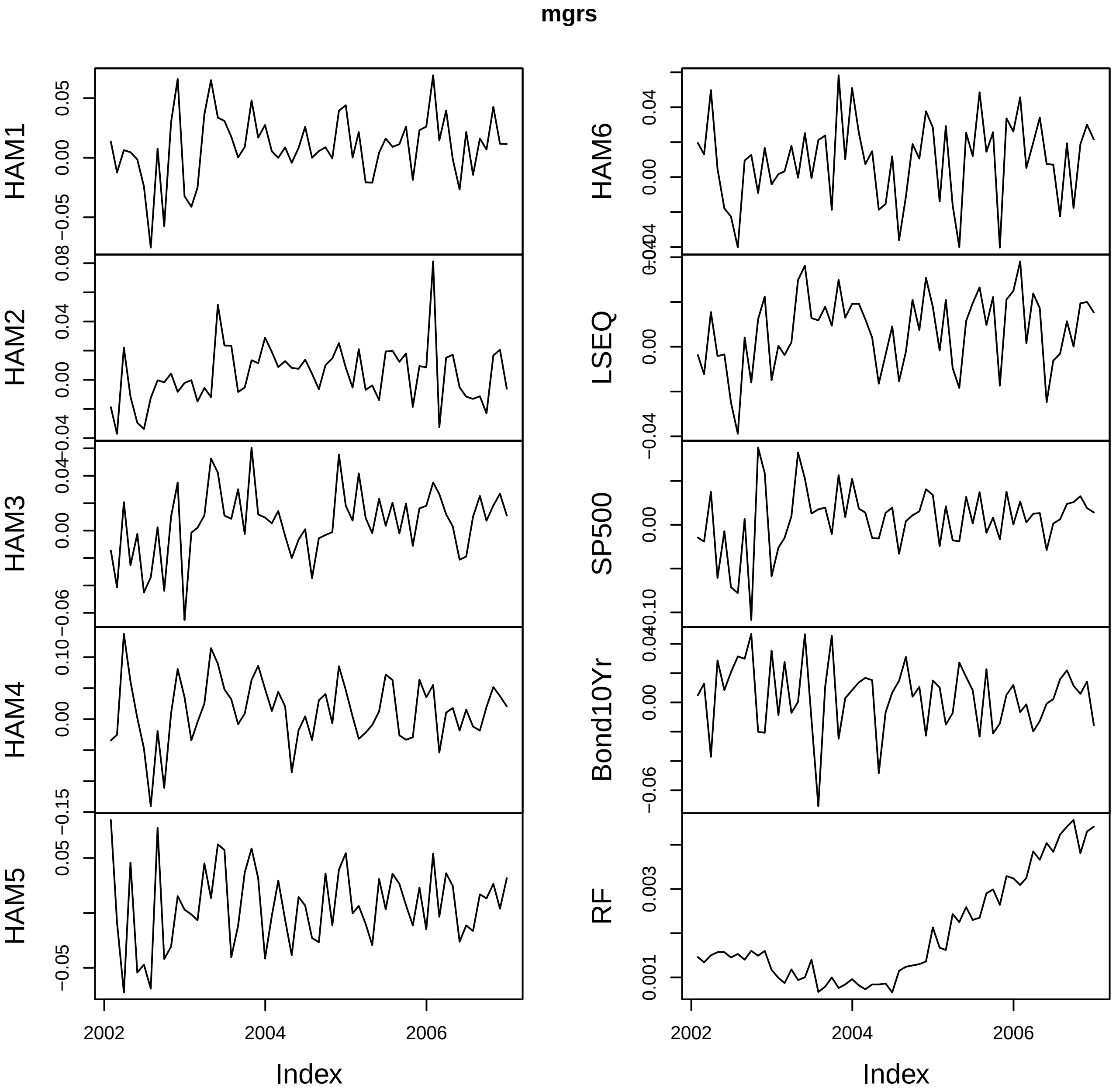
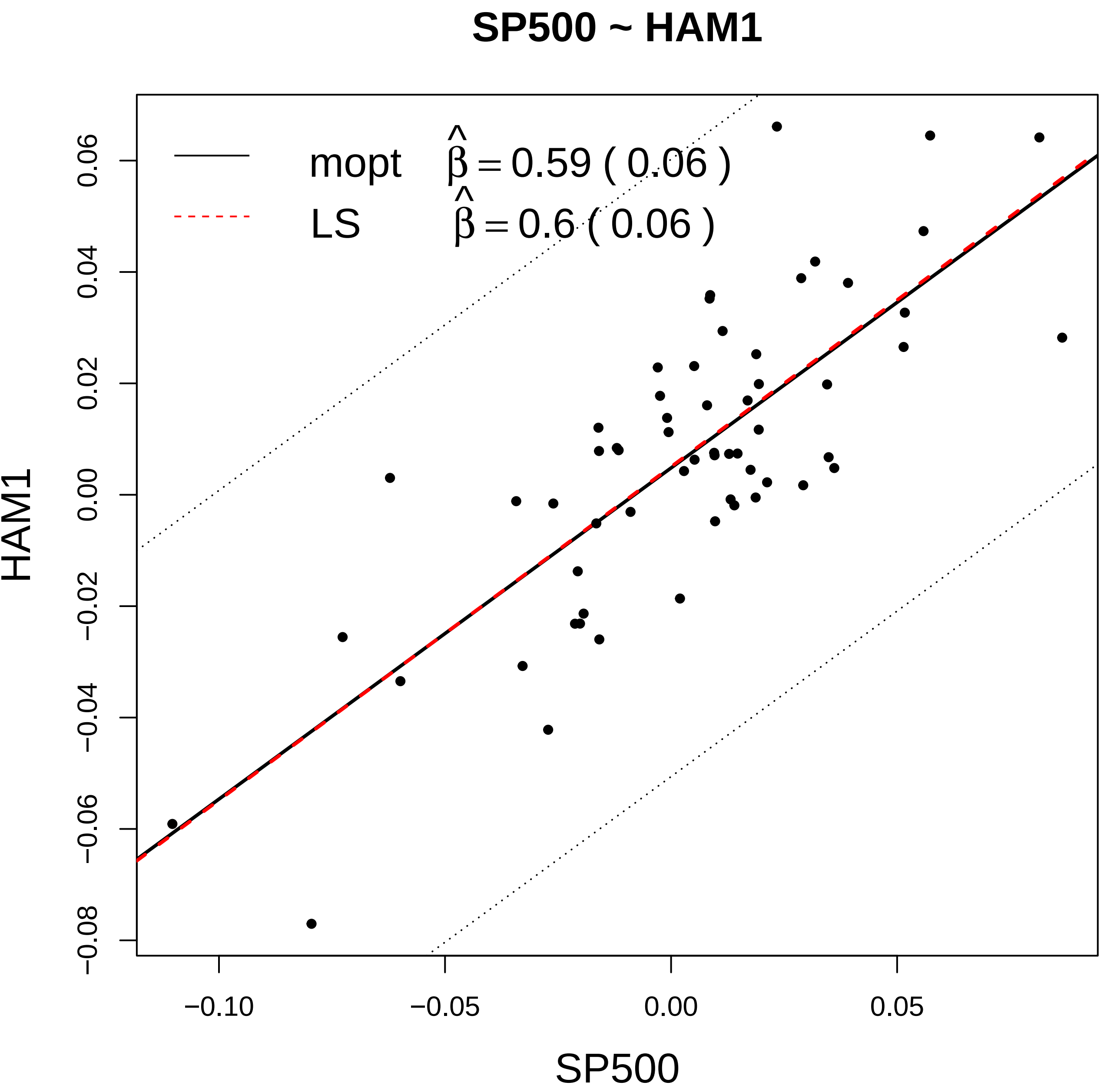
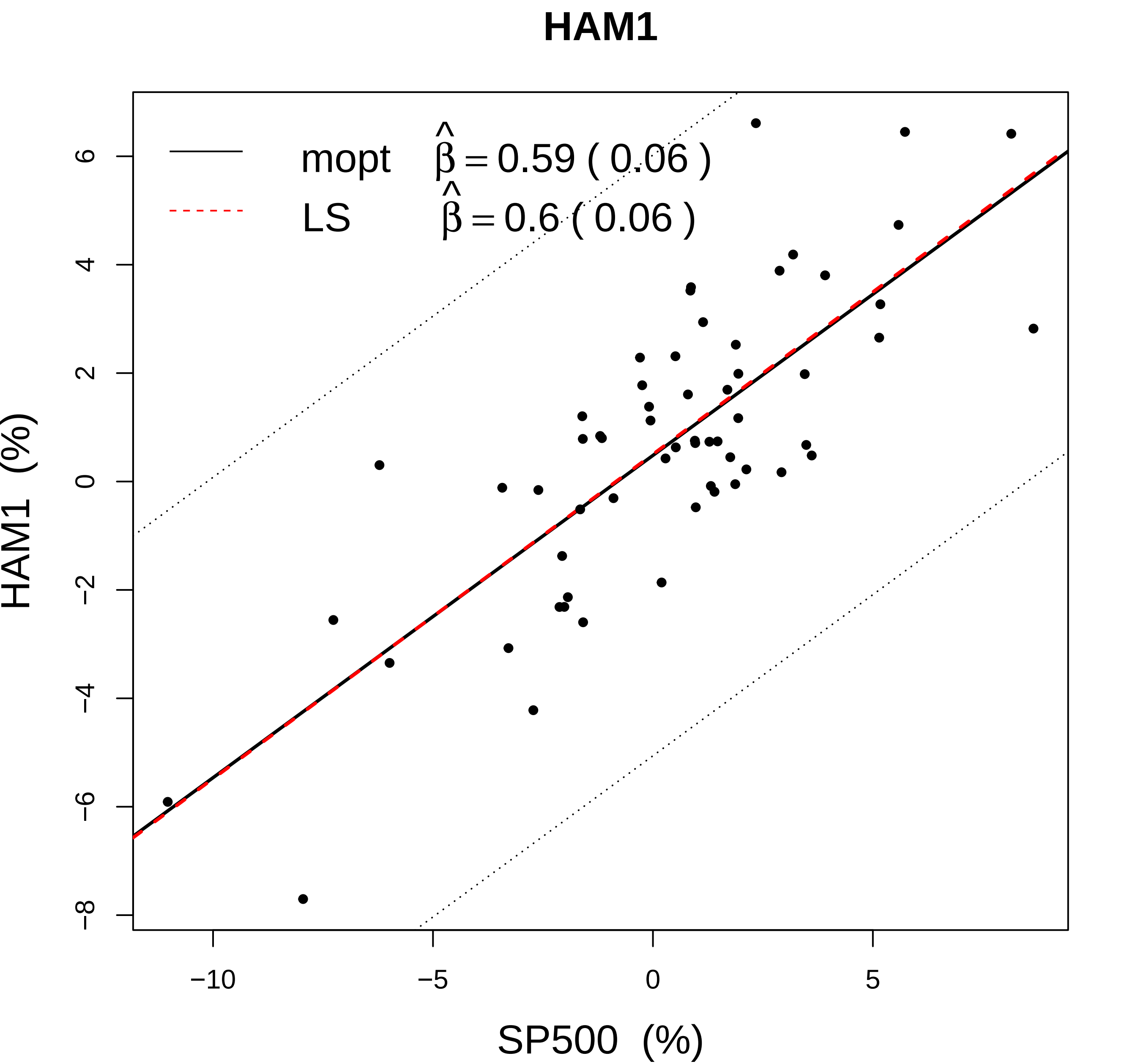


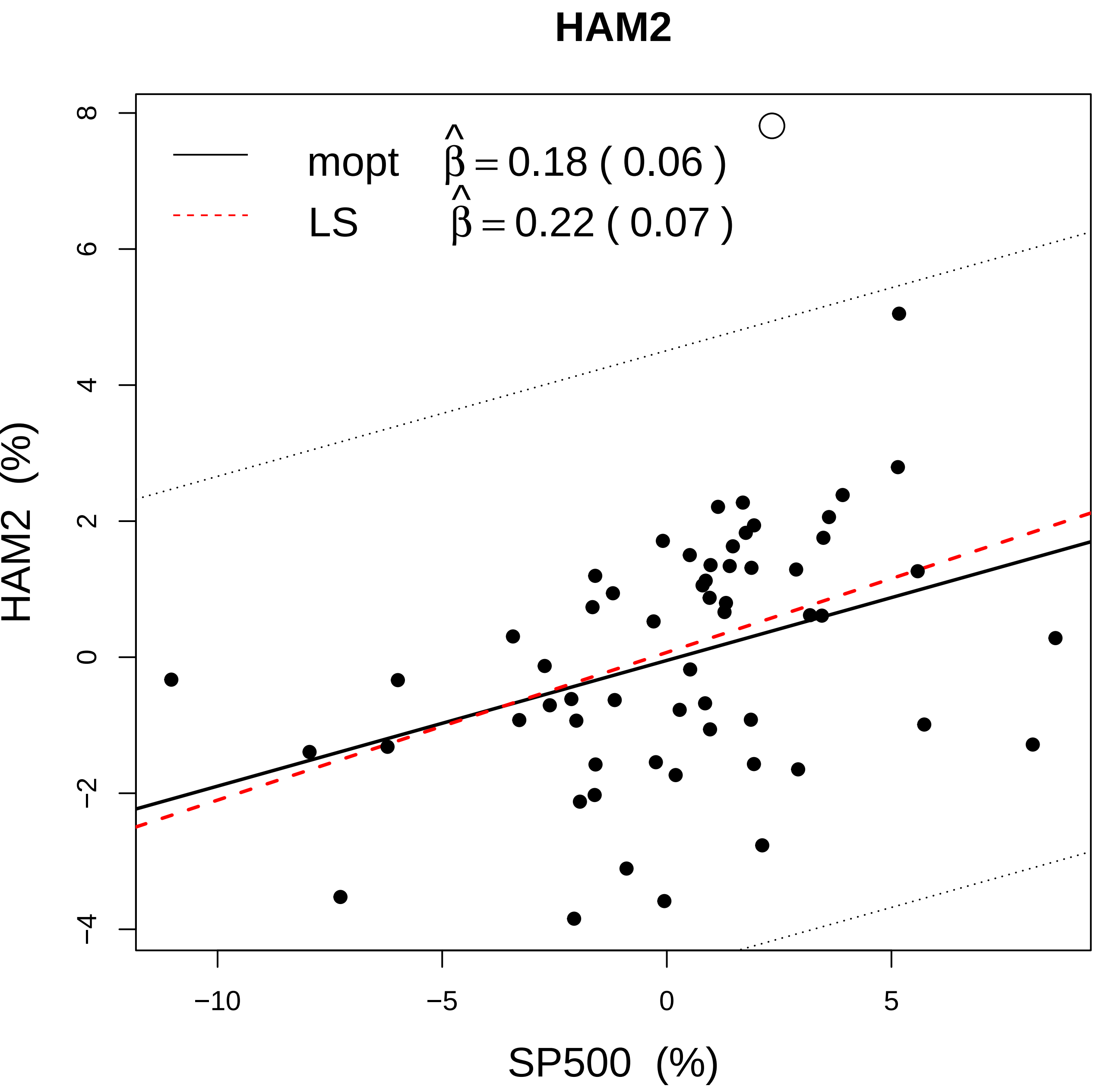
mgrs
HAM1
HAM2
HAM3
HAM4
HAM5
HAM6
LSEQ
SP500
Bond10Yr
RF
0.05
0.00
−0.05
0.08
0.04
0.00
−0.04
0.04
0.00
−0.06
0.10
0.00
−0.15
0.05
−0.05
0.04
0.00
−0.04
0.00
−0.04
0.00
−0.10
0.04
0.00
−0.06
0.003
0.001
2002
2004
2006
Index
Index



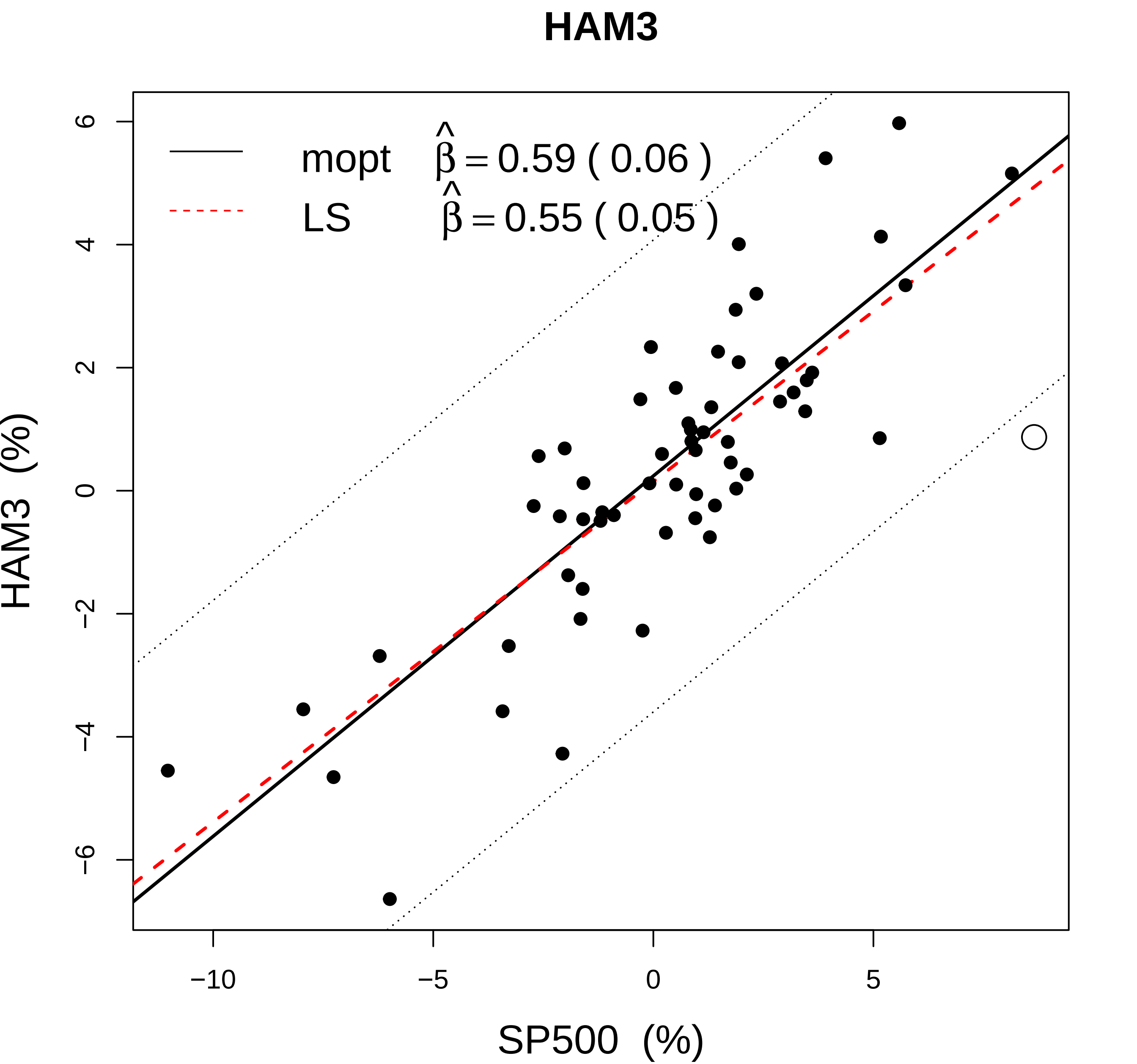
SP500 ~ HAM1
mopt $\hat{\beta} = 0.59$ (0.06)
LS $\hat{\beta} = 0.6$ (0.06)
HAM1
SP500
−0.08
−0.06
−0.04
−0.02
0.00
0.02
0.04
0.06
−0.10
−0.05
0.00
0.05



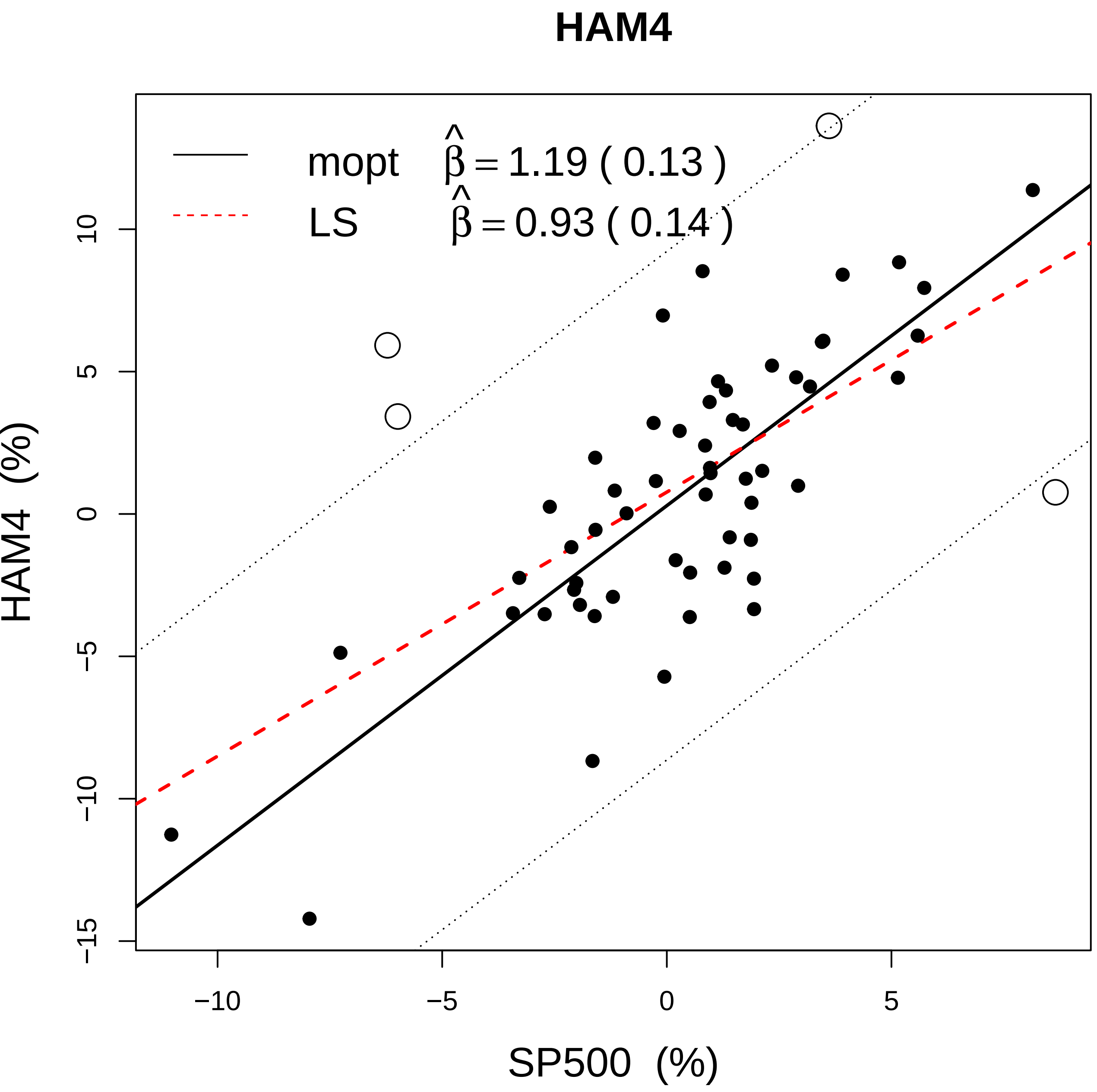
HAM1
mopt $\hat{\beta} = 0.59$ (0.06)
LS $\hat{\beta} = 0.6$ (0.06)
HAM1 (%)
SP500 (%)
6
4
2
0
−2
−4
−6
−8
−10
−5
0
5



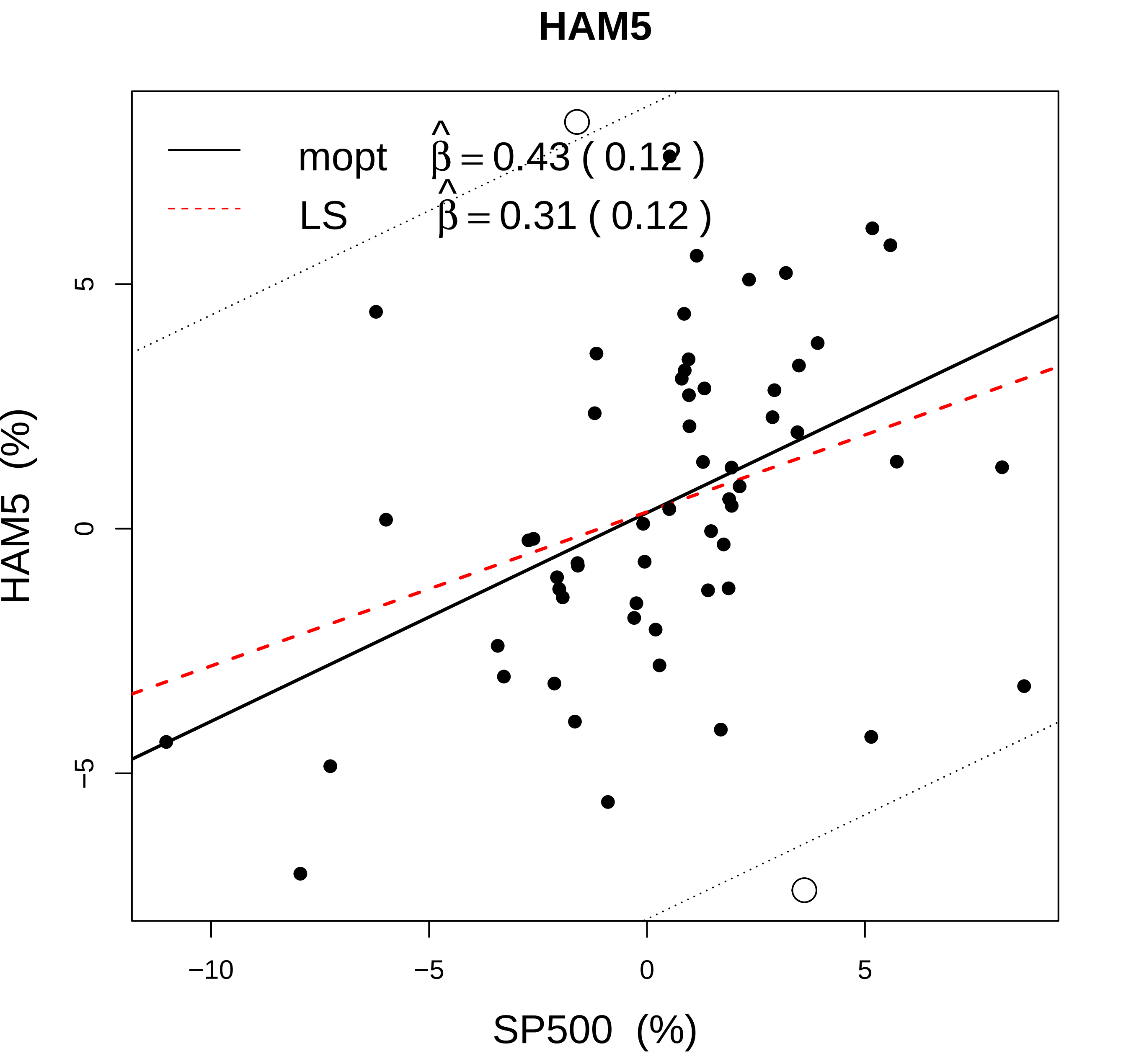
HAM2
mopt $\hat{\beta} = 0.18$ (0.06)
LS $\hat{\beta} = 0.22$ (0.07)
HAM2 (%)
SP500 (%)
8
6
4
2
0
−2
−4
−10
−5
0
5

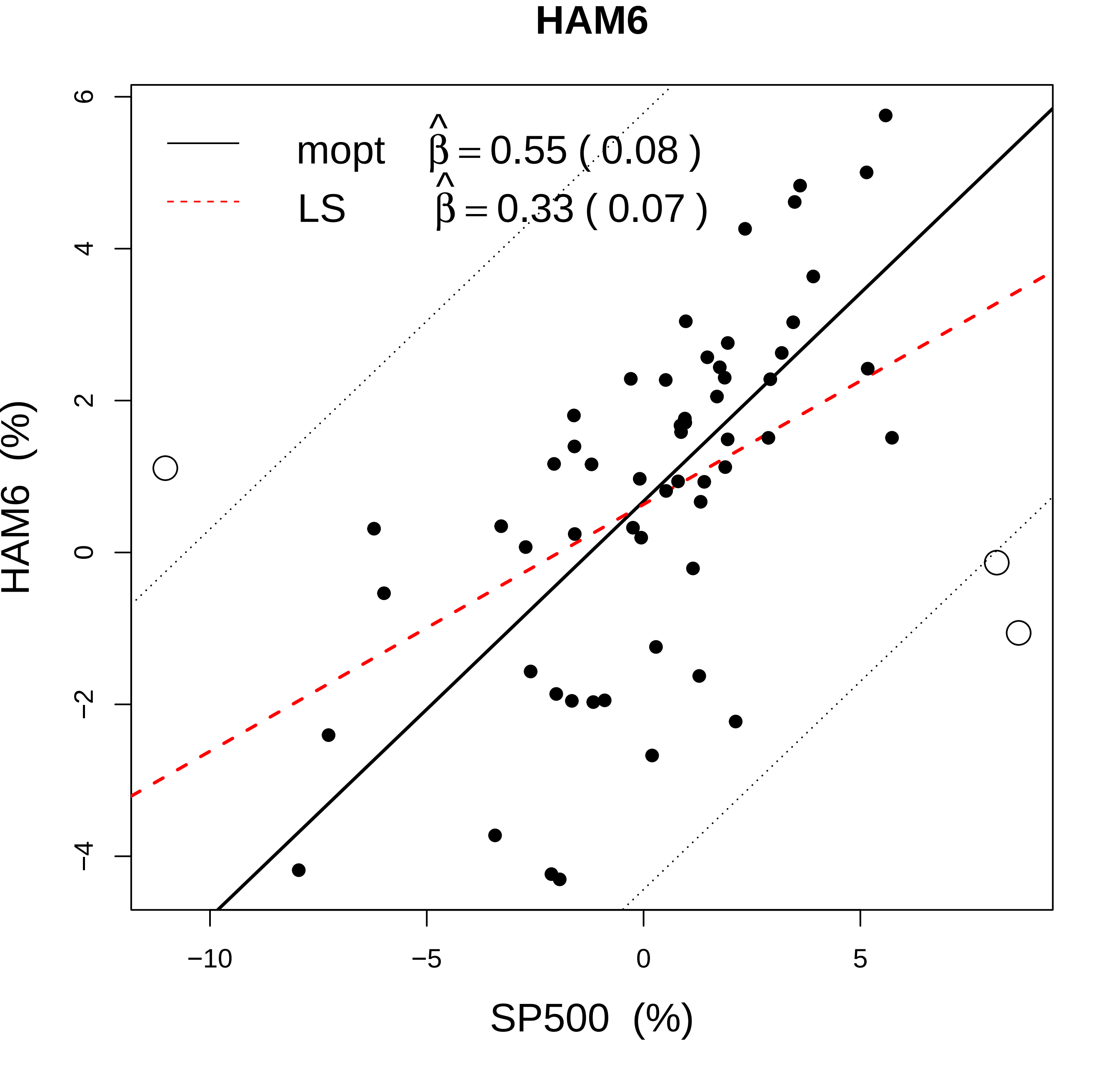


HAM3
mopt $\hat{\beta} = 0.59$ (0.06)
LS $\hat{\beta} = 0.55$ (0.05)
HAM3 (%)
SP500 (%)
6
4
2
0
−2
−4
−6
−10
−5
0
5

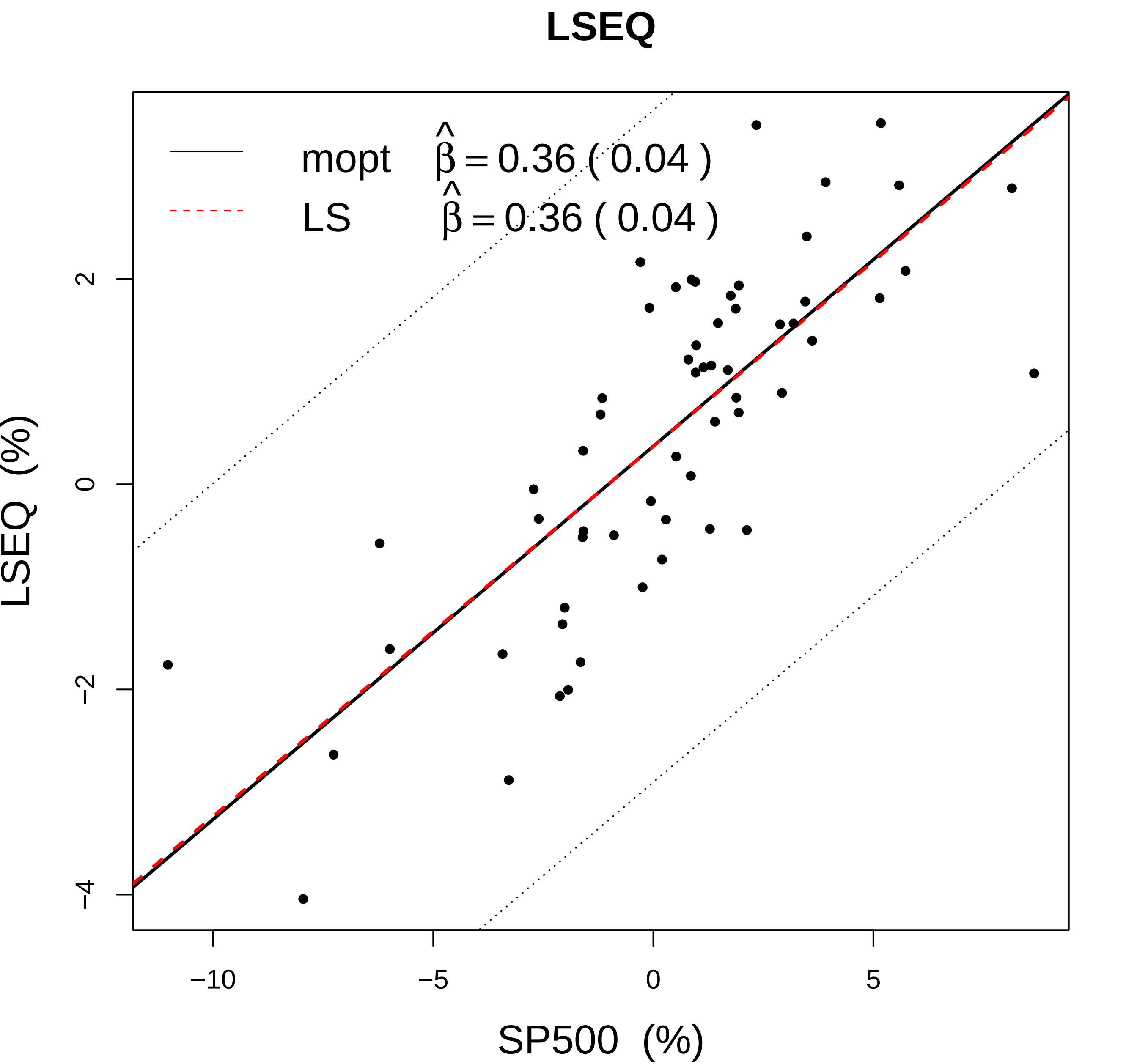


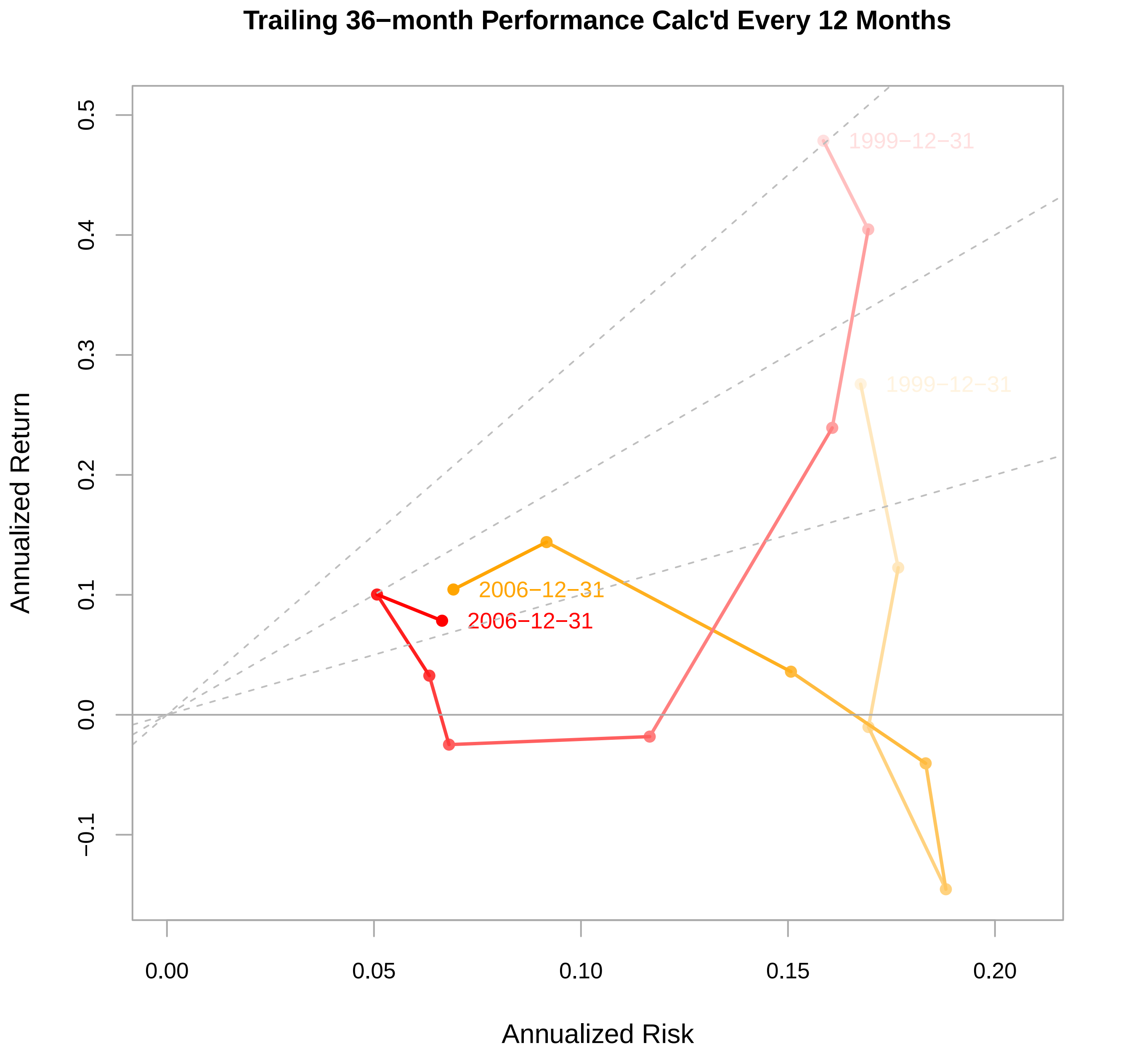
HAM4
mopt $\hat{\beta} = 1.19$ (0.13)
LS $\hat{\beta} = 0.93$ (0.14)
HAM4 (%)
SP500 (%)
−10
−5
0
5
10
−15


HAM5
mopt $\hat{\beta} = 0.43$ (0.12)
LS $\hat{\beta} = 0.31$ (0.12)
HAM5 (%)
SP500 (%)
5
0
−5
−10
−5
0
5

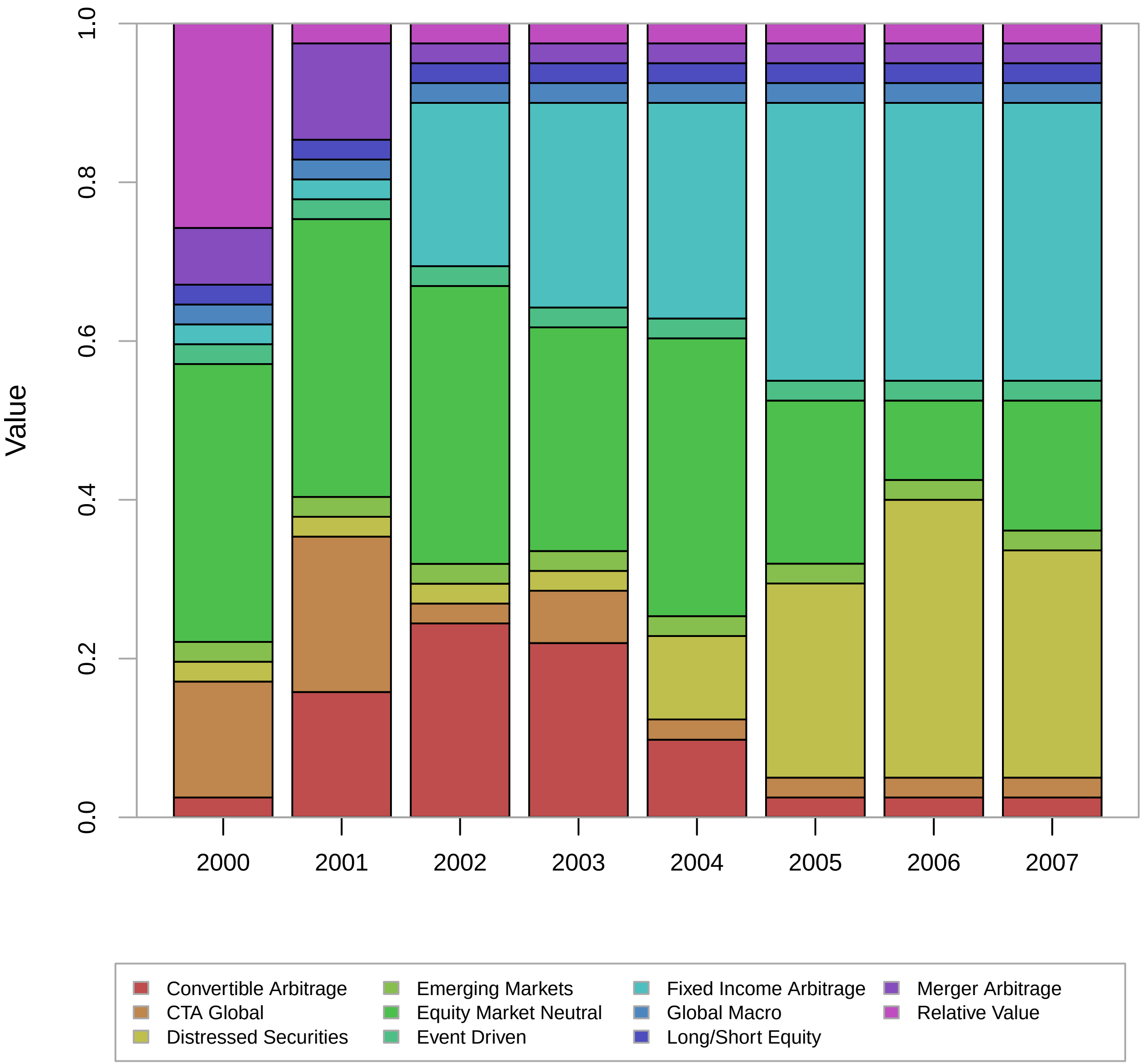


HAM6
mopt $\hat{\beta} = 0.55$ (0.08)
LS $\hat{\beta} = 0.33$ (0.07)
HAM6 (%)
SP500 (%)
−10
−5
0
5
−4
−2
0
2
4
6

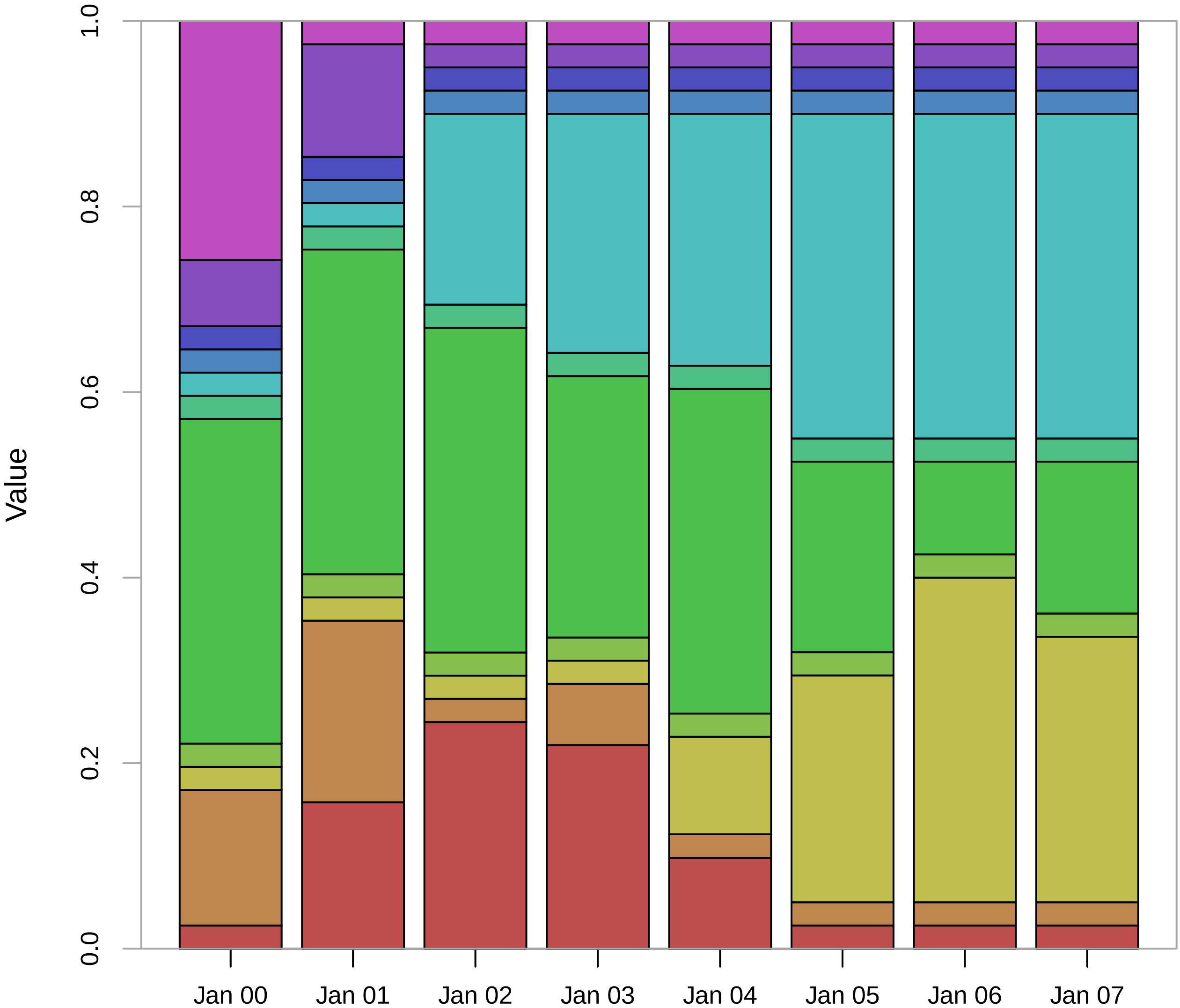

LSEQ
mopt $\hat{\beta} = 0.36\,(\,0.04\,)$
LS $\hat{\beta} = 0.36\,(\,0.04\,)$
LSEQ (%)
SP500 (%)
−10
−5
0
5
2
0
−2
−4



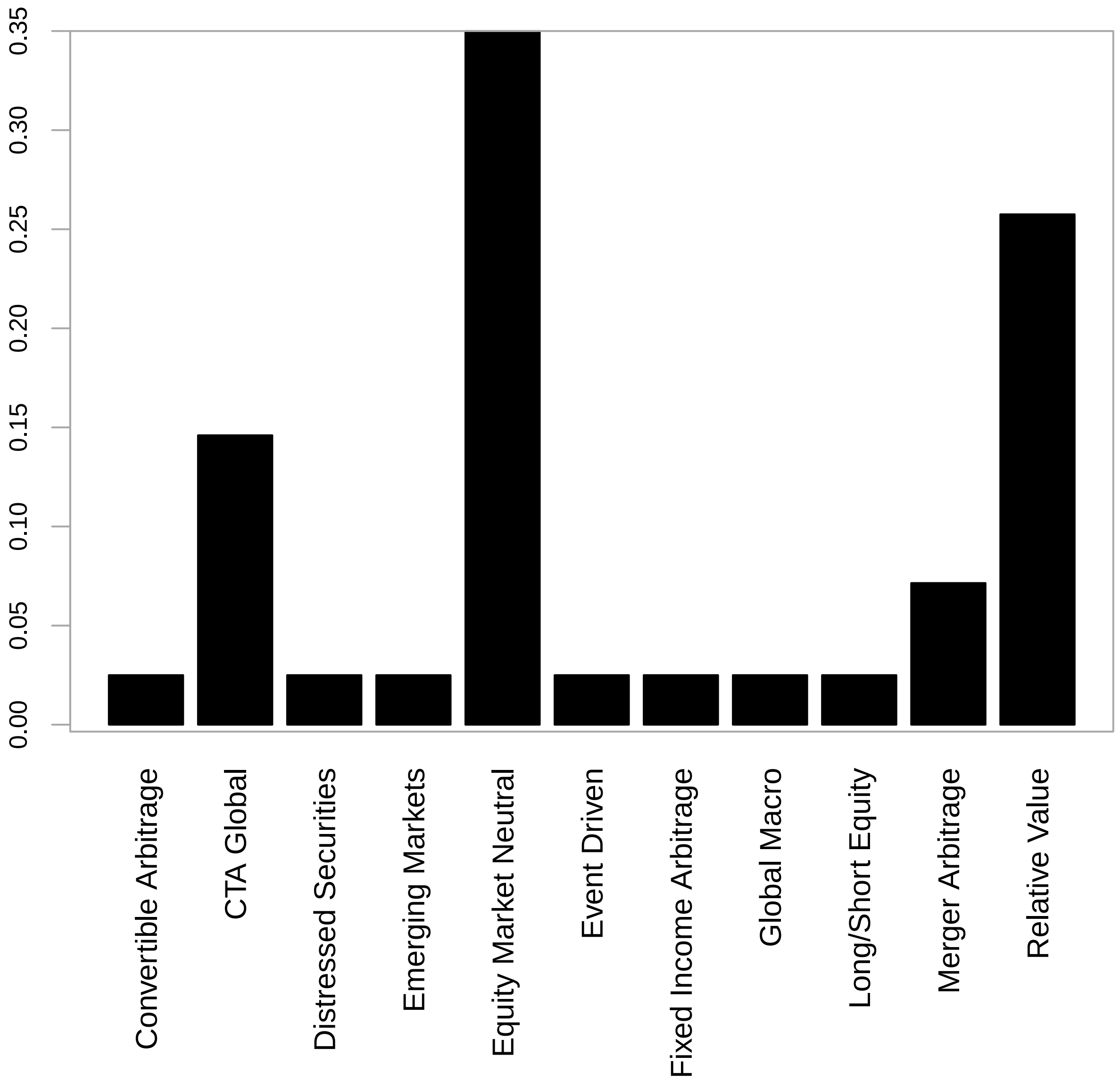
Trailing 36−month Performance Calc'd Every 12 Months
Annualized Return
Annualized Risk
0.5
0.4
0.3
0.2
0.1
0.0
−0.1
0.00
0.05
0.10
0.15
0.20
1999−12−31
1999−12−31
2006−12−31
2006−12−31

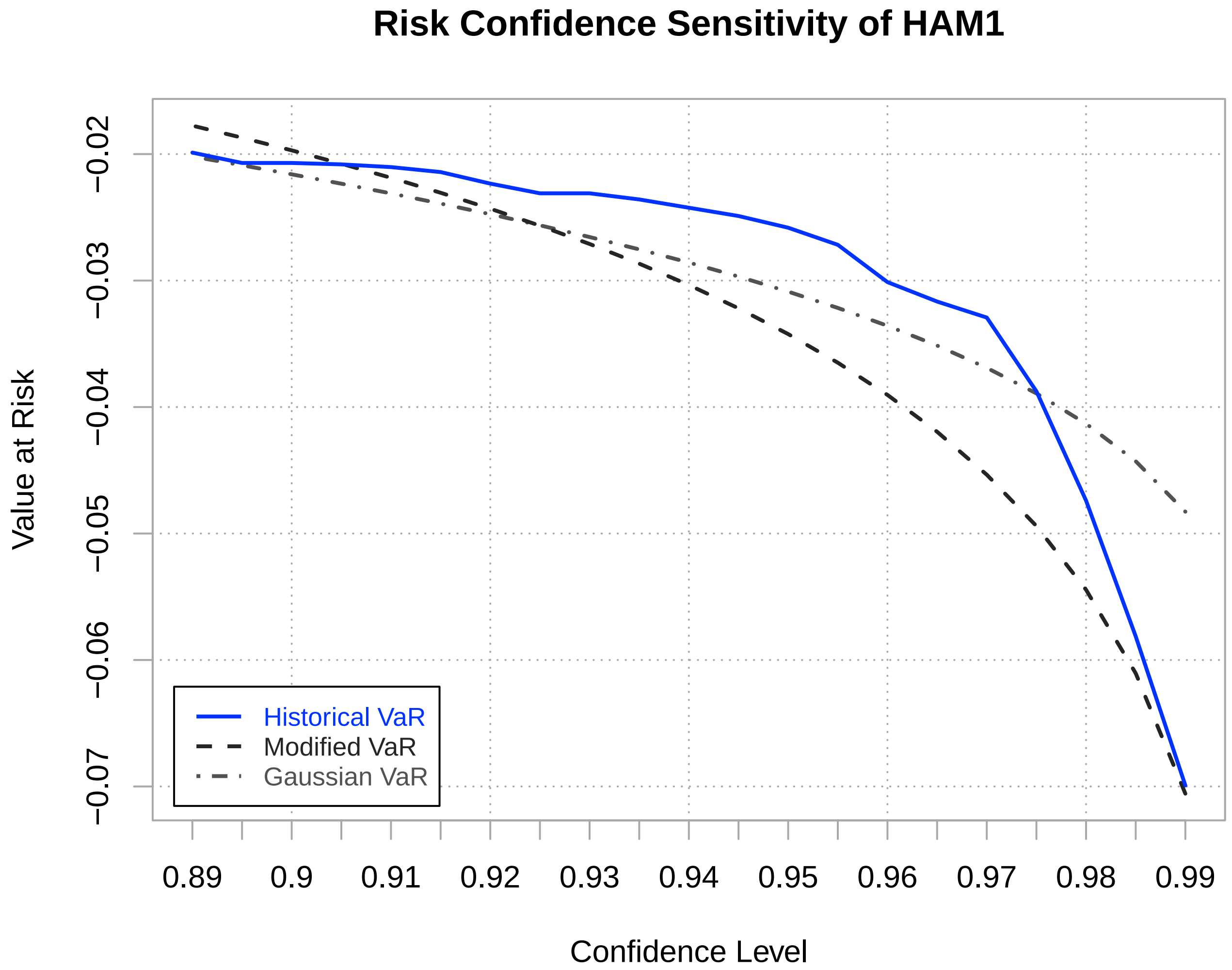


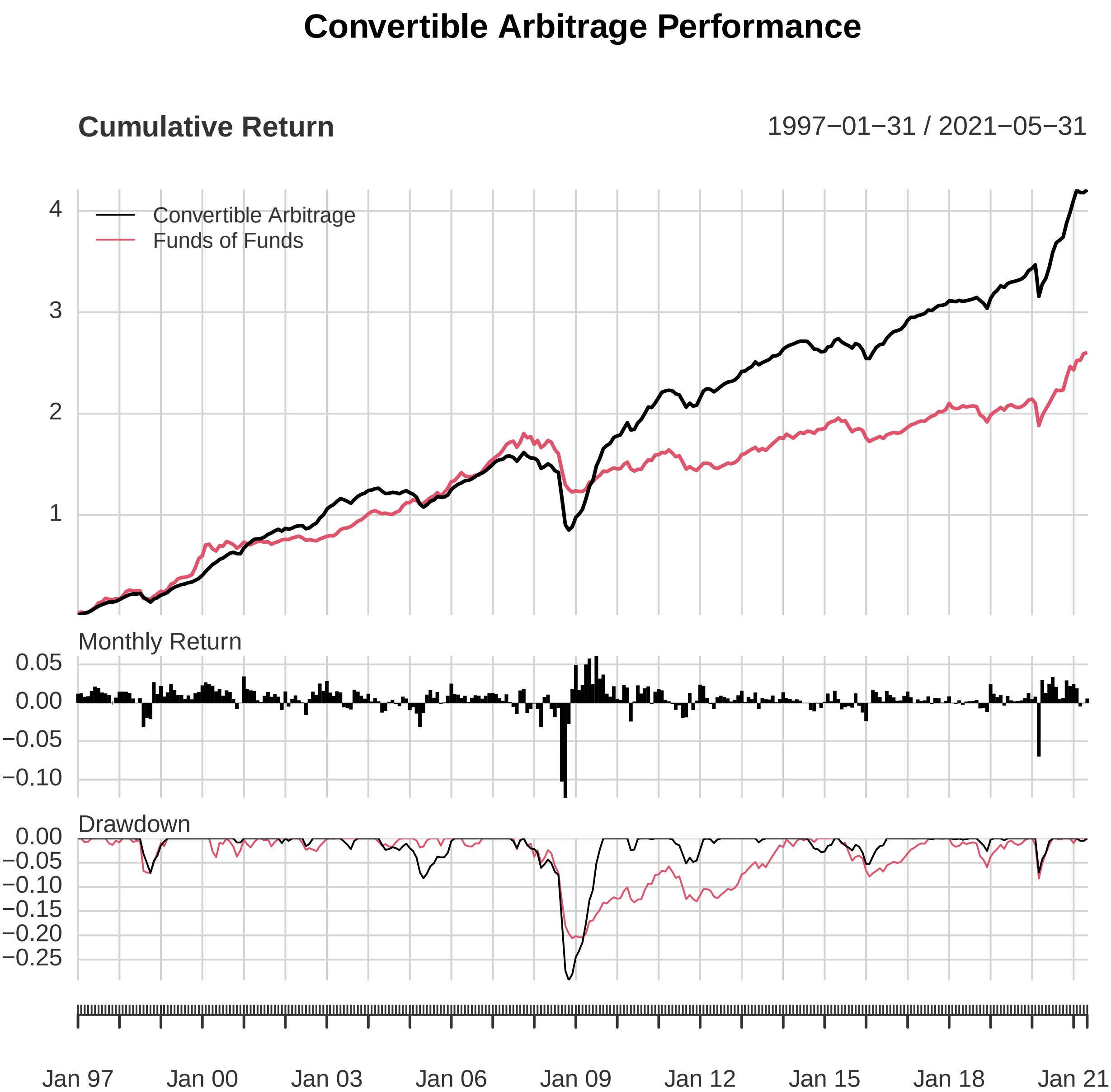
Value
1.0
0.8
0.6
0.4
0.2
0.0
2000
2001
2002
2003
2004
2005
2006
2007
Convertible Arbitrage
CTA Global
Distressed Securities
Emerging Markets
Equity Market Neutral
Event Driven
Fixed Income Arbitrage
Global Macro
Long/Short Equity
Merger Arbitrage
Relative Value

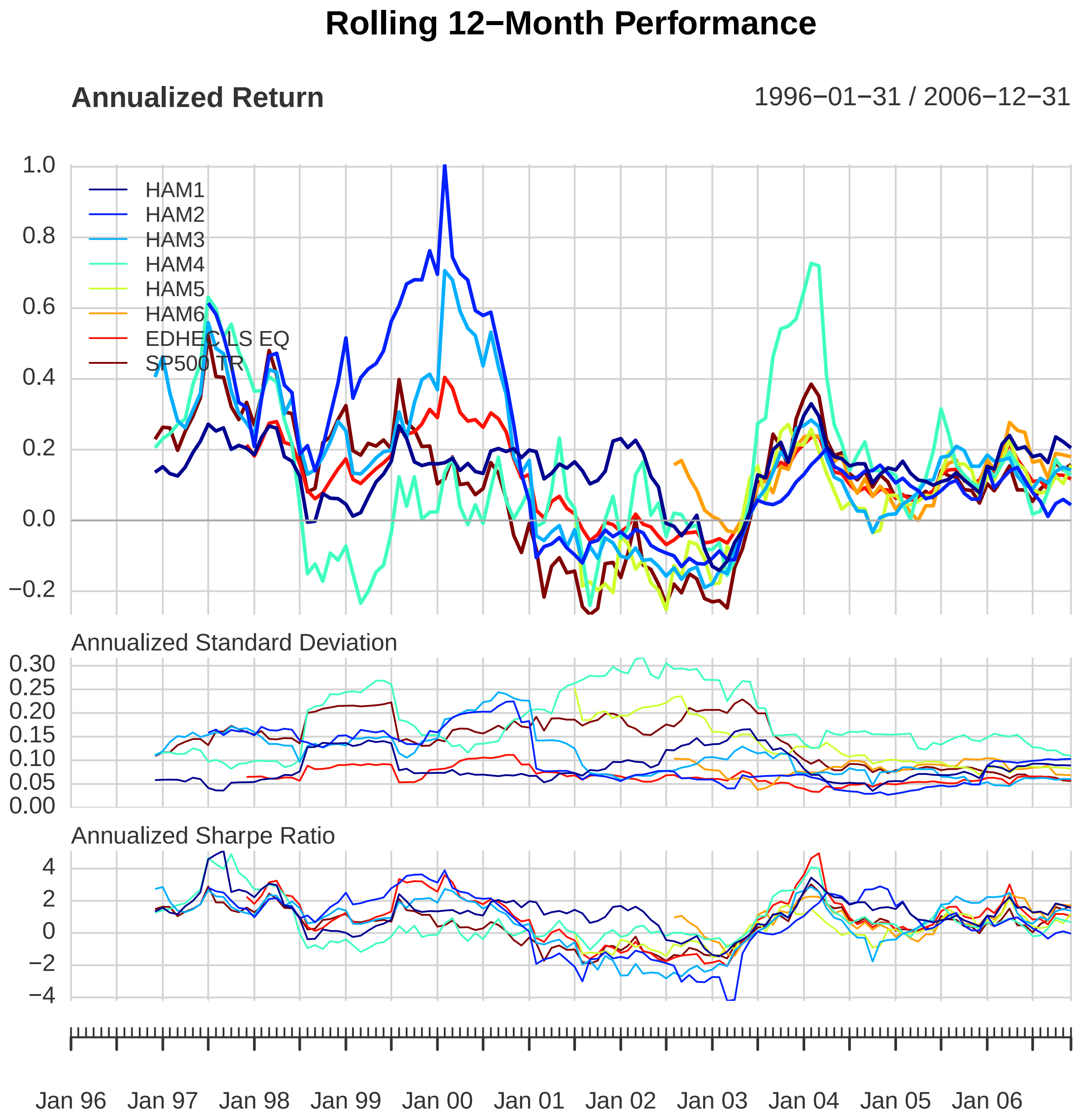


Value
0.0
0.2
0.4
0.6
0.8
1.0
Jan 00
Jan 01
Jan 02
Jan 03
Jan 04
Jan 05
Jan 06
Jan 07


0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
Convertible Arbitrage
CTA Global
Distressed Securities
Emerging Markets
Equity Market Neutral
Event Driven
Fixed Income Arbitrage
Global Macro
Long/Short Equity
Merger Arbitrage
Relative Value


Risk Confidence Sensitivity of HAM1
Value at Risk
−0.02
−0.03
−0.04
−0.05
−0.06
−0.07
Historical VaR
Modified VaR
Gaussian VaR
0.89
0.9
0.91
0.92
0.93
0.94
0.95
0.96
0.97
0.98
0.99
Confidence Level


Convertible Arbitrage Performance
Cumulative Return
1997−01−31 / 2021−05−31
Convertible Arbitrage
Funds of Funds
4
3
2
1
Monthly Return
0.05
0.00
−0.05
−0.10
Drawdown
0.00
−0.05
−0.10
−0.15
−0.20
−0.25
Jan 97
Jan 00
Jan 03
Jan 06
Jan 09
Jan 12
Jan 15
Jan 18
Jan 21


Rolling 12−Month Performance
Annualized Return
1996−01−31 / 2006−12−31
HAM1
HAM2
HAM3
HAM4
HAM5
HAM6
EDHEC LS EQ
SP500 TR
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
Annualized Standard Deviation
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Annualized Sharpe Ratio
4
2
0
−2
−4
Jan 96
Jan 97
Jan 98
Jan 99
Jan 00
Jan 01
Jan 02
Jan 03
Jan 04
Jan 05
Jan 06

Annualized Performance

	Annualized Return	Annualized Std Dev	Annualized Sharpe (Rf=4\%)
HAM1	0.138	0.089	1.1
HAM2	0.175	0.127	1.0
HAM3	0.151	0.126	0.8
HAM4	0.122	0.184	0.4
HAM5	0.037	0.158	0.0
HAM6	0.137	0.082	1.1
EDHEC LS EQ	0.118	0.071	1.1
SP500 TR	0.097	0.150	0.4

Autocorrelation

	rho 1	rho 2	rho 3	rho 4	rho 5	rho 6	Q(6) p−value
HAM1	0.189	−0.0847	−0.0602	−0.1842	−0.0035	0.0492	0.0788
HAM2	0.1975	0.3046	0.0719	0.077	0.0626	0.1574	0.0011
HAM3	0.0071	0.197	0.0413	0.1237	−0.0717	0.2022	0.0286
HAM4	0.1954	−0.084	−0.1694	−0.0923	−0.0041	−0.0065	0.0812
HAM5	−0.0579	−0.1714	−0.033	0.1371	−0.1462	−0.1148	0.2989
HAM6	0.0982	0.1816	−0.0274	−0.1711	−0.0501	−0.1248	0.3885
EDHEC LS EQ	0.2119	0.0834	0.0254	−0.0435	−0.0533	0.1758	0.0872
SP500 TR	−0.0134	−0.0336	0.0514	−0.0878	0.0853	0.0776	0.7487

Single Factor Model Related Statistics

	HAM1 to SP500 TR	HAM2 to SP500 TR	HAM3 to SP500 TR
Alpha	0.0058	0.0091	0.0062
Beta	0.3901	0.3384	0.5523
Alpha Robust	0.0061	0.0042	0.005
Beta Robust	0.3315	0.2629	0.6064
Beta+	0.3005	0.5227	0.4858
Beta−	0.4264	0.0698	0.5067
Beta+ Robust	0.3753	0.5738	0.7045
Beta− Robust	0.4166	0.0298	0.4634
R−squared	0.4339	0.1673	0.4341
R−squared Robust	0.3257	0.1211	0.5591
Annualized Alpha	0.0715	0.1147	0.0772
Correlation	0.6587	0.409	0.6589
Correlation p−value	0	0	0
Tracking Error	0.1132	0.1534	0.1159
Active Premium	0.0408	0.0776	0.0545
Information Ratio	0.3604	0.506	0.4701
Treynor Ratio	0.2428	0.3883	0.1956

Calendar Returns

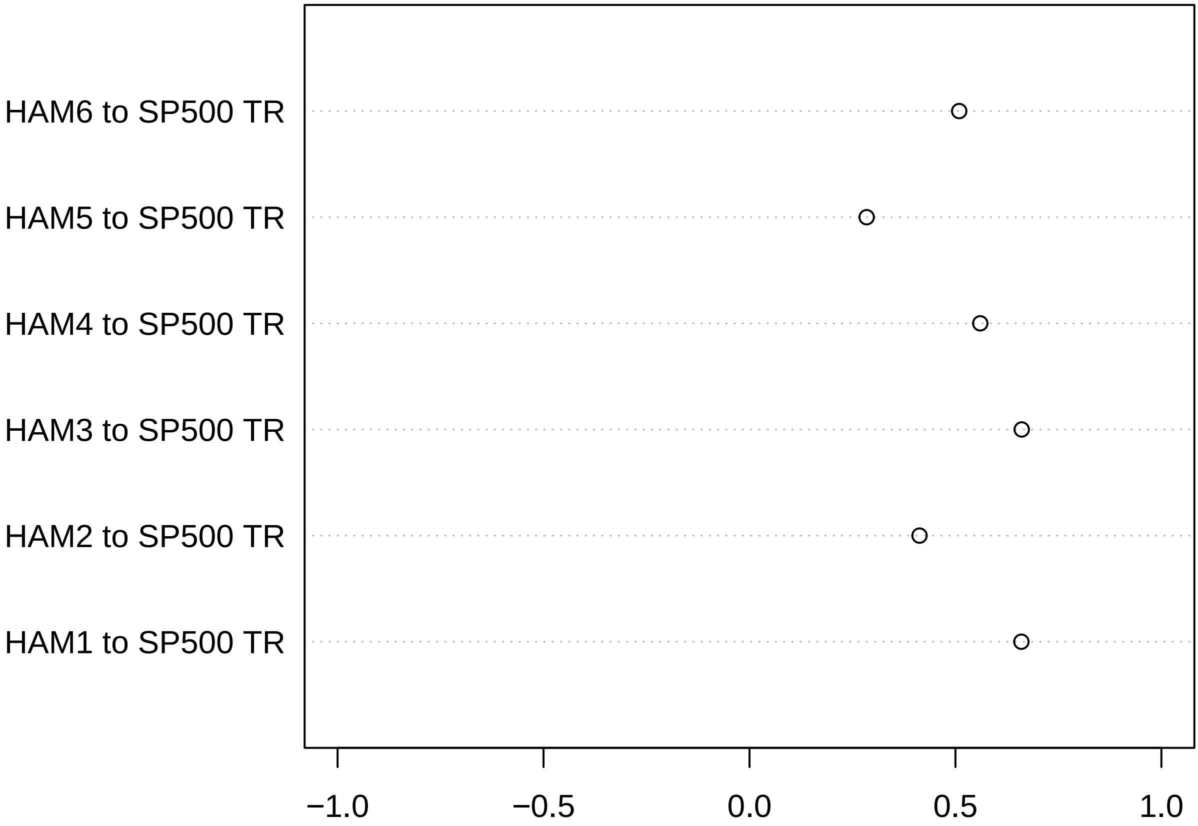
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Jan	0.7	2.1	0.6	−0.9	−1.0	0.8	1.4	−4.1	0.5	0.0	6.9
Feb	1.9	0.2	4.3	0.9	1.2	0.8	−1.2	−2.5	0.0	2.1	1.5
Mar	1.6	0.9	3.6	4.6	5.8	−1.0	0.6	3.6	0.9	−2.1	4.0
Apr	−0.9	1.3	0.8	5.1	2.0	3.5	0.5	6.5	−0.4	−2.1	−0.1
May	0.8	4.4	−2.3	1.6	3.4	5.8	−0.1	3.4	0.8	0.4	−2.7
Jun	−0.4	2.3	1.2	3.3	1.2	0.2	−2.4	3.1	2.6	1.6	2.2
Jul	−2.3	1.5	−2.1	1.0	0.5	2.1	−7.6	1.8	0.0	0.9	−1.4
Aug	4.0	2.4	−9.4	−1.7	3.9	1.6	0.8	0.0	0.5	1.1	1.6
Sep	1.5	2.2	2.5	−0.4	0.1	−3.1	−5.8	0.9	0.9	2.6	0.7
Oct	2.9	−2.1	5.6	−0.1	−0.8	0.1	3.0	4.8	−0.1	−1.9	4.3
Nov	1.6	2.5	1.3	0.4	1.0	3.4	6.6	1.7	3.9	2.3	1.2
Dec	1.8	1.1	1.0	1.5	−0.7	6.8	−3.2	2.8	4.4	2.6	1.1
HAM1	13.6	20.4	6.1	16.1	17.7	22.4	−8.0	23.7	14.9	7.8	20.5
SP500 TR	23.0	33.4	28.6	21.0	−9.1	−11.9	−22.1	28.7	10.9	4.9	15.8

Capture Ratios for EDHEC LS EQ

	HAM1	HAM2	HAM3	HAM4	HAM5	HAM6
Up Capture	1.0017	1.3349	1.5373	2.284	0.8564	1.4836
Down Capture	0.709	0.8473	1.359	1.8126	1.2373	0.8592
Up Number	0.8675	0.6988	0.8193	0.759	0.7143	0.8837
Down Number	0.5135	0.8378	0.8108	0.7297	0.75	0.619
Up Percent	0.5663	0.4458	0.4819	0.6386	0.551	0.6977
Down Percent	0.6486	0.4324	0.4324	0.3784	0.4286	0.4762

Correlations to SP500 TR

	Correlation	p−value	Lower CI	Upper CI
HAM1	0.660	0.000	0.551	0.747
HAM2	0.413	0.000	0.256	0.549
HAM3	0.661	0.000	0.552	0.747
HAM4	0.560	0.000	0.431	0.667
HAM5	0.284	0.012	0.065	0.478
HAM6	0.509	0.000	0.301	0.671


HAM6 to SP500 TR
HAM5 to SP500 TR
HAM4 to SP500 TR
HAM3 to SP500 TR
HAM2 to SP500 TR
HAM1 to SP500 TR
−1.0
−0.5
0.0
0.5
1.0

Portfolio Distributions statistics

	monthly Std Dev	Skewness	Kurtosis	Excess kurtosis	Sample skewness	Sample excess kurtosis
HAM1	0.026	−0.659	5.4	2.3616	−0.6741	2.5004
HAM2	0.037	1.458	5.4	2.3794	1.4937	2.5270
HAM3	0.036	0.791	5.7	2.6829	0.8091	2.8343
HAM4	0.053	−0.431	3.9	0.8632	−0.4410	0.9437
HAM5	0.046	0.074	5.3	2.3143	0.0768	2.5541
HAM6	0.024	−0.280	2.7	−0.3489	−0.2936	−0.2778
EDHEC LS EQ	0.020	0.018	3.9	0.9105	0.0182	1.0013
SP500 TR	0.043	−0.553	3.6	0.5598	−0.5659	0.6285

Downside Risk Statistics

	Semi Deviation	Gain Deviation	Loss Deviation	Downside Deviation (MAR=5\%)	Downside Deviation (Rf=4\%)	Downside Deviation (0\%)	Maximum Drawdown	Historical VaR (95\%)	Historical ES (95\%)	Modified VaR (95\%)	Modified ES (95\%)
Convertible Arbitrage	0.014	0.010	0.020	0.013	0.013	0.012	0.293	−0.015	−0.039	−0.026	−0.089
CTA Global	0.016	0.015	0.012	0.016	0.015	0.013	0.126	−0.032	−0.041	−0.032	−0.040
Distressed Securities	0.015	0.010	0.018	0.013	0.013	0.012	0.229	−0.020	−0.041	−0.028	−0.067
Emerging Markets	0.025	0.019	0.029	0.024	0.024	0.023	0.360	−0.042	−0.075	−0.053	−0.116
Equity Market Neutral	0.006	0.005	0.009	0.006	0.006	0.005	0.111	−0.008	−0.018	−0.011	−0.037
Event Driven	0.015	0.011	0.020	0.014	0.014	0.013	0.201	−0.025	−0.044	−0.030	−0.081
Fixed Income Arbitrage	0.010	0.005	0.018	0.010	0.010	0.009	0.179	−0.007	−0.029	−0.018	−0.053
Global Macro	0.009	0.012	0.007	0.009	0.008	0.006	0.079	−0.015	−0.021	−0.014	−0.017
Long/Short Equity	0.016	0.013	0.015	0.014	0.014	0.013	0.218	−0.026	−0.045	−0.029	−0.049
Merger Arbitrage	0.009	0.007	0.013	0.008	0.008	0.007	0.085	−0.011	−0.023	−0.015	−0.051
Relative Value	0.010	0.007	0.014	0.009	0.009	0.008	0.159	−0.011	−0.027	−0.017	−0.048
Short Selling	0.030	0.037	0.027	0.033	0.032	0.030	0.769	−0.067	−0.095	−0.062	−0.068
Funds of Funds	0.012	0.011	0.013	0.012	0.011	0.010	0.206	−0.020	−0.036	−0.023	−0.046

Downside risk statistics

	monthly downside risk	Annualised downside risk	Downside potential	Omega	Sortino ratio	Upside potential	Upside potential ratio	Omega−sharpe ratio
HAM1	0.015	0.050	0.0	3.1907	0.7649	0.0162	0.7503	2.1907
HAM2	0.012	0.040	0.0	3.3041	1.2220	0.0203	2.2078	2.3041
HAM3	0.017	0.060	0.0	2.5803	0.7172	0.0203	1.0852	1.5803
HAM4	0.034	0.118	0.0	1.6920	0.3234	0.0269	0.8009	0.6920
HAM5	0.030	0.105	0.0	1.2816	0.1343	0.0186	0.7557	0.2816
HAM6	0.012	0.042	0.0	3.0436	0.9102	0.0165	1.0003	2.0436
EDHEC LS EQ	0.010	0.034	0.0	3.3186	0.9691	0.0137	1.1136	2.3186
SP500 TR	0.028	0.098	0.0	1.6581	0.3064	0.0218	0.7153	0.6581

Drawdowns ratio statistics

	Sterling ratio	Calmar ratio	Burke ratio	Pain index	Ulcer index	Pain ratio	Martin ratio
HAM1	0.546	0.906	0.6	0.0161	0.0363	8.3526	3.6977
HAM2	0.514	0.728	0.9	0.0617	0.0938	2.7751	1.8259
HAM3	0.388	0.523	0.6	0.0661	0.1048	2.2384	1.4107
HAM4	0.314	0.423	0.2	0.0787	0.1146	1.5004	1.0307
HAM5	0.085	0.110	0.1	0.1596	0.1877	0.2130	0.1810
HAM6	0.768	1.742	1.1	0.0184	0.0297	7.2635	4.5044
EDHEC LS EQ	0.569	1.098	0.8	0.0180	0.0324	6.3862	3.5350
SP500 TR	0.177	0.216	0.2	0.1258	0.1791	0.7428	0.5215

Higher Co−Moments with SP500 TR

	CoSkewness	CoKurtosis	Beta CoVariance	Beta CoSkewness	Beta CoKurtosis
HAM1	0.000	0.000	0.391	0.560	0.482
HAM2	0.000	0.000	0.343	0.045	0.199
HAM3	0.000	0.000	0.557	0.600	0.507
HAM4	0.000	0.000	0.688	1.337	0.848
HAM5	0.000	0.000	0.318	0.374	0.274
HAM6	0.000	0.000	0.324	0.243	0.154

Portfolio information ratio

	Tracking Error	Annualised Tracking Error	Information Ratio
HAM1	0.033	0.113	0.4
HAM2	0.044	0.153	0.5
HAM3	0.033	0.116	0.5
HAM4	0.046	0.160	0.2
HAM5	0.052	0.180	0.1
HAM6	0.033	0.113	0.7
EDHEC LS EQ	0.033	0.113	0.3
SP500 TR	0.000	0.000	

Table of Statistics for EDHEC Indexes

Convertible Arbitrage vs Benchmark

	Observations	NAs	Minimum	Quartile 1	Median	Arithmetic Mean	Geometric Mean	Quartile 3	Maximum	SE Mean	LCL Mean (0.95)	UCL Mean (0.95)	Variance	Stdev	Skewness	Kurtosis
Convertible Arbitrage	293.0	0.0	−0.124	0.000	0.006	0.006	0.006	0.014	0.061	0.001	0.004	0.008	0.000	0.017	−2.597	18.601
CTA Global	293.0	0.0	−0.057	−0.011	0.002	0.004	0.004	0.020	0.069	0.001	0.002	0.007	0.000	0.023	0.163	−0.008
Distressed Securities	293.0	0.0	−0.106	−0.002	0.009	0.007	0.007	0.018	0.050	0.001	0.005	0.009	0.000	0.018	−1.728	7.795
Emerging Markets	293.0	0.0	−0.192	−0.009	0.010	0.007	0.006	0.026	0.123	0.002	0.003	0.011	0.001	0.033	−1.220	6.013
Equity Market Neutral	293.0	0.0	−0.059	0.001	0.005	0.004	0.004	0.008	0.025	0.000	0.003	0.005	0.000	0.008	−1.917	12.427
Event Driven	293.0	0.0	−0.127	−0.001	0.009	0.007	0.006	0.017	0.067	0.001	0.004	0.009	0.000	0.019	−1.881	10.274
Fixed Income Arbitrage	293.0	0.0	−0.087	0.002	0.005	0.004	0.004	0.009	0.036	0.001	0.003	0.006	0.000	0.012	−3.792	25.497
Global Macro	293.0	0.0	−0.031	−0.004	0.005	0.006	0.005	0.013	0.074	0.001	0.004	0.007	0.000	0.015	0.883	2.486
Long/Short Equity	293.0	0.0	−0.081	−0.005	0.008	0.007	0.006	0.020	0.074	0.001	0.004	0.009	0.000	0.021	−0.470	1.903
Merger Arbitrage	293.0	0.0	−0.079	0.001	0.006	0.006	0.005	0.011	0.047	0.001	0.004	0.007	0.000	0.012	−1.622	12.771
Relative Value	293.0	0.0	−0.069	0.001	0.007	0.006	0.006	0.013	0.039	0.001	0.004	0.007	0.000	0.012	−2.078	10.160
Short Selling	293.0	0.0	−0.134	−0.025	−0.003	−0.001	−0.002	0.018	0.246	0.003	−0.006	0.004	0.002	0.046	0.774	3.628
Funds of Funds	293.0	0.0	−0.070	−0.003	0.005	0.004	0.004	0.013	0.067	0.001	0.003	0.006	0.000	0.016	−0.597	4.396

Trailing Period Statistics

	Merger Arbitrage	Relative Value	Short Selling	Funds of Funds
Last 12 month Average	0.018	0.011	0.007	0.014
Last 24 month Average	0.009	0.005	0.005	0.007
Last 36 month Average	0.007	0.004	0.002	0.005
Last 12 month Std Dev	0.018	0.007	0.015	0.015
Last 24 month Std Dev	0.024	0.016	0.015	0.022
Last 36 month Std Dev	0.020	0.014	0.015	0.020

Portfolio specific, systematic and total risk

	Specific Risk	Systematic Risk	Total Risk
HAM1	0.066	0.059	0.1
HAM2		0.052	
HAM3	0.095	0.084	0.1
HAM4	0.152	0.103	0.2
HAM5		0.048	
HAM6		0.049	
EDHEC LS EQ		0.050	
SP500 TR	0.000	0.150	0.1

Portfolio variability

	Mean Absolute deviation	monthly Std Dev	Annualized Std Dev
HAM1	0.018	0.026	0.1
HAM2	0.027	0.037	0.1
HAM3	0.027	0.036	0.1
HAM4	0.041	0.053	0.2
HAM5	0.033	0.046	0.2
HAM6	0.019	0.024	0.1
EDHEC LS EQ	0.016	0.020	0.1
SP500 TR	0.033	0.043	0.1

	HAM1	HAM2	HAM3	HAM4	HAM5	HAM6
Annualized Return	0.1375	0.1747	0.1512	0.1215	0.0373	0.1373
Annualized Std Dev	0.0888	0.1272	0.1265	0.1843	0.1584	0.0825
Annualized Sharpe (Rf=0%)	1.5491	1.3732	1.1955	0.6592	0.2356	1.6642