

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

daily return				Var
0.09531	0.04879	0.04879		0.010072
0.09531	-0.0241	0.028171		0.010072
-0.24191	-0.31237	-0.05716		0.056104
0.031091	0.336472	-0.0711		0.001306

E(X)	-0.00505	0.012198	-0.01282	Manual	0.025852
	-0.00505			fce	0.025852

std	0.160784
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		2-dais return			Var			
0.001339	0.003796							
0.001317	0.001681	0.19062	0.024693	0.076961	0.060625	0.014541		
0.105347	0.001966	-0.1466	-0.33647	-0.02899	0.008281	0.057878		
0.105154	0.003396	-0.21082	0.024098	-0.12825	0.024094	0.014398		
0.071053	0.003613	E(X)	-0.0556	-0.09589	-0.02676	D(X)	0.0465	0.043408
0.071053	0.003613				fce	0.0465	0.043408	
0.266557	0.060106				std.	0.215639	0.208347	

0.010758

4.96E-06

0.010301

0.010532

0.010532

0.102626

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

2-years rett  
0.048319  
0.579577  
0.176769  
0.608177  
0.510114  
0.438316  
0.545677

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

urn

Var							sigma^2	sigma (std.)
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

Cov_M					
	A	B	C	D	E
A	0.009617	0.010344	0.013408	0.004913	0.006368
B	0.010344	0.021422	0.0114	-0.00098	-0.00646
C	0.013408	0.0114	0.03946	0.033623	0.02949
D	0.004913	-0.00098	0.033623	0.048813	0.032966
E	0.006368	-0.00646	0.02949	0.032966	0.036396
F	0.005069	0.006738	0.007957	0.007341	0.001804
G	-0.00303	-0.01235	0.016462	0.03579	0.024994

Corr_M					
	A	B	C	D	E
0.098067 A	1	0.720674	0.688288	0.226756	0.340369
0.146364 B	0.720674	1	0.392109	-0.03026	-0.23152
0.198645 C	0.688288	0.392109	1	0.766101	0.778153
0.220938 D	0.226756	-0.03026	0.766101	1	0.782114
0.190778 E	0.340369	-0.23152	0.778153	0.782114	1
0.077418 F	0.667638	0.594603	0.517375	0.429199	0.122128
0.181996 G	-0.16979	-0.46366	0.455353	0.890092	0.719859

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

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F	G
0.005069	-0.00303
0.006738	-0.01235
0.007957	0.016462
0.007341	0.03579
0.001804	0.024994
0.005994	0.002183
0.002183	0.033122

0.077418 0.181996

F	G
0.667638	-0.16979
0.594603	-0.46366
0.517375	0.455353
0.429199	0.890092
0.122128	0.719859
1	0.154941
0.154941	1

0.667638 -0.16979

0.594603 -0.46366

0.517375 0.455353

0.429199 0.890092

0.122128 0.719859

1 0.154941

0.154941 1

Appl	AIG	ExxonMobile			Var				
135.72	62.5	81.76	0.122436	-0.04673	-0.03851	0.014896	0.002788	0.00138	
135.35	62.27	82.3	0.120372	-0.06632	-0.0427	0.014397	0.005241	0.001709	
135.51	60.85	83.16	0.123389	-0.08563	-0.0187	0.01513	0.008409	0.000301	
135.02	66.89	82.82	0.118015	0.009765	-0.04093	0.013836	1.36E-05	0.001566	
133.29	66.14	83	0.105035	0.00121	-0.0512	0.010951	2.36E-05	0.002484	
132.12	65.61	82.52	0.104251	-0.01122	-0.04537	0.010788	0.000299	0.001937	
132.42	65.32	81.84	0.104757	-0.01414	-0.05353	0.010893	0.000408	0.002721	
132.04	64.91	81.48	0.097699	-0.03094	-0.06336	0.00947	0.00137	0.003845	
131.53	64.88	82.77	0.099188	-0.03513	-0.03747	0.009762	0.001698	0.001304	
130.29	64.9	83.31	0.090723	-0.02255	-0.0438	0.008161	0.000819	0.001801	
129.08	64.94	83.54	0.090511	-0.02839	-0.05768	0.008122	0.001188	0.003172	
128.53	64.12	83.45	0.097327	-0.02282	-0.05932	0.009397	0.000835	0.003359	
128.75	64.27	82.94	0.10411	-0.02611	-0.08047	0.010759	0.001035	0.006258	
121.35	64.26	83.89	0.043796	-0.01329	-0.08014	0.001884	0.000375	0.006207	
121.63	64.89	84.86	0.048946	-0.00645	-0.06169	0.002358	0.000157	0.00364	
121.95	65.21	85.51	0.043747	-0.00444	-0.05506	0.00188	0.00011	0.002884	
121.94	66.02	85.6	0.043409	0.002123	-0.05345	0.001851	1.56E-05	0.002714	
121.88	65.72	85.34	0.038643	-0.0148	-0.06147	0.001464	0.000436	0.003613	
119.97	65.5	85.09	0.029179	-0.0138	-0.06396	0.000829	0.000395	0.003919	
120.08	65.49	84.97	0.032071	-0.01124	-0.06713	0.001004	0.0003	0.004326	
120	66.54	85.89	0.024805	-0.0018	-0.04985	0.000596	6.2E-05	0.002351	
119.78	66.29	84.73	0.02391	-0.00467	-0.06511	0.000553	0.000115	0.004064	
119.99	66.24	86.28	0.028316	-0.00452	-0.04687	0.00078	0.000112	0.002071	
120	66.06	87.36	0.03416	-0.00363	-0.0428	0.001141	9.41E-05	0.001717	
119.04	66.35	86.35	0.027422	0.002414	-0.05124	0.000731	1.34E-05	0.002488	
119.25	66.25	86.34	0.034639	0.003629	-0.04794	0.001173	5.97E-06	0.00217	
119.75	66.95	86.81	0.038823	0.009605	-0.06435	0.001477	1.25E-05	0.003968	
119.11	67.2	85.93	0.050008	0.023793	-0.05711	0.002462	0.000314	0.003108	
118.99	66.38	87.04	0.04328	0.00832	-0.02227	0.00184	5.05E-06	0.000437	
117.91	66.81	88.5	0.050352	0.014929	0.002036	0.002497	7.84E-05	1.15E-05	
116.61	65.6	88.55	0.049035	0.01042	0.005435	0.002367	1.89E-05	4.62E-05	
116.02	65.97	89.89	0.053737	0.027197	0.026262	0.002846	0.000446	0.000763	
116.15	65.12	90.89	0.062526	0.013917	0.03824	0.003861	6.15E-05	0.001568	
115.82	65.31	90.26	0.052466	0.024176	0.036327	0.002712	0.000328	0.00142	
116.73	65.5	90.35	0.06403	0.02145	0.035028	0.004051	0.000236	0.001324	
116.76	65.88	90.3	0.054924	0.039476	0.033787	0.002974	0.001116	0.001235	
117.26	66.7	90.75	0.050728	0.052636	0.054925	0.002534	0.002168	0.003168	
116.52	66.41	90.71	0.043411	0.047804	0.04787	0.001851	0.001742	0.002424	
116.29	66.23	90.87	0.039465	0.027399	0.042143	0.001527	0.000455	0.001892	
117.06	66.66	90.28	0.051086	0.035579	0.037928	0.00257	0.000871	0.001543	
116.95	66.6	90.43	0.045035	0.039821	0.042353	0.001993	0.001139	0.001911	
116.64	66.54	90.42	0.043007	0.040171	0.044437	0.001816	0.001163	0.002097	
115.97	66.3	91.18	0.052306	0.036714	0.066896	0.002696	0.000939	0.004659	
115.82	66.19	90.89	0.052012	0.030059	0.064296	0.002665	0.000575	0.004311	
115.19	66.01	90.58	0.046194	0.029362	0.054797	0.002098	0.000542	0.003154	
115.19	66.31	92.58	0.072727	0.026126	0.064236	0.005233	0.000402	0.004303	
113.3	65.62	90.98	0.06934	0.017991	0.0647	0.004755	0.000142	0.004364	
113.95	65.83	89	0.049655	0.038874	0.038134	0.002427	0.001076	0.00156	
112.12	65.82	88.32	0.039385	0.040461	0.014484	0.001521	0.001183	0.000251	
111.03	64.92	88.07	0.001352	0.06343	0.020882	9.32E-07	0.00329	0.000495	
109.95	64.2	87.56	-0.01004	0.076027	0.026033	0.000109	0.004894	0.00075	
109.11	64.22	87.48	-0.01184	0.080043	0.023479	0.00015	0.005472	0.000617	
109.9	63.75	87.04	0.009692	0.105273	0.040683	8.66E-05	0.009841	0.001768	
109.49	64.11	87.24	-0.0031	0.097574	0.041902	1.22E-05	0.008373	0.001872	
110.52	63.33	87.3	-0.00963	0.04489	0.045103	0.0001	0.001507	0.002159	
111.46	63.28	85.9	-0.00027	0.041955	0.026542	4.3E-07	0.001288	0.000778	
111.57	63.31	86.47	-0.0175	0.025759	0.037109	0.00032	0.000388	0.00148	
111.79	64.44	87.12	-0.01712	0.050281	0.027227	0.000306	0.001954	0.000817	



111.23	64.33	86.92	-0.0288	0.046291	0	0.000852	0.001618	1.85E-06
111.8	64	86.68	-0.03334	0.046208	-0.00472	0.001137	0.001611	1.13E-05
111.73	63.92	86.49	-0.05672	0.054163	-0.00266	0.003261	0.002313	1.68E-06
110.06	63.91	85.28	-0.06669	0.057812	-0.01893	0.004499	0.002677	0.000309
109.95	64.23	85.23	-0.05872	0.068126	-0.01618	0.003494	0.003851	0.00022
109.99	64.1	85.75	-0.0623	0.064934	-0.01688	0.003929	0.003465	0.000241
107.11	64.6	86.82	-0.08934	0.062106	-0.00402	0.008051	0.00314	7.1E-06
105.71	64.45	85.28	-0.10548	0.063412	-0.01732	0.011208	0.003288	0.000255
108.43	63.32	85.67	-0.08076	0.049035	-0.0101	0.006585	0.001846	7.65E-05
107.79	63.21	87.05	-0.08736	0.054454	0.005876	0.007699	0.002341	5.23E-05
110.88	60.93	86.25	-0.05355	0.022238	-0.00359	0.00291	0.000261	4.97E-06
111.06	59.5	85.31	-0.05501	-0.01567	-0.02111	0.003068	0.000473	0.00039
110.41	59.28	85.45	-0.05197	-0.00974	-0.02645	0.002741	0.00025	0.000629
108.84	57.38	83.57	-0.06414	-0.05196	-0.05664	0.004164	0.003367	0.003056
109.83	58.15	83.66	-0.03779	-0.03232	-0.03615	0.001458	0.001474	0.001211
111.59	60.55	83.45	-0.0204	0.009959	-0.04212	0.000432	1.51E-05	0.001661
111.49	60.68	83.65	-0.0139	0.012938	-0.03927	0.000204	4.71E-05	0.001437
113.54	61.7	83.32	0.004767	0.043391	-0.03456	1.92E-05	0.001393	0.001102
113.72	61.28	84.78	0.010608	0.039273	-0.02642	0.000104	0.001102	0.000628
114.48	61.42	86.92	0.01257	0.034452	-0.00413	0.000148	0.000805	7.7E-06
115.59	61.11	87.09	0.029945	0.04536	0.00726	0.000874	0.001544	7.43E-05
118.25	60.55	86.72	0.037041	0.017493	-0.00207	0.001344	0.00013	5.1E-07
117.65	60.32	86.91	0.03953	0.030466	0.043145	0.001532	0.000595	0.001981
116.6	60	86.62	0.032424	0.0296	0.041968	0.001026	0.000554	0.001877
117.06	60.07	87.21	0.037868	0.02256	0.044071	0.001405	0.000272	0.002064
117.12	60.71	87.17	0.021577	0.02874	0.042535	0.000449	0.000514	0.001927
117.47	60.49	86.77	0.03394	0.040485	0.040812	0.001126	0.001184	0.001778
117.55	60.29	86.54	0.034444	0.041486	0.047324	0.00116	0.001254	0.00237
117.63	59.86	86.54	0.035037	0.034328	0.031816	0.001201	0.000798	0.001101
116.98	59.59	86.56	0.017767	0.02877	0.029664	0.000302	0.000515	0.000962
117.34	60.44	87.13	0.015199	0.031087	0.023809	0.000219	0.000626	0.000633
116.3	59.86	87.74	0.03973	0.030187	0.036444	0.001548	0.000582	0.001429
116.05	60.44	88.44	0.072353	0.03725	0.037206	0.005179	0.000972	0.001487
114.06	60.06	86.74	0.078583	0.017976	-0.00632	0.006115	0.000142	2.46E-05
113.89	59.95	87.04	0.099243	0.021582	0.0023	0.009773	0.000241	1.34E-05
113.05	59.9	87	0.06893	0.014461	-0.02329	0.004698	7.04E-05	0.000481
113	59.08	86.25	0.041929	-0.0049	-0.02281	0.001726	0.00012	0.00046
112.52	58.92	87.05	0.043781	-0.00896	-0.01731	0.001883	0.000226	0.000254
113.05	59.34	87.28	0.048202	-0.00872	-0.0016	0.002286	0.000219	5.93E-08
112.18	58.4	86.46	0.049802	-0.01715	-0.00439	0.002442	0.000539	9.16E-06
113.95	59.5	86.9	0.071378	-0.00553	-0.00276	0.00504	0.000135	1.96E-06
113.09	58.51	83.24	0.064745	-0.01913	-0.05014	0.004142	0.000635	0.00238
112.88	58.25	83.06	0.05518	-0.02006	-0.05595	0.003002	0.000683	0.002981
112.71	58.73	83.45	0.05255	-0.00493	-0.04476	0.002721	0.000121	0.001884
114.62	58.99	83.54	0.063481	0.000848	-0.04586	0.003981	2.73E-05	0.00198
113.55	58.09	83.3	0.049834	-0.01402	-0.05512	0.002445	0.000404	0.00289
113.57	57.84	82.54	0.042449	-0.0202	-0.06087	0.001769	0.00069	0.003541
113.58	57.84	83.83	0.045665	-0.01969	-0.04843	0.00205	0.000664	0.002216
114.92	57.9	84.03	0.049591	-0.01644	-0.04389	0.002421	0.000507	0.001809
115.57	58.59	85.08	0.057795	-0.00663	-0.04403	0.003296	0.000161	0.001821
111.77	58.08	84.6	0.023079	-0.01622	-0.04065	0.000515	0.000497	0.001544
107.95	58.23	85.21	-0.01316	-0.01838	-0.03131	0.000184	0.000598	0.000897
105.44	58.99	87.29	-0.0376	-0.00389	-0.00594	0.001443	9.93E-05	2.1E-05
103.13	58.67	86.84	-0.04781	-0.00306	-0.01156	0.002323	8.35E-05	0.000104
105.52	59.04	89.05	-0.02258	-0.00237	0.026513	0.000528	7.12E-05	0.000777
108.36	59.37	88.24	0.003328	0.006252	0.020957	8.65E-06	3.23E-08	0.000498
107.7	59.45	88.57	-0.01025	0.003032	-0.00147	0.000113	9.24E-06	1.15E-08
107.73	59.86	87.42	-0.00592	0.007883	-0.01329	3.98E-05	3.28E-06	0.000142
106.73	59.41	86.84	-0.007	0.005232	-0.00826	5.46E-05	7.06E-07	4.76E-05

106.1	59.83	87.14	0.00217	0.037811	-0.00389	3.18E-06	0.001007	6.43E-06
106	59.64	87.52	0.001983	0.026161	0.000343	2.55E-06	0.000404	2.9E-06
106.82	59.43	87.84	0.022149	0.093226	0.009149	0.000474	0.007596	0.00011
106.94	59.02	87.27	0.008357	0.085011	0.016289	6.35E-05	0.006231	0.000311
107.57	58.94	87.46	0.031734	0.079421	-0.01689	0.000983	0.00538	0.000241
108.03	58.91	88.02	0.034754	0.072503	-0.02447	0.001181	0.004413	0.000534
108.85	59.02	87.72	0.055727	0.077476	-0.03572	0.003063	0.005099	0.001181
108.51	58.99	87.99	0.115539	0.075687	-0.03944	0.01326	0.004846	0.00145
109.36	58.86	87.8	0.116435	0.07403	-0.0489	0.013467	0.004618	0.00226
109.08	58.98	88.91	0.100402	0.076798	-0.05578	0.010003	0.005002	0.002961
109.22	59.03	88.11	0.09391	0.083706	-0.06311	0.008747	0.006027	0.003813
109.38	59.31	87.92	0.090058	0.083294	-0.06612	0.008041	0.005963	0.004194
109.48	59.22	87.81	0.091873	0.083793	-0.07311	0.00837	0.006041	0.005148
108.18	58.85	87.85	0.080328	0.075691	-0.07635	0.006391	0.004847	0.005624
107.93	59.18	86.72	0.088588	0.083484	-0.09245	0.007779	0.005993	0.008298
108	59	86.41	0.089135	0.081173	-0.09425	0.007876	0.00564	0.008628
108.81	59.27	88.7	0.116233	0.096644	-0.06735	0.01342	0.008203	0.004355
108.37	59.39	88.59	0.10652	0.097738	-0.06933	0.011264	0.008403	0.00462
107.48	59.1	87.56	0.1028	0.103482	-0.0698	0.010489	0.009489	0.004684
105.87	57.61	87.48	0.090805	0.083216	-0.06698	0.008176	0.005951	0.004306
105.79	58.1	87.49	0.097733	0.114389	-0.06064	0.009476	0.011733	0.003515
104.48	54.14	87.04	0.089555	0.054663	-0.07788	0.007951	0.002361	0.005856
106.05	54.21	85.86	0.110139	0.056931	-0.0801	0.012046	0.002587	0.0062
104.21	54.44	88.95	0.083206	0.029263	-0.05352	0.006859	0.000538	0.00272
104.34	54.79	90.2	0.087482	0.035293	-0.0385	0.007586	0.000854	0.001379
102.95	54.62	90.91	0.086702	0.059595	-0.01691	0.00745	0.002865	0.000242
96.67	54.69	91.53	0.03238	0.093264	0.006797	0.001024	0.007603	6.65E-05
97.34	54.66	92.2	0.055987	0.113607	0.036898	0.003091	0.011564	0.001464
98.66	54.62	94.01	0.054788	0.07408	0.050392	0.00296	0.004625	0.002678
99.43	54.29	93.85	0.034065	-0.00771	0.022085	0.001134	0.00019	0.00055
99.96	54.57	93.93	0.04512	0.016444	0.029824	0.002001	0.000108	0.000972
99.87	54.46	94.47	0.040459	0.012379	0.031616	0.001606	3.98E-05	0.001087
99.83	54.56	94.82	0.04854	0.01533	0.039803	0.002319	8.57E-05	0.001694
98.78	54.44	95.12	0.035551	0.018914	0.047361	0.001237	0.000165	0.002374
98.79	54.4	94.95	0.012631	0.014256	0.040076	0.00015	6.7E-05	0.001717
96.87	53.81	94.88	-0.00278	0.00447	0.051027	1E-05	2.57E-06	0.002744
97.42	53.86	94.95	-0.00041	-0.00241	0.048774	6.35E-07	7.2E-05	0.002513
96.98	53.29	93.89	-0.00371	-0.02062	0.03578	1.67E-05	0.000712	0.001379
96.68	53.01	93.54	-0.02199	-0.03667	0.038802	0.000501	0.001827	0.001613
95.94	51.82	92.96	-0.03794	-0.07936	0.024943	0.001469	0.007299	0.000692
95.53	51.26	94.09	-0.03507	-0.10474	0.035703	0.001257	0.012278	0.001374
94.99	51.21	93.02	-0.04165	-0.10817	0.025147	0.001767	0.013051	0.000703
95.89	52.87	93.84	-0.02817	-0.08029	0.049142	0.000816	0.007458	0.00255
95.6	52.89	93.74	-0.02398	-0.07939	0.058992	0.000594	0.007303	0.003642
94.4	51.46	92.46	-0.03457	-0.11688	0.043435	0.001222	0.015116	0.002006
93.59	49.82	90.91	-0.05073	-0.14753	0.018541	0.002613	0.023595	0.000396
92.04	48.79	88.86	-0.08155	-0.17085	-0.0018	0.006713	0.0313	1.93E-07
93.4	50.72	89.39	-0.07177	-0.13962	-0.00691	0.005207	0.021228	3.08E-05
96.1	54.71	91.8	-0.04387	-0.05408	0.022027	0.001959	0.003618	0.000547
95.55	53.68	91.17	-0.04171	-0.07826	0.010031	0.001772	0.007113	0.00013
95.91	53.79	91.53	-0.02054	-0.07017	0.020531	0.000438	0.005813	0.000479
95.1	53.73	91.12	-0.01389	-0.05732	0.016822	0.000204	0.004019	0.000331
95.33	53.42	90.72	0.001155	-0.06434	0.010861	5.9E-07	0.004958	0.000149
97.55	53.63	91.22	0.034945	-0.04965	0.012243	0.001194	0.003105	0.000185
97.14	53.57	90.16	0.026919	-0.05696	0.009025	0.000704	0.003973	0.000108
97.46	53.99	90.43	0.041588	-0.02578	0.010002	0.001698	0.001015	0.000129
97.34	54.4	90.59	0.036193	-0.01605	0.011323	0.001282	0.000489	0.000161
98.83	54.99	89.98	0.08783	-0.01211	0.014779	0.007646	0.000331	0.00026
99.65	56.1	90.67	0.098084	-0.00338	0.01109	0.009545	8.94E-05	0.000155

98.94	56.92	90.79	0.067197	0.01701	0.02205	0.004464	0.00012	0.000548
99.03	57.06	90.71	0.058317	0.012521	0.007969	0.003356	4.16E-05	8.7E-05
98.63	57.29	89.34	0.061037	0.036258	0.008656	0.003678	0.000911	0.0001
97.92	57.26	88.37	0.054567	0.039542	-0.00158	0.002935	0.00112	5.01E-08
97.72	57.84	88.53	0.046929	0.053808	0.00555	0.002166	0.002279	4.77E-05
98.46	57.74	89.24	0.044336	0.051348	0.014675	0.001932	0.00205	0.000257
99.86	57.88	89.02	0.047999	0.034092	0.010275	0.002267	0.000785	0.000135
100.35	58.32	90.01	0.069206	0.030113	0.009825	0.004736	0.000578	0.000125
100.41	57.75	89.8	0.068737	0.033991	0.015713	0.004672	0.000779	0.000291
99.62	58.05	90.26	0.049277	0.038993	0.025017	0.00239	0.001084	0.000696
97.9	57.7	89.67	0.000818	0.018718	0.013586	1.86E-07	0.00016	0.000223
96.43	56.9	89.6	-0.07893	0.00617	0.022232	0.006292	9.66E-09	0.000557
95.22	56.97	89.74	-0.09853	0.018066	0.027223	0.009785	0.000144	0.000817
94.2	56.36	90.11	-0.115	0.003021	0.02905	0.013313	9.31E-06	0.000925
94.56	56.71	89.35	-0.11392	0.021207	0.02907	0.013066	0.000229	0.000926
93.49	55.4	89.53	-0.13619	-0.01291	0.030967	0.018653	0.00036	0.001045
93.88	55.28	89.57	-0.12997	-0.00793	0.038234	0.016993	0.000196	0.001568
90.52	55.66	88.66	-0.17173	0.006851	0.033023	0.029626	6.06E-07	0.001182
90.34	56.29	89.67	-0.19554	0.024093	0.053838	0.038385	0.000325	0.003047
92.51	55.96	88.81	-0.19207	0.012588	0.038802	0.037041	4.25E-05	0.001613
93.42	56.35	89.99	-0.18175	0.021707	0.059049	0.033174	0.000244	0.003649
92.79	55.25	88.57	-0.17413	0.026781	0.048818	0.030457	0.000429	0.002518
92.72	55.04	88.51	-0.16195	0.030062	0.060427	0.026352	0.000576	0.003818
93.24	54.81	88.04	-0.15305	0.030566	0.056424	0.023542	0.0006	0.003339
94.19	54.85	87.94	-0.1418	0.032237	0.065433	0.020218	0.000685	0.004461
95.18	55.94	88.11	-0.1534	0.033261	0.056017	0.02365	0.000739	0.003292
93.64	56.59	89.13	-0.15929	0.052792	0.080819	0.025498	0.002183	0.006753
93.74	55.82	88.4	-0.17009	0.025768	0.061105	0.029061	0.000388	0.003902
94.83	55.83	88.03	-0.1483	0.01698	0.059319	0.022109	0.000119	0.003682
97.82	56.63	88.46	-0.10813	0.046629	0.056627	0.011775	0.001645	0.003362
104.35	56.55	87.63	-0.04872	0.036558	0.036135	0.002412	0.000929	0.001406
105.08	55.95	87.33	-0.02444	0.046835	0.032588	0.000616	0.001662	0.001152
105.68	56.19	87.53	0.004647	0.050741	0.038549	1.82E-05	0.001995	0.001593
105.97	55.52	86.79	0.002835	0.046829	0.032913	5.99E-06	0.001661	0.001175
107.13	56.12	86.8	0.009378	0.048933	0.03577	8.09E-05	0.001837	0.001379
106.91	55.72	86.21	0.001779	0.036554	0.024542	1.94E-06	0.000929	0.000671
107.48	55.28	85.78	0.014715	0.031422	0.025503	0.000205	0.000643	0.000722
109.85	54.95	84.97	0.036432	0.022825	0.009103	0.001299	0.000281	0.000109
112.1	55.26	85.43	0.057841	0.038367	0.015691	0.003301	0.001043	0.000291
112.04	55.14	84.83	0.0557	0.041283	0.023376	0.00306	0.00124	0.000612
110.44	53.79	84.35	0.05452	0.014418	0.018305	0.00293	6.97E-05	0.000387
109.02	53.41	83.32	0.061473	0.010162	0.010982	0.003732	1.67E-05	0.000152
108.66	53.16	83.21	0.060705	0.005092	0.012334	0.003638	9.6E-07	0.000187
108.54	53.11	82.37	0.070317	0.030007	0.002309	0.00489	0.000573	1.35E-05
110.96	54.11	83.31	0.092862	0.047691	0.010983	0.008552	0.001732	0.000152
109.81	53.68	82.21	0.083334	0.033144	-0.0051	0.00688	0.000733	1.4E-05
111.12	54.4	83.16	0.086913	0.032508	-0.01551	0.007487	0.000699	0.0002
109.99	54.89	82.96	0.065563	0.048335	0.008109	0.004248	0.001786	8.96E-05
108.99	54.05	83.59	0.071197	0.033487	0.014338	0.005014	0.000752	0.000246
109.56	54.52	84.52	0.08383	0.050598	0.021769	0.006963	0.001983	0.000535
107.68	53.39	84.53	0.068708	0.02869	0.039207	0.004668	0.000512	0.001646
105.19	53.41	84.22	0.084258	0.061983	0.049533	0.007034	0.003126	0.00259
105.67	52.98	83.98	0.086538	0.036326	0.026913	0.007422	0.000915	0.000799
106.13	53.44	83.75	0.092431	0.039505	0.020995	0.008472	0.001118	0.0005
106.72	53.72	84.12	0.104819	0.05353	0.031396	0.010906	0.002252	0.001073
105.91	53.57	83.62	0.111981	0.047988	0.028998	0.012453	0.001757	0.000922
105.92	53.71	84.2	0.089211	0.030434	0.021731	0.00789	0.000594	0.000533
105.8	53.18	84.1	0.096786	0.031518	0.019208	0.009293	0.000648	0.000423
105.97	52.91	82.87	0.096103	0.018888	0.005081	0.009162	0.000164	4.15E-05

104.58	53.02	82.82	0.063761	0.006623	0.00995	0.004016	3.04E-07	0.000128
102.52	52.87	82.41	0.059065	0.015439	0.014545	0.003443	8.77E-05	0.000253
102.26	52.89	82.19	0.08433	-0.00208	0.014214	0.007047	6.64E-05	0.000243
101.17	51.54	82.18	0.076704	0.019989	0.031898	0.005824	0.000194	0.001106
101.12	51.59	82.4	0.070145	-0.01653	0.037717	0.004866	0.000511	0.001527
101.03	51.93	82.63	0.061646	-0.00614	0.031347	0.003753	0.000149	0.00107
101.87	52.66	84.46	0.069715	0.00686	0.039855	0.004806	6.21E-07	0.001699
103.01	52.3	82.29	0.091319	-0.02025	0.027223	0.008269	0.000693	0.000817
101.5	52.27	82.4	0.04948	-0.03293	0.031686	0.00241	0.001521	0.001092
100.75	51.83	82.7	0.044655	-0.04674	0.052376	0.00196	0.002789	0.002887
100.53	51.88	81.28	0.062068	-0.06438	0.085894	0.003805	0.004964	0.007613
96.69	50.2	80.15	0.002693	-0.1145	0.049358	5.32E-06	0.014538	0.002572
96.91	51.09	81.75	-0.00443	-0.1003	0.048882	2.32E-05	0.011315	0.002524
96.76	51.37	82.01	0.027982	-0.06299	0.063166	0.000762	0.00477	0.004163
96.1	50.92	81.52	0.028284	-0.06868	0.079501	0.000778	0.005588	0.006538
94.69	51.06	81.23	-0.05446	-0.09074	0.057383	0.003008	0.009373	0.003451
96.88	52.1	82.39	-0.02608	-0.06069	0.107669	0.000701	0.004457	0.011887
96.04	51.53	82.5	-0.05451	-0.08942	0.074593	0.003013	0.009118	0.005769
96.26	51.92	82.45	-0.00042	-0.06325	0.106777	6.43E-07	0.004805	0.011693
98.12	52.67	82	0.013648	-0.0442	0.113797	0.000176	0.002527	0.013261
96.64	52.06	81.22	-0.00021	-0.07581	0.061179	3.52E-07	0.006704	0.003911
93.99	53	81.03	-0.03286	-0.05667	0.04351	0.001105	0.003936	0.002013
93.7	50.52	79.6	-0.06026	-0.12593	0.006048	0.003678	0.017425	5.49E-05
94.27	52.45	79.35	-0.03256	-0.07738	0.047751	0.001086	0.006965	0.002412
94.99	52.25	80.08	-0.051	-0.10371	0.062875	0.00264	0.012053	0.004126
95.01	52.3	81.16	-0.03638	-0.09809	0.096555	0.001352	0.010849	0.009587
94.02	53.37	80.08	-0.03079	-0.07367	0.06968	0.000972	0.006358	0.005047
96.6	54.02	79.83	0.001554	-0.07659	0.046144	1.36E-06	0.006833	0.002257
96.35	54.31	78.48	-0.04416	-0.09546	0.012953	0.001984	0.010309	0.000205
94.48	55.33	74.59	-0.08352	-0.09164	-0.04624	0.007041	0.009548	0.002014
96.43	56.29	76.29	-0.08847	-0.07097	-0.01522	0.007896	0.005935	0.000192
97.34	56.48	77.85	-0.07822	-0.09276	-0.00128	0.00618	0.009769	5.7E-09
94.09	54.71	76.99	-0.13156	-0.13328	-0.01444	0.017411	0.019419	0.000171
93.42	54.54	75.29	-0.15185	-0.13687	-0.05012	0.023177	0.020433	0.002378
99.99	55.91	76.7	-0.06608	-0.09692	-0.02625	0.004417	0.010607	0.00062
99.44	55.36	73.98	-0.08285	-0.10843	-0.06982	0.006929	0.01311	0.004687
101.42	56.35	76.57	-0.06849	-0.08599	-0.04619	0.004744	0.008475	0.00201
96.3	55.31	74.1	-0.10751	-0.09348	-0.0468	0.011641	0.009911	0.002065
96.79	55.05	73.18	-0.10336	-0.0856	-0.05425	0.010764	0.008404	0.002798
96.66	56.16	76.4	-0.09252	-0.05945	-0.01145	0.008632	0.004293	0.000102
97.13	56.09	77.58	-0.11511	-0.06955	-0.00489	0.01334	0.005719	1.24E-05
99.52	57.3	79.12	-0.11223	-0.06143	-0.00038	0.012682	0.004556	9.61E-07
97.39	56.67	75.65	-0.1262	-0.0561	-0.04876	0.016025	0.003865	0.002247
99.96	57.96	75.2	-0.11801	-0.00791	-0.01098	0.014017	0.000195	9.25E-05
98.53	57.69	73.69	-0.13862	-0.03022	-0.00878	0.019322	0.001317	5.51E-05
96.96	57.45	74.69	-0.18076	-0.05963	-0.0133	0.032813	0.004317	0.000143
96.45	58.32	76.23	-0.18128	-0.06409	0.007902	0.033004	0.004922	8.58E-05
100.7	59.75	77.47	-0.16049	-0.04899	0.037348	0.02588	0.003032	0.001498
102.71	60.64	78.12	-0.14115	-0.035	0.017041	0.020031	0.001687	0.000339
105.35	60.43	77.46	-0.12209	-0.05724	-0.01791	0.015	0.004009	0.000274
105.26	61.97	77.95	-0.09024	-0.00627	-0.00588	0.008212	0.000152	2.05E-05
107.32	62.51	78.11	-0.08019	-0.01571	-0.01827	0.006492	0.000475	0.000286
108.74	62.54	79.16	-0.07612	-0.02495	-0.03391	0.005853	0.000962	0.001059
106.82	61.6	78.74	-0.10208	-0.03164	-0.03641	0.010499	0.001422	0.001229
108.03	61.7	79.33	-0.08666	-0.03159	-0.02367	0.007578	0.001418	0.000498
108.61	61.41	80.19	-0.08318	-0.02794	-0.01313	0.006983	0.001157	0.000139
107.23	60.73	77.65	-0.10314	-0.0386	-0.05304	0.010717	0.001996	0.002671
107.33	59.97	77.26	-0.09266	-0.04547	-0.03834	0.008657	0.002657	0.001368
106.03	59.6	77.28	-0.11792	-0.04286	-0.03196	0.013996	0.002394	0.000937

108.98	60.13	77.96	-0.08611	-0.0303	-0.02957	0.007481	0.001323	0.000796
111.34	60.93	79.15	-0.05206	-0.01676	-0.01989	0.002751	0.000521	0.000343
110.49	59.94	79.43	-0.02855	-0.01753	-0.00665	0.000837	0.000557	2.8E-05
112.48	58.42	76.03	-0.015	-0.03763	-0.06209	0.000237	0.00191	0.003688
113.18	59.46	74.34	0.00745	0.002526	-0.04934	4.99E-05	1.26E-05	0.002302
116.17	60.98	75.69	0.003881	0.026588	-0.04798	1.22E-05	0.000421	0.002173
115.62	62.18	75.63	-0.00423	0.024584	-0.07622	2.13E-05	0.000343	0.005604
118.23	62.75	74.63	0.012426	0.022563	-0.09844	0.000145	0.000272	0.009424
118.28	62.8	76.8	-0.01918	0.025644	-0.0649	0.000383	0.000383	0.004038
119.03	63.99	78.86	-0.01691	0.032722	-0.06872	0.000299	0.00071	0.004538
115.2	62.36	78.41	-0.04846	0.00579	-0.07846	0.002386	7.97E-08	0.005945
116.28	63.5	79.55	-0.04802	0.04345	-0.07773	0.002343	0.001397	0.005832
117.34	64.12	81.89	-0.04361	0.050538	-0.05881	0.001935	0.001977	0.0033
118.3	63.58	81.66	-0.02405	-0.00251	-0.04338	0.000597	7.37E-05	0.001765
117.81	63.68	81.23	-0.01424	0.009784	-0.01842	0.000214	1.38E-05	0.000291
118.03	63.15	81.25	-0.02096	-0.00537	-0.01199	0.000456	0.000131	0.000113
118.88	63.12	81.88	-0.00328	-0.01213	-0.00487	1.34E-05	0.000331	1.23E-05
117.75	62.76	80.28	0.027552	0.029756	-0.01004	0.000738	0.000561	7.53E-05
119.3	62.21	79.79	0.034277	0.017022	-0.01776	0.001149	0.00012	0.000269
118.78	61.98	80.3	-0.00252	0.011358	-0.03283	8.46E-06	2.79E-05	0.00099
117.29	61.96	80.74	0.015379	0.019722	-0.02628	0.000225	0.000186	0.000621
113.69	61	79.96	-0.00062	0.012703	-0.00312	1E-06	4.4E-05	3.11E-06
114.18	60.66	80.9	0.003597	0.00645	0.000866	1.03E-05	1.43E-07	4.95E-06
112.34	59.31	78.1	0.005445	-0.01157	-0.03634	2.56E-05	0.000311	0.001223
115.72	59.38	79.41	0.041283	-0.01039	-0.03793	0.001673	0.000271	0.001338
116.11	60.67	81.62	0.03729	0.024697	0.001717	0.001362	0.000347	9.46E-06
116.77	61.35	82.35	0.057819	0.055635	0.026954	0.003298	0.002457	0.000802
120.57	61.21	81.95	0.075608	0.042041	0.034638	0.005658	0.001294	0.001296
121.06	61.93	84.47	0.081365	0.053906	0.063158	0.006558	0.002288	0.004163
120.92	62	84.81	0.075559	0.063421	0.06768	0.005651	0.003289	0.004766
122	60.8	85.98	0.108096	0.043017	0.071713	0.011601	0.001365	0.00534
122.57	60.96	86.85	0.101136	0.052883	0.092206	0.01015	0.002191	0.008754
121.18	63.74	85.28	0.084958	0.099902	0.090642	0.007152	0.008804	0.008464
119.5	63.06	82.74	0.07577	0.078828	0.074368	0.005683	0.005293	0.005735
120.53	63.49	82.23	0.08797	0.104503	0.080367	0.007671	0.009689	0.006679
119.27	63.89	82.28	0.084735	0.115516	0.105253	0.007115	0.011978	0.011366
114.55	60.92	81.09	0.037807	0.069673	0.086776	0.0014	0.004045	0.007768
115.28	61.16	81.22	0.055466	0.093154	0.107113	0.003034	0.007583	0.011766
119.08	61.28	82.98	0.057376	0.096192	0.133635	0.003248	0.008122	0.018223
115.5	60.75	82.89	0.006863	0.054287	0.123909	4.19E-05	0.002325	0.015692
113.76	60.23	80.21	-0.01084	0.056875	0.097894	0.000126	0.002581	0.009851
113.77	60.27	80.83	-0.00482	0.05403	0.111524	2.71E-05	0.0023	0.012743
111.73	60	80.99	-0.01484	0.046393	0.107434	0.000232	0.001626	0.011836
111.04	60	82.48	-0.03687	0.033384	0.116768	0.001388	0.000746	0.013954
111.86	59.19	81.48	-0.01411	0.02411	0.114291	0.00021	0.000325	0.013375
110.21	58.03	80.16	-0.03311	-0.00687	0.073763	0.001122	0.000167	0.005643
111.79	58.69	79.16	-0.0405	-0.00357	0.06336	0.001671	9.3E-05	0.004189
111.6	58.68	79.3	-0.04108	0.000511	0.084698	0.001719	3.09E-05	0.007406
112.12	58.19	79.26	-0.02805	0.00327	0.089285	0.000809	7.85E-06	0.008216
109.5	58.24	80.03	-0.04211	-0.00154	0.096198	0.001806	5.8E-05	0.009517
110.78	57.82	79.2	-0.01603	-0.00689	0.088114	0.000269	0.000168	0.008005
111.31	57.68	77.89	0.010476	-0.01463	0.078631	0.000102	0.000429	0.006399
110.78	58.28	76.81	-0.01372	-0.01634	0.044049	0.000199	0.000502	0.002062
110.38	57.19	75.88	0.010107	-0.01544	0.046118	9.45E-05	0.000463	0.002254
109.58	56.92	74.06	-0.00718	-0.04349	0.003652	5.73E-05	0.002456	2.51E-05
110.3	56.82	74.35	-0.01833	-0.03934	0.015178	0.00035	0.002062	0.000273
109.06	55.72	72.97	0.012363	-0.05261	0.012272	0.000143	0.003444	0.000186
112.44	55.66	72.6	-0.00284	-0.08073	-0.03572	1.04E-05	0.007535	0.001181
114.71	57.54	73.23	0.012456	-0.05839	-0.02482	0.000146	0.004156	0.00055

115	56.9	72.73	0.018253	-0.07138	-0.02873	0.000319	0.005999	0.000749
114.32	57.1	72.3	0.041343	-0.03544	-0.00276	0.001677	0.001723	1.97E-06
113.4	57.28	72.74	0.089034	0.011236	0.056997	0.007858	2.67E-05	0.003405
115.21	58.03	73.39	0.110863	0.018962	0.065747	0.012205	0.000166	0.004503
113.45	57.78	72.68	0.07019	-0.03319	0.007596	0.004872	0.001542	8.02E-05
113.92	58.43	74.46	0.011211	-0.05462	-0.00148	0.000117	0.003683	1.37E-08
116.41	58.9	74.3	0.012099	-0.06602	-0.02564	0.000137	0.005198	0.00059
116.28	58.65	72.86	-0.00189	-0.08275	-0.06689	5.18E-06	0.00789	0.004294
115.31	58	72.49	-0.01592	-0.10312	-0.08308	0.000266	0.011922	0.006679
114.21	58.33	72.69	-0.01521	-0.09667	-0.07511	0.000243	0.010555	0.005439
112.57	58.22	72.52	-0.02266	-0.08271	-0.08115	0.000531	0.007882	0.006366
110.15	58.53	72	-0.04517	-0.07771	-0.09012	0.002076	0.00702	0.007878
112.31	59.24	73.5	-0.01045	-0.06645	-0.05286	0.000117	0.005259	0.002653
109.27	58.08	72.46	-0.09133	-0.09691	-0.08324	0.008413	0.010604	0.006705
110.37	59.45	73.79	-0.04561	-0.06417	-0.04037	0.002115	0.004934	0.001522
112.34	59.1	73.23	-0.02453	-0.06422	-0.06426	0.000621	0.004941	0.003956
107.72	58.73	72.08	-0.06887	-0.06955	-0.06823	0.004796	0.005719	0.004472
112.76	60.34	75.24	-0.01654	-0.03261	-0.02533	0.000286	0.001496	0.000574
113.29	61	75.07	-0.04446	-0.05035	-0.03906	0.002011	0.003183	0.001421
112.92	61.11	74.85	-0.07159	-0.04808	-0.05662	0.00518	0.002933	0.003053
109.69	59.16	72.5	-0.10939	-0.08688	-0.13537	0.012051	0.008641	0.01796
103.74	56.64	68.71	-0.17022	-0.13057	-0.19063	0.029105	0.018671	0.035824
103.12	56.94	68.72	-0.17938	-0.11156	-0.18252	0.032314	0.013837	0.032818
105.76	59.73	72.13	-0.14914	-0.0571	-0.09426	0.022358	0.003991	0.008631
112.65	61.71	74.57	-0.10002	-0.0308	-0.06954	0.010081	0.001359	0.004648
115.01	62.92	76.23	-0.08457	-0.0192	-0.06242	0.007218	0.000639	0.003729
116.5	63.71	77.9	-0.07218	-0.01294	-0.04873	0.005266	0.000362	0.002244
117.16	64.3	78.77	-0.10975	0.004677	-0.03603	0.012129	1.95E-06	0.001202
115.96	64.25	78.36	-0.13009	0.003274	-0.04247	0.017023	7.83E-06	0.00169
115.15	63.24	78.65	-0.11837	-0.01273	-0.04912	0.014103	0.000353	0.002281
115.24	63.26	78.79	-0.10899	-0.01413	-0.05097	0.011963	0.000408	0.002461
113.49	63.31	77.49	-0.11105	-0.01131	-0.0658	0.012419	0.000302	0.004152
119.72	63.99	78.75	-0.04803	0.006585	-0.05389	0.002344	2.63E-07	0.002759
115.52	63.39	76.83	-0.08414	0.000158	-0.07023	0.007144	3.5E-05	0.004744
115.13	63.02	78.09	-0.0684	0.006367	-0.05154	0.004731	8.73E-08	0.002518
115.4	62.96	77.17	-0.03967	0.019244	-0.05582	0.001605	0.000173	0.002966
114.64	62.34	77.17	-0.06689	0.01911	-0.06034	0.004526	0.00017	0.003479
118.44	64.15	78.06	-0.05941	0.030708	-0.0598	0.003576	0.000607	0.003415
121.3	64.12	79.21	-0.03802	0.036044	-0.04106	0.001475	0.000898	0.001576
122.37	64.53	83.01	-0.03272	0.038706	-0.00156	0.001096	0.001065	4.23E-08
122.99	64.54	83.14	-0.02893	0.034522	0.009305	0.000859	0.000809	0.000114
123.38	63.66	82.48	-0.01648	0.029329	-0.00869	0.000284	0.000541	5.38E-05
122.77	63.24	79.26	-0.01423	0.026438	-0.04394	0.000214	0.000415	0.001813
124.5	63.64	79.94	-0.01791	0.014402	-0.04787	0.000335	6.94E-05	0.002163
125.16	64.14	81.14	-0.01852	0.027022	-0.03381	0.000358	0.000439	0.001053
125.22	64.54	81.79	-0.02282	0.025421	-0.03472	0.000538	0.000374	0.001113
130.75	64	81.66	0.028864	0.010682	-0.04091	0.000811	2.13E-05	0.001564
132.07	64.04	81.76	0.034353	0.023062	-0.04086	0.001154	0.000289	0.00156
129.62	64.05	82.61	0.023575	0.035275	-0.03099	0.000538	0.000853	0.000878
128.51	64.16	82.91	0.004914	0.029579	-0.03053	2.05E-05	0.000553	0.000851
126.82	64.03	82.76	-0.00378	0.034478	-0.02352	1.73E-05	0.000807	0.000491
125.61	63.57	83.11	-0.01572	0.02533	-0.01871	0.000259	0.000371	0.000301
125.66	63.38	82.42	-0.00998	0.012862	-0.01565	0.000107	4.61E-05	0.000204
123.28	62.62	82.22	-0.03107	0.011726	-0.02166	0.000989	3.2E-05	0.000412
120.07	61.76	81.6	-0.06855	-0.00372	-0.04188	0.004753	9.58E-05	0.001642
122.57	61.16	81.97	-0.0502	-0.00847	-0.03877	0.002559	0.000211	0.001399
125.69	62.21	82.87	-0.01367	0.036338	-0.02042	0.000198	0.000916	0.000363
126	61.85	82.53	-0.01418	0.03605	-0.02772	0.000212	0.000899	0.000695
126.44	62.08	83.14	-0.01733	0.025781	-0.01362	0.000314	0.000388	0.00015

126.6	62.35	82.37	-0.02157	0.028304	-0.02221	0.000482	0.000494	0.000435
125.43	61.82	83.2	-0.03671	0.011551	-0.02082	0.001376	3E-05	0.000379
124.53	61.59	82.82	-0.04268	0.031503	-0.02763	0.001855	0.000647	0.00069
126.75	62.73	83.86	-0.02946	0.066741	-0.01503	0.000891	0.003681	0.000187
127.5	62.43	83.93	-0.02157	0.063141	-0.01502	0.000482	0.003257	0.000187
128.11	62.92	84.68	-0.02824	0.056728	-0.00507	0.00082	0.002566	1.37E-05
127.03	63.32	85.07	-0.03868	0.064075	-0.00047	0.001526	0.003364	7.9E-07
127.61	62.58	85.17	-0.01563	0.055018	-0.00211	0.000256	0.002396	5.65E-07
126.6	61.83	85.21	-0.04585	0.032046	-0.01526	0.002138	0.000675	0.000193
127.88	62.29	85.48	-0.02708	0.033796	-0.02004	0.000754	0.000769	0.000349
127.3	61.86	84.73	-0.02145	0.031196	-0.02793	0.000477	0.000631	0.000706
127.6	61.98	84.68	-0.01917	0.042349	-0.02691	0.000383	0.001316	0.000653
126.92	62.57	83.72	-0.02544	0.060615	-0.0367	0.000667	0.002975	0.001249
127.17	61.89	84.02	-0.0125	0.058728	-0.03887	0.000166	0.002773	0.001407
128.59	61.99	85.09	-0.0028	0.049944	-0.02185	1.01E-05	0.001925	0.00042
128.88	61.68	85.21	0.02252	0.048839	-0.01572	0.00049	0.001829	0.000206
127.42	59.99	84.58	0.012239	0.020717	-0.02844	0.00014	0.000214	0.000733
127.8	59.66	84.85	0.011648	0.00774	-0.02249	0.000127	2.78E-06	0.000447
128.65	60.5	84.28	0.008038	0.013814	-0.05438	5.85E-05	5.99E-05	0.002811
129.36	60.61	84.22	0.032208	0.027431	-0.03935	0.001013	0.000456	0.001443
130.12	61.11	84.95	0.040063	0.04965	-0.03743	0.001574	0.001899	0.001301
129.96	59.68	85.14	0.032533	0.028554	-0.03995	0.001033	0.000505	0.001489
130.54	58.68	85.13	0.014196	0.008214	-0.04569	0.000191	4.59E-06	0.001965
130.28	58.61	85.2	0.010261	0.014955	-0.04195	9.75E-05	7.89E-05	0.001647
131.78	59.45	85.11	0.051621	0.054619	-0.02621	0.002625	0.002357	0.000617
132.04	59.39	85.11	0.026087	0.047234	-0.03191	0.000661	0.001694	0.000934
129.62	59.23	85.35	-0.00723	0.041892	-0.0283	5.79E-05	0.001283	0.000726
132.54	59.88	86.52	-0.00083	0.049291	-0.00565	1.48E-06	0.001868	1.84E-05
131.39	60.22	87.21	0.008484	0.055129	0.002756	6.56E-05	0.002407	1.69E-05
130.06	59.96	87.13	0.003003	0.055022	-0.00469	6.85E-06	0.002396	1.11E-05
130.07	59.41	86.99	0.011211	0.048807	-0.00539	0.000117	0.001826	1.62E-05
130.19	58.89	86.85	0.025517	0.038956	-0.00035	0.000632	0.001081	1.03E-06
128.77	58.36	87.35	0.009128	0.014672	0.00126	7.64E-05	7.4E-05	6.86E-06
128.95	58.97	86.97	0.033113	0.026462	0.00046	0.001071	0.000416	3.31E-06
126.01	58.74	86.56	-0.00127	0.009923	-0.01343	2.74E-06	1.48E-05	0.000146
125.87	58.76	87.02	-0.0072	0.008374	-0.01211	5.76E-05	5.3E-06	0.000116
126.32	59.2	86.78	0.000158	0.029137	0.00173	5.21E-08	0.000532	9.54E-06
127.62	59.67	88.99	0.006052	0.03774	0.041881	3.21E-05	0.001003	0.00187
125.26	58.97	87.6	-0.01458	0.041197	0.023563	0.000224	0.001234	0.000621
125.01	58.15	88.19	-0.01232	0.032509	0.040968	0.000162	0.000699	0.001792
125.8	58	88.61	0.001591	0.044961	0.052714	1.45E-06	0.001512	0.002924
128.7	58.2	89.11	0.021123	0.056916	0.038435	0.00043	0.002585	0.001584
128.95	57.74	88.85	0.012486	0.04101	0.04277	0.000146	0.001221	0.001947
125.15	56.29	87.37	-0.00136	0.020642	0.03577	3.04E-06	0.000212	0.001379
128.64	56.65	87.87	0.034722	0.033019	0.03958	0.001179	0.000726	0.001676
130.56	56.8	87.8	0.04809	0.036029	0.03241	0.002276	0.000897	0.00114
132.65	57	87.01	0.0485	0.041553	0.015987	0.002315	0.001259	0.000301
130.28	56.99	86.97	0.055471	0.053336	0.039759	0.003034	0.002234	0.001691
129.67	56.75	87.54	0.042778	0.046528	0.037477	0.001797	0.001637	0.001508
128.62	56.58	87.46	0.041593	0.037088	0.030179	0.001698	0.000962	0.000995
126.91	56.64	86.88	0.001735	0.022678	0.02754	1.82E-06	0.000276	0.000835
127.6	57.51	87.24	0.003061	0.029647	0.020966	7.15E-06	0.000556	0.000498
124.75	57.43	86.93	-0.00918	0.026287	0.027878	9.14E-05	0.000409	0.000855
126.17	58.16	87.73	-0.01049	0.044116	0.038578	0.000118	0.001447	0.001595
126.78	58.27	88.08	-0.01324	0.032264	0.023085	0.000186	0.000686	0.000597
126.3	57.5	86.63	-0.00584	0.030011	0.029877	3.88E-05	0.000573	0.000976
126.85	57.46	85.34	0.015092	0.026988	0.006819	0.000216	0.000437	6.69E-05
127.1	56.59	85.56	0.028005	0.023059	0.01995	0.000763	0.000289	0.000454
126.56	56.29	84.65	0.016812	0.012334	0.005093	0.00027	3.92E-05	4.16E-05

125.6	55.45	84.06	0.027116	0.013252	0.000476	0.000714	5.16E-05	3.37E-06
126.01	54.98	85.75	0.011975	0.010238	0.017529	0.000134	1.74E-05	0.000357
127.35	55.42	85.13	0.00165	-0.01237	-0.00035	1.6E-06	0.00034	1.01E-06
125.32	55.14	84.3	-0.01016	-0.01548	-0.01565	0.000111	0.000464	0.000204
124.25	54.81	84.46	-0.01723	-0.01449	-0.02664	0.000311	0.000423	0.000639
124.43	54.79	85	-0.0325	-0.01071	-0.02532	0.001081	0.000282	0.000574
126.37	54.68	85.63	-0.02339	-0.01633	-0.02297	0.000565	0.000502	0.000467
123.25	54.03	83.58	-0.04629	-0.02954	-0.05199	0.002179	0.001268	0.002563
124.24	54.17	84.32	-0.0334	-0.02119	-0.04884	0.001142	0.000743	0.002254
123.38	54.52	84.86	-0.05549	-0.00749	-0.04369	0.003122	0.000184	0.001792
126.69	55.37	84.52	-0.01644	0.010348	-0.05837	0.000283	1.83E-05	0.00325
127.21	55.83	85.43	-0.03825	0.014251	-0.04565	0.001493	6.69E-05	0.001961
125.9	55.94	84.54	-0.05486	0.024795	-0.05152	0.003052	0.000351	0.002517
127.5	55.65	84.41						
128.47	56.42	86.07						
127.04	55.8	84.08						
124.95	55.93	84.76						
123.59	55.3	83.87						
124.45	55.6	84.22						
122.24	54.72	84.02						
124.51	54.42	84.26						
127.14	56.11	85.16						
126.6	56	85.63						
126.41	55.61	86.74						
128.54	55.38	87.18						
129.36	55.58	87.62						
129.09	55.65	88.04						
128.46	55.33	88.54						
130.42	54.93	88.65						
128.79	54.8	89.6						
132.17	55.04	89.42						
133	54.57	89.01						

E(X)	0.000387	0.006072	-0.00136	0.004409	0.002452	0.002246
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484

risk	0.066397	0.049513	0.047389
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Appl	AIG	ExxonMobi	Appl-Appl	Appl-AIG	Appl-Exxor	AIG-AIG	AIG-Exxon	Exxon-Exxo
0.122049	-0.0528	-0.03715	0.014896	-0.00644	-0.00453	0.002788	0.001962	0.00138
0.119986	-0.0724	-0.04134	0.014397	-0.00869	-0.00496	0.005241	0.002993	0.001709
0.123002	-0.0917	-0.01734	0.01513	-0.01128	-0.00213	0.008409	0.00159	0.000301
0.117628	0.003693	-0.03957	0.013836	0.000434	-0.00465	1.36E-05	-0.00015	0.001566
0.104649	-0.00486	-0.04984	0.010951	-0.00051	-0.00522	2.36E-05	0.000242	0.002484
0.103864	-0.01729	-0.04401	0.010788	-0.0018	-0.00457	0.000299	0.000761	0.001937
0.10437	-0.02021	-0.05217	0.010893	-0.00211	-0.00544	0.000408	0.001054	0.002721
0.097312	-0.03702	-0.062	0.00947	-0.0036	-0.00603	0.00137	0.002295	0.003845
0.098801	-0.04121	-0.03611	0.009762	-0.00407	-0.00357	0.001698	0.001488	0.001304
0.090337	-0.02862	-0.04244	0.008161	-0.00259	-0.00383	0.000819	0.001215	0.001801
0.090124	-0.03446	-0.05632	0.008122	-0.00311	-0.00508	0.001188	0.001941	0.003172
0.096941	-0.02889	-0.05796	0.009397	-0.0028	-0.00562	0.000835	0.001675	0.003359
0.103723	-0.03218	-0.07911	0.010759	-0.00334	-0.00821	0.001035	0.002546	0.006258
0.04341	-0.01937	-0.07878	0.001884	-0.00084	-0.00342	0.000375	0.001526	0.006207
0.04856	-0.01252	-0.06033	0.002358	-0.00061	-0.00293	0.000157	0.000756	0.00364
0.043361	-0.01051	-0.0537	0.00188	-0.00046	-0.00233	0.00011	0.000564	0.002884
0.043022	-0.00395	-0.05209	0.001851	-0.00017	-0.00224	1.56E-05	0.000206	0.002714
0.038257	-0.02087	-0.06011	0.001464	-0.0008	-0.0023	0.000436	0.001255	0.003613
0.028792	-0.01987	-0.0626	0.000829	-0.00057	-0.0018	0.000395	0.001244	0.003919
0.031685	-0.01731	-0.06577	0.001004	-0.00055	-0.00208	0.0003	0.001138	0.004326
0.024419	-0.00787	-0.04849	0.000596	-0.00019	-0.00118	6.2E-05	0.000382	0.002351
0.023524	-0.01074	-0.06375	0.000553	-0.00025	-0.0015	0.000115	0.000684	0.004064
0.02793	-0.01059	-0.04551	0.00078	-0.0003	-0.00127	0.000112	0.000482	0.002071
0.033774	-0.0097	-0.04144	0.001141	-0.00033	-0.0014	9.41E-05	0.000402	0.001717
0.027036	-0.00366	-0.04988	0.000731	-9.9E-05	-0.00135	1.34E-05	0.000182	0.002488
0.034253	-0.00244	-0.04658	0.001173	-8.4E-05	-0.0016	5.97E-06	0.000114	0.00217
0.038437	0.003533	-0.06299	0.001477	0.000136	-0.00242	1.25E-05	-0.00022	0.003968
0.049622	0.017721	-0.05575	0.002462	0.000879	-0.00277	0.000314	-0.00099	0.003108
0.042893	0.002248	-0.02091	0.00184	9.64E-05	-0.0009	5.05E-06	-4.7E-05	0.000437
0.049965	0.008857	0.003395	0.002497	0.000443	0.00017	7.84E-05	3.01E-05	1.15E-05
0.048648	0.004348	0.006795	0.002367	0.000212	0.000331	1.89E-05	2.95E-05	4.62E-05
0.05335	0.021125	0.027622	0.002846	0.001127	0.001474	0.000446	0.000584	0.000763
0.062139	0.007845	0.039599	0.003861	0.000487	0.002461	6.15E-05	0.000311	0.001568
0.05208	0.018104	0.037686	0.002712	0.000943	0.001963	0.000328	0.000682	0.00142
0.063644	0.015378	0.036387	0.004051	0.000979	0.002316	0.000236	0.00056	0.001324
0.054537	0.033404	0.035146	0.002974	0.001822	0.001917	0.001116	0.001174	0.001235
0.050341	0.046564	0.056284	0.002534	0.002344	0.002833	0.002168	0.002621	0.003168
0.043024	0.041732	0.049229	0.001851	0.001796	0.002118	0.001742	0.002054	0.002424
0.039078	0.021327	0.043503	0.001527	0.000833	0.0017	0.000455	0.000928	0.001892
0.0507	0.029507	0.039287	0.00257	0.001496	0.001992	0.000871	0.001159	0.001543
0.044648	0.03375	0.043712	0.001993	0.001507	0.001952	0.001139	0.001475	0.001911
0.04262	0.034099	0.045796	0.001816	0.001453	0.001952	0.001163	0.001562	0.002097
0.051919	0.030642	0.068255	0.002696	0.001591	0.003544	0.000939	0.002091	0.004659
0.051625	0.023987	0.065656	0.002665	0.001238	0.003389	0.000575	0.001575	0.004311
0.045807	0.02329	0.056157	0.002098	0.001067	0.002572	0.000542	0.001308	0.003154
0.07234	0.020054	0.065595	0.005233	0.001451	0.004745	0.000402	0.001315	0.004303
0.068953	0.011919	0.066059	0.004755	0.000822	0.004555	0.000142	0.000787	0.004364
0.049268	0.032803	0.039493	0.002427	0.001616	0.001946	0.001076	0.001295	0.00156
0.038998	0.034389	0.015843	0.001521	0.001341	0.000618	0.001183	0.000545	0.000251
0.000965	0.057358	0.022241	9.32E-07	5.54E-05	2.15E-05	0.00329	0.001276	0.000495
-0.01043	0.069955	0.027392	0.000109	-0.00073	-0.00029	0.004894	0.001916	0.00075
-0.01223	0.073971	0.024838	0.00015	-0.0009	-0.0003	0.005472	0.001837	0.000617
0.009305	0.099201	0.042042	8.66E-05	0.000923	0.000391	0.009841	0.004171	0.001768
-0.00349	0.091503	0.043261	1.22E-05	-0.00032	-0.00015	0.008373	0.003959	0.001872
-0.01002	0.038818	0.046462	0.0001	-0.00039	-0.00047	0.001507	0.001804	0.002159
-0.00066	0.035883	0.027902	4.3E-07	-2.4E-05	-1.8E-05	0.001288	0.001001	0.000778
-0.01789	0.019687	0.038468	0.00032	-0.00035	-0.00069	0.000388	0.000757	0.00148
-0.0175	0.044209	0.028586	0.000306	-0.00077	-0.0005	0.001954	0.001264	0.000817

-0.02919	0.040219	0.001359	0.000852	-0.00117	-4E-05	0.001618	5.47E-05	1.85E-06
-0.03372	0.040136	-0.00336	0.001137	-0.00135	0.000113	0.001611	-0.00013	1.13E-05
-0.0571	0.048091	-0.0013	0.003261	-0.00275	7.4E-05	0.002313	-6.2E-05	1.68E-06
-0.06708	0.05174	-0.01757	0.004499	-0.00347	0.001179	0.002677	-0.00091	0.000309
-0.05911	0.062054	-0.01482	0.003494	-0.00367	0.000876	0.003851	-0.00092	0.00022
-0.06268	0.058862	-0.01552	0.003929	-0.00369	0.000973	0.003465	-0.00091	0.000241
-0.08973	0.056034	-0.00266	0.008051	-0.00503	0.000239	0.00314	-0.00015	7.1E-06
-0.10587	0.05734	-0.01596	0.011208	-0.00607	0.00169	0.003288	-0.00092	0.000255
-0.08115	0.042963	-0.00874	0.006585	-0.00349	0.00071	0.001846	-0.00038	7.65E-05
-0.08775	0.048382	0.007235	0.007699	-0.00425	-0.00063	0.002341	0.00035	5.23E-05
-0.05394	0.016166	-0.00223	0.00291	-0.00087	0.00012	0.000261	-3.6E-05	4.97E-06
-0.05539	-0.02175	-0.01975	0.003068	0.001205	0.001094	0.000473	0.00043	0.00039
-0.05236	-0.01581	-0.02509	0.002741	0.000828	0.001314	0.00025	0.000397	0.000629
-0.06453	-0.05803	-0.05528	0.004164	0.003744	0.003567	0.003367	0.003208	0.003056
-0.03818	-0.03839	-0.03479	0.001458	0.001466	0.001328	0.001474	0.001336	0.001211
-0.02079	0.003887	-0.04076	0.000432	-8.1E-05	0.000847	1.51E-05	-0.00016	0.001661
-0.01428	0.006866	-0.03791	0.000204	-9.8E-05	0.000541	4.71E-05	-0.00026	0.001437
0.004381	0.03732	-0.0332	1.92E-05	0.000163	-0.00015	0.001393	-0.00124	0.001102
0.010222	0.033201	-0.02506	0.000104	0.000339	-0.00026	0.001102	-0.00083	0.000628
0.012183	0.02838	-0.00277	0.000148	0.000346	-3.4E-05	0.000805	-7.9E-05	7.7E-06
0.029558	0.039288	0.008619	0.000874	0.001161	0.000255	0.001544	0.000339	7.43E-05
0.036655	0.011421	-0.00071	0.001344	0.000419	-2.6E-05	0.00013	-8.2E-06	5.1E-07
0.039144	0.024394	0.044504	0.001532	0.000955	0.001742	0.000595	0.001086	0.001981
0.032037	0.023529	0.043327	0.001026	0.000754	0.001388	0.000554	0.001019	0.001877
0.037482	0.016488	0.045431	0.001405	0.000618	0.001703	0.000272	0.000749	0.002064
0.02119	0.022669	0.043894	0.000449	0.00048	0.00093	0.000514	0.000995	0.001927
0.033553	0.034413	0.042172	0.001126	0.001155	0.001415	0.001184	0.001451	0.001778
0.034058	0.035414	0.048683	0.00116	0.001206	0.001658	0.001254	0.001724	0.00237
0.03465	0.028256	0.033175	0.001201	0.000979	0.00115	0.000798	0.000937	0.001101
0.01738	0.022698	0.031023	0.000302	0.000395	0.000539	0.000515	0.000704	0.000962
0.014813	0.025015	0.025168	0.000219	0.000371	0.000373	0.000626	0.00063	0.000633
0.039343	0.024115	0.037803	0.001548	0.000949	0.001487	0.000582	0.000912	0.001429
0.071966	0.031179	0.038565	0.005179	0.002244	0.002775	0.000972	0.001202	0.001487
0.078196	0.011904	-0.00496	0.006115	0.000931	-0.00039	0.000142	-5.9E-05	2.46E-05
0.098856	0.01551	0.00366	0.009773	0.001533	0.000362	0.000241	5.68E-05	1.34E-05
0.068543	0.008389	-0.02193	0.004698	0.000575	-0.0015	7.04E-05	-0.00018	0.000481
0.041542	-0.01097	-0.02145	0.001726	-0.00046	-0.00089	0.00012	0.000235	0.00046
0.043395	-0.01503	-0.01595	0.001883	-0.00065	-0.00069	0.000226	0.00024	0.000254
0.047815	-0.0148	-0.00024	0.002286	-0.00071	-1.2E-05	0.000219	3.6E-06	5.93E-08
0.049416	-0.02322	-0.00303	0.002442	-0.00115	-0.00015	0.000539	7.03E-05	9.16E-06
0.070991	-0.0116	-0.0014	0.00504	-0.00082	-9.9E-05	0.000135	1.62E-05	1.96E-06
0.064358	-0.0252	-0.04878	0.004142	-0.00162	-0.00314	0.000635	0.001229	0.00238
0.054793	-0.02613	-0.05459	0.003002	-0.00143	-0.00299	0.000683	0.001426	0.002981
0.052164	-0.011	-0.0434	0.002721	-0.00057	-0.00226	0.000121	0.000477	0.001884
0.063094	-0.00522	-0.0445	0.003981	-0.00033	-0.00281	2.73E-05	0.000232	0.00198
0.049448	-0.02009	-0.05376	0.002445	-0.00099	-0.00266	0.000404	0.00108	0.00289
0.042062	-0.02627	-0.05951	0.001769	-0.0011	-0.0025	0.00069	0.001563	0.003541
0.045278	-0.02576	-0.04707	0.00205	-0.00117	-0.00213	0.000664	0.001213	0.002216
0.049204	-0.02252	-0.04253	0.002421	-0.00111	-0.00209	0.000507	0.000958	0.001809
0.057408	-0.01271	-0.04267	0.003296	-0.00073	-0.00245	0.000161	0.000542	0.001821
0.022692	-0.0223	-0.03929	0.000515	-0.00051	-0.00089	0.000497	0.000876	0.001544
-0.01355	-0.02445	-0.02995	0.000184	0.000331	0.000406	0.000598	0.000732	0.000897
-0.03799	-0.00996	-0.00458	0.001443	0.000378	0.000174	9.93E-05	4.56E-05	2.1E-05
-0.04819	-0.00914	-0.0102	0.002323	0.00044	0.000492	8.35E-05	9.32E-05	0.000104
-0.02297	-0.00844	0.027873	0.000528	0.000194	-0.00064	7.12E-05	-0.00024	0.000777
0.002941	0.00018	0.022316	8.65E-06	5.28E-07	6.56E-05	3.23E-08	4.01E-06	0.000498
-0.01064	-0.00304	-0.00011	0.000113	3.23E-05	1.14E-06	9.24E-06	3.27E-07	1.15E-08
-0.00631	0.001811	-0.01194	3.98E-05	-1.1E-05	7.53E-05	3.28E-06	-2.2E-05	0.000142
-0.00739	-0.00084	-0.0069	5.46E-05	6.21E-06	5.1E-05	7.06E-07	5.8E-06	4.76E-05

0.001783	0.031739	-0.00254	3.18E-06	5.66E-05	-4.5E-06	0.001007	-8E-05	6.43E-06
0.001596	0.020089	0.001702	2.55E-06	3.21E-05	2.72E-06	0.000404	3.42E-05	2.9E-06
0.021763	0.087154	0.010508	0.000474	0.001897	0.000229	0.007596	0.000916	0.00011
0.007971	0.078939	0.017648	6.35E-05	0.000629	0.000141	0.006231	0.001393	0.000311
0.031347	0.073349	-0.01553	0.000983	0.002299	-0.00049	0.00538	-0.00114	0.000241
0.034368	0.066431	-0.02311	0.001181	0.002283	-0.00079	0.004413	-0.00153	0.000534
0.055341	0.071404	-0.03436	0.003063	0.003952	-0.0019	0.005099	-0.00245	0.001181
0.115153	0.069615	-0.03808	0.01326	0.008016	-0.00439	0.004846	-0.00265	0.00145
0.116049	0.067958	-0.04754	0.013467	0.007886	-0.00552	0.004618	-0.00323	0.00226
0.100015	0.070726	-0.05442	0.010003	0.007074	-0.00544	0.005002	-0.00385	0.002961
0.093524	0.077634	-0.06175	0.008747	0.007261	-0.00578	0.006027	-0.00479	0.003813
0.089671	0.077222	-0.06476	0.008041	0.006925	-0.00581	0.005963	-0.005	0.004194
0.091486	0.077721	-0.07175	0.00837	0.00711	-0.00656	0.006041	-0.00558	0.005148
0.079941	0.069619	-0.07499	0.006391	0.005565	-0.00599	0.004847	-0.00522	0.005624
0.088201	0.077413	-0.0911	0.007779	0.006828	-0.00803	0.005993	-0.00705	0.008298
0.088748	0.075101	-0.09289	0.007876	0.006665	-0.00824	0.00564	-0.00698	0.008628
0.115847	0.090572	-0.06599	0.01342	0.010492	-0.00765	0.008203	-0.00598	0.004355
0.106133	0.091666	-0.06797	0.011264	0.009729	-0.00721	0.008403	-0.00623	0.00462
0.102413	0.09741	-0.06844	0.010489	0.009976	-0.00701	0.009489	-0.00667	0.004684
0.090419	0.077144	-0.06562	0.008176	0.006975	-0.00593	0.005951	-0.00506	0.004306
0.097346	0.108318	-0.05929	0.009476	0.010544	-0.00577	0.011733	-0.00642	0.003515
0.089169	0.048591	-0.07652	0.007951	0.004333	-0.00682	0.002361	-0.00372	0.005856
0.109752	0.050859	-0.07874	0.012046	0.005582	-0.00864	0.002587	-0.004	0.0062
0.08282	0.023191	-0.05216	0.006859	0.001921	-0.00432	0.000538	-0.00121	0.00272
0.087095	0.029222	-0.03714	0.007586	0.002545	-0.00323	0.000854	-0.00109	0.001379
0.086316	0.053523	-0.01555	0.00745	0.00462	-0.00134	0.002865	-0.00083	0.000242
0.031993	0.087192	0.008156	0.001024	0.00279	0.000261	0.007603	0.000711	6.65E-05
0.0556	0.107535	0.038257	0.003091	0.005979	0.002127	0.011564	0.004114	0.001464
0.054402	0.068008	0.051752	0.00296	0.0037	0.002815	0.004625	0.00352	0.002678
0.033678	-0.01378	0.023445	0.001134	-0.00046	0.00079	0.00019	-0.00032	0.00055
0.044734	0.010372	0.031183	0.002001	0.000464	0.001395	0.000108	0.000323	0.000972
0.040072	0.006307	0.032975	0.001606	0.000253	0.001321	3.98E-05	0.000208	0.001087
0.048153	0.009258	0.041162	0.002319	0.000446	0.001982	8.57E-05	0.000381	0.001694
0.035164	0.012842	0.048721	0.001237	0.000452	0.001713	0.000165	0.000626	0.002374
0.012245	0.008184	0.041435	0.00015	0.0001	0.000507	6.7E-05	0.000339	0.001717
-0.00317	-0.0016	0.052386	1E-05	5.08E-06	-0.00017	2.57E-06	-8.4E-05	0.002744
-0.0008	-0.00848	0.050134	6.35E-07	6.76E-06	-4E-05	7.2E-05	-0.00043	0.002513
-0.00409	-0.02669	0.037139	1.67E-05	0.000109	-0.00015	0.000712	-0.00099	0.001379
-0.02238	-0.04274	0.040161	0.000501	0.000957	-0.0009	0.001827	-0.00172	0.001613
-0.03833	-0.08543	0.026302	0.001469	0.003274	-0.00101	0.007299	-0.00225	0.000692
-0.03546	-0.11081	0.037062	0.001257	0.003929	-0.00131	0.012278	-0.00411	0.001374
-0.04204	-0.11424	0.026506	0.001767	0.004802	-0.00111	0.013051	-0.00303	0.000703
-0.02856	-0.08636	0.050501	0.000816	0.002467	-0.00144	0.007458	-0.00436	0.00255
-0.02436	-0.08546	0.060352	0.000594	0.002082	-0.00147	0.007303	-0.00516	0.003642
-0.03495	-0.12295	0.044794	0.001222	0.004297	-0.00157	0.015116	-0.00551	0.002006
-0.05111	-0.15361	0.0199	0.002613	0.007851	-0.00102	0.023595	-0.00306	0.000396
-0.08193	-0.17692	-0.00044	0.006713	0.014495	3.6E-05	0.0313	7.78E-05	1.93E-07
-0.07216	-0.1457	-0.00555	0.005207	0.010513	0.000401	0.021228	0.000809	3.08E-05
-0.04426	-0.06015	0.023387	0.001959	0.002662	-0.00104	0.003618	-0.00141	0.000547
-0.0421	-0.08434	0.011391	0.001772	0.003551	-0.00048	0.007113	-0.00096	0.00013
-0.02092	-0.07624	0.02189	0.000438	0.001595	-0.00046	0.005813	-0.00167	0.000479
-0.01428	-0.0634	0.018181	0.000204	0.000905	-0.00026	0.004019	-0.00115	0.000331
0.000768	-0.07041	0.01222	5.9E-07	-5.4E-05	9.38E-06	0.004958	-0.00086	0.000149
0.034558	-0.05572	0.013602	0.001194	-0.00193	0.00047	0.003105	-0.00076	0.000185
0.026532	-0.06303	0.010384	0.000704	-0.00167	0.000276	0.003973	-0.00065	0.000108
0.041201	-0.03185	0.011362	0.001698	-0.00131	0.000468	0.001015	-0.00036	0.000129
0.035806	-0.02212	0.012683	0.001282	-0.00079	0.000454	0.000489	-0.00028	0.000161
0.087444	-0.01818	0.016138	0.007646	-0.00159	0.001411	0.000331	-0.00029	0.00026
0.097697	-0.00945	0.012449	0.009545	-0.00092	0.001216	8.94E-05	-0.00012	0.000155

0.06681	0.010938	0.023409	0.004464	0.000731	0.001564	0.00012	0.000256	0.000548
0.057931	0.006449	0.009328	0.003356	0.000374	0.00054	4.16E-05	6.02E-05	8.7E-05
0.06065	0.030186	0.010015	0.003678	0.001831	0.000607	0.000911	0.000302	0.0001
0.05418	0.03347	-0.00022	0.002935	0.001813	-1.2E-05	0.00112	-7.5E-06	5.01E-08
0.046543	0.047736	0.006909	0.002166	0.002222	0.000322	0.002279	0.00033	4.77E-05
0.04395	0.045276	0.016034	0.001932	0.00199	0.000705	0.00205	0.000726	0.000257
0.047613	0.02802	0.011634	0.002267	0.001334	0.000554	0.000785	0.000326	0.000135
0.06882	0.024041	0.011184	0.004736	0.001654	0.00077	0.000578	0.000269	0.000125
0.06835	0.027919	0.017072	0.004672	0.001908	0.001167	0.000779	0.000477	0.000291
0.048891	0.032921	0.026376	0.00239	0.00161	0.00129	0.001084	0.000868	0.000696
0.000431	0.012646	0.014945	1.86E-07	5.45E-06	6.44E-06	0.00016	0.000189	0.000223
-0.07932	9.83E-05	0.023591	0.006292	-7.8E-06	-0.00187	9.66E-09	2.32E-06	0.000557
-0.09892	0.011994	0.028582	0.009785	-0.00119	-0.00283	0.000144	0.000343	0.000817
-0.11538	-0.00305	0.030409	0.013313	0.000352	-0.00351	9.31E-06	-9.3E-05	0.000925
-0.11431	0.015135	0.030429	0.013066	-0.00173	-0.00348	0.000229	0.000461	0.000926
-0.13658	-0.01898	0.032326	0.018653	0.002593	-0.00441	0.00036	-0.00061	0.001045
-0.13036	-0.014	0.039593	0.016993	0.001825	-0.00516	0.000196	-0.00055	0.001568
-0.17212	0.000779	0.034382	0.029626	-0.00013	-0.00592	6.06E-07	2.68E-05	0.001182
-0.19592	0.018021	0.055197	0.038385	-0.00353	-0.01081	0.000325	0.000995	0.003047
-0.19246	0.006516	0.040161	0.037041	-0.00125	-0.00773	4.25E-05	0.000262	0.001613
-0.18214	0.015635	0.060408	0.033174	-0.00285	-0.011	0.000244	0.000944	0.003649
-0.17452	0.020709	0.050178	0.030457	-0.00361	-0.00876	0.000429	0.001039	0.002518
-0.16233	0.02399	0.061786	0.026352	-0.00389	-0.01003	0.000576	0.001482	0.003818
-0.15343	0.024495	0.057783	0.023542	-0.00376	-0.00887	0.0006	0.001415	0.003339
-0.14219	0.026165	0.066793	0.020218	-0.00372	-0.0095	0.000685	0.001748	0.004461
-0.15379	0.027189	0.057377	0.02365	-0.00418	-0.00882	0.000739	0.00156	0.003292
-0.15968	0.04672	0.082178	0.025498	-0.00746	-0.01312	0.002183	0.003839	0.006753
-0.17047	0.019696	0.062465	0.029061	-0.00336	-0.01065	0.000388	0.00123	0.003902
-0.14869	0.010908	0.060678	0.022109	-0.00162	-0.00902	0.000119	0.000662	0.003682
-0.10851	0.040557	0.057986	0.011775	-0.0044	-0.00629	0.001645	0.002352	0.003362
-0.04911	0.030486	0.037494	0.002412	-0.0015	-0.00184	0.000929	0.001143	0.001406
-0.02483	0.040763	0.033947	0.000616	-0.00101	-0.00084	0.001662	0.001384	0.001152
0.004261	0.044669	0.039908	1.82E-05	0.00019	0.00017	0.001995	0.001783	0.001593
0.002448	0.040757	0.034272	5.99E-06	9.98E-05	8.39E-05	0.001661	0.001397	0.001175
0.008992	0.042861	0.03713	8.09E-05	0.000385	0.000334	0.001837	0.001591	0.001379
0.001392	0.030482	0.025901	1.94E-06	4.24E-05	3.61E-05	0.000929	0.00079	0.000671
0.014328	0.02535	0.026862	0.000205	0.000363	0.000385	0.000643	0.000681	0.000722
0.036045	0.016753	0.010463	0.001299	0.000604	0.000377	0.000281	0.000175	0.000109
0.057454	0.032295	0.01705	0.003301	0.001855	0.00098	0.001043	0.000551	0.000291
0.055313	0.035211	0.024735	0.00306	0.001948	0.001368	0.00124	0.000871	0.000612
0.054133	0.008346	0.019664	0.00293	0.000452	0.001065	6.97E-05	0.000164	0.000387
0.061087	0.00409	0.012341	0.003732	0.00025	0.000754	1.67E-05	5.05E-05	0.000152
0.060319	-0.00098	0.013693	0.003638	-5.9E-05	0.000826	9.6E-07	-1.3E-05	0.000187
0.06993	0.023935	0.003669	0.00489	0.001674	0.000257	0.000573	8.78E-05	1.35E-05
0.092475	0.041619	0.012342	0.008552	0.003849	0.001141	0.001732	0.000514	0.000152
0.082947	0.027072	-0.00374	0.00688	0.002246	-0.00031	0.000733	-0.0001	1.4E-05
0.086527	0.026436	-0.01415	0.007487	0.002287	-0.00122	0.000699	-0.00037	0.0002
0.065177	0.042263	0.009468	0.004248	0.002755	0.000617	0.001786	0.0004	8.96E-05
0.070811	0.027415	0.015698	0.005014	0.001941	0.001112	0.000752	0.00043	0.000246
0.083444	0.044527	0.023128	0.006963	0.003715	0.00193	0.001983	0.00103	0.000535
0.068321	0.022618	0.040566	0.004668	0.001545	0.002771	0.000512	0.000918	0.001646
0.083872	0.055911	0.050892	0.007034	0.004689	0.004268	0.003126	0.002845	0.00259
0.086152	0.030254	0.028272	0.007422	0.002606	0.002436	0.000915	0.000855	0.000799
0.092044	0.033433	0.022354	0.008472	0.003077	0.002058	0.001118	0.000747	0.0005
0.104433	0.047458	0.032755	0.010906	0.004956	0.003421	0.002252	0.001554	0.001073
0.111595	0.041916	0.030357	0.012453	0.004678	0.003388	0.001757	0.001272	0.000922
0.088824	0.024362	0.02309	0.00789	0.002164	0.002051	0.000594	0.000563	0.000533
0.096399	0.025446	0.020567	0.009293	0.002453	0.001983	0.000648	0.000523	0.000423
0.095717	0.012816	0.00644	0.009162	0.001227	0.000616	0.000164	8.25E-05	4.15E-05

0.063374	0.000551	0.01131	0.004016	3.49E-05	0.000717	3.04E-07	6.23E-06	0.000128
0.058679	0.009367	0.015905	0.003443	0.00055	0.000933	8.77E-05	0.000149	0.000253
0.083944	-0.00815	0.015573	0.007047	-0.00068	0.001307	6.64E-05	-0.00013	0.000243
0.076317	0.013917	0.033257	0.005824	0.001062	0.002538	0.000194	0.000463	0.001106
0.069758	-0.0226	0.039076	0.004866	-0.00158	0.002726	0.000511	-0.00088	0.001527
0.061259	-0.01222	0.032706	0.003753	-0.00075	0.002004	0.000149	-0.0004	0.00107
0.069329	0.000788	0.041215	0.004806	5.46E-05	0.002857	6.21E-07	3.25E-05	0.001699
0.090932	-0.02632	0.028583	0.008269	-0.00239	0.002599	0.000693	-0.00075	0.000817
0.049093	-0.039	0.033045	0.00241	-0.00191	0.001622	0.001521	-0.00129	0.001092
0.044268	-0.05281	0.053735	0.00196	-0.00234	0.002379	0.002789	-0.00284	0.002887
0.061681	-0.07045	0.087253	0.003805	-0.00435	0.005382	0.004964	-0.00615	0.007613
0.002306	-0.12057	0.050717	5.32E-06	-0.00028	0.000117	0.014538	-0.00612	0.002572
-0.00481	-0.10637	0.050241	2.32E-05	0.000512	-0.00024	0.011315	-0.00534	0.002524
0.027595	-0.06906	0.064525	0.000762	-0.00191	0.001781	0.00477	-0.00446	0.004163
0.027897	-0.07475	0.08086	0.000778	-0.00209	0.002256	0.005588	-0.00604	0.006538
-0.05485	-0.09681	0.058742	0.003008	0.00531	-0.00322	0.009373	-0.00569	0.003451
-0.02647	-0.06676	0.109028	0.000701	0.001767	-0.00289	0.004457	-0.00728	0.011887
-0.05489	-0.09549	0.075952	0.003013	0.005242	-0.00417	0.009118	-0.00725	0.005769
-0.0008	-0.06932	0.108136	6.43E-07	5.56E-05	-8.7E-05	0.004805	-0.0075	0.011693
0.013261	-0.05027	0.115156	0.000176	-0.00067	0.001527	0.002527	-0.00579	0.013261
-0.00059	-0.08188	0.062538	3.52E-07	4.86E-05	-3.7E-05	0.006704	-0.00512	0.003911
-0.03325	-0.06274	0.044869	0.001105	0.002086	-0.00149	0.003936	-0.00281	0.002013
-0.06065	-0.132	0.007408	0.003678	0.008006	-0.00045	0.017425	-0.00098	5.49E-05
-0.03295	-0.08346	0.04911	0.001086	0.00275	-0.00162	0.006965	-0.0041	0.002412
-0.05139	-0.10979	0.064234	0.00264	0.005641	-0.0033	0.012053	-0.00705	0.004126
-0.03677	-0.10416	0.097915	0.001352	0.003829	-0.0036	0.010849	-0.0102	0.009587
-0.03118	-0.07974	0.071039	0.000972	0.002486	-0.00221	0.006358	-0.00566	0.005047
0.001167	-0.08266	0.047503	1.36E-06	-9.7E-05	5.55E-05	0.006833	-0.00393	0.002257
-0.04455	-0.10153	0.014312	0.001984	0.004523	-0.00064	0.010309	-0.00145	0.000205
-0.08391	-0.09771	-0.04488	0.007041	0.008199	0.003766	0.009548	0.004385	0.002014
-0.08886	-0.07704	-0.01386	0.007896	0.006846	0.001232	0.005935	0.001068	0.000192
-0.07861	-0.09884	7.55E-05	0.00618	0.007769	-5.9E-06	0.009769	-7.5E-06	5.7E-09
-0.13195	-0.13935	-0.01308	0.017411	0.018387	0.001726	0.019419	0.001823	0.000171
-0.15224	-0.14294	-0.04876	0.023177	0.021762	0.007424	0.020433	0.006971	0.002378
-0.06646	-0.10299	-0.02489	0.004417	0.006845	0.001654	0.010607	0.002563	0.00062
-0.08324	-0.1145	-0.06846	0.006929	0.009531	0.005699	0.01311	0.007839	0.004687
-0.06888	-0.09206	-0.04483	0.004744	0.006341	0.003088	0.008475	0.004128	0.00201
-0.10789	-0.09956	-0.04544	0.011641	0.010742	0.004902	0.009911	0.004524	0.002065
-0.10375	-0.09167	-0.0529	0.010764	0.009511	0.005488	0.008404	0.004849	0.002798
-0.09291	-0.06552	-0.01009	0.008632	0.006088	0.000938	0.004293	0.000661	0.000102
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-0.18114	-0.0657	-0.01194	0.032813	0.011902	0.002163	0.004317	0.000785	0.000143
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-0.16087	-0.05506	0.038707	0.02588	0.008858	-0.00623	0.003032	-0.00213	0.001498
-0.14153	-0.04107	0.018401	0.020031	0.005813	-0.0026	0.001687	-0.00076	0.000339
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-0.08705	-0.03766	-0.02231	0.007578	0.003278	0.001942	0.001418	0.00084	0.000498
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-0.10353	-0.04467	-0.05168	0.010717	0.004625	0.005351	0.001996	0.002309	0.002671
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-0.11831	-0.04893	-0.0306	0.013996	0.005789	0.003621	0.002394	0.001498	0.000937

-0.0865	-0.03637	-0.02821	0.007481	0.003146	0.00244	0.001323	0.001026	0.000796
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-0.02894	-0.0236	-0.00529	0.000837	0.000683	0.000153	0.000557	0.000125	2.8E-05
-0.01539	-0.0437	-0.06073	0.000237	0.000672	0.000934	0.00191	0.002654	0.003688
0.007063	-0.00355	-0.04798	4.99E-05	-2.5E-05	-0.00034	1.26E-05	0.00017	0.002302
0.003495	0.020517	-0.04662	1.22E-05	7.17E-05	-0.00016	0.000421	-0.00096	0.002173
-0.00462	0.018512	-0.07486	2.13E-05	-8.5E-05	0.000346	0.000343	-0.00139	0.005604
0.012039	0.016492	-0.09708	0.000145	0.000199	-0.00117	0.000272	-0.0016	0.009424
-0.01956	0.019573	-0.06355	0.000383	-0.00038	0.001243	0.000383	-0.00124	0.004038
-0.0173	0.02665	-0.06736	0.000299	-0.00046	0.001165	0.00071	-0.0018	0.004538
-0.04885	-0.00028	-0.0771	0.002386	1.38E-05	0.003766	7.97E-08	2.18E-05	0.005945
-0.04841	0.037378	-0.07637	0.002343	-0.00181	0.003697	0.001397	-0.00285	0.005832
-0.04399	0.044467	-0.05745	0.001935	-0.00196	0.002527	0.001977	-0.00255	0.0033
-0.02444	-0.00859	-0.04202	0.000597	0.00021	0.001027	7.37E-05	0.000361	0.001765
-0.01463	0.003712	-0.01706	0.000214	-5.4E-05	0.00025	1.38E-05	-6.3E-05	0.000291
-0.02135	-0.01144	-0.01063	0.000456	0.000244	0.000227	0.000131	0.000122	0.000113
-0.00366	-0.0182	-0.00351	1.34E-05	6.66E-05	1.29E-05	0.000331	6.39E-05	1.23E-05
0.027166	0.023684	-0.00868	0.000738	0.000643	-0.00024	0.000561	-0.00021	7.53E-05
0.033891	0.01095	-0.0164	0.001149	0.000371	-0.00056	0.00012	-0.00018	0.000269
-0.00291	0.005286	-0.03147	8.46E-06	-1.5E-05	9.16E-05	2.79E-05	-0.00017	0.00099
0.014992	0.01365	-0.02492	0.000225	0.000205	-0.00037	0.000186	-0.00034	0.000621
-0.001	0.006631	-0.00176	1E-06	-6.6E-06	1.77E-06	4.4E-05	-1.2E-05	3.11E-06
0.003211	0.000378	0.002225	1.03E-05	1.21E-06	7.14E-06	1.43E-07	8.41E-07	4.95E-06
0.005058	-0.01764	-0.03498	2.56E-05	-8.9E-05	-0.00018	0.000311	0.000617	0.001223
0.040896	-0.01646	-0.03657	0.001673	-0.00067	-0.0015	0.000271	0.000602	0.001338
0.036903	0.018625	0.003076	0.001362	0.000687	0.000114	0.000347	5.73E-05	9.46E-06
0.057432	0.049563	0.028313	0.003298	0.002847	0.001626	0.002457	0.001403	0.000802
0.075222	0.035969	0.035997	0.005658	0.002706	0.002708	0.001294	0.001295	0.001296
0.080979	0.047834	0.064517	0.006558	0.003874	0.005225	0.002288	0.003086	0.004163
0.075173	0.057349	0.069039	0.005651	0.004311	0.00519	0.003289	0.003959	0.004766
0.10771	0.036945	0.073072	0.011601	0.003979	0.007871	0.001365	0.0027	0.00534
0.100749	0.046811	0.093565	0.01015	0.004716	0.009427	0.002191	0.00438	0.008754
0.084571	0.09383	0.092002	0.007152	0.007935	0.007781	0.008804	0.008633	0.008464
0.075384	0.072756	0.075728	0.005683	0.005485	0.005709	0.005293	0.00551	0.005735
0.087583	0.098431	0.081726	0.007671	0.008621	0.007158	0.009689	0.008044	0.006679
0.084348	0.109444	0.106612	0.007115	0.009231	0.008993	0.011978	0.011668	0.011366
0.037421	0.063601	0.088135	0.0014	0.00238	0.003298	0.004045	0.005606	0.007768
0.055079	0.087082	0.108472	0.003034	0.004796	0.005975	0.007583	0.009446	0.011766
0.056989	0.09012	0.134994	0.003248	0.005136	0.007693	0.008122	0.012166	0.018223
0.006477	0.048215	0.125268	4.19E-05	0.000312	0.000811	0.002325	0.00604	0.015692
-0.01123	0.050803	0.099253	0.000126	-0.00057	-0.00111	0.002581	0.005042	0.009851
-0.00521	0.047958	0.112883	2.71E-05	-0.00025	-0.00059	0.0023	0.005414	0.012743
-0.01522	0.040321	0.108793	0.000232	-0.00061	-0.00166	0.001626	0.004387	0.011836
-0.03725	0.027313	0.118127	0.001388	-0.00102	-0.0044	0.000746	0.003226	0.013954
-0.0145	0.018038	0.115651	0.00021	-0.00026	-0.00168	0.000325	0.002086	0.013375
-0.0335	-0.01294	0.075122	0.001122	0.000433	-0.00252	0.000167	-0.00097	0.005643
-0.04088	-0.00964	0.064719	0.001671	0.000394	-0.00265	9.3E-05	-0.00062	0.004189
-0.04147	-0.00556	0.086058	0.001719	0.000231	-0.00357	3.09E-05	-0.00048	0.007406
-0.02844	-0.0028	0.090644	0.000809	7.97E-05	-0.00258	7.85E-06	-0.00025	0.008216
-0.0425	-0.00762	0.097557	0.001806	0.000324	-0.00415	5.8E-05	-0.00074	0.009517
-0.01642	-0.01297	0.089473	0.000269	0.000213	-0.00147	0.000168	-0.00116	0.008005
0.010089	-0.0207	0.079991	0.000102	-0.00021	0.000807	0.000429	-0.00166	0.006399
-0.0141	-0.02241	0.045409	0.000199	0.000316	-0.00064	0.000502	-0.00102	0.002062
0.00972	-0.02151	0.047478	9.45E-05	-0.00021	0.000462	0.000463	-0.00102	0.002254
-0.00757	-0.04956	0.005012	5.73E-05	0.000375	-3.8E-05	0.002456	-0.00025	2.51E-05
-0.01871	-0.04541	0.016538	0.00035	0.00085	-0.00031	0.002062	-0.00075	0.000273
0.011976	-0.05868	0.013631	0.000143	-0.0007	0.000163	0.003444	-0.0008	0.000186
-0.00323	-0.08681	-0.03436	1.04E-05	0.00028	0.000111	0.007535	0.002983	0.001181
0.01207	-0.06447	-0.02346	0.000146	-0.00078	-0.00028	0.004156	0.001512	0.00055

0.017866	-0.07745	-0.02737	0.000319	-0.00138	-0.00049	0.005999	0.00212	0.000749
0.040957	-0.04151	-0.0014	0.001677	-0.0017	-5.7E-05	0.001723	5.83E-05	1.97E-06
0.088647	0.005164	0.058356	0.007858	0.000458	0.005173	2.67E-05	0.000301	0.003405
0.110477	0.01289	0.067107	0.012205	0.001424	0.007414	0.000166	0.000865	0.004503
0.069803	-0.03926	0.008955	0.004872	-0.00274	0.000625	0.001542	-0.00035	8.02E-05
0.010824	-0.06069	-0.00012	0.000117	-0.00066	-1.3E-06	0.003683	7.1E-06	1.37E-08
0.011713	-0.07209	-0.02428	0.000137	-0.00084	-0.00028	0.005198	0.001751	0.00059
-0.00228	-0.08883	-0.06553	5.18E-06	0.000202	0.000149	0.00789	0.00582	0.004294
-0.0163	-0.10919	-0.08172	0.000266	0.00178	0.001332	0.011922	0.008923	0.006679
-0.01559	-0.10274	-0.07375	0.000243	0.001602	0.00115	0.010555	0.007577	0.005439
-0.02305	-0.08878	-0.07979	0.000531	0.002046	0.001839	0.007882	0.007083	0.006366
-0.04556	-0.08379	-0.08876	0.002076	0.003817	0.004044	0.00702	0.007437	0.007878
-0.01084	-0.07252	-0.0515	0.000117	0.000786	0.000558	0.005259	0.003735	0.002653
-0.09172	-0.10298	-0.08188	0.008413	0.009445	0.00751	0.010604	0.008432	0.006705
-0.04599	-0.07024	-0.03901	0.002115	0.003231	0.001794	0.004934	0.00274	0.001522
-0.02492	-0.07029	-0.0629	0.000621	0.001752	0.001567	0.004941	0.004421	0.003956
-0.06926	-0.07562	-0.06687	0.004796	0.005237	0.004631	0.005719	0.005057	0.004472
-0.01692	-0.03868	-0.02397	0.000286	0.000655	0.000406	0.001496	0.000927	0.000574
-0.04484	-0.05642	-0.0377	0.002011	0.00253	0.00169	0.003183	0.002127	0.001421
-0.07197	-0.05415	-0.05526	0.00518	0.003898	0.003977	0.002933	0.002992	0.003053
-0.10978	-0.09296	-0.13402	0.012051	0.010205	0.014712	0.008641	0.012458	0.01796
-0.1706	-0.13664	-0.18927	0.029105	0.023311	0.03229	0.018671	0.025862	0.035824
-0.17976	-0.11763	-0.18116	0.032314	0.021145	0.032565	0.013837	0.021309	0.032818
-0.14953	-0.06317	-0.0929	0.022358	0.009446	0.013892	0.003991	0.005869	0.008631
-0.10041	-0.03687	-0.06818	0.010081	0.003702	0.006846	0.001359	0.002514	0.004648
-0.08496	-0.02528	-0.06106	0.007218	0.002147	0.005188	0.000639	0.001543	0.003729
-0.07257	-0.01902	-0.04737	0.005266	0.00138	0.003438	0.000362	0.000901	0.002244
-0.11013	-0.0014	-0.03467	0.012129	0.000154	0.003819	1.95E-06	4.84E-05	0.001202
-0.13047	-0.0028	-0.04112	0.017023	0.000365	0.005364	7.83E-06	0.000115	0.00169
-0.11876	-0.0188	-0.04776	0.014103	0.002233	0.005672	0.000353	0.000898	0.002281
-0.10938	-0.0202	-0.04961	0.011963	0.002209	0.005426	0.000408	0.001002	0.002461
-0.11144	-0.01738	-0.06444	0.012419	0.001937	0.007181	0.000302	0.00112	0.004152
-0.04841	0.000513	-0.05253	0.002344	-2.5E-05	0.002543	2.63E-07	-2.7E-05	0.002759
-0.08452	-0.00591	-0.06887	0.007144	0.0005	0.005821	3.5E-05	0.000407	0.004744
-0.06878	0.000296	-0.05018	0.004731	-2E-05	0.003451	8.73E-08	-1.5E-05	0.002518
-0.04006	0.013172	-0.05446	0.001605	-0.00053	0.002181	0.000173	-0.00072	0.002966
-0.06727	0.013038	-0.05898	0.004526	-0.00088	0.003968	0.00017	-0.00077	0.003479
-0.0598	0.024636	-0.05844	0.003576	-0.00147	0.003494	0.000607	-0.00144	0.003415
-0.0384	0.029972	-0.0397	0.001475	-0.00115	0.001525	0.000898	-0.00119	0.001576
-0.03311	0.032634	-0.00021	0.001096	-0.00108	6.81E-06	0.001065	-6.7E-06	4.23E-08
-0.02932	0.02845	0.010664	0.000859	-0.00083	-0.00031	0.000809	0.000303	0.000114
-0.01687	0.023258	-0.00733	0.000284	-0.00039	0.000124	0.000541	-0.00017	5.38E-05
-0.01462	0.020366	-0.04258	0.000214	-0.0003	0.000622	0.000415	-0.00087	0.001813
-0.0183	0.00833	-0.04651	0.000335	-0.00015	0.000851	6.94E-05	-0.00039	0.002163
-0.01891	0.02095	-0.03245	0.000358	-0.0004	0.000614	0.000439	-0.00068	0.001053
-0.0232	0.019349	-0.03337	0.000538	-0.00045	0.000774	0.000374	-0.00065	0.001113
0.028477	0.00461	-0.03955	0.000811	0.000131	-0.00113	2.13E-05	-0.00018	0.001564
0.033967	0.01699	-0.0395	0.001154	0.000577	-0.00134	0.000289	-0.00067	0.00156
0.023188	0.029203	-0.02963	0.000538	0.000677	-0.00069	0.000853	-0.00087	0.000878
0.004528	0.023507	-0.02917	2.05E-05	0.000106	-0.00013	0.000553	-0.00069	0.000851
-0.00416	0.028406	-0.02217	1.73E-05	-0.00012	9.23E-05	0.000807	-0.00063	0.000491
-0.01611	0.019258	-0.01736	0.000259	-0.00031	0.00028	0.000371	-0.00033	0.000301
-0.01036	0.006791	-0.01429	0.000107	-7E-05	0.000148	4.61E-05	-9.7E-05	0.000204
-0.03145	0.005654	-0.0203	0.000989	-0.00018	0.000638	3.2E-05	-0.00011	0.000412
-0.06894	-0.00979	-0.04052	0.004753	0.000675	0.002794	9.58E-05	0.000397	0.001642
-0.05059	-0.01454	-0.03741	0.002559	0.000735	0.001892	0.000211	0.000544	0.001399
-0.01406	0.030266	-0.01907	0.000198	-0.00043	0.000268	0.000916	-0.00058	0.000363
-0.01457	0.029978	-0.02636	0.000212	-0.00044	0.000384	0.000899	-0.00079	0.000695
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-0.02195	0.022232	-0.02085	0.000482	-0.00049	0.000458	0.000494	-0.00046	0.000435
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-0.04307	0.025431	-0.02627	0.001855	-0.0011	0.001131	0.000647	-0.00067	0.00069
-0.02985	0.060669	-0.01367	0.000891	-0.00181	0.000408	0.003681	-0.00083	0.000187
-0.02196	0.057069	-0.01366	0.000482	-0.00125	0.0003	0.003257	-0.00078	0.000187
-0.02863	0.050656	-0.00371	0.00082	-0.00145	0.000106	0.002566	-0.00019	1.37E-05
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-0.04624	0.025974	-0.0139	0.002138	-0.0012	0.000643	0.000675	-0.00036	0.000193
-0.02746	0.027724	-0.01868	0.000754	-0.00076	0.000513	0.000769	-0.00052	0.000349
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-0.00318	0.043872	-0.02049	1.01E-05	-0.00014	6.52E-05	0.001925	-0.0009	0.00042
0.022134	0.042767	-0.01436	0.00049	0.000947	-0.00032	0.001829	-0.00061	0.000206
0.011852	0.014645	-0.02708	0.00014	0.000174	-0.00032	0.000214	-0.0004	0.000733
0.011262	0.001668	-0.02113	0.000127	1.88E-05	-0.00024	2.78E-06	-3.5E-05	0.000447
0.007652	0.007742	-0.05302	5.85E-05	5.92E-05	-0.00041	5.99E-05	-0.00041	0.002811
0.031821	0.021359	-0.03799	0.001013	0.00068	-0.00121	0.000456	-0.00081	0.001443
0.039677	0.043578	-0.03607	0.001574	0.001729	-0.00143	0.001899	-0.00157	0.001301
0.032147	0.022482	-0.03859	0.001033	0.000723	-0.00124	0.000505	-0.00087	0.001489
0.013809	0.002142	-0.04433	0.000191	2.96E-05	-0.00061	4.59E-06	-9.5E-05	0.001965
0.009875	0.008883	-0.04059	9.75E-05	8.77E-05	-0.0004	7.89E-05	-0.00036	0.001647
0.051234	0.048547	-0.02485	0.002625	0.002487	-0.00127	0.002357	-0.00121	0.000617
0.0257	0.041162	-0.03055	0.000661	0.001058	-0.00079	0.001694	-0.00126	0.000934
-0.00761	0.03582	-0.02694	5.79E-05	-0.00027	0.000205	0.001283	-0.00097	0.000726
-0.00122	0.043219	-0.00429	1.48E-06	-5.3E-05	5.22E-06	0.001868	-0.00019	1.84E-05
0.008097	0.049057	0.004115	6.56E-05	0.000397	3.33E-05	0.002407	0.000202	1.69E-05
0.002617	0.04895	-0.00334	6.85E-06	0.000128	-8.7E-06	0.002396	-0.00016	1.11E-05
0.010824	0.042735	-0.00403	0.000117	0.000463	-4.4E-05	0.001826	-0.00017	1.62E-05
0.02513	0.032884	0.001014	0.000632	0.000826	2.55E-05	0.001081	3.33E-05	1.03E-06
0.008741	0.0086	0.002619	7.64E-05	7.52E-05	2.29E-05	7.4E-05	2.25E-05	6.86E-06
0.032726	0.02039	0.001819	0.001071	0.000667	5.95E-05	0.000416	3.71E-05	3.31E-06
-0.00166	0.003851	-0.01207	2.74E-06	-6.4E-06	2E-05	1.48E-05	-4.6E-05	0.000146
-0.00759	0.002302	-0.01075	5.76E-05	-1.7E-05	8.16E-05	5.3E-06	-2.5E-05	0.000116
-0.00023	0.023065	0.003089	5.21E-08	-5.3E-06	-7.1E-07	0.000532	7.13E-05	9.54E-06
0.005665	0.031668	0.04324	3.21E-05	0.000179	0.000245	0.001003	0.001369	0.00187
-0.01497	0.035125	0.024922	0.000224	-0.00053	-0.00037	0.001234	0.000875	0.000621
-0.01271	0.026437	0.042328	0.000162	-0.00034	-0.00054	0.000699	0.001119	0.001792
0.001205	0.038889	0.054073	1.45E-06	4.68E-05	6.51E-05	0.001512	0.002103	0.002924
0.020736	0.050844	0.039795	0.00043	0.001054	0.000825	0.002585	0.002023	0.001584
0.012099	0.034938	0.044129	0.000146	0.000423	0.000534	0.001221	0.001542	0.001947
-0.00174	0.01457	0.037129	3.04E-06	-2.5E-05	-6.5E-05	0.000212	0.000541	0.001379
0.034336	0.026947	0.04094	0.001179	0.000925	0.001406	0.000726	0.001103	0.001676
0.047703	0.029957	0.033769	0.002276	0.001429	0.001611	0.000897	0.001012	0.00114
0.048113	0.035481	0.017347	0.002315	0.001707	0.000835	0.001259	0.000615	0.000301
0.055085	0.047265	0.041118	0.003034	0.002604	0.002265	0.002234	0.001943	0.001691
0.042391	0.040457	0.038836	0.001797	0.001715	0.001646	0.001637	0.001571	0.001508
0.041207	0.031016	0.031538	0.001698	0.001278	0.0013	0.000962	0.000978	0.000995
0.001348	0.016606	0.028899	1.82E-06	2.24E-05	3.9E-05	0.000276	0.00048	0.000835
0.002674	0.023576	0.022325	7.15E-06	6.31E-05	5.97E-05	0.000556	0.000526	0.000498
-0.00956	0.020215	0.029238	9.14E-05	-0.00019	-0.00028	0.000409	0.000591	0.000855
-0.01087	0.038044	0.039937	0.000118	-0.00041	-0.00043	0.001447	0.001519	0.001595
-0.01363	0.026192	0.024444	0.000186	-0.00036	-0.00033	0.000686	0.00064	0.000597
-0.00623	0.023939	0.031237	3.88E-05	-0.00015	-0.00019	0.000573	0.000748	0.000976
0.014705	0.020916	0.008179	0.000216	0.000308	0.00012	0.000437	0.000171	6.69E-05
0.027618	0.016987	0.021309	0.000763	0.000469	0.000589	0.000289	0.000362	0.000454
0.016426	0.006262	0.006452	0.00027	0.000103	0.000106	3.92E-05	4.04E-05	4.16E-05



0.026729	0.007181	0.001835	0.000714	0.000192	4.91E-05	5.16E-05	1.32E-05	3.37E-06
0.011589	0.004166	0.018888	0.000134	4.83E-05	0.000219	1.74E-05	7.87E-05	0.000357
0.001264	-0.01845	0.001007	1.6E-06	-2.3E-05	1.27E-06	0.00034	-1.9E-05	1.01E-06
-0.01055	-0.02155	-0.01429	0.000111	0.000227	0.000151	0.000464	0.000308	0.000204
-0.01762	-0.02056	-0.02528	0.000311	0.000362	0.000445	0.000423	0.00052	0.000639
-0.03288	-0.01678	-0.02396	0.001081	0.000552	0.000788	0.000282	0.000402	0.000574
-0.02377	-0.0224	-0.02161	0.000565	0.000532	0.000514	0.000502	0.000484	0.000467
-0.04668	-0.03561	-0.05063	0.002179	0.001663	0.002363	0.001268	0.001803	0.002563
-0.03379	-0.02726	-0.04748	0.001142	0.000921	0.001604	0.000743	0.001294	0.002254
-0.05588	-0.01356	-0.04233	0.003122	0.000758	0.002366	0.000184	0.000574	0.001792
-0.01683	0.004276	-0.05701	0.000283	-7.2E-05	0.000959	1.83E-05	-0.00024	0.00325
-0.03864	0.008179	-0.04429	0.001493	-0.00032	0.001711	6.69E-05	-0.00036	0.001961
-0.05525	0.018723	-0.05016	0.003052	-0.00103	0.002771	0.000351	-0.00094	0.002517

		app-aig	app-exxon		aig-exxon	
covar(X,Y)	0.004409	0.001245	0.000208	0.002452	0.000392	0.002246

Cov_M			
	Apple	AIG	Exxon
Apple	0.004409	0.001245	0.000208
AIG	0.001245	0.002452	0.000392
Exxon	0.000208	0.000392	0.002246

fce

Cov_M			
	0.004409	0.001245	0.000208
	0.001245	0.002452	0.000392
	0.000208	0.000392	0.002246

corr_M					
0.066397		1	0.378734	0.06626	
0.049513		0.378734		1	0.167216
0.047389		0.06626	0.167216		1

on