131.53	239.62	-0.0065	0.009472	-0.0015
2/8/2017	81.48	132.03999	237.73	-0.01571	0.00387	-0.00792
2/9/2017	81.84	132.42	241.55	0.004408	0.002874	0.015941
2/10/2017	82.52	132.12	242.72	0.008275	-0.00227	0.004832
2/13/2017	83	133.28999	246.27	0.0058	0.008817	0.01452
2/14/2017	82.82	135.02	249.46001	-0.00217	0.012896	0.01287
2/15/2017	83.16	135.51	250.53999	0.004097	0.003622	0.00432
2/16/2017	82.3	135.35001	249.44	-0.0104	-0.00118	-0.0044

2/17/2017	81.76	135.72	250.38001	-0.00658	0.00273	0.003761
2/21/2017	81.89	136.7	251.76	0.001589	0.007195	0.005496
2/22/2017	80.93	137.11	251.73	-0.01179	0.002995	-0.00012
2/23/2017	81.78	136.53	251.19	0.010448	-0.00424	-0.00215
2/24/2017	81.08	136.66	247.35001	-0.0086	0.000952	-0.01541
2/27/2017	81.54	136.92999	249.33	0.005657	0.001974	0.007973
2/28/2017	81.32	136.99001	248.06	-0.0027	0.000438	-0.00511
3/1/2017	83.02	139.78999	252.71001	0.02069	0.020233	0.018572
3/2/2017	83.3	138.96001	251.06	0.003367	-0.00596	-0.00655
3/3/2017	82.46	139.78	252.89	-0.01014	0.005884	0.007263
3/6/2017	82.83	139.34	252.01	0.004477	-0.00315	-0.00349
3/7/2017	82.52	139.52	250.89999	-0.00375	0.001291	-0.00441
3/8/2017	81.03	139	250.24001	-0.01822	-0.00373	-0.00263
3/9/2017	81.67	138.67999	250.17999	0.007867	-0.0023	-0.00024
3/10/2017	81.61	139.14	248.38001	-0.00073	0.003312	-0.00722
3/13/2017	81.42	139.2	248.16	-0.00233	0.000431	-0.00089
3/14/2017	80.99	138.99001	247.72	-0.0053	-0.00151	-0.00177
3/15/2017	82	140.46001	246.78	0.012394	0.010521	-0.0038
3/16/2017	82.07	140.69	248.22	0.000853	0.001636	0.005818
3/17/2017	82	139.99001	243.94	-0.00085	-0.00499	-0.01739
3/20/2017	82	141.46001	242.14	0	0.010446	-0.00741
3/21/2017	81.83	139.84	233	-0.00208	-0.01152	-0.03848
3/22/2017	81.76	141.42	231.07001	-0.00086	0.011235	-0.00832
3/23/2017	81.86	140.92	231.89999	0.001222	-0.00354	0.003585
3/24/2017	81.23	140.64	228.41	-0.00773	-0.00199	-0.01516
3/27/2017	81.25	140.88001	225.48	0.000246	0.001705	-0.01291
3/28/2017	81.84	143.8	229.33	0.007235	0.020515	0.016931
3/29/2017	82.02	144.12	228.45	0.002197	0.002223	-0.00384
3/30/2017	83.7	143.92999	231.22	0.020276	-0.00132	0.012052
3/31/2017	82.01	143.66	229.72	-0.0204	-0.00188	-0.00651
4/3/2017	82.07	143.7	228.96001	0.000731	0.000278	-0.00331
4/4/2017	82.37	144.77	229.26	0.003649	0.007419	0.001309
4/5/2017	82.53	144.02	227.66	0.001941	-0.00519	-0.007
4/6/2017	83.01	143.66	228.64	0.005799	-0.0025	0.004295
4/7/2017	82.76	143.34	227.88001	-0.00302	-0.00223	-0.00333
4/10/2017	83.13	143.17	228.89	0.004461	-0.00119	0.004422
4/11/2017	82.84	141.63001	227.74001	-0.00349	-0.01081	-0.00504
4/12/2017	82.97	141.8	225.75	0.001568	0.0012	-0.00878
4/13/2017	81.69	141.05	223.32001	-0.01555	-0.0053	-0.01082
4/17/2017	81.58	141.83	226.26	-0.00135	0.005515	0.013079
4/18/2017	81.05	141.2	215.59	-0.00652	-0.00445	-0.04831
4/19/2017	80.49	140.67999	214.09	-0.00693	-0.00369	-0.00698
4/20/2017	81.01	142.44	218.06	0.00644	0.012433	0.018374
4/21/2017	80.69	142.27	216.86	-0.00396	-0.00119	-0.00552
4/24/2017	81.11	143.64	223.22	0.005192	0.009583	0.028906
4/25/2017	81.73	144.53	226.63001	0.007615	0.006177	0.015161
4/26/2017	81.4	143.67999	226.2	-0.00405	-0.0059	-0.0019
4/27/2017	81.26	143.78999	225.81	-0.00172	0.000765	-0.00173
4/28/2017	81.65	143.64999	223.8	0.004788	-0.00097	-0.00894
5/1/2017	82.06	146.58	224.85001	0.005009	0.020192	0.004681

5/2/2017	82.05	147.51	225.12	-0.00012	0.006325	0.0012
5/3/2017	82.7	147.06	226.31	0.007891	-0.00306	0.005272
5/4/2017	81.64	146.53	226.59	-0.0129	-0.00361	0.001236
5/5/2017	82.02	148.96001	226.87	0.004644	0.016448	0.001235
5/8/2017	82.89	153.01	225.03	0.010551	0.026825	-0.00814
5/9/2017	82.31	153.99001	223.76	-0.00702	0.006384	-0.00566
5/10/2017	81.91	153.26	224.88001	-0.00487	-0.00475	0.004993
5/11/2017	82.61	153.95	224.76	0.00851	0.004492	-0.00053
5/12/2017	82.55	156.10001	222.82001	-0.00073	0.013869	-0.00867
5/15/2017	82.8	155.7	225.12	0.003024	-0.00257	0.010269
5/16/2017	82.55	155.47	225.60001	-0.00302	-0.00148	0.00213
5/17/2017	81.99	150.25	213.72	-0.00681	-0.03415	-0.0541
5/18/2017	81.75	152.53999	215.16	-0.00293	0.015126	0.006715
5/19/2017	81.93	153.06	215.39	0.002199	0.003403	0.001068
5/22/2017	82.29	153.99001	216.02	0.004384	0.006058	0.002921
5/23/2017	82.58	153.8	219.64	0.003518	-0.00123	0.016619
5/24/2017	82.29	153.34	223.83	-0.00352	-0.003	0.018897
5/25/2017	81.75	153.87	222.47	-0.00658	0.00345	-0.00609
5/26/2017	81.55	153.61	223.53	-0.00245	-0.00169	0.004753
5/30/2017	81.1	153.67	218.42	-0.00553	0.000391	-0.02313
5/31/2017	80.5	152.76	211.26	-0.00743	-0.00594	-0.03333
6/1/2017	80.7	153.17999	215.01	0.002481	0.002746	0.017595
6/2/2017	79.5	155.45	213.31	-0.01498	0.01471	-0.00794
6/5/2017	80.12	153.92999	213.99001	0.007769	-0.00983	0.003183
6/6/2017	81.21	154.45	214.53	0.013513	0.003372	0.00252
6/7/2017	80.91	155.37	215.78	-0.0037	0.005939	0.00581
6/8/2017	80.62	154.99001	218.76	-0.00359	-0.00245	0.013716
6/9/2017	82.13	148.98	222.44	0.018557	-0.03955	0.016682
6/12/2017	82.93	145.42	221.91	0.009694	-0.02419	-0.00239
6/13/2017	82.96	146.59	224.2	0.000362	0.008013	0.010267
6/14/2017	82.07	145.16	226.51	-0.01079	-0.0098	0.010251
6/15/2017	82.26	144.28999	223.23	0.002312	-0.00601	-0.01459
6/16/2017	83.49	142.27	221.81	0.014842	-0.0141	-0.00638
6/19/2017	82.76	146.34	226.13001	-0.00878	0.028206	0.019289
6/20/2017	82.31	145.01	225.10001	-0.00545	-0.00913	-0.00457
6/21/2017	81.44	145.87	222.49001	-0.01063	0.005913	-0.01166
6/22/2017	81.08	145.63001	219.77	-0.00443	-0.00165	-0.0123
6/23/2017	81.61	146.28	217.19	0.006515	0.004453	-0.01181
6/26/2017	81.24	145.82001	220.44	-0.00454	-0.00315	0.014853
6/27/2017	81.11	143.73	220.28	-0.0016	-0.01444	-0.00073
6/28/2017	81.53	145.83	223.22	0.005165	0.014505	0.013258
6/29/2017	80.7	143.67999	224.41	-0.01023	-0.01485	0.005317
6/30/2017	80.73	144.02	221.89999	0.000372	0.002364	-0.01125
7/3/2017	82.1	143.5	227.28	0.016828	-0.00362	0.023956
7/5/2017	80.85	144.09	228.03999	-0.01534	0.004103	0.003338
7/6/2017	80.12	142.73	226.69	-0.00907	-0.00948	-0.00594
7/7/2017	80.22	144.17999	225.28	0.001247	0.010108	-0.00624
7/10/2017	80.16	145.06	225.84	-0.00075	0.006085	0.002483
7/11/2017	80.6	145.53	226.95	0.005474	0.003235	0.004903
7/12/2017	80.96	145.74001	227.39	0.004457	0.001442	0.001937

7/13/2017	80.97	147.77	230.39999	0.000124	0.013833	0.01315
7/14/2017	81.28	149.03999	228.60001	0.003821	0.008558	-0.00784
7/17/2017	80.86	149.56	229.26	-0.00518	0.003483	0.002883
7/18/2017	80.6	150.08	223.31	-0.00322	0.003471	-0.0263
7/19/2017	80.85	151.02	222.87	0.003097	0.006244	-0.00197
7/20/2017	80.86	150.34	222.3	0.000124	-0.00451	-0.00256
7/21/2017	80.12	150.27	220.17999	-0.00919	-0.00047	-0.00958
7/24/2017	79.87	152.09	218.17999	-0.00313	0.012039	-0.00912
7/25/2017	80.27	152.74001	221.58	0.004996	0.004265	0.015463
7/26/2017	80.37	153.46001	222.25	0.001245	0.004703	0.003019
7/27/2017	80.83	150.56	221.48	0.005707	-0.01908	-0.00347
7/28/2017	79.6	149.5	223.61	-0.01533	-0.00707	0.009571
7/31/2017	80.04	148.73	225.33	0.005512	-0.00516	0.007663
8/1/2017	80.17	150.05	227	0.001623	0.008836	0.007384
8/2/2017	80.6	157.14	226.27	0.005349	0.046169	-0.00322
8/3/2017	80.49	155.57001	223.99001	-0.00137	-0.01004	-0.01013
8/4/2017	80.21	156.39	229.78999	-0.00348	0.005257	0.025564
8/7/2017	80.16	158.81	232.92	-0.00062	0.015356	0.013529
8/8/2017	79.96	160.08	232.05	-0.0025	0.007965	-0.00374
8/9/2017	80.21	161.06	231.01	0.003122	0.006103	-0.00449
8/10/2017	78.97	155.32001	225.5	-0.01558	-0.03629	-0.02414
8/11/2017	78.21	157.48	224.14999	-0.00967	0.013811	-0.006
8/14/2017	78.23	159.85001	227.36	0.000256	0.014937	0.014219
8/15/2017	78.04	161.60001	227.59	-0.00243	0.010888	0.001011
8/16/2017	77.47	160.95	225.61	-0.00733	-0.00403	-0.00874
8/17/2017	76.26	157.86	221.42	-0.01574	-0.01939	-0.01875
8/18/2017	76.64	157.5	222.14999	0.004971	-0.00228	0.003291
8/21/2017	76.38	157.21001	220.78999	-0.0034	-0.00184	-0.00614
8/22/2017	76.74	159.78	223.58	0.004702	0.016215	0.012557
8/23/2017	76.61	159.98	222.74001	-0.0017	0.001251	-0.00376
8/24/2017	76.33	159.27	222.99001	-0.00366	-0.00445	0.001122
8/25/2017	76.72	159.86	222.47	0.005096	0.003698	-0.00233
8/28/2017	76.47	161.47	220.35001	-0.00326	0.010021	-0.00958
8/29/2017	76.45	162.91	219.96001	-0.00026	0.008879	-0.00177
8/30/2017	76.1	163.35001	222.42	-0.00459	0.002697	0.011122
8/31/2017	76.33	164	223.74001	0.003018	0.003971	0.005917
9/1/2017	76.57	164.05	225.88001	0.003139	0.000305	0.009519
9/5/2017	77.18	162.08	217.78	0.007935	-0.01208	-0.03652
9/6/2017	78.78	161.91	218.83	0.020519	-0.00105	0.00481
9/7/2017	79.03	161.26	215.84	0.003168	-0.00402	-0.01376
9/8/2017	78.82	158.63001	217.21001	-0.00266	-0.01644	0.006327
9/11/2017	79.25	161.5	221.06	0.005441	0.017931	0.017569
9/12/2017	79.5	160.86	225.95	0.00315	-0.00397	0.02188
9/13/2017	79.77	159.64999	226.56	0.00339	-0.00755	0.002696
9/14/2017	80.09	158.28	226.85001	0.004003	-0.00862	0.001279
9/15/2017	80.07	159.88001	225.22	-0.00025	0.010058	-0.00721
9/18/2017	80.09	158.67	227.53	0.00025	-0.0076	0.010204
9/19/2017	80.22	158.73	228.91	0.001622	0.000378	0.006047
9/20/2017	80.55	156.07001	229.78999	0.004105	-0.0169	0.003837
9/21/2017	79.89	153.39	231.28999	-0.00823	-0.01732	0.006506

9/22/2017	79.92	151.89	231.03	0.000375	-0.00983	-0.00112
9/25/2017	80.98	150.55	230.26	0.013176	-0.00886	-0.00334
9/26/2017	80.89	153.14	229.94	-0.00111	0.017057	-0.00139
9/27/2017	81.43	154.23	234.76	0.006654	0.007092	0.020745
9/28/2017	82.19	153.28	235.47	0.00929	-0.00618	0.00302
9/29/2017	81.98	154.12	237.19	-0.00256	0.005465	0.007278
10/2/2017	81.63	153.81	240.64999	-0.00428	-0.00201	0.014482
10/3/2017	81.76	154.48	241.62	0.001591	0.004347	0.004023
10/4/2017	81.79	153.48	240.31	0.000367	-0.00649	-0.00544
10/5/2017	82.02	155.39	246.06	0.002808	0.012368	0.023646
10/6/2017	81.71	155.3	246.02	-0.00379	-0.00058	-0.00016
10/9/2017	82.03	155.84	242.8	0.003909	0.003471	-0.01317
#####	82.26	155.89999	242.60001	0.0028	0.000385	-0.00082
#####	82.6	156.55	242.39999	0.004125	0.004161	-0.00082
#####	82.43	156	239.8	-0.00206	-0.00352	-0.01078
#####	82.41	156.99001	238.53	-0.00024	0.006326	-0.00531
#####	82.81	159.88001	242.41	0.004842	0.018241	0.016135
#####	82.96	160.47	236.09	0.00181	0.003683	-0.02642
#####	82.76	159.76	242.03	-0.00241	-0.00443	0.024849
#####	82.74	155.98	239.99001	-0.00024	-0.02394	-0.00846
#####	83.11	156.25	244.73	0.004462	0.00173	0.019558
#####	83.24	156.17	242.13001	0.001563	-0.00051	-0.01068
#####	83.47	157.10001	244.84	0.002759	0.005937	0.01113
#####	83.17	156.41	241.71001	-0.0036	-0.0044	-0.01287
#####	83.47	157.41	241.72	0.003601	0.006373	4.13E-05
#####	83.71	163.05	241.71001	0.002871	0.035203	-4.1E-05
#####	83.54	166.72	240.89	-0.00203	0.022259	-0.0034
#####	83.35	169.03999	242.48	-0.00228	0.01382	0.006579
11/1/2017	83.87	166.89	244.26	0.006219	-0.0128	0.007314
11/2/2017	83.53	168.11	246.88001	-0.00406	0.007284	0.010669
11/3/2017	83.18	172.5	244.39999	-0.0042	0.025779	-0.0101
11/6/2017	83.75	174.25	243.49001	0.006829	0.010094	-0.00373
11/7/2017	83.58	174.81	239.81	-0.00203	0.003209	-0.01523
11/8/2017	83.47	176.24001	241.25	-0.00132	0.008147	0.005987
11/9/2017	83.97	175.88001	240.78999	0.005972	-0.00204	-0.00191
#####	82.94	174.67	240.14999	-0.01234	-0.0069	-0.00266
#####	82.89	173.97	240.27	-0.0006	-0.00402	0.0005
#####	82.24	171.34	237.24001	-0.00787	-0.01523	-0.01269
#####	81.21	169.08	237.61	-0.0126	-0.01328	0.001558
#####	80.56	171.10001	239.37	-0.00804	0.011876	0.00738
#####	80.24	170.14999	238.02	-0.00398	-0.00557	-0.00566
#####	80.55	169.98	238.13001	0.003856	-0.001	0.000462
#####	80.87	173.14	238.02	0.003965	0.01842	-0.00046
#####	81.1	174.96001	236.42999	0.00284	0.010457	-0.0067
#####	81.42	174.97	235.95	0.003938	5.71E-05	-0.00203
#####	81.11	174.09	235.11	-0.00381	-0.00504	-0.00357
#####	81.67	173.07001	239.41	0.00688	-0.00588	0.018124
#####	82.27	169.48	241.36	0.00732	-0.02096	0.008112
#####	83.29	171.85001	247.64	0.012322	0.013887	0.025686
12/1/2017	83.46	171.05	248.95	0.002039	-0.00467	0.005276

12/4/2017	83.57	169.8	250.64999	0.001317	-0.00733	0.006805
12/5/2017	82.89	169.64	248.33	-0.00817	-0.00094	-0.0093
12/6/2017	82.28	169.01	245.95	-0.00739	-0.00372	-0.00963
12/7/2017	82.55	169.32001	248.56	0.003276	0.001833	0.010556
12/8/2017	82.66	169.37	250.35001	0.001332	0.000295	0.007176
#####	83.03	172.67	250.13001	0.004466	0.019297	-0.00088
#####	82.76	171.7	257.67999	-0.00326	-0.00563	0.029738
#####	83.12	172.27	255.56	0.004341	0.003314	-0.00826
#####	82.9	172.22	255.48	-0.00265	-0.00029	-0.00031
#####	83.03	173.97	257.17001	0.001567	0.01011	0.006593
#####	82.94	176.42	260.01999	-0.00108	0.013985	0.011021
#####	82.44	174.53999	256.48001	-0.00605	-0.01071	-0.01371
#####	82.87	174.35001	255.17999	0.005202	-0.00109	-0.00508
#####	83.85	175.01	261.01001	0.011756	0.003778	0.02259
#####	83.97	175.01	258.97	0.00143	0	-0.00785
#####	83.98	170.57001	257.72	0.000119	-0.0257	-0.00484
#####	83.9	170.60001	255.95	-0.00095	0.000176	-0.00689
#####	84.02	171.08	256.5	0.001429	0.00281	0.002147
#####	83.64	169.23	254.76	-0.00453	-0.01087	-0.00681
1/2/2018	85.03	172.26	255.67	0.016482	0.017746	0.003566
1/3/2018	86.7	172.23	253.28999	0.01945	-0.00017	-0.00935
1/4/2018	86.82	173.03	256.82999	0.001383	0.004634	0.013879
1/5/2018	86.75	175	255.52	-0.00081	0.011321	-0.00511
1/8/2018	87.14	174.35001	251.81	0.004486	-0.00372	-0.01463
1/9/2018	86.77	174.33	253.94	-0.00426	-0.00011	0.008423
1/10/2018	86.08	174.28999	254.33	-0.00798	-0.00023	0.001535
1/11/2018	86.93	175.28	255.13001	0.009826	0.005664	0.003141
1/12/2018	87.52	177.09	257.03	0.006764	0.010273	0.00742
1/16/2018	86.97	176.19	258.45999	-0.0063	-0.0051	0.005548
1/17/2018	88	179.10001	253.64999	0.011774	0.016381	-0.01879
1/18/2018	87.43	179.26	250.97	-0.0065	0.000893	-0.01062
1/19/2018	87.15	178.46001	256.12	-0.00321	-0.00447	0.020313
1/22/2018	88.25	177	261.51999	0.012543	-0.00821	0.020865
1/23/2018	88.3	177.03999	260.09	0.000566	0.000226	-0.00548
1/24/2018	88.53	174.22	265.67999	0.002601	-0.01606	0.021265
1/25/2018	88.37	171.11	269.03	-0.00181	-0.01801	0.01253
1/26/2018	89	171.51	268.14002	0.007104	0.002335	-0.00331
1/29/2018	88.01	167.96001	272.48001	-0.01119	-0.02092	0.016056
1/30/2018	86.78	166.97	268.94	-0.01407	-0.00591	-0.01308
1/31/2018	87.3	167.42999	267.89002	0.005974	0.002751	-0.00391
2/1/2018	89.07	167.78	272.23001	0.020072	0.002088	0.016071
2/2/2018	84.53	160.5	260.04001	-0.05232	-0.04436	-0.04581
2/5/2018	79.72	156.49001	249.11	-0.05859	-0.0253	-0.04294
2/6/2018	78.35	163.03	258.70001	-0.01733	0.040942	0.037775
2/7/2018	76.94	159.53999	257.10001	-0.01816	-0.02164	-0.0062
2/8/2018	76.07	155.14999	246.35001	-0.01137	-0.0279	-0.04271
2/9/2018	75.78	156.41	249.3	-0.00382	0.008088	0.011904
2/12/2018	76.42	162.71001	253.16	0.00841	0.039489	0.015365
2/13/2018	76.3	164.34	255.53	-0.00157	0.009968	0.009318
2/14/2018	76.46	167.37	262.57999	0.002095	0.018269	0.027216

2/15/2018	76.21	172.99001	267.67999	-0.00328	0.033027	0.019236
2/16/2018	76.54	172.42999	267.62	0.004321	-0.00324	-0.00022
2/20/2018	75.75	171.85001	264.89002	-0.01038	-0.00337	-0.01025
2/21/2018	74.89	171.07001	263.39999	-0.01142	-0.00455	-0.00564
2/22/2018	75.86	172.5	261.42999	0.012869	0.008324	-0.00751
2/23/2018	77.53	175.5	266.76999	0.021775	0.017242	0.02022
2/26/2018	78.84	178.97	271.26001	0.016755	0.019579	0.016691

E(X) -0.00016 0.000419 0.000456 Var(X)

Sigma(X)

0.029299 0.030812

Covar_M

Exxon

Appl

Goldman

Correl_M

Sigma(X)

0.011751 Exxon

0.014306 Appl

0.014811 Goldman

1.18001E-06	0.000242	0.000171
3.03363E-05	2E-05	0.000101
2.14056E-05	2.79E-06	1.01E-05
2.3805E-05	4.59E-05	7.84E-05
2.40541E-05	0.000293	2.9E-06
0.000161903	1.17E-06	0.000298
2.86058E-05	1.47E-05	2.49E-05
0.000109606	0.000455	0.000819
7.27445E-06	0.000354	5.71E-05
6.41577E-06	0.000306	0.000924
1.60728E-05	5.41E-05	1.35E-05
0.000114727	0.000111	0.000168
6.24049E-05	0.000261	5.49E-05
0.000554485	0.000116	7.54E-05
0.000373249	6.4E-05	0.000163
2.87036E-06	0.00017	0.000257
0.000112951	9.86E-05	4.27E-05
0.000111383	2.04E-05	1.6E-05
1.73891E-05	0.000723	0.00045
3.87934E-05	4.26E-05	1.09E-06
7.49865E-05	7.09E-05	1.53E-05
0.000594711	0.000604	0.00023
5.22594E-05	0.000252	0.000274
3.86621E-05	3.48E-06	0.000482
3.0304E-06	6.65E-05	1.6E-05
9.90601E-05	0.000245	4.62E-06
5.49371E-05	0.000121	1.72E-06
0.00039006	1.35E-05	1.82E-07
5.11176E-05	5.18E-05	0.000134
0.00011768	1.47E-05	1.15E-05
5.853E-06	5.7E-06	5.82E-07
0.000229772	2.27E-05	0.000109
0.00028072	1.14E-05	0.000272
1.46401E-05	2.75E-05	2.39E-05
8.10976E-05	0.000138	0.00022
1.38016E-05	0.000491	1.11E-05
1.58385E-05	3.41E-05	4.67E-05
4.63631E-05	0.000168	4.95E-05
1.14413E-06	5.95E-05	2.05E-05
4.06695E-05	1.83E-05	5.04E-05
3.7843E-07	0.00031	6.25E-05
8.45258E-05	0.000266	2E-05
9.06839E-07	0.000232	2.45E-05
3.08152E-05	0.00078	0.000128
0.000287399	0.00087	2.68E-05
9.47022E-06	5.57E-06	7.16E-05
2.99374E-05	0.000539	0.000112
2.11213E-05	4.51E-05	3.3E-05

4.29981E-05	2.49E-06	2.85E-05
0.000252757	0.000333	0.00023
0.000624624	0.000114	3.2E-05
8.50951E-06	1.59E-05	4.13E-05
2.64692E-05	4.8E-07	1.62E-05
2.3822E-05	0.000513	2.95E-05
2.03862E-05	3.3E-06	1.61E-06
3.11946E-05	0.000111	6.14E-05
3.11879E-06	1.8E-06	9.94E-06
3.10961E-06	2.46E-07	4.06E-06
1.15155E-06	9.52E-05	1.19E-06
6.06544E-05	6.88E-05	0.000178
0.000181166	0.000515	5.35E-05
7.0785E-06	0.000327	0.000155
2.4128E-08	5.71E-06	1.05E-05
1.46938E-06	0.000141	0.000132
4.44358E-07	2.48E-06	5.43E-05
7.44285E-08	2.37E-05	5.07E-05
4.32143E-06	6.58E-07	7.25E-05
7.18264E-05	3.94E-05	5.4E-06
7.52512E-07	3.51E-05	5.01E-05
4.7551E-05	4.97E-05	1.29E-05
9.19169E-06	1.15E-05	1.71E-05
5.73998E-05	0.00012	0.000362
1.57247E-06	7.14E-06	1.11E-05
0.000156233	0.000133	2.1E-05
1.17073E-05	5.7E-06	4.33E-05
0.000133561	2.42E-05	6.41E-05
5.55996E-07	7.69E-06	1.16E-05
8.04256E-05	1.7E-05	5.41E-05
9.05015E-06	0.00011	4.97E-05
9.87333E-08	5.67E-05	0.000225
1.03929E-06	2.47E-05	6.78E-05
1.97107E-05	6.48E-05	0.000353
7.6405E-05	2.7E-05	6.39E-05
4.61085E-07	3.99E-05	1.41E-06
0.000151877	0.000327	0.000712
2.24019E-05	4.6E-05	2.52E-05
9.74297E-05	7.86E-05	2.54E-05
8.94902E-05	2.83E-06	1.59E-05
5.19659E-05	1.53E-05	3.62E-05
1.82041E-05	8.31E-06	1.3E-07
0.000115874	0.000653	0.000424
1.90861E-05	0.000442	1.03E-05
5.96708E-05	0.000674	0.000123
6.6814E-06	0.00035	0.000185
7.21187E-05	6.68E-07	8.47E-05
1.65229E-05	8.4E-05	1.09E-05
3.86588E-06	0.000164	7.83E-05
1.20385E-05	6.69E-05	3.12E-05

0.00010378	0.000335	6.18E-07
1.14166E-06	0.000109	2.17E-05
3.0485E-06	0.001904	6.06E-05
6.12091E-05	8.07E-07	0.000117
0.000217395	3.26E-05	0.000329
7.0349E-05	0.000208	0.000138
0.001598208	2.06E-05	3E-05
6.60218E-05	1.29E-05	6E-06
1.98664E-06	3E-05	1.65E-06
0.002181192	8.47E-05	0.000116
0.000209366	0.000589	5.34E-06
0.000127953	0.001091	3.56E-06
2.4128E-08	3.83E-05	4.51E-06
0.000144157	7.63E-06	1.17E-05
0.000259578	8.78E-06	7.28E-05
0.000616946	0.001246	0.000142
0.000255171	0.002901	0.000458
0.00028199	0.000222	1.08E-05
2.63449E-06	1.44E-06	5.75E-06
1.25225E-05	4.34E-05	3.48E-05
2.88788E-05	9.75E-05	5.12E-06
0.000119921	3.68E-05	5.39E-05
0.000462918	0.000177	2.56E-06
0.000477926	0.000447	0.000466
0.001096467	0.004036	0.00224
0.002330416	0.00066	0.002076
9.55352E-11	3.11E-05	5.46E-05
0.002899517	0.003064	0.001131
0.001027514	0.000818	0.00064
9.5497E-06	8.13E-06	6.73E-05
5.84333E-06	2.61E-05	1.65E-05
0.001827648	0.002129	0.001255
0.000255485	0.001729	0.000158
6.0425E-05	0.000328	6.35E-06
0.000325197	0.000109	0.00068
0.000207535	0.00073	0.000875
0.000418773	0.000394	2.35E-06
5.40454E-05	0.000454	6.11E-07
6.2342E-06	0.000197	1.52E-05
6.75961E-06	8.4E-05	5.87E-05
2.75262E-05	6.33E-05	0.00034
0.000389136	4.88E-07	3.45E-05
5.31946E-06	0.000486	0.000147
0.000577945	2.07E-05	0.000927
9.75504E-05	0.000224	0.000163
7.64038E-05	0.000264	0.000418
3.49507E-05	5.87E-05	4.76E-06
3.70291E-05	3.04E-05	0.00021
4.90918E-05	8.67E-06	0.000253
7.1995E-05	0.000416	0.001526

2.74455E-05	0.000957	5.16E-05
0.000356854	0.000119	0.000111
1.40832E-05	4.86E-05	0.000155
0.000596966	4.7E-05	2.65E-05
0.000152203	1.02E-05	0.000407
0.00019932	1.9E-05	6.56E-06
0.000283385	2.7E-05	0.000102
0.00011195	0.000145	4.68E-05
9.04897E-05	0.000539	0.000119
4.35449E-07	2.57E-05	2.84E-05
2.59746E-06	1.64E-06	1.33E-05
0.000161515	0.000215	7.32E-05
0.000271863	0.000209	0.000867
0.000152611	6.05E-05	5.36E-07
0.000326701	3.34E-05	6.57E-06
3.32014E-06	0.000312	2.87E-06
5.69224E-05	2.57E-07	0.001042
0.001090424	0.000218	0.000432
1.53901E-06	0.000906	0.000101
0.000452957	0.001079	5.85E-05
2.09266E-06	4.59E-05	1.77E-05
0.00021679	0.001597	0.00068
2.04743E-07	0.000102	6.33E-05
4.01732E-05	8.1E-05	0.000172
0.000923682	0.000183	0.000123
0.000338481	0.000121	2.36E-05
9.82555E-05	2.58E-05	2.08E-05
0.000183493	8.67E-05	2.17E-06
1.49124E-05	5.45E-07	0.001303
0.000907929	2E-05	0.00016
2.52456E-05	0.001053	2.37E-05
7.65403E-05	3.71E-05	6.67E-06
0.000745	1.43E-05	0.000583
0.000271557	0.000904	0.000166
0.001251684	0.00025	7.74E-05
0.000132987	2.23E-05	7.68E-05
9.72773E-05	0.000946	0.000244
2.81865E-05	0.000149	1.38E-05
3.86403E-05	1.56E-05	7.35E-05
3.94089E-05	0.000182	0.000155
0.000395594	8.34E-05	1.03E-05
5.72833E-05	5.77E-05	4.35E-06
8.24741E-09	5.22E-06	4.22E-05
2.95391E-05	1.39E-05	7.96E-06
8.80824E-06	7.34E-05	0.000239
0.0008315	9.01E-05	0.000229
0.000203888	9.51E-05	0.000751
3.45503E-05	0.001042	0.000629
0.000692433	4.54E-05	0.000597
0.000812639	7.09E-07	0.000208

0.000181328	0.000517	0.000159
8.995E-07	1.87E-05	5.27E-05
0.000318324	0.000702	0.000986
0.000512307	4.39E-05	1.86E-06
0.001927515	0.000334	0.000952
1.13973E-05	5.25E-05	0.0005
0.000224809	0.000477	0.000399
7.40521E-05	0.000776	0.001618
1.07044E-08	0.000138	0.000152
2.69415E-05	1.83E-06	0.000154
0.001046044	0.000153	0.000241
0.000112936	3.33E-05	9.51E-06
5.34332E-05	0.000136	2.63E-05
2.99783E-05	0.000303	0.0001
0.00017418	0.000184	7.7E-05
3.59183E-06	0.000392	0.000106
3.78294E-05	1.9E-07	0.000315
7.46464E-05	0.000666	0.000318
6.72406E-05	0.000407	0.000634
0.000255371	0.001896	0.001003
0.000410206	2.36E-05	2.11E-05
0.000177523	0.000245	0.000108
0.000417769	0.000196	3.33E-07
3.74741E-05	0.0007	0.001752
0.002025323	0.00045	0.000211
0.000380278	0.000611	0.001364
0.000230178	2.78E-05	5.31E-05
0.001840859	8.55E-07	0.000409
0.000159989	3.02E-05	0.000202
0.001085385	0.00264	0.00111
0.001173418	0.000405	0.001424
0.001314945	2.6E-05	0.000455
0.000338523	0.004676	2.7E-05
0.000505508	4.53E-05	0.000443
0.000126871	0.001125	0.000772
0.000403474	9.63E-05	0.000152
0.000500871	0.000435	0.002656
0.002600265	0.000368	3.58E-05
0.000296214	4.72E-06	0.000585
1.07721E-05	0.000756	3.41E-07
0.00018365	0.000101	0.002275
0.000175326	3.97E-07	5.15E-05
8.10433E-05	6.44E-05	5.42E-05
1.08965E-05	4.2E-05	0.002106
0.000322587	7.13E-06	0.001405
6.23712E-06	0.00075	0.000366
9.43432E-05	0.000218	0.000152
3.16755E-05	0.000382	0.000482
5.80054E-07	7.33E-06	3.63E-05
1.38981E-06	6.87E-05	0.00015

0.000196674	0.000542	0.000722
1.3831E-05	0.000206	1.62E-05
3.78003E-05	4.13E-05	0.000319
9.12085E-06	1.28E-06	0.000168
0.000384575	7.25E-06	2.77E-05
0.000200375	0.001484	0.001103
0.000305373	3.12E-06	1.14E-05
1.21019E-05	4.9E-05	4.69E-05
1.39364E-06	0.000206	8.5E-05
0.000685589	0.000133	0.0001
0.00047306	7.57E-05	0.00062
6.92733E-06	2.22E-07	0.000136
6.34116E-06	5.65E-09	4.79E-05
7.67473E-08	0.000106	0.000349
8.00044E-06	4.49E-06	1.15E-05
2.61947E-05	0.000379	0.0001
5.75937E-07	0.000163	0.000106
0.000221674	4.1E-06	0.00023
1.80546E-06	5.1E-07	0.000885
4.56542E-05	2.64E-07	7.75E-05
3.74172E-05	5.18E-05	0.000194
1.8087E-05	3.56E-05	1.52E-06
8.39766E-06	2.27E-05	5.61E-05
9.05442E-06	2.47E-05	2.52E-05
1.46642E-05	0.000528	5.26E-05
1.36901E-09	0.000285	8.07E-05
0.000119006	3.18E-05	6.79E-06
5.49076E-05	7.59E-05	0.000305
6.57046E-06	9.61E-05	0.000179
0.000128465	0.000151	0.000253
0.000180821	1E-04	2.21E-06
0.000125259	0.000505	0.001008
0.000106121	4.7E-07	1.75E-06
2.17984E-06	8.34E-06	0.00015
0.000154791	0.000157	0.000177
3.39868E-05	0.000195	0.001212
5.18887E-05	1.35E-08	3.79E-05
2.74967E-05	0.000428	0.000238
9.29862E-05	0.000494	7.25E-06
2.65806E-05	3.29E-05	0.000489
4.86621E-05	2.68E-06	0.000667
1.6076E-09	0.000128	0.000109
7.47446E-05	9.98E-06	6.65E-05
4.54619E-06	3.74E-05	0.000109
1.28496E-05	5.46E-05	1.66E-05
9.18228E-05	0.00423	3.64E-05
2.22546E-05	0.00099	0.000267
1.89196E-05	0.000144	2.41E-06
7.02124E-05	2.21E-06	0.000146
0.000128926	0.000253	0.000358

3.15392E-06	0.000118	0.000378
1.66878E-06	0.000111	1.47E-05
3.00263E-05	3.61E-05	2.24E-05
6.93838E-07	1.13E-07	7.97E-05
0.000257945	4.03E-05	0.000579
0.000170145	0.000104	0.000167
9.58899E-05	0.000583	8.03E-05
0.000124814	2.47E-06	0.00032
0.000107473	0.001298	3.95E-08
8.48889E-08	2.1E-05	2.67E-05
3.4492E-06	0.00012	0.001101
7.43953E-05	1.79E-05	0.00114
1.56756E-05	0.000107	2.84E-06
1.97669E-06	0.000149	3.15E-05
8.76615E-07	0.000216	0.000175
4.50712E-05	0.000289	0.000506
2.45429E-05	5.59E-05	0.000172
6.20568E-06	1.03E-06	2.22E-06
0.000118907	2.82E-05	5.93E-07
6.88354E-06	0.000211	6.82E-06
6.13488E-05	6.34E-05	2.28E-05
2.73424E-06	2.64E-06	0.000547
0.00012259	4.63E-05	7.11E-05
0.000236349	1.32E-05	0.000158
1.07515E-06	1.76E-06	1.5E-05
1.36261E-06	4.53E-05	0.0001
5.60062E-05	7.54E-05	0.000489
4.77711E-05	0.000244	7.92E-05
2.59978E-06	6.61E-07	0.000289
8.03623E-06	1.37E-05	4.38E-07
0.000140271	1.44E-05	7.59E-06
2.85263E-05	0.000549	5.23E-05
2.07465E-05	8.04E-06	0.000194
2.15738E-05	6.5E-05	1.29E-05
1.43305E-05	1.75E-05	3.51E-06
4.95868E-05	2.83E-05	0.000876
0.000699507	0.000836	0.005451
3.35399E-05	0.000228	0.000294
0.000527312	0.000265	0.000405
0.000291091	6.72E-05	0.000441
0.000193327	0.000149	0.00042
1.49212E-06	6.81E-06	7.18E-06
7.43275E-05	9.7E-05	0.000698
0.000134388	2.76E-05	5.38E-05
0.000142256	1.49E-05	8.56E-05
4.06433E-05	5.28E-05	0.000496
1.51324E-05	7.18E-06	0.000132
0.000129547	1.69E-05	0.000909
3.38922E-07	3.7E-05	3.48E-05
7.97153E-07	0.000369	0.000805

3.77995E-06	2.71E-07	3.61E-05
9.02158E-06	0.000103	9.89E-05
1.25507E-05	3.44E-10	0.000151
3.11049E-05	2.32E-07	3.14E-06
4.85461E-07	3.29E-05	0.000124
3.45503E-06	6.71E-05	3.21E-06
0.00037194	0.000193	2.78E-08
5.09509E-05	5.37E-05	1.29E-05
4.41081E-05	0.003909	2.29E-06
5.90642E-05	0.000169	1.1E-05
0.000190431	2.77E-06	0.000126
0.001239109	0.000292	1.96E-05
0.000190579	0.000235	0.000195
2.82175E-05	0.000145	0.000197
1.68788E-09	1.13E-07	5.24E-06
1.14351E-06	0.000215	0.000614
0.000140423	6.13E-05	1.68E-05
1.94951E-06	1.32E-05	1.08E-05
0.000676056	6.23E-05	6.62E-05
1.39609E-05	1.14E-06	9.58E-05
0.000171651	3.59E-06	1.75E-05
9.0056E-08	0.000133	0.000183
1.98036E-06	1.78E-06	2.17E-08
5.35501E-06	3.55E-06	1.13E-07
8.45288E-05	2.9E-06	3.59E-06
0.000153954	4.6E-06	3.21E-07
5.36824E-06	6.76E-05	7.61E-08
8.51404E-06	7.34E-06	2.37E-06
1.27408E-05	6.37E-05	2.67E-05
3.87775E-05	2.2E-05	1E-05
4.07828E-06	3.96E-05	1.19E-09
4.44294E-05	2.38E-06	2.45E-05
1.22101E-05	6.6E-05	0.000208
1.76061E-05	2.74E-07	5.62E-09
1.08463E-05	3.03E-05	3.69E-05
4.64047E-05	7.93E-05	1.23E-05
0.000174886	4.87E-07	1.85E-07
1.27986E-05	3.24E-05	2.4E-06
8.63603E-05	0.000728	0.000126
0.000623771	0.000544	0.000347
2.83445E-05	0.000472	0.000202
0.000574168	0.000534	0.000599
4.94098E-05	0.00118	3.02E-05
3.37922E-05	0.00109	0.000122
0.000150377	3.67E-05	0.000167
4.96208E-06	0.000148	6.53E-07
0.000235702	2.57E-07	1.22E-06
8.68788E-05	3.54E-07	8.42E-06
9.19495E-06	8.03E-05	2.97E-05
8.51237E-07	0.000297	0.000317

2.05125E-05	1.18E-06	0.00052
5.38284E-06	2.07E-06	6.79E-05
0.00186498	5.12E-05	8.85E-06
2.42148E-05	0.000258	0.000805
9.20601E-05	5.34E-05	0.000197
6.16677E-06	2.62E-05	2.88E-06
8.23976E-05	1.47E-05	4.85E-05
7.76759E-05	5.41E-10	0.000609
3.78235E-07	4.88E-05	1.63E-05
1.08725E-05	1.15E-06	0.000239
0.000382773	0.000285	4.41E-05
6.07024E-05	3E-06	0.000149
4.65304E-05	7.2E-05	1.17E-06
4.10637E-05	1.22E-05	0.000135
5.73256E-09	2.62E-05	0.00032
2.4128E-08	1.21E-06	8.86E-05
7.89324E-06	1.21E-06	0.000432
2.26066E-05	1.16E-05	0.000108
3.77133E-07	8.68E-07	2.08E-07
4.39952E-05	1.9E-05	2.12E-07
1.2234E-05	7.3E-05	4.48E-06
4.13417E-06	2.18E-05	3.98E-06
1.94728E-05	0.000537	6.67E-05
3.23481E-06	0.000101	1.14E-05
0.000613709	5.01E-05	1.52E-05
0.000296381	4.01E-06	3.29E-05
1.6877E-05	0.000347	2.15E-06
5.01091E-06	2.28E-07	7.75E-05
7.12213E-06	0.000266	6.52E-06
8.48384E-07	8.98E-05	4.42E-06
0.000501854	0.000193	0.00094
2.2034E-06	2.97E-05	3.86E-06
0.000123515	4.17E-06	0.00322
8.81341E-05	0.000823	0.001716
0.000250421	3.03E-05	0.000216
1.94252E-05	0.000667	0.000621
0.000325889	0.000162	8.29E-05
0.000149955	0.000682	0.00058
3.51321E-05	6.13E-07	0.000248
5.50209E-07	3.37E-07	8.84E-06
0.000202896	0.000214	9.05E-06
5.52124E-06	4.29E-08	9.87E-08
8.52808E-06	3.06E-05	2.72E-05
6.02071E-06	2.12E-05	2.35E-05
5.37822E-05	5.71E-06	2.85E-05
4.17104E-05	1.98E-06	3.82E-05
0.000266407	7.9E-05	0.001192
2.83287E-07	9.57E-05	0.001054
4.57871E-06	1.1E-05	0.000225
2.70168E-05	5.83E-05	0.000507

1.14351E-06	5.26E-05	0.00014
3.55578E-05	8.75E-05	0.000304
8.93987E-06	8.74E-05	0.000588
6.12325E-05	0.000249	1.44E-06
0.000491008	3.77E-05	0.0004
0.000309364	0.00026	2.86E-05
0.000470212	1.76E-07	2.82E-05
1.27581E-05	2.54E-05	0.00015
1.11618E-05	7.66E-07	0.000305
6.74827E-05	2.85E-05	6.51E-08
7.07257E-08	5E-06	0.000263
2.26442E-06	2.71E-07	5.28E-05
4.44801E-05	4.93E-05	3.53E-05
2.58252E-06	2.42E-06	9.47E-06
3.55468E-07	3.49E-05	3.96E-06
2.31905E-05	2.2E-05	1.79E-05
5.02445E-07	4.57E-07	0.000116
7.07695E-07	6.8E-05	2.36E-05
5.05647E-05	5.89E-06	6.99E-05
0.000118983	2.37E-06	3.58E-05
0.000220937	2.17E-05	6.29E-05
1.67702E-07	0.000114	0.000204
0.000271571	7.57E-05	7.56E-05
0.000160768	3.47E-07	3.15E-06
0.000107001	2.44E-05	0.000159
2.78101E-05	2.12E-05	6.89E-05
7.35329E-08	4.76E-06	2.04E-06
0.000138864	5.8E-05	0.001305
0.000150906	2.53E-07	4.39E-05
0.000323018	4.71E-06	0.000164
0.000189144	2E-06	8.71E-06
0.000112653	6.12E-08	2.45E-06
2.45405E-06	1.78E-06	1.5E-05
9.54248E-06	0.000236	0.000216
1.02231E-05	5.34E-09	8.68E-05
8.03849E-07	1.14E-07	0.000132
5.58781E-05	9.28E-06	0.00018
0.000128621	7.42E-06	0.000409
0.000126194	0.003454	2.93E-05
3.95071E-05	4.53E-06	2.51E-06
1.521E-06	1.48E-05	0.00196
6.7687E-06	7.94E-05	2.02E-05
4.02919E-05	8.2E-05	3.83E-06
0.000241886	1.19E-05	7.01E-05
2.08281E-05	6.03E-06	0.00024
7.10634E-05	7.22E-06	1.91E-05
3.54655E-05	7.05E-05	0.000198
4.06304E-06	0.000156	0.000154
1.80818E-05	1.03E-05	1.49E-05
0.000104858	2.56E-06	2.36E-05

4.13148E-05	5.34E-06	1.09E-05
3.04172E-06	4.59E-05	2.54E-05
0.000135419	6.63E-06	3.31E-07
0.000112433	2.17E-05	6.78E-06
7.12509E-05	2.84E-07	0.000252
3.37874E-05	2.42E-06	5.65E-05
6.4841E-06	3.62E-10	3.09E-05
0.000434508	0.000393	0.000328
1.24074E-05	4.06E-05	4.91E-05
9.95992E-05	2.99E-05	4.63E-05
2.14587E-05	1.28E-05	1.55E-05
1.29194E-05	7.6E-07	2.37E-05
0.000326376	1.72E-05	9.55E-06
6.43621E-05	7.42E-06	4.85E-07
3.35896E-07	8.37E-06	5.89E-05
4.73308E-06	1.43E-10	1.8E-06
2.64188E-05	3.72E-06	4.98E-06
0.000157475	0.000102	1.81E-05
1.01733E-06	1.48E-06	2.87E-05
4.87152E-07	2.92E-05	0.000319
2.4128E-08	0.000101	6.18E-05
3.68627E-06	0.000142	0.001516
4.90653E-07	0.000117	7.7E-05
1.89796E-06	1.57E-05	9.79E-06
5.73121E-05	5.8E-06	0.000244
1.61186E-07	1.65E-06	0.000179
5.46207E-05	0.000404	0.000271
5.53352E-06	3.25E-06	1.85E-05
0.000417434	3.02E-06	0.000134
0.000409755	5.28E-06	4.85E-05
7.86163E-07	1.98E-08	1.42E-05
1.44713E-05	4.9E-05	7.28E-07
4.3926E-06	3.15E-05	5.56E-05
3.54571E-05	8.54E-06	1.47E-05
8.18473E-06	7.02E-06	1.43E-05
2.13081E-05	2.58E-06	1.57E-05
1.11509E-05	0.000126	3.02E-05
2.97029E-06	6.09E-07	8.52E-05
0.000236918	3.27E-05	0.000127
1.42117E-06	2.6E-05	0.000159
4.04819E-05	2.37E-05	0.002378
4.59416E-05	1.69E-05	5.53E-05
4.34945E-05	0.000144	0.000321
1.44599E-05	2.6E-06	3.57E-05
2.85896E-05	8.4E-05	0.000809
6.03765E-05	3.32E-05	0.000216
1.51363E-05	3.99E-05	5.55E-06
2.45251E-06	1.2E-07	4.76E-06
2.44358E-05	1.94E-06	8.83E-05
2.66685E-05	0.000391	1.78E-05

1.12382E-09	3.49E-05	5.53E-07
6.47388E-05	1.21E-05	2.32E-05
0.000162433	1.62E-05	6.09E-07
2.30313E-05	0.000257	6.06E-07
0.000114633	0.000697	7.4E-05
4.71488E-05	3.56E-05	3.74E-05
2.22418E-05	2.67E-05	2.06E-05
7.50814E-05	1.66E-05	9.8E-07
3.26283E-07	0.000181	8.33E-05
1.01075E-05	8.91E-06	9.63E-05
8.22863E-06	3.6E-06	2.8E-06
4.42439E-05	0.001195	0.002976
7.70686E-06	0.000216	3.92E-05
5.54483E-06	8.9E-06	3.75E-07
2.0609E-05	3.18E-05	6.07E-06
1.34929E-05	2.73E-06	0.000261
1.13071E-05	1.17E-05	0.00034
4.13251E-05	9.19E-06	4.29E-05
5.26295E-06	4.45E-06	1.85E-05
2.89239E-05	8.21E-10	0.000556
5.2859E-05	4.04E-05	0.001142
6.95211E-06	5.41E-06	0.000294
0.000219816	0.000204	7.05E-05
6.27875E-05	0.000105	7.43E-06
0.000186819	8.72E-06	4.26E-06
1.25711E-05	3.05E-05	2.87E-05
1.18016E-05	8.22E-06	0.000176
0.000350134	0.001597	0.000263
9.70006E-05	0.000605	8.08E-06
2.67295E-07	5.77E-05	9.62E-05
0.000113011	0.000104	9.59E-05
6.08993E-06	4.14E-05	0.000226
0.000224916	0.000211	4.68E-05
7.44188E-05	0.000772	0.000355
2.80578E-05	9.12E-05	2.52E-05
0.000109635	3.02E-05	0.000147
1.82748E-05	4.27E-06	0.000163
4.44996E-05	1.63E-05	0.00015
1.92613E-05	1.27E-05	0.000207
2.09123E-06	0.000221	1.4E-06
2.83035E-05	0.000198	0.000164
0.000101549	0.000233	2.36E-05
2.77818E-07	3.78E-06	0.000137
0.000288423	1.63E-05	0.000552
0.000230648	1.36E-05	8.31E-06
7.94715E-05	9.81E-05	4.09E-05
1.96745E-06	9.39E-05	4.48E-05
3.51475E-07	3.21E-05	4.11E-06
3.16887E-05	7.93E-06	1.98E-05
2.12696E-05	1.05E-06	2.19E-06

7.77667E-08	0.00018	0.000161
1.58132E-05	6.62E-05	6.89E-05
2.52543E-05	9.39E-06	5.89E-06
9.39619E-06	9.31E-06	0.000716
1.05773E-05	3.39E-05	5.9E-06
7.78674E-08	2.43E-05	9.1E-06
8.16926E-05	7.83E-07	0.000101
8.8201E-06	0.000135	9.18E-05
2.65317E-05	1.48E-05	0.000225
1.9612E-06	1.83E-05	6.57E-06
3.43693E-05	0.00038	1.54E-05
0.000230396	5.6E-05	8.31E-05
3.21238E-05	3.12E-05	5.19E-05
3.16187E-06	7.08E-05	4.8E-05
3.03006E-05	0.002093	1.35E-05
1.46498E-06	0.000109	0.000112
1.1085E-05	2.34E-05	0.00063
2.19177E-07	0.000223	0.000171
5.48898E-06	5.69E-05	1.76E-05
1.07388E-05	3.23E-05	2.45E-05
0.000237925	0.001348	0.000605
9.05392E-05	0.000179	4.17E-05
1.6898E-07	0.000211	0.000189
5.18192E-06	0.00011	3.08E-07
5.14866E-05	1.98E-05	8.45E-05
0.00024295	0.000392	0.000369
2.62746E-05	7.3E-06	8.04E-06
1.05167E-05	5.12E-06	4.35E-05
2.35958E-05	0.00025	0.000146
2.3719E-06	6.92E-07	1.78E-05
1.22936E-05	2.37E-05	4.43E-07
2.75804E-05	1.07E-05	7.79E-06
9.66334E-06	9.22E-05	0.000101
1.12986E-08	7.16E-05	4.96E-06
1.96543E-05	5.19E-06	0.000114
1.0069E-05	1.26E-05	2.98E-05
1.08545E-05	1.31E-08	8.21E-05
6.54535E-05	0.000156	0.001367
0.000427419	2.16E-06	1.9E-05
1.1047E-05	1.97E-05	0.000202
6.27708E-06	0.000284	3.45E-05
3.13149E-05	0.000307	0.000293
1.09226E-05	1.93E-05	0.000459
1.25725E-05	6.35E-05	5.02E-06
1.72959E-05	8.17E-05	6.77E-07
8.90539E-09	9.29E-05	5.88E-05
1.64051E-07	6.43E-05	9.5E-05
3.15863E-06	1.69E-09	3.13E-05
1.81528E-05	0.0003	1.14E-05
6.51594E-05	0.000315	3.66E-05

2.81712E-07	0.000105	2.5E-06
0.000177728	8.61E-05	1.44E-05
9.15315E-07	0.000277	3.41E-06
4.6361E-05	4.45E-05	0.000412
8.92126E-05	4.35E-05	6.57E-06
5.77432E-06	2.55E-05	4.65E-05
1.70009E-05	5.92E-06	0.000197
3.05088E-06	1.54E-05	1.27E-05
2.72672E-07	4.78E-05	3.47E-05
8.78184E-06	0.000143	0.000538
1.31869E-05	9.97E-07	3.83E-07
1.65159E-05	9.31E-06	0.000186
8.73378E-06	1.17E-09	1.64E-06
1.83184E-05	1.4E-05	1.64E-06
3.62855E-06	1.55E-05	0.000126
7.61763E-09	3.49E-05	3.33E-05
2.4973E-05	0.000318	0.000246
3.86154E-06	1.07E-05	0.000722
5.10011E-06	2.36E-05	0.000595
7.46638E-09	0.000594	7.96E-05
2.13189E-05	1.72E-06	0.000365
2.95244E-06	8.67E-07	0.000124
8.4952E-06	3.05E-05	0.000114
1.187E-05	2.32E-05	0.000177
1.41071E-05	3.54E-05	1.72E-07
9.1595E-06	0.00121	2.48E-07
3.52512E-06	0.000477	1.49E-05
4.50142E-06	0.00018	3.75E-05
4.06376E-05	0.000175	4.7E-05
1.52635E-05	4.71E-05	0.000104
1.63505E-05	0.000643	0.000111
4.87842E-05	9.36E-05	1.75E-05
3.52147E-06	7.78E-06	0.000246
1.34943E-06	5.97E-05	3.06E-05
3.7548E-05	6.07E-06	5.59E-06
0.000148518	5.36E-05	9.72E-06
2.00463E-07	1.97E-05	1.87E-09
5.95568E-05	0.000245	0.000173
0.000154954	0.000188	1.21E-06
6.21074E-05	0.000131	4.79E-05
1.46289E-05	3.58E-05	3.74E-05
1.6091E-05	2.01E-06	3.25E-11
1.69756E-05	0.000324	8.43E-07
8.97185E-06	0.000101	5.13E-05
1.67552E-05	1.31E-07	6.19E-06
1.33906E-05	2.98E-05	1.62E-05
4.95021E-05	3.96E-05	0.000312
5.58772E-05	0.000457	5.86E-05
0.000155684	0.000181	0.000637
4.81491E-06	2.59E-05	2.32E-05

2.16818E-06	6.01E-05	4.03E-05
6.42379E-05	1.85E-06	9.52E-05
5.22878E-05	1.71E-05	0.000102
1.17751E-05	2E-06	0.000102
2.21112E-06	1.54E-08	4.51E-05
2.13578E-05	0.000356	1.78E-06
9.62096E-06	3.66E-05	0.000857
2.02126E-05	8.38E-06	7.6E-05
6.22485E-06	5.03E-07	5.92E-07
2.96605E-06	9.39E-05	3.77E-05
8.63348E-07	0.000184	0.000112
3.47082E-05	0.000124	0.000201
2.8705E-05	2.27E-06	3.07E-05
0.000141887	1.13E-05	0.00049
2.51372E-06	1.76E-07	6.89E-05
7.53167E-08	0.000682	2.8E-05
6.36392E-07	5.92E-08	5.4E-05
2.51072E-06	5.71E-06	2.86E-06
1.91637E-05	0.000128	5.28E-05
0.00027681	0.0003	9.67E-06
0.000384358	3.52E-07	9.62E-05
2.36696E-06	1.78E-05	0.00018
4.24138E-07	0.000119	3.1E-05
2.15382E-05	1.71E-05	0.000227
1.68081E-05	2.85E-07	6.35E-05
6.12847E-05	4.21E-07	1.16E-06
9.96285E-05	2.75E-05	7.21E-06
4.78786E-05	9.71E-05	4.85E-05
3.78069E-05	3.04E-05	2.59E-05
0.000142299	0.000255	0.00037
4.02338E-05	2.24E-07	0.000123
9.31682E-06	2.39E-05	0.000394
0.000161245	7.45E-05	0.000416
5.20963E-07	3.73E-08	3.53E-05
7.59916E-06	0.000271	0.000433
2.73424E-06	0.00034	0.000146
5.26949E-05	3.67E-06	1.42E-05
0.000121673	0.000455	0.000243
0.000193738	4.01E-05	0.000183
3.75727E-05	5.44E-06	1.91E-05
0.000409148	2.79E-06	0.000244
0.002720745	0.002005	0.002141
0.003414141	0.000662	0.001883
0.000295126	0.001642	0.001393
0.000324169	0.000487	4.44E-05
0.000125813	0.000802	0.001863
1.34267E-05	5.88E-05	0.000131
7.33653E-05	0.001526	0.000222
2.00536E-06	9.12E-05	7.85E-05
5.06281E-06	0.000319	0.000716

9.73258E-06	0.001063	0.000353
2.00359E-05	1.34E-05	4.63E-07
0.000104443	1.44E-05	0.000115
0.00012685	2.47E-05	3.72E-05
0.000169638	6.25E-05	6.34E-05
0.000480957	0.000283	0.000391
0.000285976	0.000367	0.000264

0.000138097	0.000205	0.000219
-------------	----------	----------

0.011751486	0.014306	0.014811
-------------	----------	----------

Exxon	Appl	Goldman
0.000138097	5.93E-05	8.02E-05
5.93176E-05	0.000205	8.76E-05
8.01544E-05	8.76E-05	0.000219

Exxon	Appl	Goldman	
	1	0.352841	0.46053
0.352840655		1	0.413352
0.460530197	0.413352		1