

**Tables of the paper**  
**How reliable are the results on “Butterfly Effect”**  
**and “Chaos” in Financial and Commodity Futures**  
**Markets?**

Loretta Mastroeni, Pierluigi Vellucci

Fixed  $m = 2$  or  $m = 3$ , in the following Tables we show the numerical values of the determinism coefficient  $\kappa$  on varying of  $\tau$ .

**Commodity Markets.**

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.501905	16	0.361204	30	0.408889
3	0.419842	17	0.375060	31	0.411305
4	0.441020	18	0.384556	32	0.412225
5	0.431399	19	0.398143	33	0.379679
6	0.392880	20	0.412437	34	0.394530
7	0.395867	21	0.406275	35	0.394847
8	0.406614	22	0.381689	36	0.417282
9	0.415095	23	0.395406	37	0.430625
10	0.391700	24	0.396505	38	0.399006
11	0.415090	25	0.409085	39	0.444272
12	0.395824	26	0.423537	40	0.417778
13	0.375370	27	0.419672	41	0.384796
14	0.407810	28	0.433819	42	0.426004
15	0.408089	29	0.428505	43	0.395696

TABLE 1. Heiting OIL HO1, temporal range 06.03.1979 - 15.05.2014, number of samples 8.825,  $m = 2$ .

---

<sup>1</sup>Dept. of Economics, Roma TRE University, via Silvio D’Amico 77, 00145 Rome, Italy.

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.537274	16	0.394520	30	0.367590
3	0.478729	17	0.403045	31	0.404781
4	0.485819	18	0.401586	32	0.415901
5	0.469815	19	0.399474	33	0.404190
6	0.438405	20	0.414770	34	0.412973
7	0.454737	21	0.420266	35	0.414922
8	0.420400	22	0.404316	36	0.438795
9	0.443673	23	0.406564	37	0.401609
10	0.406686	24	0.384466	38	0.414218
11	0.410421	25	0.368297	39	0.395303
12	0.384327	26	0.393778	40	0.422266
13	0.406481	27	0.353556	41	0.399929
14	0.431002	28	0.398153	42	0.381433
15	0.409526	29	0.390039	43	0.406102

TABLE 2. Heating OIL HO1, temporal range 06.03.1979 - 15.05.2014, number of samples 8.825,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.476278	16	0.493609	30	0.431342
3	0.423472	17	0.432316	31	0.419427
4	0.427403	18	0.407716	32	0.432981
5	0.393378	19	0.417947	33	0.427012
6	0.420013	20	0.417331	34	0.410806
7	0.451157	21	0.437138	35	0.429270
8	0.452906	22	0.411759	36	0.421174
9	0.436177	23	0.402592	37	0.446244
10	0.451256	24	0.411774	38	0.369850
11	0.431307	25	0.418427	39	0.402403
12	0.419933	26	0.378412	40	0.387175
13	0.419721	27	0.412978	41	0.440380
14	0.477181	28	0.401562	42	0.445409
15	0.459651	29	0.433165	43	0.426742

TABLE 3. Natural GAS, temporal range 03.04.1990 - 15.05.2014, number of samples 6.042,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.565059	16	0.476005	30	0.448111
3	0.483286	17	0.457383	31	0.416498
4	0.472915	18	0.418325	32	0.426808
5	0.448891	19	0.430515	33	0.417782
6	0.420842	20	0.433987	34	0.411756
7	0.459661	21	0.459805	35	0.399251
8	0.473239	22	0.422080	36	0.396002
9	0.431479	23	0.423422	37	0.441582
10	0.439751	24	0.411347	38	0.387324
11	0.421026	25	0.450880	39	0.421272
12	0.403814	26	0.418336	40	0.393928
13	0.427620	27	0.420452	41	0.440154
14	0.446716	28	0.421035	42	0.460074
15	0.455369	29	0.422340	43	0.425142

TABLE 4. Natural GAS, temporal range 03.04.1990 - 15.05.2014, number of samples 6.042,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.456577	16	0.385399	30	0.412300
3	0.489044	17	0.402733	31	0.432360
4	0.437471	18	0.401405	32	0.398426
5	0.465226	19	0.433295	33	0.394840
6	0.433670	20	0.412377	34	0.395173
7	0.442106	21	0.417491	35	0.408090
8	0.448837	22	0.374224	36	0.388350
9	0.417140	23	0.389844	37	0.380357
10	0.407927	24	0.408348	38	0.399800
11	0.406520	25	0.418850	39	0.408125
12	0.404014	26	0.387176	40	0.378203
13	0.398718	27	0.417511	41	0.406236
14	0.400325	28	0.419352	42	0.390825
15	0.395134	29	0.402811	43	0.406994

TABLE 5. Comex Gold GC1, temporal range 31.12.1974 - 14.05.2014, number of samples 9.884,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.506349	16	0.399333	30	0.405419
3	0.531438	17	0.387416	31	0.432056
4	0.502471	18	0.385848	32	0.384694
5	0.493774	19	0.433405	33	0.382507
6	0.463394	20	0.407365	34	0.383020
7	0.459302	21	0.431452	35	0.375921
8	0.446830	22	0.390309	36	0.363701
9	0.454075	23	0.384895	37	0.377726
10	0.425578	24	0.424898	38	0.372769
11	0.404984	25	0.407977	39	0.381669
12	0.418081	26	0.408672	40	0.362182
13	0.430476	27	0.427333	41	0.373781
14	0.424050	28	0.415859	42	0.375041
15	0.399218	29	0.390507	43	0.396761

TABLE 6. Comex Gold GC1, temporal range 31.12.1974 - 14.05.2014, number of samples 9.884,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.539251	16	0.455814	30	0.503594
3	0.584441	17	0.486815	31	0.462340
4	0.513922	18	0.487549	32	0.483290
5	0.492936	19	0.461086	33	0.464395
6	0.479199	20	0.490300	34	0.491889
7	0.477370	21	0.463890	35	0.479057
8	0.505498	22	0.498534	36	0.481710
9	0.488799	23	0.498669	37	0.522654
10	0.506318	24	0.479640	38	0.487039
11	0.509231	25	0.466970	39	0.478970
12	0.499866	26	0.492515	40	0.481595
13	0.479876	27	0.495221	41	0.507981
14	0.497210	28	0.478038	42	0.496459
15	0.463725	29	0.502236	43	0.491399

TABLE 7. Comex Silver SII, temporal range 13.06.1963 - 15.05.2014, number of samples 12.758,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.558494	16	0.517037	30	0.534954
3	0.554552	17	0.521199	31	0.534674
4	0.551526	18	0.528505	32	0.517497
5	0.545445	19	0.525747	33	0.544510
6	0.522411	20	0.517618	34	0.535626
7	0.533848	21	0.526600	35	0.532681
8	0.541245	22	0.541457	36	0.518848
9	0.532624	23	0.536391	37	0.558470
10	0.530444	24	0.540085	38	0.520055
11	0.542110	25	0.524401	39	0.517262
12	0.555139	26	0.554486	40	0.526307
13	0.535586	27	0.529046	41	0.552292
14	0.520153	28	0.547930	42	0.535751
15	0.507704	29	0.539324	43	0.548601

TABLE 8. Comex Silver SI1, temporal range 13.06.1963 - 15.05.2014, number of samples 12.758,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.556027	16	0.414390	30	0.415392
3	0.548497	17	0.446478	31	0.425228
4	0.523482	18	0.434876	32	0.416906
5	0.519849	19	0.439162	33	0.416043
6	0.499945	20	0.423033	34	0.408130
7	0.479781	21	0.421653	35	0.393551
8	0.476021	22	0.448265	36	0.417855
9	0.463238	23	0.419848	37	0.422904
10	0.459457	24	0.423455	38	0.431490
11	0.478770	25	0.431844	39	0.406366
12	0.434305	26	0.411641	40	0.411940
13	0.476912	27	0.402350	41	0.427562
14	0.496633	28	0.397432	42	0.412138
15	0.474897	29	0.394947	43	0.399497

TABLE 9. ICE Coffee KC1, temporal range 17.08.1973 - 15.05.2014, number of samples 10.194,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.564286	16	0.467716	30	0.443061
3	0.527508	17	0.437972	31	0.442290
4	0.516443	18	0.477262	32	0.431649
5	0.505925	19	0.453044	33	0.418905
6	0.500501	20	0.420585	34	0.410515
7	0.482175	21	0.453173	35	0.403363
8	0.470494	22	0.433907	36	0.426214
9	0.461233	23	0.438626	37	0.445748
10	0.449420	24	0.464744	38	0.435190
11	0.481778	25	0.443670	39	0.455195
12	0.469494	26	0.432074	40	0.443380
13	0.456001	27	0.452799	41	0.439685
14	0.481280	28	0.424468	42	0.417532
15	0.472547	29	0.407762	43	0.415044

TABLE 10. ICE Coffee KC1, temporal range 17.08.1973 - 15.05.2014, number of samples 10.194,  $m = 3$ .

## Financial Markets.

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.536815	16	0.572849	30	0.525734
3	0.514348	17	0.490053	31	0.605266
4	0.405313	18	0.506952	32	0.556440
5	0.421347	19	0.485307	33	0.512411
6	0.441943	20	0.550810	34	0.464397
7	0.570665	21	0.590773	35	0.571997
8	0.406235	22	0.483198	36	0.543729
9	0.430975	23	0.595030	37	0.526884
10	0.456964	24	0.470990	38	0.570110
11	0.563423	25	0.697944	39	0.525627
12	0.524039	26	0.587884	40	0.611537
13	0.469134	27	0.537144	41	0.566814
14	0.517237	28	0.537242	42	0.463676
15	0.498798	29	0.514438	43	0.547880

TABLE 11. Pfizer Inc. Temporal range 01.06.1972 - 19.02.2016, number of samples 11.028,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.451171	16	0.620564	30	0.539173
3	0.530719	17	0.481895	31	0.604593
4	0.588470	18	0.457939	32	0.568811
5	0.567463	19	0.330115	33	0.527437
6	0.595542	20	0.596789	34	0.457357
7	0.579225	21	0.460689	35	0.599031
8	0.539689	22	0.376833	36	0.528756
9	0.668226	23	0.592735	37	0.553835
10	0.398621	24	0.550069	38	0.556214
11	0.564769	25	0.614640	39	0.545943
12	0.652480	26	0.598380	40	0.646979
13	0.770215	27	0.528644	41	0.590746
14	0.499084	28	0.555851	42	0.447562
15	0.626409	29	0.559094	43	0.518129

TABLE 12. Pfizer Inc. Temporal range 01.06.1972 - 19.02.2016, number of samples 11.028,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.493708	16	0.542880	30	0.478104
3	0.433396	17	0.530924	31	0.464103
4	0.430507	18	0.511627	32	0.451523
5	0.472399	19	0.528335	33	0.462532
6	0.494375	20	0.512493	34	0.462880
7	0.519588	21	0.559709	35	0.455022
8	0.501764	22	0.547230	36	0.459281
9	0.472757	23	0.518843	37	0.452571
10	0.468188	24	0.478390	38	0.457464
11	0.412671	25	0.485063	39	0.435470
12	0.484839	26	0.480800	40	0.410775
13	0.453547	27	0.462909	41	0.457110
14	0.495750	28	0.452928	42	0.482517
15	0.535746	29	0.486806	43	0.544610

TABLE 13. Deutsche Bank, Temporal range 18.11.1996 - 19.02.2016, number of samples 4.845,  $m = 2$ .

$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$
2	0.583510	16	0.514898	30	0.473949
3	0.496545	17	0.539052	31	0.495647
4	0.526694	18	0.543236	32	0.442377
5	0.532604	19	0.502557	33	0.467824
6	0.487162	20	0.509591	34	0.475767
7	0.528016	21	0.588764	35	0.484506
8	0.573867	22	0.579505	36	0.492812
9	0.528169	23	0.548140	37	0.500904
10	0.493767	24	0.524689	38	0.479062
11	0.498505	25	0.501632	39	0.460806
12	0.549949	26	0.497042	40	0.480621
13	0.533702	27	0.457624	41	0.478365
14	0.523473	28	0.443375	42	0.485215
15	0.527517	29	0.516490	43	0.529480

TABLE 14. Deutsche Bank, Temporal range 18.11.1996 - 19.02.2016, number of samples 4.845,  $m = 3$ .

$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$
2	0.566781	16	0.451011	30	0.409384
3	0.485540	17	0.408168	31	0.412938
4	0.475787	18	0.360624	32	0.424530
5	0.428278	19	0.331117	33	0.394794
6	0.439333	20	0.366577	34	0.362633
7	0.502218	21	0.372085	35	0.408141
8	0.426946	22	0.390264	36	0.410554
9	0.402960	23	0.366441	37	0.428429
10	0.394102	24	0.377913	38	0.400906
11	0.416787	25	0.380727	39	0.410117
12	0.388872	26	0.385553	40	0.392502
13	0.406609	27	0.380330	41	0.417365
14	0.405816	28	0.388722	42	0.456916
15	0.433067	29	0.410371	43	0.412352

TABLE 15. Bank of America, Temporal range 29.05.1986 - 19.02.2016, number of samples 7.495,  $m = 2$ .

$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$
2	0.596163	16	0.460862	30	0.421661
3	0.530203	17	0.410486	31	0.424701
4	0.550005	18	0.386076	32	0.413578
5	0.469317	19	0.366566	33	0.383234
6	0.463277	20	0.379507	34	0.375137
7	0.512447	21	0.444284	35	0.432838
8	0.471643	22	0.454897	36	0.393511
9	0.405377	23	0.434086	37	0.382590
10	0.425749	24	0.425859	38	0.376929
11	0.459273	25	0.414405	39	0.405354
12	0.448145	26	0.380699	40	0.353513
13	0.407719	27	0.414956	41	0.419518
14	0.413772	28	0.420613	42	0.432709
15	0.451382	29	0.391396	43	0.407517

TABLE 16. Bank of America, Temporal range 29.05.1986 - 19.02.2016, number of samples 7.495,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.696041	16	0.537947	30	0.470866
3	0.606077	17	0.515334	31	0.487245
4	0.563103	18	0.495442	32	0.525917
5	0.573450	19	0.469303	33	0.538841
6	0.552555	20	0.591229	34	0.591543
7	0.542363	21	0.516916	35	0.537252
8	0.486762	22	0.492646	36	0.528950
9	0.482409	23	0.553117	37	0.572306
10	0.527419	24	0.500292	38	0.554022
11	0.558702	25	0.488808	39	0.534078
12	0.535390	26	0.468273	40	0.539976
13	0.542276	27	0.520858	41	0.526357
14	0.548505	28	0.404254	42	0.579439
15	0.580227	29	0.455453	43	0.480160

TABLE 17. American Equity Investment, Temporal range 04.12.2003 - 19.02.2016, number of samples 3.073,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.719066	16	0.621479	30	0.505623
3	0.661108	17	0.657443	31	0.575482
4	0.601101	18	0.595302	32	0.527427
5	0.619736	19	0.609154	33	0.585168
6	0.579482	20	0.607101	34	0.638604
7	0.611573	21	0.600022	35	0.578859
8	0.608750	22	0.557310	36	0.549639
9	0.632998	23	0.565453	37	0.574594
10	0.655426	24	0.561287	38	0.531942
11	0.624577	25	0.543755	39	0.616039
12	0.566026	26	0.499311	40	0.584145
13	0.635565	27	0.541041	41	0.614853
14	0.608097	28	0.502417	42	0.585822
15	0.592055	29	0.556965	43	0.564768

TABLE 18. American Equity Investment, Temporal range 04.12.2003 - 19.02.2016, number of samples 3.073,  $m = 3$ .

### Partial temporal range: Commodity Markets.

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.454820	16	0.381501	30	0.413289
3	0.496808	17	0.383730	31	0.419435
4	0.449922	18	0.395358	32	0.394500
5	0.454849	19	0.429469	33	0.388318
6	0.431782	20	0.437300	34	0.396080
7	0.472289	21	0.422283	35	0.412099
8	0.456562	22	0.381027	36	0.364919
9	0.420688	23	0.357224	37	0.388078
10	0.397491	24	0.421743	38	0.375684
11	0.398273	25	0.391954	39	0.400464
12	0.404887	26	0.390582	40	0.372448
13	0.413760	27	0.409430	41	0.380515
14	0.419819	28	0.424848	42	0.384149
15	0.379496	29	0.409520	43	0.398257

TABLE 19. Comex Gold GC1, temporal range 02.01.2008 - 14.05.2014, number of samples 1.593,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.517480	16	0.406788	30	0.407200
3	0.546192	17	0.398989	31	0.443981
4	0.534572	18	0.386409	32	0.396281
5	0.493908	19	0.431390	33	0.383822
6	0.449705	20	0.428191	34	0.391319
7	0.462910	21	0.450087	35	0.380533
8	0.435147	22	0.395374	36	0.358395
9	0.448045	23	0.376716	37	0.387236
10	0.433475	24	0.443091	38	0.385996
11	0.399894	25	0.403786	39	0.382095
12	0.428386	26	0.407711	40	0.376109
13	0.437708	27	0.421144	41	0.382602
14	0.437983	28	0.415803	42	0.383929
15	0.394806	29	0.370284	43	0.404574

TABLE 20. Comex Gold GC1, temporal range 02.01.2008 - 14.05.2014, number of samples 1.593,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.486426	16	0.404592	30	0.431450
3	0.479146	17	0.431746	31	0.443480
4	0.464664	18	0.438610	32	0.422143
5	0.413040	19	0.451770	33	0.407440
6	0.388527	20	0.479266	34	0.464955
7	0.395539	21	0.439103	35	0.364297
8	0.403182	22	0.421966	36	0.387592
9	0.396966	23	0.416015	37	0.396531
10	0.369924	24	0.427876	38	0.399641
11	0.394776	25	0.380609	39	0.420182
12	0.347169	26	0.403030	40	0.390166
13	0.374921	27	0.354435	41	0.455784
14	0.411897	28	0.405703	42	0.405696
15	0.430456	29	0.408385	43	0.411568

TABLE 21. Comex Gold GC1, temporal range 31.12.1974 - 31.12.2007, number of samples 8.291,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.531404	16	0.410658	30	0.468573
3	0.510703	17	0.440594	31	0.474476
4	0.501073	18	0.431531	32	0.485081
5	0.454676	19	0.457741	33	0.452482
6	0.445588	20	0.468708	34	0.449195
7	0.426765	21	0.456563	35	0.441820
8	0.432640	22	0.426899	36	0.456289
9	0.441047	23	0.434457	37	0.448365
10	0.457933	24	0.430531	38	0.467954
11	0.419108	25	0.422990	39	0.467331
12	0.419742	26	0.433210	40	0.451665
13	0.420342	27	0.418225	41	0.474430
14	0.447375	28	0.447401	42	0.465026
15	0.415261	29	0.449805	43	0.470949

TABLE 22. Comex Gold GC1, temporal range 31.12.1974 - 31.12.2007, number of samples 8.291,  $m = 3$ .



$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.440480	16	0.433681	30	0.499231
3	0.469116	17	0.486299	31	0.490368
4	0.460187	18	0.454392	32	0.468246
5	0.393201	19	0.444879	33	0.475880
6	0.411039	20	0.477759	34	0.454766
7	0.435098	21	0.484865	35	0.430718
8	0.445507	22	0.496253	36	0.463122
9	0.443510	23	0.489856	37	0.503515
10	0.453021	24	0.480881	38	0.406987
11	0.437431	25	0.435637	39	0.404472
12	0.436463	26	0.496235	40	0.441505
13	0.402539	27	0.453580	41	0.493303
14	0.446234	28	0.498102	42	0.456540
15	0.435129	29	0.505228	43	0.434552

TABLE 23. Comex Silver SI1, temporal range 13.06.1963 - 31.12.2007, number of samples 11.165,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.526456	16	0.434468	30	0.493007
3	0.484371	17	0.469256	31	0.456103
4	0.478052	18	0.477462	32	0.449424
5	0.452463	19	0.468184	33	0.463372
6	0.440064	20	0.445432	34	0.466489
7	0.435489	21	0.506266	35	0.477443
8	0.451797	22	0.504533	36	0.478585
9	0.483961	23	0.481031	37	0.457708
10	0.476987	24	0.483022	38	0.473398
11	0.433147	25	0.482452	39	0.450851
12	0.479551	26	0.509108	40	0.456078
13	0.456273	27	0.464307	41	0.466588
14	0.469982	28	0.479920	42	0.477676
15	0.452912	29	0.467495	43	0.467633

TABLE 24. Comex Silver SI1, temporal range 13.06.1963 - 31.12.2007, number of samples 11.165,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.521068	16	0.492978	30	0.493236
3	0.512208	17	0.529235	31	0.485143
4	0.503375	18	0.508119	32	0.460193
5	0.476682	19	0.504889	33	0.483380
6	0.466772	20	0.481826	34	0.478935
7	0.494293	21	0.479491	35	0.433168
8	0.485035	22	0.475713	36	0.496170
9	0.497675	23	0.459929	37	0.493030
10	0.532819	24	0.495864	38	0.473025
11	0.540241	25	0.474082	39	0.491779
12	0.498763	26	0.455813	40	0.470789
13	0.501597	27	0.489530	41	0.488970
14	0.502522	28	0.496751	42	0.490244
15	0.490460	29	0.499399	43	0.462270

TABLE 25. Comex Silver SI1, temporal range 02.01.2008 - 15.05.2014, number of samples 1.593,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.571077	16	0.529825	30	0.547509
3	0.567065	17	0.551283	31	0.541688
4	0.572789	18	0.559405	32	0.519275
5	0.521561	19	0.520104	33	0.550483
6	0.524214	20	0.528121	34	0.564252
7	0.549517	21	0.531666	35	0.546164
8	0.569879	22	0.531911	36	0.561936
9	0.547631	23	0.514156	37	0.545065
10	0.560975	24	0.545118	38	0.516829
11	0.564353	25	0.521765	39	0.538996
12	0.558424	26	0.522130	40	0.527736
13	0.525413	27	0.554644	41	0.532213
14	0.530367	28	0.570885	42	0.574373
15	0.530472	29	0.555853	43	0.557306

TABLE 26. Comex Silver SI1, temporal range 02.01.2008 - 15.05.2014, number of samples 1.593,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.515775	16	0.408998	30	0.395550
3	0.469067	17	0.407706	31	0.408860
4	0.438411	18	0.410882	32	0.360479
5	0.422778	19	0.392392	33	0.376736
6	0.375594	20	0.362180	34	0.366818
7	0.390308	21	0.381144	35	0.372287
8	0.403048	22	0.412759	36	0.393547
9	0.403531	23	0.344980	37	0.393255
10	0.408622	24	0.354217	38	0.412700
11	0.397194	25	0.342079	39	0.417924
12	0.380216	26	0.335357	40	0.392282
13	0.399727	27	0.378862	41	0.365686
14	0.405341	28	0.375651	42	0.367821
15	0.414149	29	0.387470	43	0.336276

TABLE 27. Heiting OIL HO1, temporal range 06.03.1979 - 31.12.2007, number of samples 7.232,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.538182	16	0.385975	30	0.379709
3	0.485858	17	0.379891	31	0.376948
4	0.472910	18	0.396001	32	0.369604
5	0.431256	19	0.423927	33	0.393289
6	0.414659	20	0.385205	34	0.410041
7	0.432227	21	0.395783	35	0.382012
8	0.423076	22	0.421647	36	0.356220
9	0.417982	23	0.454619	37	0.377360
10	0.391885	24	0.442214	38	0.360404
11	0.412818	25	0.431804	39	0.370180
12	0.385736	26	0.449839	40	0.390710
13	0.388875	27	0.398833	41	0.380812
14	0.385021	28	0.408482	42	0.388547
15	0.381789	29	0.369655	43	0.372612

TABLE 28. Heiting OIL HO1, temporal range 06.03.1979 - 31.12.2007, number of samples 7.232,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.549082	16	0.424287	30	0.455963
3	0.456163	17	0.431833	31	0.458590
4	0.484707	18	0.427436	32	0.451984
5	0.473394	19	0.440119	33	0.424733
6	0.443857	20	0.458010	34	0.445774
7	0.434409	21	0.462744	35	0.451548
8	0.454144	22	0.418143	36	0.456196
9	0.475363	23	0.435714	37	0.460824
10	0.464166	24	0.426047	38	0.454560
11	0.500134	25	0.454195	39	0.483148
12	0.464561	26	0.465231	40	0.453009
13	0.438974	27	0.447110	41	0.419501
14	0.469459	28	0.461273	42	0.459002
15	0.491242	29	0.471239	43	0.417641

TABLE 29. Heiting OIL HO1, temporal range 02.01.2008 - 15.05.2014, number of samples 1.593,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.582029	16	0.444604	30	0.421541
3	0.510451	17	0.443569	31	0.462064
4	0.540495	18	0.437193	32	0.442185
5	0.514834	19	0.433888	33	0.471805
6	0.477526	20	0.448022	34	0.457415
7	0.496211	21	0.443723	35	0.467342
8	0.473839	22	0.433054	36	0.449383
9	0.504465	23	0.446487	37	0.424803
10	0.463529	24	0.399562	38	0.455341
11	0.454735	25	0.384590	39	0.437412
12	0.432093	26	0.436248	40	0.455598
13	0.450306	27	0.392447	41	0.444417
14	0.474416	28	0.431326	42	0.422042
15	0.469016	29	0.426118	43	0.432323

TABLE 30. Heiting OIL HO1, temporal range 02.01.2008 - 15.05.2014, number of samples 1.593,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.465860	16	0.353310	30	0.352759
3	0.456870	17	0.383992	31	0.378566
4	0.439006	18	0.358126	32	0.365261
5	0.428407	19	0.345186	33	0.368894
6	0.403985	20	0.330563	34	0.355096
7	0.392116	21	0.335277	35	0.339738
8	0.368321	22	0.372633	36	0.374032
9	0.368670	23	0.347643	37	0.379336
10	0.340555	24	0.356600	38	0.381221
11	0.371694	25	0.374272	39	0.365756
12	0.315976	26	0.347212	40	0.344839
13	0.379361	27	0.349243	41	0.352870
14	0.424253	28	0.332069	42	0.334971
15	0.387103	29	0.318756	43	0.328596

TABLE 31. ICE Coffee KC1, temporal range 17.08.1973 - 31.12.2007, number of samples 8.585,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.520626	16	0.413884	30	0.426122
3	0.478430	17	0.400231	31	0.431997
4	0.466400	18	0.432072	32	0.407456
5	0.461515	19	0.423337	33	0.375180
6	0.435224	20	0.382411	34	0.370431
7	0.439725	21	0.411661	35	0.397216
8	0.404022	22	0.406464	36	0.399806
9	0.400137	23	0.381622	37	0.425473
10	0.373553	24	0.415763	38	0.411185
11	0.434650	25	0.400733	39	0.415082
12	0.423280	26	0.371466	40	0.416533
13	0.390936	27	0.388708	41	0.394851
14	0.416537	28	0.403690	42	0.395202
15	0.406104	29	0.381301	43	0.377032

TABLE 32. ICE Coffee KC1, temporal range 17.08.1973 - 31.12.2007, number of samples 8.585,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.642147	16	0.541604	30	0.541839
3	0.613582	17	0.510643	31	0.536686
4	0.593053	18	0.534466	32	0.563208
5	0.620877	19	0.528336	33	0.538055
6	0.626106	20	0.549418	34	0.526278
7	0.577378	21	0.537975	35	0.530386
8	0.588712	22	0.575315	36	0.541874
9	0.601633	23	0.560669	37	0.492846
10	0.547902	24	0.550631	38	0.477586
11	0.545945	25	0.556488	39	0.531950
12	0.568930	26	0.527028	40	0.495892
13	0.576261	27	0.497002	41	0.520531
14	0.528289	28	0.530756	42	0.529672
15	0.552063	29	0.553878	43	0.517788

TABLE 33. ICE Coffee KC1, temporal range 02.01.2008 - 15.05.2014, number of samples 1.609,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.621879	16	0.578439	30	0.559392
3	0.602728	17	0.542468	31	0.582542
4	0.631075	18	0.581097	32	0.576193
5	0.632543	19	0.504217	33	0.594211
6	0.590187	20	0.544671	34	0.563280
7	0.564312	21	0.543122	35	0.554732
8	0.576721	22	0.592893	36	0.601907
9	0.623594	23	0.598422	37	0.578003
10	0.590596	24	0.584328	38	0.552071
11	0.583547	25	0.567509	39	0.566915
12	0.585880	26	0.554587	40	0.509626
13	0.596040	27	0.591778	41	0.581789
14	0.575417	28	0.595166	42	0.580924
15	0.572899	29	0.581766	43	0.538802

TABLE 34. ICE Coffee KC1, temporal range 02.01.2008 - 15.05.2014, number of samples 1.609,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.467042	16	0.414893	30	0.452488
3	0.423281	17	0.389213	31	0.405136
4	0.417829	18	0.398394	32	0.394049
5	0.424109	19	0.397327	33	0.427790
6	0.397694	20	0.394664	34	0.390118
7	0.398389	21	0.432296	35	0.414507
8	0.435370	22	0.395070	36	0.393542
9	0.408915	23	0.423801	37	0.437979
10	0.412837	24	0.400781	38	0.398536
11	0.404737	25	0.415552	39	0.420741
12	0.404663	26	0.398277	40	0.452298
13	0.467923	27	0.430907	41	0.371845
14	0.434431	28	0.443971	42	0.409859
15	0.482310	29	0.437945	43	0.375087

TABLE 35. Natural GAS, temporal range 03.04.1990 - 31.12.2007, number of samples 4.451,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.518603	16	0.410810	30	0.422302
3	0.447985	17	0.393713	31	0.413067
4	0.441897	18	0.380746	32	0.396280
5	0.433101	19	0.395376	33	0.420084
6	0.441610	20	0.397654	34	0.387174
7	0.428347	21	0.452100	35	0.380810
8	0.439653	22	0.442754	36	0.372917
9	0.432729	23	0.439671	37	0.392054
10	0.410657	24	0.400765	38	0.393828
11	0.418602	25	0.420919	39	0.428868
12	0.384778	26	0.425212	40	0.426206
13	0.424879	27	0.424145	41	0.366590
14	0.445593	28	0.442388	42	0.395678
15	0.466321	29	0.403203	43	0.388774

TABLE 36. Natural GAS, temporal range 03.04.1990 - 31.12.2007, number of samples 4.451,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.450771	16	0.431930	30	0.444690
3	0.526336	17	0.448893	31	0.473990
4	0.397945	18	0.411708	32	0.440967
5	0.418141	19	0.405421	33	0.456885
6	0.419254	20	0.392897	34	0.416600
7	0.420749	21	0.472445	35	0.438767
8	0.435911	22	0.435795	36	0.414243
9	0.408007	23	0.423610	37	0.440702
10	0.424035	24	0.411643	38	0.453540
11	0.414070	25	0.429428	39	0.461332
12	0.408930	26	0.436916	40	0.377873
13	0.397717	27	0.508088	41	0.400768
14	0.454111	28	0.525813	42	0.449268
15	0.474781	29	0.464003	43	0.437631

TABLE 37. Natural GAS, temporal range 02.01.2008 - 15.05.2014, number of samples 1.591,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.503860	16	0.455622	30	0.440102
3	0.534599	17	0.459021	31	0.427592
4	0.479102	18	0.425214	32	0.448048
5	0.476695	19	0.424240	33	0.406015
6	0.436629	20	0.406789	34	0.439444
7	0.445715	21	0.473929	35	0.450570
8	0.452868	22	0.448978	36	0.422318
9	0.425158	23	0.402253	37	0.374813
10	0.412999	24	0.410454	38	0.432573
11	0.443153	25	0.402755	39	0.458214
12	0.413472	26	0.459910	40	0.431681
13	0.445673	27	0.485707	41	0.486903
14	0.516533	28	0.467721	42	0.424933
15	0.491078	29	0.470392	43	0.432316

TABLE 38. Natural GAS, temporal range 02.01.2008 - 15.05.2014, number of samples 1.591,  $m = 3$ .

**Partial temporal range: Financial Markets.**

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.530205	16	0.466125	30	0.529939
3	0.483907	17	0.456435	31	0.472582
4	0.507456	18	0.437336	32	0.440475
5	0.500254	19	0.417587	33	0.415633
6	0.445269	20	0.460685	34	0.480757
7	0.451487	21	0.448035	35	0.420739
8	0.457307	22	0.491898	36	0.420638
9	0.485796	23	0.449944	37	0.391607
10	0.496817	24	0.422029	38	0.430783
11	0.490314	25	0.456803	39	0.386678
12	0.477506	26	0.496072	40	0.428725
13	0.475149	27	0.480060	41	0.474893
14	0.474529	28	0.475716	42	0.445904
15	0.476529	29	0.486067	43	0.455091

TABLE 39. Pfizer Inc. Temporal range 01.06.1972 - 31.12.2007, number of samples 8.980,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.578938	16	0.479928	30	0.514460
3	0.508132	17	0.457367	31	0.492906
4	0.556051	18	0.423040	32	0.461244
5	0.510607	19	0.413394	33	0.464814
6	0.449188	20	0.435811	34	0.499710
7	0.461659	21	0.447658	35	0.470721
8	0.453024	22	0.500299	36	0.466279
9	0.485668	23	0.442579	37	0.461147
10	0.533439	24	0.447968	38	0.470821
11	0.510786	25	0.433709	39	0.424001
12	0.491897	26	0.475446	40	0.432306
13	0.516358	27	0.484081	41	0.481327
14	0.507027	28	0.497551	42	0.488341
15	0.524495	29	0.499449	43	0.524451

TABLE 40. Pfizer Inc. Temporal range 01.06.1972 - 31.12.2007, number of samples 8.980,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.792728	16	0.762977	30	0.786614
3	0.727298	17	0.755379	31	0.713875
4	0.781220	18	0.777429	32	0.772809
5	0.739531	19	0.711266	33	0.780967
6	0.770895	20	0.773634	34	0.825958
7	0.757537	21	0.752029	35	0.798391
8	0.703769	22	0.794493	36	0.800315
9	0.730446	23	0.801987	37	0.772473
10	0.658735	24	0.714877	38	0.800853
11	0.693789	25	0.774486	39	0.703207
12	0.697963	26	0.801856	40	0.797399
13	0.749106	27	0.767818	41	0.809059
14	0.725831	28	0.776921	42	0.809971
15	0.784895	29	0.780234	43	0.751178

TABLE 41. Pfizer Inc. Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.916409	16	0.936334	30	0.941925
3	0.935823	17	0.954726	31	0.969570
4	0.937669	18	0.949123	32	0.945831
5	0.923814	19	0.932221	33	0.940838
6	0.943518	20	0.932952	34	0.967237
7	0.945932	21	0.953734	35	0.963087
8	0.937492	22	0.935072	36	0.953323
9	0.926854	23	0.943267	37	0.927366
10	0.918039	24	0.967021	38	0.945237
11	0.936670	25	0.968535	39	0.930622
12	0.914259	26	0.958567	40	0.958893
13	0.930564	27	0.941670	41	0.939352
14	0.944303	28	0.944546	42	0.946509
15	0.957756	29	0.977834	43	0.952694

TABLE 42. Pfizer Inc. Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.562545	16	0.496392	30	0.538701
3	0.563075	17	0.505037	31	0.565882
4	0.509868	18	0.503027	32	0.532861
5	0.444605	19	0.572567	33	0.541020
6	0.467065	20	0.526438	34	0.464228
7	0.473786	21	0.522100	35	0.445904
8	0.454673	22	0.535555	36	0.464276
9	0.419225	23	0.526367	37	0.437702
10	0.461543	24	0.513282	38	0.457755
11	0.505476	25	0.520971	39	0.511259
12	0.503800	26	0.526097	40	0.521072
13	0.496819	27	0.491748	41	0.458095
14	0.491635	28	0.512266	42	0.533027
15	0.505427	29	0.499063	43	0.459172

TABLE 43. Deutsche Bank, Temporal range 18.11.1996 - 31.12.2007, number of samples 2.797,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.631988	16	0.527201	30	0.491081
3	0.577362	17	0.480043	31	0.511904
4	0.521616	18	0.546846	32	0.461952
5	0.473615	19	0.552819	33	0.436001
6	0.526978	20	0.545617	34	0.488473
7	0.498693	21	0.493087	35	0.475693
8	0.496728	22	0.508000	36	0.512942
9	0.494153	23	0.532521	37	0.525164
10	0.523141	24	0.485039	38	0.529861
11	0.534900	25	0.513929	39	0.548058
12	0.535925	26	0.520072	40	0.505175
13	0.500160	27	0.494659	41	0.517001
14	0.572628	28	0.499614	42	0.523142
15	0.515818	29	0.488819	43	0.515148

TABLE 44. Deutsche Bank, Temporal range 18.11.1996 - 31.12.2007, number of samples 2.797,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.529479	16	0.443179	30	0.381699
3	0.445479	17	0.497365	31	0.387720
4	0.466805	18	0.496432	32	0.426647
5	0.420918	19	0.447538	33	0.453260
6	0.466166	20	0.474372	34	0.488265
7	0.433026	21	0.452012	35	0.491331
8	0.414290	22	0.435938	36	0.404671
9	0.432427	23	0.438851	37	0.438009
10	0.432820	24	0.436573	38	0.461490
11	0.388207	25	0.438654	39	0.470174
12	0.410791	26	0.421626	40	0.493262
13	0.384767	27	0.426111	41	0.480147
14	0.431987	28	0.446278	42	0.443974
15	0.455640	29	0.431338	43	0.457731

TABLE 45. Deutsche Bank, Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.592038	16	0.474936	30	0.478465
3	0.552245	17	0.520736	31	0.502227
4	0.497548	18	0.517090	32	0.509326
5	0.521646	19	0.494724	33	0.531862
6	0.505244	20	0.506166	34	0.517534
7	0.542679	21	0.503370	35	0.509981
8	0.502834	22	0.473466	36	0.472750
9	0.440320	23	0.476912	37	0.490247
10	0.482010	24	0.467172	38	0.521888
11	0.487597	25	0.511288	39	0.516874
12	0.474647	26	0.504495	40	0.548526
13	0.465975	27	0.481474	41	0.525076
14	0.442071	28	0.488235	42	0.499811
15	0.508510	29	0.471355	43	0.454839

TABLE 46. Deutsche Bank, Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 3$ .



$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.608799	16	0.614907	30	0.604422
3	0.544134	17	0.575113	31	0.616833
4	0.576559	18	0.601999	32	0.626311
5	0.595001	19	0.661845	33	0.582785
6	0.554860	20	0.633994	34	0.518854
7	0.601877	21	0.614928	35	0.548550
8	0.631876	22	0.580869	36	0.594487
9	0.524939	23	0.620124	37	0.570146
10	0.491188	24	0.588294	38	0.594612
11	0.513383	25	0.610113	39	0.528680
12	0.494579	26	0.564901	40	0.430025
13	0.530118	27	0.563437	41	0.500401
14	0.659687	28	0.532372	42	0.474216
15	0.589789	29	0.605046	43	0.546600

TABLE 47. Bank of America, Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.671906	16	0.634146	30	0.592540
3	0.623465	17	0.533691	31	0.528459
4	0.620299	18	0.556056	32	0.550403
5	0.619335	19	0.587178	33	0.538025
6	0.624237	20	0.462413	34	0.539503
7	0.637137	21	0.535872	35	0.549789
8	0.579269	22	0.458644	36	0.535462
9	0.599197	23	0.497327	37	0.534291
10	0.642279	24	0.497777	38	0.560908
11	0.586310	25	0.554162	39	0.528983
12	0.513175	26	0.517379	40	0.554869
13	0.534591	27	0.562897	41	0.534491
14	0.535666	28	0.518568	42	0.533400
15	0.586699	29	0.547099	43	0.538538

TABLE 48. Bank of America, Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.532744	16	0.468626	30	0.532229
3	0.508142	17	0.513572	31	0.467140
4	0.560127	18	0.484512	32	0.422122
5	0.513727	19	0.520925	33	0.444964
6	0.516811	20	0.438532	34	0.449679
7	0.518149	21	0.445692	35	0.483442
8	0.502217	22	0.468277	36	0.487637
9	0.551285	23	0.463092	37	0.494375
10	0.456906	24	0.475078	38	0.542246
11	0.502030	25	0.486272	39	0.490913
12	0.454728	26	0.498838	40	0.513148
13	0.511535	27	0.476316	41	0.502438
14	0.472231	28	0.510877	42	0.500403
15	0.521341	29	0.511379	43	0.507052

TABLE 49. Bank of America, Temporal range 29.05.1986 - 31.12.2007, number of samples 5.447,  $m = 2$ .

$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$
2	0.623366	16	0.482929	30	0.523779
3	0.586768	17	0.523512	31	0.516180
4	0.579634	18	0.531413	32	0.469646
5	0.532148	19	0.551839	33	0.472559
6	0.540705	20	0.516416	34	0.502790
7	0.531816	21	0.488745	35	0.533211
8	0.560187	22	0.504115	36	0.523004
9	0.589240	23	0.495776	37	0.532205
10	0.533502	24	0.500870	38	0.550778
11	0.517594	25	0.532310	39	0.522969
12	0.484146	26	0.480393	40	0.546308
13	0.526818	27	0.478277	41	0.534594
14	0.532203	28	0.530597	42	0.499347
15	0.502627	29	0.515474	43	0.558490

TABLE 50. Bank of America, Temporal range 29.05.1986 - 31.12.2007, number of samples 5.447,  $m = 3$ .

$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$
2	0.554558	16	0.509167	30	0.431344
3	0.570092	17	0.518034	31	0.435771
4	0.523888	18	0.487788	32	0.450376
5	0.525815	19	0.484914	33	0.461249
6	0.537080	20	0.489335	34	0.448649
7	0.436987	21	0.460258	35	0.466684
8	0.472343	22	0.495479	36	0.465737
9	0.494954	23	0.507473	37	0.476220
10	0.498087	24	0.453821	38	0.414545
11	0.483956	25	0.472330	39	0.466730
12	0.499077	26	0.480822	40	0.431003
13	0.472383	27	0.464632	41	0.451075
14	0.502437	28	0.462509	42	0.439748
15	0.470138	29	0.434249	43	0.426773

TABLE 51. American Equity Investment, Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 2$ .

$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$	$\mathcal{T}$	$\kappa$
2	0.608549	16	0.528499	30	0.452695
3	0.632904	17	0.536918	31	0.505733
4	0.608364	18	0.548426	32	0.480182
5	0.582632	19	0.536168	33	0.477403
6	0.588968	20	0.550322	34	0.481715
7	0.534377	21	0.506476	35	0.500270
8	0.526687	22	0.562893	36	0.484106
9	0.539675	23	0.549446	37	0.492242
10	0.522922	24	0.526725	38	0.497183
11	0.546637	25	0.505383	39	0.478562
12	0.533830	26	0.515870	40	0.450352
13	0.538300	27	0.497488	41	0.512453
14	0.543180	28	0.531182	42	0.494664
15	0.505586	29	0.495822	43	0.476521

TABLE 52. American Equity Investment, Temporal range 02.01.2008 - 19.02.2016, number of samples 2.048,  $m = 3$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.609102	16	0.574422	30	0.564991
3	0.629324	17	0.612747	31	0.583478
4	0.696139	18	0.648220	32	0.567467
5	0.638874	19	0.553865	33	0.609745
6	0.578153	20	0.665516	34	0.543565
7	0.589073	21	0.595064	35	0.516553
8	0.552387	22	0.588490	36	0.580451
9	0.526646	23	0.584535	37	0.587494
10	0.582916	24	0.548704	38	0.567179
11	0.582836	25	0.549659	39	0.623776
12	0.640136	26	0.547651	40	0.590540
13	0.571734	27	0.587305	41	0.571915
14	0.613866	28	0.570582	42	0.557994
15	0.525358	29	0.592375	43	0.534610

TABLE 53. American Equity Investment, Temporal range 04.12.2003 - 31.12.2008, number of samples 1.278,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.727308	16	0.638093	30	0.646509
3	0.701715	17	0.686085	31	0.625675
4	0.731443	18	0.707966	32	0.605892
5	0.728934	19	0.629082	33	0.689748
6	0.714934	20	0.738647	34	0.599553
7	0.707940	21	0.722706	35	0.600840
8	0.685457	22	0.734414	36	0.640797
9	0.743363	23	0.693060	37	0.640240
10	0.724250	24	0.690980	38	0.613346
11	0.694968	25	0.677737	39	0.693970
12	0.727733	26	0.666428	40	0.700926
13	0.641632	27	0.723770	41	0.647621
14	0.721551	28	0.698570	42	0.664104
15	0.638722	29	0.627935	43	0.641035

TABLE 54. American Equity Investment, Temporal range 04.12.2003 - 31.12.2008, number of samples 1.278,  $m = 3$ .

### Other temporal ranges.

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.542871	16	0.613778	30	0.539898
3	0.602306	17	0.577812	31	0.563394
4	0.607556	18	0.595057	32	0.558777
5	0.601005	19	0.636724	33	0.507837
6	0.489827	20	0.545887	34	0.487455
7	0.564464	21	0.567633	35	0.513933
8	0.550299	22	0.537047	36	0.481694
9	0.526986	23	0.549877	37	0.492957
10	0.529378	24	0.471622	38	0.565864
11	0.584752	25	0.494287	39	0.515451
12	0.588632	26	0.489666	40	0.525061
13	0.550983	27	0.532740	41	0.487823
14	0.605822	28	0.534188	42	0.583093
15	0.636551	29	0.512957	43	0.541492

TABLE 55. Pfizer Inc., Temporal range 04.12.2003 - 31.12.2008, number of samples 1.278,  $m = 2$ .

$\tau$	$\kappa$	$\tau$	$\kappa$	$\tau$	$\kappa$
2	0.612572	16	0.627599	30	0.648834
3	0.643474	17	0.619481	31	0.510059
4	0.648851	18	0.598006	32	0.496308
5	0.584200	19	0.575456	33	0.613894
6	0.526628	20	0.577505	34	0.495185
7	0.611173	21	0.539487	35	0.496483
8	0.576016	22	0.491676	36	0.537808
9	0.546549	23	0.589222	37	0.613466
10	0.547226	24	0.543989	38	0.606311
11	0.530733	25	0.565699	39	0.597167
12	0.541297	26	0.599317	40	0.628813
13	0.526711	27	0.573856	41	0.621759
14	0.596187	28	0.545945	42	0.671366
15	0.599991	29	0.494146	43	0.668428

TABLE 56. Pfizer Inc., Temporal range 04.12.2003 - 31.12.2008, number of samples 1.278,  $m = 3$ .