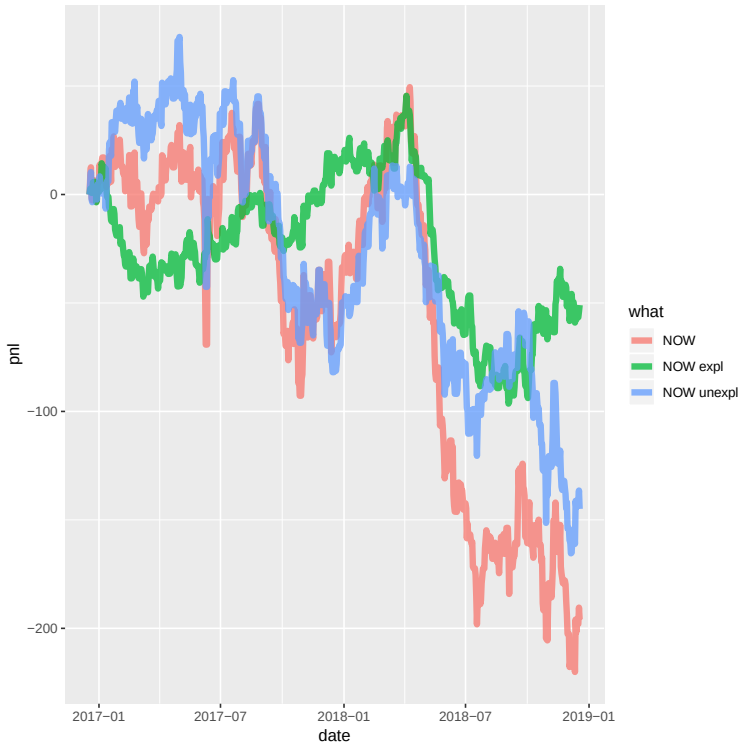
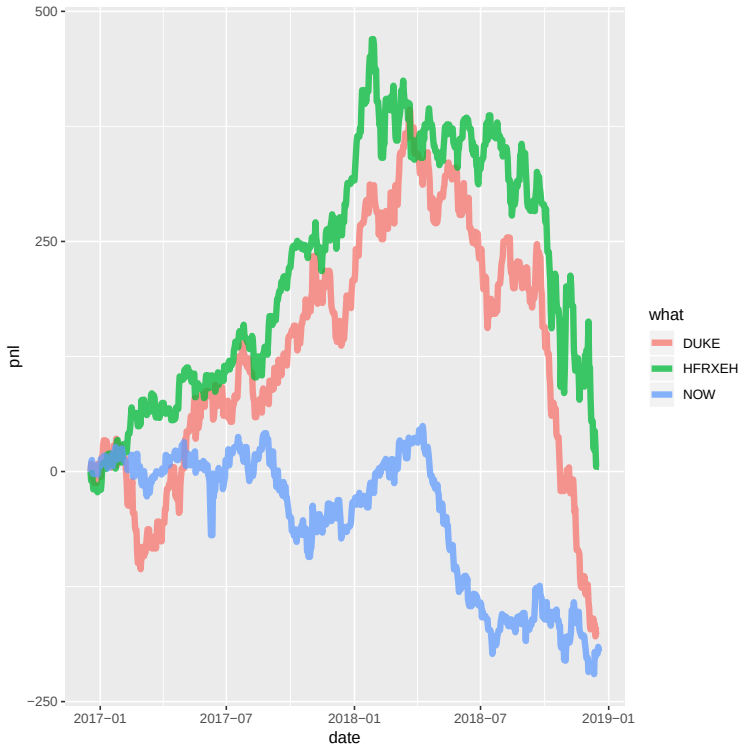
1 P&L explain

2 year, daily



14 days, 10min bars

DUKE, HFRXEH(vol scaled), NOW



DUKE, HFRX specific

2 Position summary

	subset	net	gross	cor whole period 2y SXXP	cor 90pct quantile 2y SXXP	cor 10pct quantile 2y SXXP	cor 2 week SXXP	cor 90pct quantile 2 week SXXP	cor 10pct quantile 2 week SXXP
1	ABC	90	2,145	-4.5	0.1	-8.9	-9.8	-2.3	-16.1
2	AC	-103	1,928	-12.6	-8.9	-16.6	-23.7	-14.3	-31.2
3	ACTW	-81	810	-35	-31.7	-39	-58.8	-51.4	-65.2
4	DH	-50	1,438	-23.6	-17.8	-28.3	-36	-30.9	-40.9
5	GJ	-37	1,102	20.5	25.2	14.8	38.1	44.7	27.2
6	JR	84	1,968	12.5	16.6	8.7	15.1	21.2	8.8
7	MC	64	718	-16.8	-13.1	-20.4	-44.7	-34.1	-51.9
8	*	48	9,298	-11.4	-8.1	-14.7	-27.2	-21	-35.3

3 Pair hedge stability table: topmost pairs have “looser” hedges

Pair vol-of-vols, correlations with SXXP, correlation confidence intervals: ordered by 2 week hedge and directional stability

	pair	net	gross	cor whole period 2 year SXXP	cor 90pct quantile 2 year SXXP	cor 10pct quantile 2 year SXXP	cor confidence interval 2 year SXXP	cor whole period 2 week SXXP	cor 90pct quantile 2 week SXXP	cor 10pct quantile 2 week SXXP	cor conficence interval 2 week SXXP	vol of vol 2 weeks	vol of vol 2 years	has index position	2 week P&L
1	MC89	28.2	32	-4	-1.1	-7.5	6.3	-32.2	-1.9	-43.1	41.2	10.5	57.1	•	-0.3
2	ACTW2	-30.9	337	8.9	12.2	5.6	6.6	-25.8	-8.6	-33.9	25.4	11.9	20.4	•	2.7
3	ABC9	21.3	107	25.7	28.2	22	6.3	-3.2	15.1	-13.3	28.3	7.7	18.8	•	5.1
4	JR44	7.1	45	6.3	10.9	2	8.9	-14.6	-0.5	-25.3	24.9	8.3	40.5	•	-0.5
5	ABC38	-6.0	81	-11.8	-8.8	-16.1	7.3	-7.8	6.1	-19.9	26	6.5	26.5	•	0.4
6	ACTW28	-10.2	76	-15.1	-10.3	-20.4	10.1	-41.5	-29.9	-55.6	25.8	6.4	25.7	•	1.2
7	AC123	-1.8	95	-3	1.1	-8.7	9.8	-29.9	-17.3	-43.2	25.8	5.5	26.9		1.7
8	MC166	-12.5	87	-10.6	-6.4	-14.9	8.5	-35.5	-21.5	-42.8	21.3	7	18.8	•	-1.2
9	AC127	1.0	34	-3.1	2.6	-6.9	9.5	-7.2	15.6	-23.2	38.8	4.6	21.2		0.3
10	ACTW26	-5.0	47	-13.1	-9.2	-17.3	8.2	-35	-24.1	-42.8	18.7	7.4	18	•	0.8
11	MC167	18.3	82	6.9	11	2.3	8.7	-1.3	6.7	-11.6	18.3	7.9	22.2	•	0.1
12	ABC45	6.2	86	-36.2	-31.8	-40.5	8.6	-16.2	2.1	-27.3	29.4	3.8	15.5		2.5
13	DH32	-1.1	8	-34.2	-30.4	-38.3	7.9	-47.2	-38.9	-54.8	15.9	9.7	17.4	•	0.3
14	MC143	-0.8	19	-11.8	-6.5	-15.9	9.4	-11.3	6.5	-22.1	28.6	3.6	37.4	•	-0.7
15	DH62	5.2	24	31	34.7	26	8.8	39.7	48.6	31.7	16.9	6.8	13.8	•	-0.5
16	ACTW20	-4.5	57	-8.6	-4.9	-12.6	7.7	-22.7	-15.6	-32.2	16.6	7	19	•	1.2
17	ACTW35	-7.9	74	-0.6	3.9	-3.9	7.7	-14.8	-4.4	-27.8	23.4	3.4	25	•	1.4
18	JR37	0.6	239	0.9	5.6	-3.3	8.9	13.9	20.9	3.7	17.2	4.6	22.1		7.5
19	ABC8	-6.1	144	-10.4	-6.2	-14.5	8.2	-1.5	9.9	-8.5	18.5	4	25.1	•	-1.8
20	GJ22	-30.6	149	-23.1	-18.4	-28.8	10.4	-25.2	-11.7	-45.6	33.9	2.7	17.3		-1
21	JR34	27.2	139	33.5	37.8	29.3	8.5	45.1	52.2	37.2	15	5.5	15.2	•	-11.4
22	JR43	16.6	120	47.2	50.5	44	6.6	32.4	40.8	25.2	15.6	4.7	16	•	-1.2
23	MC158	-0.5	38	-6.8	-3.4	-11.2	7.8	-11.3	-0.9	-20.2	19.2	3.5	37.3	•	0.5
24	MC172	2.0	57	17.1	21.3	13.4	7.9	30	40	17.6	22.3	3.1	12.3	•	1.7
25	ACTW30	-2.9	25	-26.9	-22.2	-31.9	9.7	-7.1	4.5	-15.9	20.3	3.2	15.9	•	0.1
26	JR42	-7.6	211	-13.8	-9.6	-17.6	8	-18.4	-7.7	-26.2	18.6	3.5	25.6	•	-4.6
27	ACTW25	1.4	62	-2.3	2	-6.3	8.3	12	20.7	1.3	19.4	3.2	17.8	•	0.4
28	ABC28	2.3	19	1.6	6.7	-3	9.7	0.2	5.7	-8	13.7	7.6	22.4	•	-0.4
29	MC132	3.0	18	3.3	8.5	-1.1	9.5	1.2	6.6	-7	13.7	7.6	22.7	•	-0.4
30	AC122	1.5	123	8.5	13	4	9	13.9	21.4	5.7	15.8	4	12.6	•	5.5
31	ABC5	6.2	45	-6	-2.1	-9.2	7.1	-15.4	-6.9	-25.2	18.2	3.4	19.1	•	-1
32	JR46	5.5	147	9	12.9	4.6	8.4	-3	3.8	-18.2	22	2.7	20.5		0.8
33	GJ17	-27.5	103	-13.9	-10	-18	7.9	-35.6	-25.3	-43.2	17.9	3.4	21.8		1.3
34	ACTW37	0.3	10	-0.4	3.4	-5.1	8.4	26	33.5	18.9	14.6	4.8	18.4	•	0.3
35	MC162	0.6	60	-12.3	-8.7	-16.8	8.1	-22.1	-10.8	-31.7	21	2.7	35.7	•	1.3
36	JR45	-11.6	123	-4.4	-0.5	-7.5	7	11.2	23.6	0.1	23.6	2.5	25.8		-3.3
37	MC145	-0.7	73	3.6	8	0.1	7.9	-12.5	-4.8	-21.8	17	3.4	23.5	•	1.2
38	DH58	-1.9	74	14.4	18.3	10.7	7.6	-4.1	8.7	-12.9	21.6	2.5	20.4		-2.4
39	AC53	2.1	121	3.4	7.5	-0.3	7.8	8.6	17.8	-0.9	18.7	2.8	17.3	•	-0.2
40	JR32	1.9	188	-7.7	-2.8	-13	10.2	9.6	18.9	4.1	14.7	4.2	17.7	•	-0.5
41	AC115	3.9	57	18.1	21.8	15.1	6.7	25.7	32	16.6	15.4	3.5	17.9	•	-1.3
42	AC96	0.2	77	-11.5	-6.9	-15.8	8.8	-26.8	-18.3	-33	14.7	3.9	16		1.6
43	GJ26	-13.9	154	24.7	29.6	20	9.6	45.3	51.5	37.6	13.8	4.4	14.8	•	4.7
44	DH67	1.4	90	-0.7	5	-4.6	9.6	-4.2	2.5	-10.4	12.9	5.2	45.3	•	4.2
45	MC129	-0.4	47	-15.8	-11	-20.1	9.1	-28.3	-21.2	-36	14.8	3.5	16.3	•	2
46	ABC35	-13.6	77	1.9	6.8	-1.4	8.2	-12.5	-5.6	-21.5	15.9	3	21.7		-0.3
47	AC124	-21.9	61	-22.2	-17.4	-26.7	9.3	-43.6	-39.6	-49.7	10.1	8	16.3		0.3
48	ACTW21	1.4	23	-1.1	2.3	-4.7	7	-22.4	-15.1	-26.8	11.7	5.7	30.5		0
49	ACTW17	-5.3	28	-25	-20.5	-30.2	9.7	-59.6	-52.2	-65.6	13.4	4.5	18.7	•	0.5
50	DH38	-1.2	191	-16.6	-12.8	-21.2	8.4	-19.1	-10.4	-25.2	14.7	3.5	14.6	•	-2.1
51	MC53	12.8	74	-16.4	-12.1	-20.6	8.5	-23.2	-17.4	-29	11.5	5.9	20.2	•	1.4
52	DH63	-12.9	63	-9.7	-6.4	-13.4	7	11.1	19.3	0.1	19.2	2.4	12.9	•	-0.9
53	JR15	23.3	169	3.3	9.7	-0.7	10.3	0.8	7.4	-4.5	11.9	5.4	45.1	•	7.6
54	JR16	16.0	114	19.5	22.6	14.9	7.7	15.7	24.2	4.8	19.4	2.4	17.1	•	-0.1
55	ABC40	-4.5	76	-7.4	-3	-10.1	7.1	-16.3	-8.8	-26.4	17.6	2.7	15.7		-1.7
56	ABC47	-1.2	94	-23.5	-19.4	-27.6	8.2	1.6	12.2	-12.2	24.4	1.9	32.9	•	0.2
57	ACTW22	-11.9	12	-70.7	-67.2	-74.1	6.9	-72.4	-66.1	-76.8	10.7	6.1	13.3	•	1
58	DH20	-19.3	676	-22.7	-18.1	-27.8	9.7	-32.4	-26.1	-38.8	12.8	4.5	15.6		-0.9
59	ABC32	23.0	165	1	6.7	-2.7	9.3	-7.1	-1.1	-14.6	13.4	3.9	18.9	•	0.4
60	DH65	2.1	216	4.1	8.2	0.4	7.8	-5.9	2.8	-12.6	15.4	3	16.3	•	-0.6
61	ACTW45	-0.8	6	-43.2	-38.8	-48.1	9.3	-49.3	-41.1	-56.6	15.4	2.8	16.4	•	0.2
62	ABC44	9.6	84	-1.1	1.7	-4.4	6.1	27.9	36.3	16.1	20.2	2.1	42.5	•	-0.2
63	JR36	-4.0	163	-4.9	-0.9	-9.6	8.7	-11.4	-6	-16.4	10.4	5.6	15.2		-1.4
64	ABC46	3.1	144	14.4	18.4	11	7.4	14.1	21.6	6.8	14.8	3	14.7	•	2.3
65	ACTW44	-0.4	28	-6.9	-2	-11.7	9.7	-7.7	-0.4	-12.9	12.5	3.8	24.4	•	0.9
66	GJ4	-10.1	160	33.4	37.3	29.1	8.2	57	62	50.5	11.5	4.3	14.7	•	2.7
67	ACTW34	-6.7	46	-8	-3.6	-12.1	8.4	-7.1	0.8	-17.5	18.3	2	24	•	1.8
68	ACTW39	-3.8	32	-23.4	-19.2	-28.3	9	-32.9	-26.2	-41	14.8	2.7	19.5	•	-0.2
69	ABC39	33.5	200	1.1	5.3	-3.3	8.7	22.2	27	17.3	9.7	4.8	13.7	•	4.2
70	MC122	12.0	60	-43.2	-38.6	-47.9	9.4	-73.4	-68	-79.5	11.6	3.6	21	•	1.5
71	ABC7	-21.3	21	-69.2	-67	-71.5	4.5	-80	-76.2	-83	6.7	5.1	16.1		0.8
72	AC125	0.2	153	-34.8	-30.6	-39.5	8.9	-36.3	-28.5	-45.4	16.8	2.1	12.5	•	1.1
73	ACTW33	-1.8	40	4.8	8.7	0	8.7	23.3	29.4	14	15.4	2.2	13.3	•	1
74	GJ7	-11.5	138	-2.1	3.2	-6.4	9.6	15.6	21.3	8	13.3	3.1	21.2	•	-5.6
75	MC160	2.1	33	13	17.7	8.4	9.3	23.5	30.5	15.7	14.9	2.2	46.6	•	-0.2
76	ABC29	-1.9	184	25.1	27.9	22.2	5.8	8.6	16.9	2.6	14.2	2.4	15.6	•	-1.8
77	ACTW5	0.5	46	9.5	14.1	4.8	9.3	-4.6	2	-13.6	15.6	1.6	20.8		0.1
78	MC149	0.2	25	-12.2	-8	-16.5	8.5	-12.7	-6.4	-20.2	13.8	2.4	16.7	•	0.6
79	AC111	-1.4	38	-2.1	1.8	-5.6	7.4	10.3	17.3	1.9	15.4	1.8	31.3		-0.4
80	ACTW6	-7.6	88	-31.4	-27.1	-35	7.9	-33.9	-27	-38.6	11.7	3	12.8	•	1.6
81	JR10	-17.9	189	6.1	10.1	2.2	7.9	-12.6	-7	-20.6	13.6	2.5	12.2	•	-2.6
82	ABC43	6.2	85	20.1	23.5	16.5	6.9	43.8	49.4	34.9	14.4	2.2	18.4		-2.1
83	AC57	8.9	190	-2	2.4	-5.3	7.7	-9.8	-4.2	-14.6	10.5	3.1	19.3		5.7
84	DH52	-0.8	15	-7.7	-3.7	-12	8.3	-14.3	-7.9	-22.4	14.5	2.2	19.1	•	0.3
85	GJ13	21.3	149	23.4	26.8	19.8	7	26.9	34.6	20.1	14.5	2.1	16.9	•	-2
86	GJ25	-15.1	88	-10.6	-6	-17.5	11.5	-18.1	-9.6	-23.6	13.9	2.2	30.3	•	-0.3
87	MC130	0.0	12	7.4	11.3	4	7.3	-7.6	-1.7	-11.7	10	3.1	17.1		-1.2
88	AC99	-9.2	41	-11.6	-8.1	-15.6	7.5	10.2	15.6	3.4	12.2	2.5	22.8	•	0.5
89	DH48	-21.0	21	-36.9	-32.9	-41.3	8.4	-48.9	-43.1	-54	10.8	2.7	12.8		0.6
90	JR18	27.0	121	-12.3	-8.1	-16.3	8.1	-8.9	-2.6	-15.4	12.9	2.4	16	•	-5.2
91	AC121	-6.2	69	-16.8	-11.8	-21.2	9.4	-9.6	-3.9	-14.9	10.9	2.6	17.6		1.8
92	ABC41	30.6	118	-2	2.2	-5.5	7.7	-15.9	-9.2	-21.5	12.3	2	20.5	•	-4.8
93	ABC42	-6.1	116	-5.1	-1.1	-8.4	7.3	5.1	11.9	-1.2	13.1	1.8	20.7		0.9
94	ACTW40	-13.9	52	-28.8	-25.4	-32.8	7.4	-42.5	-37.1	-46.5	9.4	2.5	24.1	•	1.2
95	DH66	1.4	38	-4.8	0.4	-10.3	10.7	-15.7	-8.6	-22	13.3	1.6	24.4		0.6
96	DH16	-1.7	22	-11.6	-8.1	-16.9	8.8	-2.4	2.2	-8	10.1	2.3	17.4	•	-0.2
97	ABC33	3.1	56	-0.3	3.7	-5.1	8.8	-2.9	3.9	-7.6	11.5	1.9	25.3		-1.1
98	GJ16	9.8	85	5.2	8.3	1	7.3	22.5	27	16.8	10.2	1.9	16.5	•	0
99	ABC23	5.6	245	0.6	4.6	-2.5	7.1	-26	-20.8	-31.3	10.5	1.5	17.3	•	5
100	AC126	1.0	59	2.5	7	-2.5	9.5	-15.3	-10.8	-20.4	9.6	1.8	31.3		-0.1
101	GJ18	40.3	75	23.9	32	19.8	12.2	22.2	26.5	19	7.5	1.1	33.2	•	-1.2

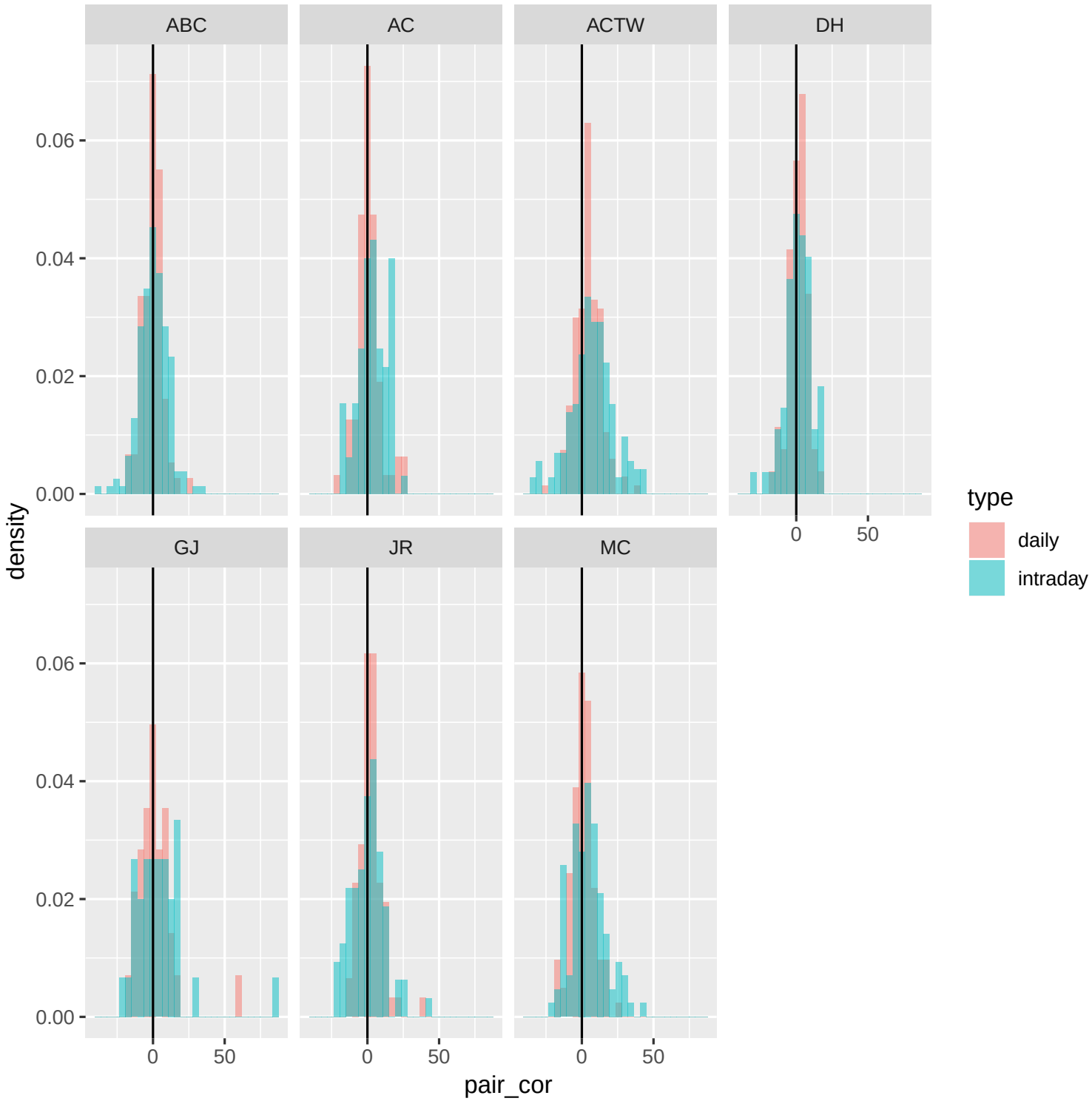
4 Manager pair correlations

Manager pair correlation statistics, 2 weeks, 10-min bars

	manager	mean_cor	median_cor	max_cor	min_cor
1	ABC	0.25	1	36	-39
2	AC	3.74	4	25	-18
3	ACTW	7.07	8	44	-36
4	DH	1.36	2	19	-31
5	GJ	4.54	4	85	-20
6	JR	0.17	-1	42	-23
7	MC	4.4	4	41	-21

Manager pair correlation statistics, 2 year, daily

	manager	mean_cor	median_cor	max_cor	min_cor
1	ABC	-0.31	-1	27	-17
2	AC	1.12	1	27	-20
3	ACTW	4.38	4	40	-27
4	DH	1.08	2	19	-15
5	GJ	1.79	1	59	-18
6	JR	2.39	2	38	-11
7	MC	0.54	1	25	-17



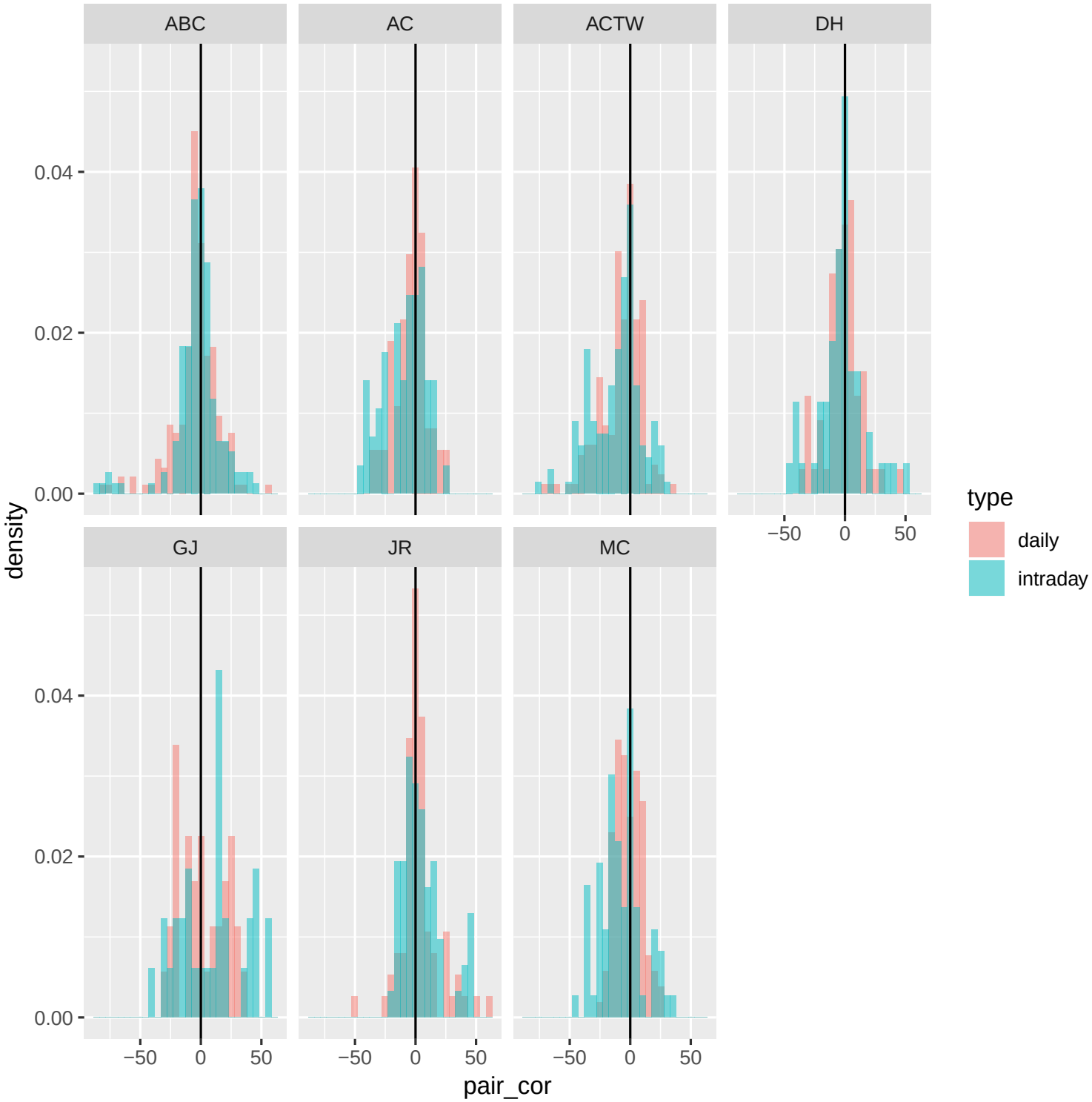
5 Factor correlations

Manager pair correlation to factors, 2 weeks, 10-min bars

	manager	mean_cor	median_cor	max_cor	min_cor
1	ABC	-2.64	-2	48	-86
2	AC	-8.57	-5	24	-44
3	ACTW	-11.57	-7	32	-74
4	DH	-3.56	-2	52	-45
5	GJ	9.62	13	56	-40
6	JR	5.15	-1	47	-20
7	MC	-7.97	-10.5	33	-46

Manager pair correlation to factors, 2 year, daily

	manager	mean_cor	median_cor	max_cor	min_cor
1	ABC	-4.1	-3	55	-80
2	AC	-4.29	-2	26	-38
3	ACTW	-7.33	-4	33	-72
4	DH	-1.58	-1	46	-34
5	GJ	1.63	-1	35	-28
6	JR	3.3	1	61	-49
7	MC	-1.52	-2	27	-26



6 High correlation pairs

intraday				
	pair_cor	manager	pair1	pair2
1	85	GJ	GJ26	GJ4
2	44	ACTW	ACTW22	ACTW28
3	43	ACTW	ACTW17	ACTW22
4	43	ACTW	ACTW22	ACTW39
5	42	JR	JR37	JR46
6	41	MC	MC122	MC129
7	-39	ABC	ABC43	ABC7
8	39	ACTW	ACTW17	ACTW45
9	39	ACTW	ACTW22	ACTW45
10	37	ACTW	ACTW22	ACTW26
11	36	ABC	ABC38	ABC39
12	36	ACTW	ACTW20	ACTW26
13	-36	ACTW	ACTW28	ACTW37
14	35	ACTW	ACTW22	ACTW40
15	34	ACTW	ACTW17	ACTW21
16	-34	ACTW	ACTW22	ACTW37
17	33	ACTW	ACTW17	ACTW26
18	33	MC	MC122	MC162
19	32	ABC	ABC23	ABC7
20	32	ACTW	ACTW26	ACTW28
21	32	MC	MC129	MC162
22	31	ACTW	ACTW21	ACTW5
23	-31	DH	DH32	DH62
24	31	MC	MC122	MC166
25	-30	ACTW	ACTW17	ACTW37
26	-30	ACTW	ACTW2	ACTW37
27	-29	ABC	ABC44	ABC7
28	29	ACTW	ACTW2	ACTW22
29	29	ACTW	ACTW28	ACTW39
30	-29	ACTW	ACTW37	ACTW39
31	28	ACTW	ACTW21	ACTW22
32	-28	ACTW	ACTW26	ACTW37
33	28	ACTW	ACTW21	ACTW39
34	28	ACTW	ACTW17	ACTW40
35	28	GJ	GJ17	GJ25
36	28	MC	MC162	MC89
37	-26	ABC	ABC44	ABC9
38	26	MC	MC143	MC166
39	-25	ABC	ABC40	ABC8
40	25	AC	AC123	AC127
41	25	ACTW	ACTW26	ACTW39
42	25	ACTW	ACTW39	ACTW40
43	25	JR	JR15	JR43
44	24	JR	JR32	JR34
45	24	MC	MC149	MC162
46	24	MC	MC122	MC89
47	24	MC	MC129	MC89
48	23	ACTW	ACTW21	ACTW26
49	23	ACTW	ACTW2	ACTW35
50	23	ACTW	ACTW28	ACTW40

daily				
	pair_cor	manager	pair1	pair2
1	59	GJ	GJ26	GJ4
2	40	ACTW	ACTW21	ACTW5
3	38	JR	JR37	JR46
4	32	ACTW	ACTW22	ACTW45
5	31	ACTW	ACTW22	ACTW30
6	27	ABC	ABC45	ABC7
7	27	AC	AC115	AC53
8	-27	ACTW	ACTW2	ACTW37
9	26	ABC	ABC47	ABC7
10	25	AC	AC115	AC122
11	25	MC	MC149	MC162
12	23	AC	AC122	AC53
13	23	ACTW	ACTW21	ACTW39
14	22	ACTW	ACTW20	ACTW26
15	22	ACTW	ACTW22	ACTW6
16	22	JR	JR34	JR43
17	21	ACTW	ACTW45	ACTW6
18	-20	AC	AC122	AC125
19	20	AC	AC125	AC57
20	19	ACTW	ACTW22	ACTW39
21	19	ACTW	ACTW22	ACTW40
22	19	DH	DH32	DH38
23	18	ACTW	ACTW30	ACTW45
24	-18	GJ	GJ18	GJ22
25	18	GJ	GJ17	GJ25
26	17	ABC	ABC44	ABC47
27	17	ABC	ABC45	ABC47
28	-17	ABC	ABC43	ABC7
29	17	AC	AC121	AC99
30	17	ACTW	ACTW34	ACTW44
31	17	ACTW	ACTW39	ACTW45
32	17	MC	MC122	MC129
33	17	MC	MC122	MC149
34	17	MC	MC122	MC162
35	-17	MC	MC149	MC172
36	-17	MC	MC162	MC172
37	-16	ABC	ABC43	ABC45
38	-16	ABC	ABC29	ABC47
39	-16	ABC	ABC7	ABC9
40	16	ACTW	ACTW17	ACTW22
41	16	ACTW	ACTW39	ACTW44
42	16	MC	MC162	MC166
43	-16	MC	MC166	MC172
44	-15	ABC	ABC46	ABC7
45	-15	DH	DH32	DH62
46	15	JR	JR42	JR44
47	-15	MC	MC145	MC162
48	-14	ABC	ABC29	ABC45
49	-14	ABC	ABC29	ABC7
50	-14	AC	AC125	AC53

7 High factor exposure pairs

	intraday			
	pair_cor	manager	factor	pair
1	-86	ABC	JPEUBATL	ABC7
2	-80	ABC	CAC	ABC7
3	-78	ABC	DAX	ABC7
4	-77	ABC	JPEUBATW	ABC7
5	-74	ACTW	DAX	ACTW22
6	-70	ABC	UKX	ABC7
7	-68	ABC	MCX	ABC7
8	-67	ACTW	MCX	ACTW22
9	-65	ACTW	UKX	ACTW22
10	56	GJ	DAX	GJ4
11	56	GJ	CAC	GJ4
12	52	DH	DAX	DH62
13	-51	ACTW	JPEUBATW	ACTW45
14	48	ABC	CAC	ABC43
15	-48	ACTW	MCX	ACTW28
16	-48	ACTW	UKX	ACTW40
17	48	GJ	MCX	GJ4
18	47	GJ	UKX	GJ4
19	47	JR	DAX	JR34
20	47	JR	DAX	JR43
21	-46	ACTW	DAX	ACTW45
22	-46	MC	MCX	MC162
23	-45	ACTW	UKX	ACTW45
24	-45	ACTW	MCX	ACTW45
25	-45	DH	DAX	DH48
26	45	JR	MCX	JR34
27	-44	AC	CAC	AC124
28	-44	ACTW	JPEUBATL	ACTW45
29	44	GJ	CAC	GJ26
30	44	JR	CAC	JR34
31	43	ABC	DAX	ABC43
32	-43	ABC	MSEEGRW	ABC7
33	-43	ACTW	CAC	ACTW45
34	43	GJ	DAX	GJ26
35	-42	AC	UKX	AC124
36	-42	AC	DAX	AC124
37	-42	DH	UKX	DH32
38	-41	AC	MCX	AC124
39	-41	AC	DAX	AC125
40	-41	ACTW	CAC	ACTW40
41	40	ABC	UKX	ABC43
42	-40	DH	MCX	DH32
43	-40	GJ	UKX	GJ17
44	40	JR	CAC	JR43
45	-39	ACTW	MCX	ACTW26
46	-39	ACTW	DAX	ACTW28
47	-39	DH	UKX	DH48
48	39	DH	CAC	DH62
49	39	GJ	UKX	GJ26
50	39	JR	UKX	JR34

	daily			
	pair_cor	manager	factor	pair
1	-80	ABC	JPEUBATL	ABC7
2	-75	ABC	CAC	ABC7
3	-72	ACTW	DAX	ACTW22
4	-67	ABC	DAX	ABC7
5	-67	ACTW	MCX	ACTW22
6	-65	ABC	JPEUBATW	ABC7
7	61	JR	DAX	JR43
8	-59	ACTW	UKX	ACTW22
9	-57	ABC	MCX	ABC7
10	-56	ABC	UKX	ABC7
11	55	ABC	V2X	ABC7
12	-51	ACTW	SMX	ACTW22
13	49	JR	CAC	JR43
14	-49	JR	V2X	JR43
15	-46	ABC	SMX	ABC7
16	46	DH	DAX	DH62
17	-45	ACTW	JPEUBATW	ACTW45
18	-43	ACTW	CAC	ACTW45
19	41	JR	UKX	JR43
20	-40	ABC	MSEEGRW	ABC7
21	-40	ACTW	DAX	ACTW45
22	-40	ACTW	MCX	ACTW6
23	-39	ACTW	UKX	ACTW40
24	-38	AC	CAC	AC125
25	-37	ACTW	JPEUBATL	ACTW45
26	-36	ABC	CAC	ABC45
27	-36	ACTW	MCX	ACTW30
28	-35	ABC	SGBVPMEU	ABC44
29	-35	ABC	DAX	ABC45
30	35	GJ	DAX	GJ4
31	-34	AC	DAX	AC125
32	-34	ACTW	SMX	ACTW30
33	-34	ACTW	UKX	ACTW45
34	-34	ACTW	UKX	ACTW6
35	-34	DH	DAX	DH48
36	34	JR	DAX	JR34
37	-33	ABC	MSEEMOMO	ABC7
38	33	ABC	MCX	ABC9
39	33	ACTW	V2X	ACTW45
40	33	JR	CAC	JR34
41	-32	ABC	SGBVPMEU	ABC7
42	-32	ACTW	MCX	ACTW45
43	-32	ACTW	SMX	ACTW45
44	32	DH	CAC	DH62
45	-31	ABC	SGIXTFEQ	ABC7
46	-31	DH	UKX	DH32
47	31	JR	MCX	JR43
48	-30	ACTW	SMX	ACTW6
49	-29	ABC	MCX	ABC45
50	29	ABC	V2X	ABC45

8 High sector exposure pairs

	intraday			
	pair_cor	manager	sector	pair
1	-80	ABC	SXXE	ABC7
2	-80	ABC	SXXP	ABC7
3	-74	ABC	SX8E	ABC7
4	-74	ABC	SX8P	ABC7
5	-73	ACTW	SXXE	ACTW22
6	-72	ACTW	SXXP	ACTW22
7	-71	ABC	SX4P	ABC7
8	-70	ABC	SX4E	ABC7
9	-68	ABC	SXAE	ABC7
10	-68	ABC	SXAP	ABC7
11	-64	ABC	SXDE	ABC7
12	-63	ABC	SX7P	ABC7
13	-63	ABC	SXDP	ABC7
14	-59	DH	SX3P	DH48
15	-58	ABC	SX3P	ABC7
16	-57	ABC	SX3E	ABC7
17	57	GJ	SXXE	GJ4
18	57	GJ	SXXP	GJ4
19	54	GJ	SX4P	GJ4
20	53	ABC	SXAE	ABC46
21	53	ABC	SXAP	ABC46
22	-53	ABC	SX7E	ABC7
23	-53	DH	SX3E	DH48
24	53	GJ	SX4E	GJ4
25	50	ABC	SX3E	ABC39
26	-50	ABC	SX6P	ABC7
27	-49	ACTW	SX7E	ACTW39
28	-49	ACTW	SXXP	ACTW45
29	-49	DH	SXXP	DH48
30	-48	ACTW	SX4P	ACTW28
31	-48	ACTW	SX7P	ACTW39
32	48	JR	SXXE	JR34
33	47	ABC	SXXE	ABC43
34	47	ABC	SX8E	ABC43
35	-47	ABC	SXEE	ABC7
36	-47	ACTW	SX4E	ACTW28
37	-47	ACTW	SX4E	ACTW45
38	-47	ACTW	SX4P	ACTW45
39	-47	DH	SXXP	DH32
40	-47	DH	SXXE	DH48
41	-46	ABC	SX6E	ABC7
42	-46	AC	SXXE	AC124
43	-46	ACTW	SXXE	ACTW45
44	-46	DH	SXXE	DH32
45	45	ABC	SX3P	ABC39
46	45	GJ	SXXP	GJ26
47	45	JR	SXXP	JR34
48	44	ABC	SXXP	ABC43
49	-44	AC	SXXP	AC124
50	44	DH	SXXE	DH62

	daily			
	pair_cor	manager	sector	pair
1	-72	ACTW	SXXE	ACTW22
2	-71	ABC	SXXE	ABC7
3	-71	ACTW	SXXP	ACTW22
4	-69	ABC	SXXP	ABC7
5	-67	ABC	SX4P	ABC7
6	-66	ABC	SX4E	ABC7
7	-64	ABC	SX8P	ABC7
8	-63	ABC	SX8E	ABC7
9	-57	ABC	SXAE	ABC7
10	-57	ABC	SXAP	ABC7
11	-55	ABC	SXDE	ABC7
12	-53	DH	SX3E	DH48
13	53	JR	SXXE	JR43
14	52	JR	SX4E	JR43
15	-51	DH	SX3P	DH48
16	51	JR	SX4P	JR43
17	48	ABC	SXAE	ABC46
18	48	ABC	SXAP	ABC46
19	-48	ABC	SXDP	ABC7
20	-48	ACTW	SX7P	ACTW45
21	47	JR	SXXP	JR43
22	-46	ABC	SX3E	ABC7
23	-46	ABC	SX3P	ABC7
24	-44	ABC	SXEE	ABC7
25	-44	ACTW	SXXE	ACTW45
26	-43	ACTW	SXXP	ACTW45
27	-42	ABC	SX7P	ABC7
28	-42	ACTW	SX7E	ACTW45
29	-40	DH	SXXE	DH32
30	-39	ABC	SX6E	ABC7
31	-38	ACTW	SX3P	ACTW22
32	-37	ABC	SX7E	ABC7
33	-37	AC	SXXE	AC125
34	-37	ACTW	SX3E	ACTW22
35	-37	ACTW	SX4E	ACTW45
36	-37	ACTW	SX4P	ACTW45
37	-37	DH	SXXP	DH48
38	37	JR	SX6E	JR43
39	-36	ABC	SXXE	ABC45
40	-36	ABC	SXXP	ABC45
41	-36	ABC	SX4P	ABC45
42	-36	AC	SX4E	AC125
43	-36	ACTW	SX7P	ACTW39
44	36	DH	SXXE	DH62
45	36	DH	SX3E	DH65
46	36	GJ	SX4P	GJ4
47	36	JR	SXXE	JR34
48	-35	ABC	SX4E	ABC45
49	-35	AC	SXXP	AC125
50	-35	DH	SXXE	DH48

9 Pair long-short correlation

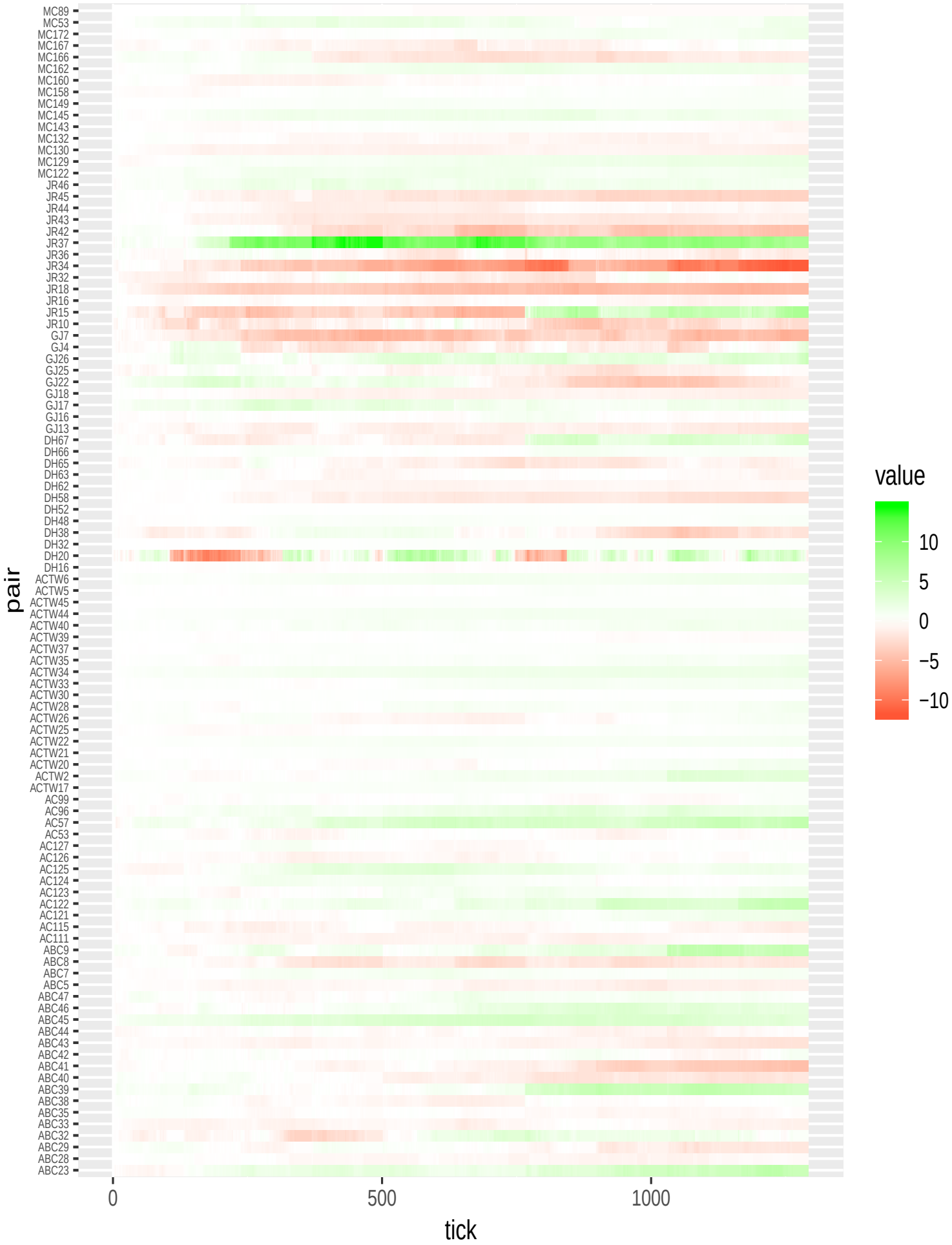
ordered by intraday pair leg correlation, low to high

	pair	2week pair perf	2week long perf	2week short perf	gross	long	short	daily	intraday	change in rank
1	ABC7	0.8	0	0.8	21.3	MC FP	MC FP	0	0	0
2	ACTW22	1	0	1	11.9	F3AERO	SXAP	0	0	0
3	DH48	0.6	0	0.6	21	CARLB DC	CARLB DC	0	0	0
4	MC122	1.5	0	1.5	59.6	SIGC LN	F3BANK	-2	0	1
5	DH32	0.3	0.2	0.2	8.1	TPZ SM	IBEX	-12	4	2
6	MC53	1.4	-0.5	1.9	74.2	ELTA LN	MCX	-17	-5	3
7	JR44	-0.5	-1.7	1.2	44.7	HSTG LN	MCX	-33	-9	12
8	ABC28	-0.4	-0.9	0.5	19.1	GLO LN	MCX	-31	-12	9
9	MC132	-0.4	-0.9	0.5	18.2	GLO LN	MCX	-31	-12	9
10	ABC9	5.1	2.1	3	107.1	BBY LN	KSP ID	-38	-13	13
11	GJ26	4.7	-2.5	7.2	154.3	SAP GY	NDX	-36	-13	11
12	GJ4	2.7	-4.6	7.3	160.3	ASML NA	NDX	-43	-13	17
13	DH20	-0.9	-24.9	24	676.1	GRFS US	GRF SM	-59	-15	31
14	MC166	-1.2	-4.9	3.7	87.3	ABF LN	TSCO LN	-31	-15	7
15	ACTW45	0.2	0.1	0.1	5.6	RRS LN	UKX	-12	-18	-4
16	JR10	-2.6	-9.9	7.3	189.1	BIRG ID	LLOY LN	-40	-20	11
17	MC130	-1.2	-1.5	0.2	11.6	PRSM LN	SMT LN	-28	-22	1
18	AC99	0.5	-0.2	0.7	41.4	IBST LN	RUKM150	-42	-23	11
19	DH67	4.2	1.9	2.3	89.8	LBK SM	CABK SM	-29	-25	0
20	JR15	7.6	4	3.7	168.7	LBK SM	SX5E	-27	-26	-3
21	ACTW2	2.7	1	1.8	59.7	BBY LN	MCX	-60	-28	25
22	ABC32	0.4	-3	3.4	164.8	REC IM	MDAX	-37	-29	3
23	ACTW26	0.8	-2.8	3.6	47.2	ABF LN	F3RETG	-45	-31	9
24	MC143	-0.7	-1.4	0.7	19	PLUS LN	F3OTHR	-14	-32	-12
25	MC162	1.3	-0.4	1.7	60.4	ULVR LN	MCX	-25	-33	-10
26	MC167	0.1	-4.1	4.2	82.3	MRW LN	F3RETG	-30	-33	-5
27	MC89	-0.3	-0.4	0.1	32	TMO LN	MCX	5	33	-15
28	AC111	-0.4	-1.3	0.9	37.6	BA/ LN	COB LN	-31	-34	-5
29	DH38	-2.1	-1.6	-0.5	190.8	MRL SM	ENG SM	-43	-34	4
30	AC127	0.3	-1.9	2.2	33.8	METSO FH	FLS DC	-47	-36	7
31	ACTW21	0	-0.1	0.1	22.8	ULVR LN	BNZL LN	-30	-36	-7
32	JR37	7.5	1.6	5.9	239.2	DANSKE DC	HSBA LN	-22	-36	-13
33	JR18	-5.2	-8.5	3.3	120.8	BG AV	SX7P	-32	-38	-6
34	MC145	1.2	0.4	0.7	72.9	SSPG LN	CPG LN	-28	-38	-10
35	ABC45	2.5	-2.1	4.6	85.6	SHL GY	MTX GY	-28	-39	-11
36	AC123	1.7	0.1	1.7	94.6	NG/ LN	SSE LN	-53	-43	9
37	GJ17	1.3	-2.4	3.7	102.7	MF FP	ITRK LN	-38	-43	-4
38	MC160	-0.2	-1.4	1.2	33.3	AVV LN	MCX	-37	-43	-5
39	AC124	0.3	-0.3	0.6	60.7	DGE LN	BNZL LN	-47	-44	3
40	ACTW20	1.2	-2.1	3.4	57.3	MRW LN	F3RETG	-40	-44	-4
41	DH66	0.6	0	0.5	37.8	NESTE FH	FP FP	-31	-44	-10
42	ABC40	-1.7	-3.9	2.1	76.3	RYA LN	IAG LN	-42	-46	-3
43	AC96	1.6	-1.4	3	77.4	FERG LN	CRH LN	-50	-46	4
44	AC122	5.5	1.5	4	123.1	RIO LN	III LN	-38	-47	-7
45	GJ25	-0.3	-2.1	1.8	88.5	DAX	ECM LN	-41	-48	-6
46	GJ18	-1.2	-2	0.8	74.9	EL FP	FTSEMIB	-30	-49	-15
47	ABC44	-0.2	-2.5	2.3	84	BT/A LN	MCX	-26	-50	-20
48	ABC5	-1	-2.5	1.5	44.6	EBS AV	SX7E	-58	-50	8
49	ACTW39	-0.2	-1	0.8	31.6	RB/ LN	UKX	-43	-52	-7
50	ACTW44	0.9	0.2	0.7	28.2	SN/ LN	UKX	-51	-52	0
51	GJ7	-5.6	-9	3.4	137.7	ERF FP	SGSN SW	-41	-52	-9
52	ABC33	-1.1	-2.7	1.6	56.5	JMAT LN	SKFB SS	-41	-53	-10
53	MC149	0.6	-0.2	0.8	25	SGRO LN	MCX	-48	-53	-3
54	ABC41	-4.8	-7.1	2.3	117.6	DB1 GY	SXIE	-37	-54	-14
55	AC126	-0.1	-2.7	2.6	58.6	JMAT LN	UMI BB	-33	-54	-16
56	ACTW5	0.1	-0.3	0.4	45.7	DGE LN	CPG LN	-46	-54	-6
57	DH16	-0.2	-0.9	0.7	21.9	SPIE FP	SXNP	-42	-54	-10
58	MC158	0.5	-0.5	1	38.1	CNA LN	MCX	-43	-54	-9
59	JR46	0.8	-2.6	3.5	147.1	SREN SW	HSBA LN	-41	-55	-12
60	ABC38	0.4	-2.3	2.7	81.2	RR/ LN	SXNP	-51	-56	-4
61	ABC8	-1.8	-6.4	4.6	143.7	RSA LN	MCX	-44	-56	-10
62	ABC47	0.2	-2	2.2	93.6	CA FP	CAC	-25	-57	-27
63	ACTW37	0.3	0	0.3	9.9	TW/ LN	MCX	-52	-57	-4
64	MC129	2	-0.3	2.3	47.2	LSE LN	STJ LN	-50	-58	-7
65	AC115	-1.3	-3.8	2.5	56.7	WEIR LN	IMI LN	-61	-59	3
66	AC125	1.1	-1.9	3	153.2	SX86E	SX5E	-54	-59	-4
67	ACTW34	1.8	0.4	1.4	45.7	SGE LN	MCX	-47	-59	-10
68	JR32	-0.5	-6.3	5.9	187.5	ABN NA	SEBA SS	-56	-59	-2
69	ABC39	4.2	2.7	1.5	199.7	RI FP	VIE FP	-53	-60	-6
70	DH58	-2.4	-3.8	1.4	73.9	TEN IM	ENI IM	-58	-60	-1
71	JR42	-4.6	-9.4	4.8	211.4	RSA LN	UKX	-45	-60	-13
72	DH63	-0.9	-2.7	1.7	63.3	ANIM IM	FTSEMIB	-57	-61	-3
73	ACTW28	1.2	0	1.2	75.8	NG/ LN	F3UTLOS	-76	-62	11
74	AC57	5.7	1.9	3.9	190.1	LAND LN	BLND LN	-63	-63	1
75	JR45	-3.3	-6.5	3.3	123	CS FP	G IM	-53	-63	-9
76	ACTW33	1	-0.3	1.3	40.2	DCC LN	MCX	-56	-64	-7
77	ACTW35	1.4	-1.1	2.5	74.5	SMIN LN	UKX	-62	-65	-2
78	ABC23	5	1.5	3.6	244.8	SX6E	SX5E	-55	-66	-10
79	ABC42	0.9	-3.8	4.6	115.5	AALB NA	TWEKA NA	-60	-66	-5
80	ACTW40	1.2	-0.5	1.7	51.5	DGE LN	BATS LN	-70	-66	4
81	JR36	-1.4	-8.7	7.3	162.8	JUP LN	SDR LN	-65	-66	0
82	DH62	-0.5	-1.1	0.6	24.2	DAI GY	SXNP	-67	-68	1
83	DH65	-0.6	-4.1	3.4	216.3	BN FP	NESN SW	-70	-68	3
84	GJ16	0	-1.7	1.7	85.2	TITR IM	FTSEMIB	-53	-69	-14
85	JR34	-11.4	-14.8	3.4	138.6	CBK GY	ISP IM	-68	-70	0
86	MC172	1.7	0.5	1.2	56.8	RIO LN	UKX	-59	-71	-10
87	JR16	-0.1	-3.8	3.6	114.4	MAP SM	SXIE	-66	-72	-4
88	GJ22	-1	-7.4	6.4	149.4	CAP FP	DSY FP	-61	-73	-10
89	AC53	-0.2	-2.8	2.6	121.1	RDSA LN	UKX	-74	-74	-1
90	ACTW30	0.1	-0.7	0.8	24.9	UKX	F3FINS	-78	-75	0
91	ABC35	-0.3	-3.4	3.2	76.6	PRU LN	AV/ LN	-74	-78	-3
92	ACTW17	0.5	-0.2	0.7	28.1	REL LN	F3MEDA	-62	-78	-12
93	ABC43	-2.1	-3.7	1.6	85.4	AIR FP	SAF FP	-62	-79	-13
94	GJ13	-2	-5.2	3.2	149.1	VIV FP	SXMP	-64	-79	-11
95	ABC46	2.3	-1.8	4.2	143.7	VOW3 GY	DAX	-74	-80	-5
96	ABC29	-1.8	-7.6	5.8	184.1	EXO IM	FTSEMIB	-85	-81	-2
97	DH52	0.3	-0.3	0.6	14.6	SAB SM	SX7E	-72	-83	-8
98	AC121	1.8	-0.2	2	68.8	TW/ LN	BDEV LN	-83	-85	-5
99	JR43	-1.2	-5.1	3.9	120.2	ALV GY	SXIP	-87	-85	-2
100	ACTW6	1.6	0.7	0.9	87.6	LAND LN	F3REITS	-91	-86	-2
101	ACTW25	0.4	-1.1	1.5	62.2	RDSA LN	BP/ LN	-86	-89	-5

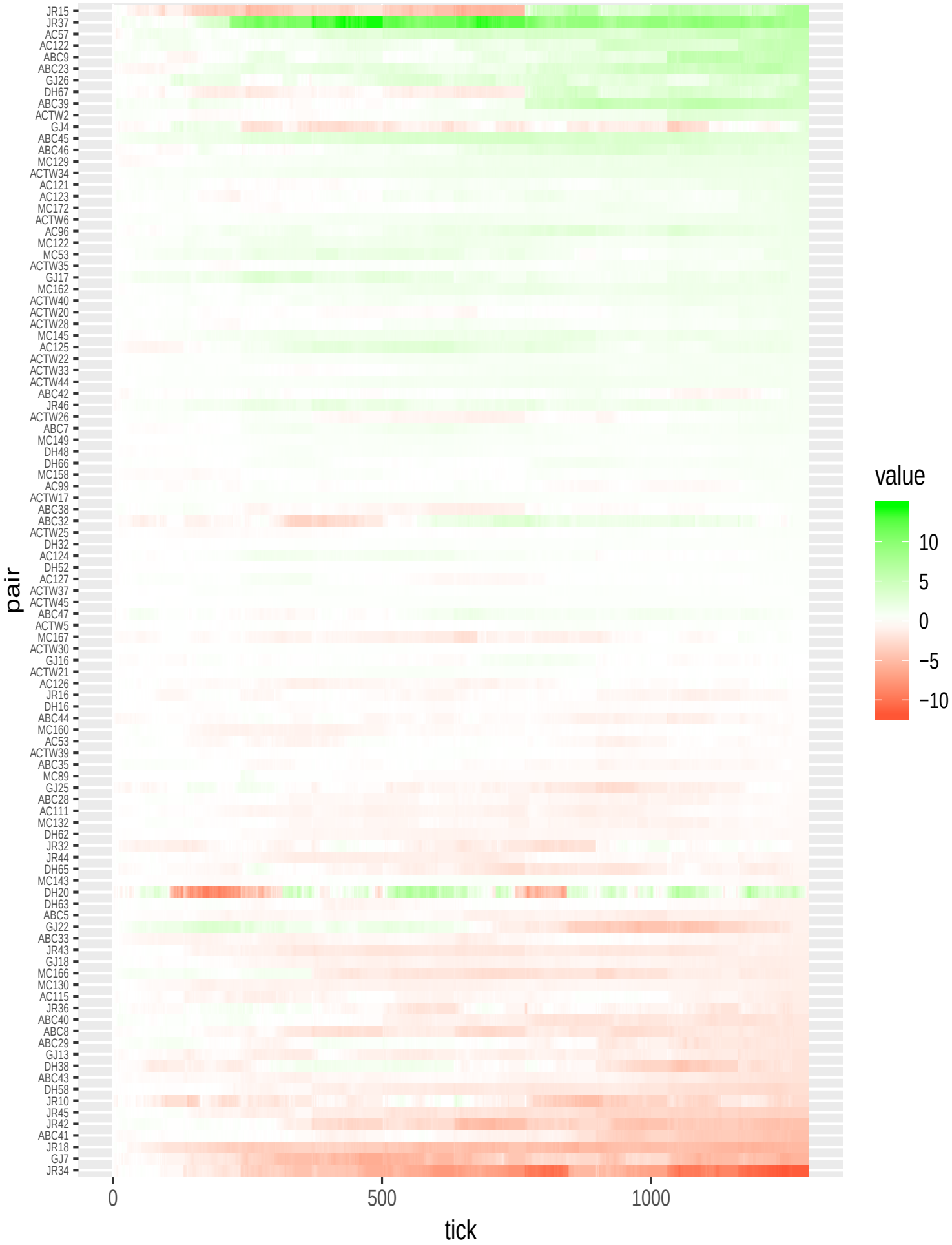
ordered daily pair leg correlation, low to high

	pair	2week pair perf	2week long perf	2week short perf	gross	long	short	daily	intraday	change in rank
1	ABC7	0.8	0	0.8	21.3	MC FP	MC FP	0	0	0
2	ACTW22	1	0	1	11.9	F3AERO	SXAP	0	0	0
3	DH48	0.6	0	0.6	21	CARLB DC	CARLB DC	0	0	0
4	MC122	1.5	0	1.5	59.6	SIGC LN	F3BANK	-2	0	-1
5	MC89	-0.3	-0.4	0.1	32	TMO LN	MCX	5	33	15
6	DH32	0.3	0.2	0.2	8.1	TPZ SM	IBEX	-12	4	-2
7	ACTW45	0.2	0.1	0.1	5.6	RRS LN	UKX	-12	-18	4
8	MC143	-0.7	-1.4	0.7	19	PLUS LN	F3OTHR	-14	-32	12
9	MC53	1.4	-0.5	1.9	74.2	ELTA LN	MCX	-17	-5	-3
10	JR37	7.5	1.6	5.9	239.2	DANSKE DC	HSBA LN	-22	-36	13
11	MC162	1.3	-0.4	1.7	60.4	ULVR LN	MCX	-25	-33	10
12	ABC47	0.2	-2	2.2	93.6	CA FP	CAC	-25	-57	27
13	ABC44	-0.2	-2.5	2.3	84	BT/A LN	MCX	-26	-50	20
14	JR15	7.6	4	3.7	168.7	LBK SM	SX5E	-27	-26	3
15	MC130	-1.2	-1.5	0.2	11.6	PRSM LN	SMT LN	-28	-22	-1
16	MC145	1.2	0.4	0.7	72.9	SSPG LN	CPG LN	-28	-38	10
17	ABC45	2.5	-2.1	4.6	85.6	SHL GY	MTX GY	-28	-39	11
18	DH67	4.2	1.9	2.3	89.8	LBK SM	CABK SM	-29	-25	0
19	MC167	0.1	-4.1	4.2	82.3	MRW LN	F3RETG	-30	-33	5
20	ACTW21	0	-0.1	0.1	22.8	ULVR LN	BNZL LN	-30	-36	7
21	GJ18	-1.2	-2	0.8	74.9	EL FP	FTSEMIB	-30	-49	15
22	ABC28	-0.4	-0.9	0.5	19.1	GLO LN	MCX	-31	-12	-9
23	MC132	-0.4	-0.9	0.5	18.2	GLO LN	MCX	-31	-12	-9
24	MC166	-1.2	-4.9	3.7	87.3	ABF LN	TSCO LN	-31	-15	-7
25	AC111	-0.4	-1.3	0.9	37.6	BA/ LN	COB LN	-31	-34	5
26	DH66	0.6	0	0.5	37.8	NESTE FH	FP FP	-31	-44	10
27	JR18	-5.2	-8.5	3.3	120.8	BG AV	SX7P	-32	-38	6
28	JR44	-0.5	-1.7	1.2	44.7	HSTG LN	MCX	-33	-9	-12
29	AC126	-0.1	-2.7	2.6	58.6	JMAT LN	UMI BB	-33	-54	16
30	GJ26	4.7	-2.5	7.2	154.3	SAP GY	NDX	-36	-13	-11
31	ABC32	0.4	-3	3.4	164.8	REC IM	MDAX	-37	-29	-3
32	MC160	-0.2	-1.4	1.2	33.3	AVV LN	MCX	-37	-43	5
33	ABC41	-4.8	-7.1	2.3	117.6	DB1 GY	SXIE	-37	-54	14
34	ABC9	5.1	2.1	3	107.1	BBY LN	KSP ID	-38	-13	-13
35	GJ17	1.3	-2.4	3.7	102.7	MF FP	ITRK LN	-38	-43	4
36	AC122	5.5	1.5	4	123.1	RIO LN	III LN	-38	-47	7
37	JR10	-2.6	-9.9	7.3	189.1	BIRG ID	LLOY LN	-40	-20	-11
38	ACTW20	1.2	-2.1	3.4	57.3	MRW LN	F3RETG	-40	-44	4
39	GJ25	-0.3	-2.1	1.8	88.5	DAX	ECM LN	-41	-48	6
40	GJ7	-5.6	-9	3.4	137.7	ERF FP	SGSN SW	-41	-52	9
41	ABC33	-1.1	-2.7	1.6	56.5	JMAT LN	SKFB SS	-41	-53	10
42	JR46	0.8	-2.6	3.5	147.1	SREN SW	HSBA LN	-41	-55	12
43	AC99	0.5	-0.2	0.7	41.4	IBST LN	RUKM150	-42	-23	-11
44	ABC40	-1.7	-3.9	2.1	76.3	RYA LN	IAG LN	-42	-46	3
45	DH16	-0.2	-0.9	0.7	21.9	SPIE FP	SXNP	-42	-54	10
46	GJ4	2.7	-4.6	7.3	160.3	ASML NA	NDX	-43	-13	-17
47	DH38	-2.1	-1.6	-0.5	190.8	MRL SM	ENG SM	-43	-34	-4
48	ACTW39	-0.2	-1	0.8	31.6	RB/ LN	UKX	-43	-52	7
49	MC158	0.5	-0.5	1	38.1	CNA LN	MCX	-43	-54	9
50	ABC8	-1.8	-6.4	4.6	143.7	RSA LN	MCX	-44	-56	10
51	ACTW26	0.8	-2.8	3.6	47.2	ABF LN	F3RETG	-45	-31	-9
52	JR42	-4.6	-9.4	4.8	211.4	RSA LN	UKX	-45	-60	13
53	ACTW5	0.1	-0.3	0.4	45.7	DGE LN	CPG LN	-46	-54	6
54	AC127	0.3	-1.9	2.2	33.8	METSO FH	FLS DC	-47	-36	-7
55	AC124	0.3	-0.3	0.6	60.7	DGE LN	BNZL LN	-47	-44	-3
56	ACTW34	1.8	0.4	1.4	45.7	SGE LN	MCX	-47	-59	10
57	MC149	0.6	-0.2	0.8	25	SGRO LN	MCX	-48	-53	3
58	AC96	1.6	-1.4	3	77.4	FERG LN	CRH LN	-50	-46	-4
59	MC129	2	-0.3	2.3	47.2	LSE LN	STJ LN	-50	-58	7
60	ACTW44	0.9	0.2	0.7	28.2	SN/ LN	UKX	-51	-52	0
61	ABC38	0.4	-2.3	2.7	81.2	RR/ LN	SXNP	-51	-56	4
62	ACTW37	0.3	0	0.3	9.9	TW/ LN	MCX	-52	-57	4
63	AC123	1.7	0.1	1.7	94.6	NG/ LN	SSE LN	-53	-43	-9
64	ABC39	4.2	2.7	1.5	199.7	RI FP	VIE FP	-53	-60	6
65	JR45	-3.3	-6.5	3.3	123	CS FP	G IM	-53	-63	9
66	GJ16	0	-1.7	1.7	85.2	TITR IM	FTSEMIB	-53	-69	14
67	AC125	1.1	-1.9	3	153.2	SX86E	SX5E	-54	-59	4
68	ABC23	5	1.5	3.6	244.8	SX6E	SX5E	-55	-66	10
69	JR32	-0.5	-6.3	5.9	187.5	ABN NA	SEBA SS	-56	-59	2
70	ACTW33	1	-0.3	1.3	40.2	DCC LN	MCX	-56	-64	7
71	DH63	-0.9	-2.7	1.7	63.3	ANIM IM	FTSEMIB	-57	-61	3
72	ABC5	-1	-2.5	1.5	44.6	EBS AV	SX7E	-58	-50	-8
73	DH58	-2.4	-3.8	1.4	73.9	TEN IM	ENI IM	-58	-60	1
74	DH20	-0.9	-24.9	24	676.1	GRFS US	GRF SM	-59	-15	-31
75	MC172	1.7	0.5	1.2	56.8	RIO LN	UKX	-59	-71	10
76	ACTW2	2.7	1	1.8	59.7	BBY LN	MCX	-60	-28	-25
77	ABC42	0.9	-3.8	4.6	115.5	AALB NA	TWEKA NA	-60	-66	5
78	AC115	-1.3	-3.8	2.5	56.7	WEIR LN	IMI LN	-61	-59	-3
79	GJ22	-1	-7.4	6.4	149.4	CAP FP	DSY FP	-61	-73	10
80	ACTW35	1.4	-1.1	2.5	74.5	SMIN LN	UKX	-62	-65	2
81	ACTW17	0.5	-0.2	0.7	28.1	REL LN	F3MEDA	-62	-78	12
82	ABC43	-2.1	-3.7	1.6	85.4	AIR FP	SAF FP	-62	-79	13
83	AC57	5.7	1.9	3.9	190.1	LAND LN	BLND LN	-63	-63	-1
84	GJ13	-2	-5.2	3.2	149.1	VIV FP	SXMP	-64	-79	11
85	JR36	-1.4	-8.7	7.3	162.8	JUP LN	SDR LN	-65	-66	0
86	JR16	-0.1	-3.8	3.6	114.4	MAP SM	SXIE	-66	-72	4
87	DH62	-0.5	-1.1	0.6	24.2	DAI GY	SXNP	-67	-68	-1
88	JR34	-11.4	-14.8	3.4	138.6	CBK GY	ISP IM	-68	-70	0
89	ACTW40	1.2	-0.5	1.7	51.5	DGE LN	BATS LN	-70	-66	-4
90	DH65	-0.6	-4.1	3.4	216.3	BN FP	NESN SW	-70	-68	-3
91	DH52	0.3	-0.3	0.6	14.6	SAB SM	SX7E	-72	-83	8
92	AC53	-0.2	-2.8	2.6	121.1	RDSA LN	UKX	-74	-74	1
93	ABC35	-0.3	-3.4	3.2	76.6	PRU LN	AV/ LN	-74	-78	3
94	ABC46	2.3	-1.8	4.2	143.7	VOW3 GY	DAX	-74	-80	5
95	ACTW28	1.2	0	1.2	75.8	NG/ LN	F3UTLOS	-76	-62	-11
96	ACTW30	0.1	-0.7	0.8	24.9	UKX	F3FINS	-78	-75	0
97	AC121	1.8	-0.2	2	68.8	TW/ LN	BDEV LN	-83	-85	5
98	ABC29	-1.8	-7.6	5.8	184.1	EXO IM	FTSEMIB	-85	-81	2
99	ACTW25	0.4	-1.1	1.5	62.2	RDSA LN	BP/ LN	-86	-89	5
100	JR43	-1.2	-5.1	3.9	120.2	ALV GY	SXIP	-87	-85	2
101	ACTW6	1.6	0.7	0.9	87.6	LAND LN	F3REITS	-91	-86	2

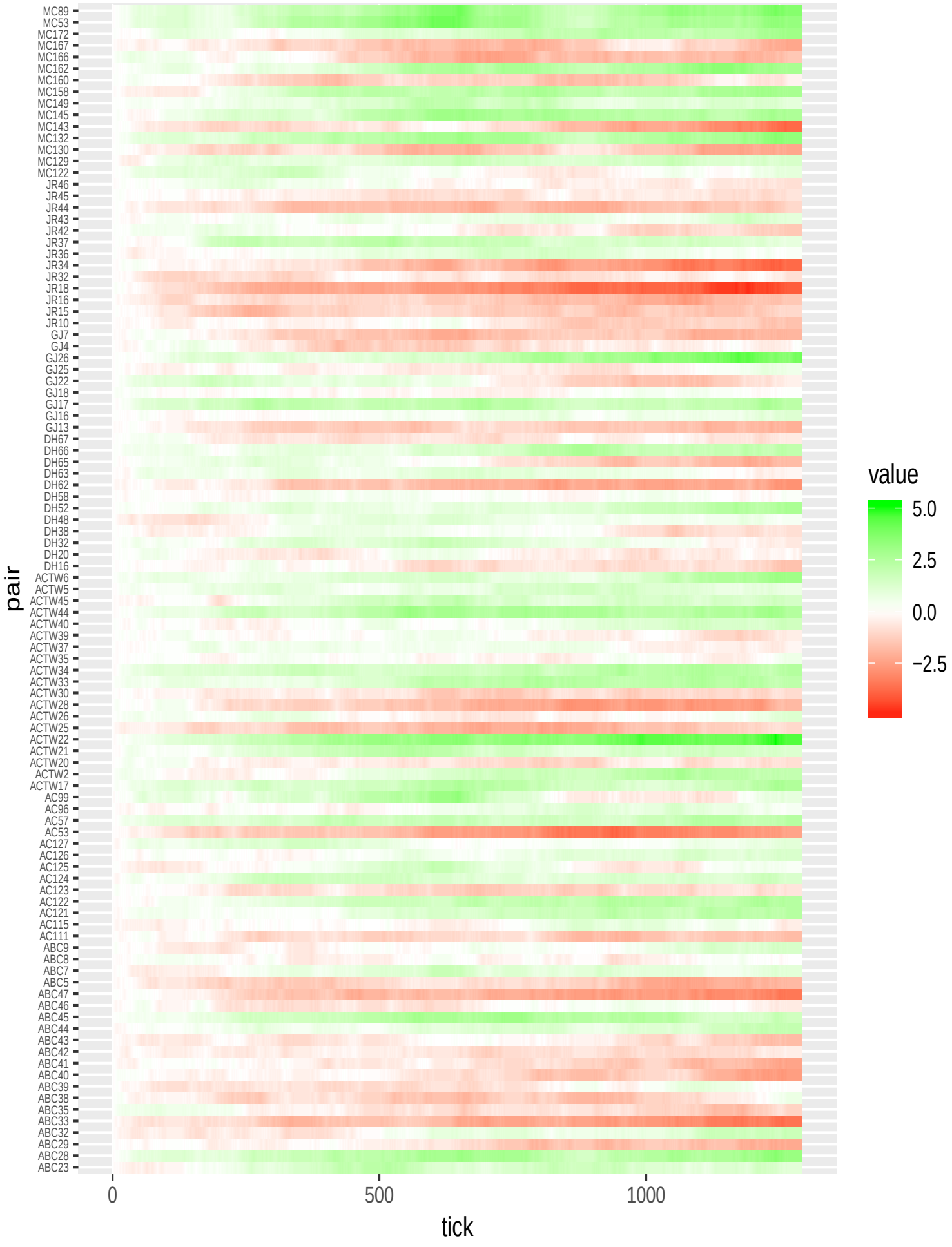
10 DUKE performance image: P&L ordered by pair name



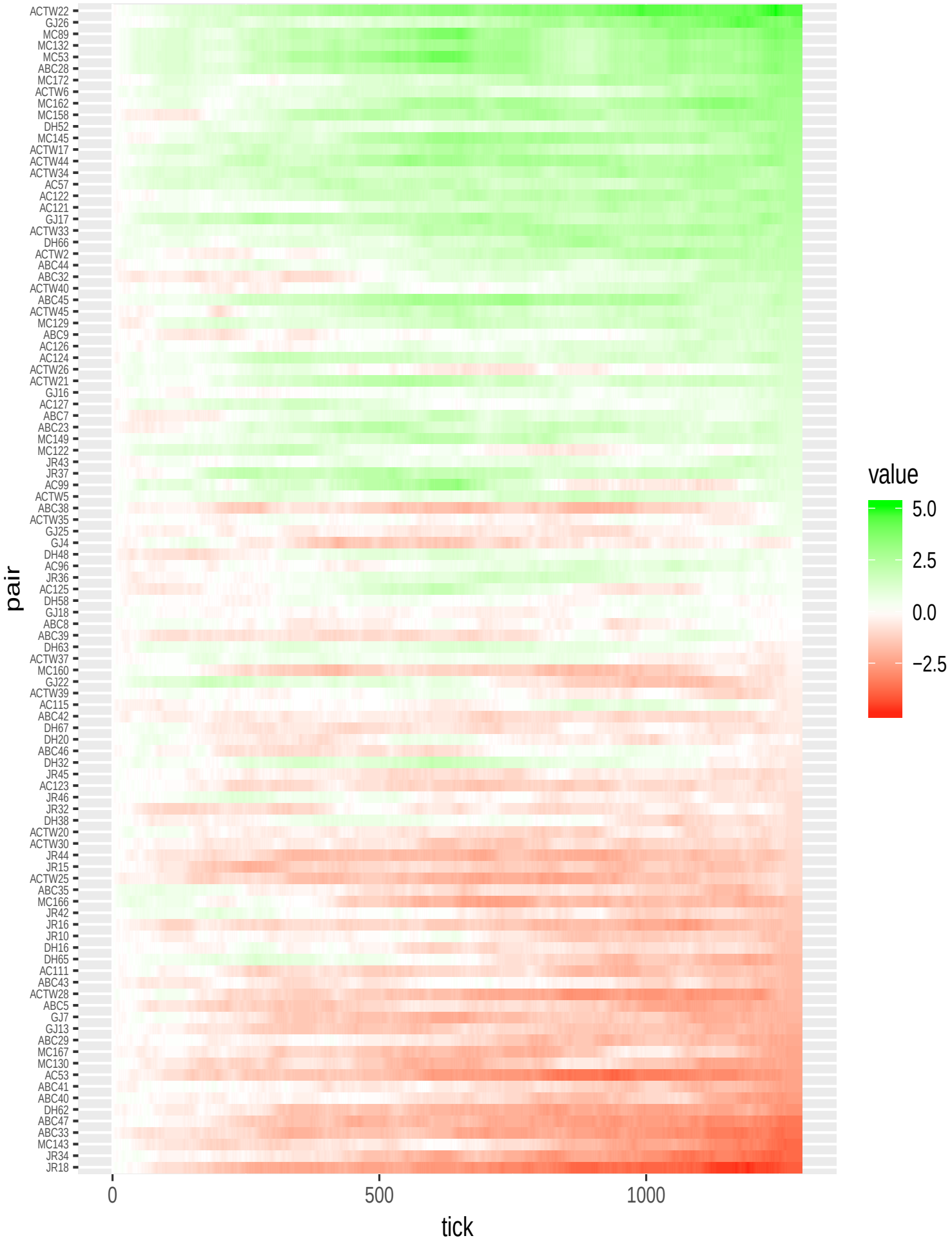
11 DUKE performance image: by P&L



12 DUKE performance image: Cummulative hit-ratio

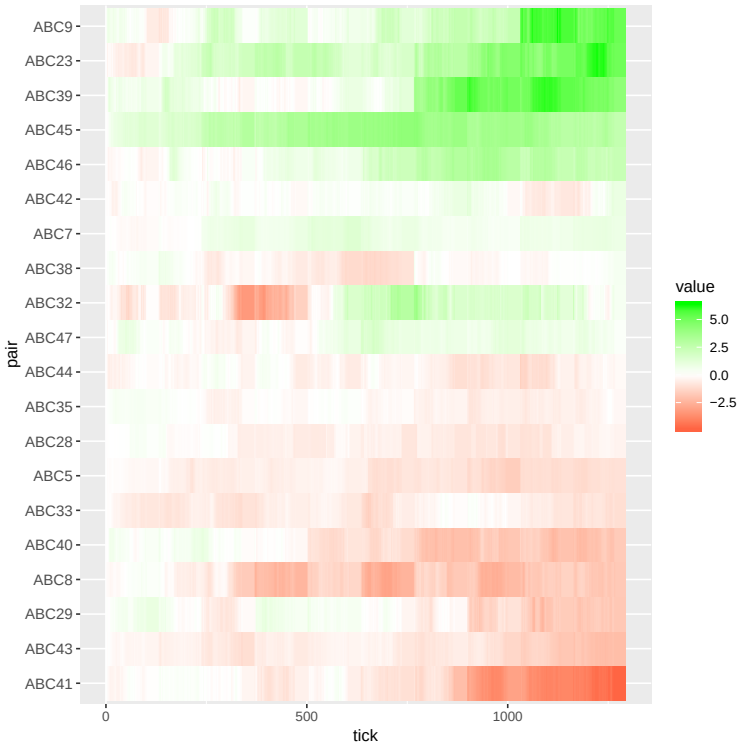


13 DUKE performance image: Cummulative hit-ratio, sorted

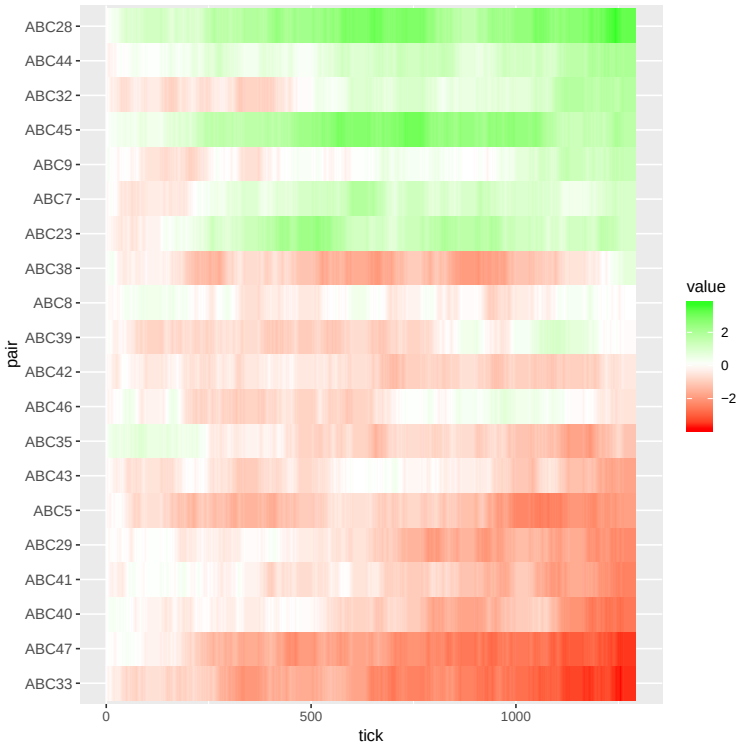


14 ABC performance image

Cummulative P&L (bps)



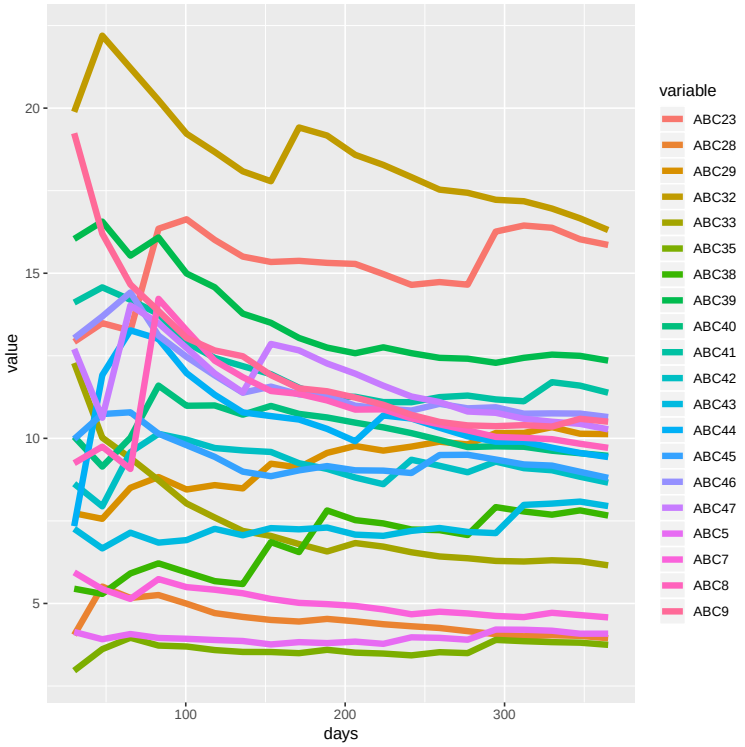
Cummulative hit ratio (pct)



Conviction ratios

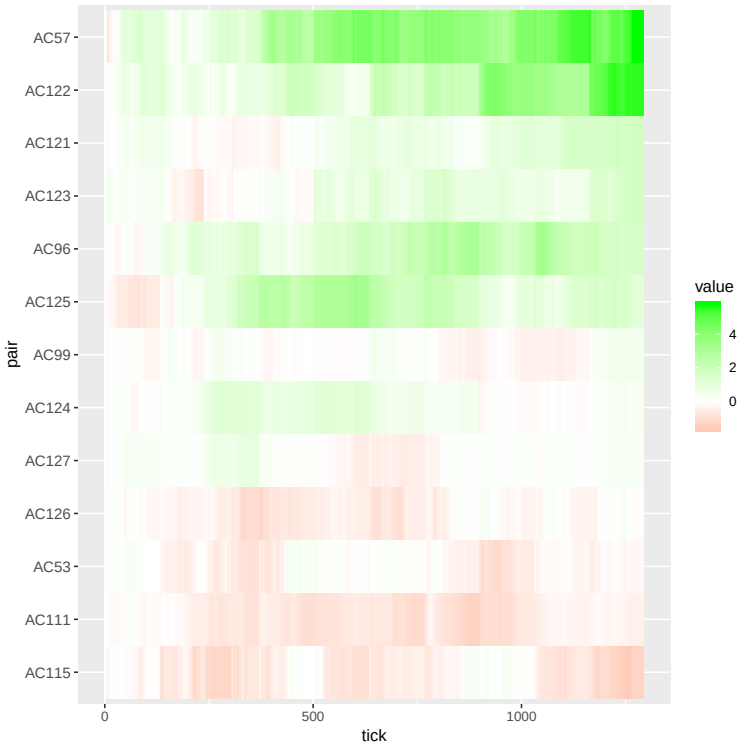
	pair	daily conviction	intraday conviction
1	ABC23	1.87	1.35
2	ABC32	1.42	1.95
3	ABC39	1.29	1.49
4	ABC29	1.27	1.14
5	ABC41	1.22	0.95
6	ABC46	1.21	1.15
7	ABC9	1.2	2
8	ABC44	1.12	0.85
9	ABC47	1.06	0.88
10	ABC8	1.01	1.02
11	ABC40	1.01	0.93
12	ABC42	0.89	0.98
13	ABC38	0.83	0.86
14	ABC45	0.81	0.95
15	ABC43	0.81	0.6
16	ABC33	0.72	0.65
17	ABC7	0.43	0.49
18	ABC35	0.42	0.52
19	ABC5	0.42	0.45
20	ABC28	0.31	0.66

Historical vols

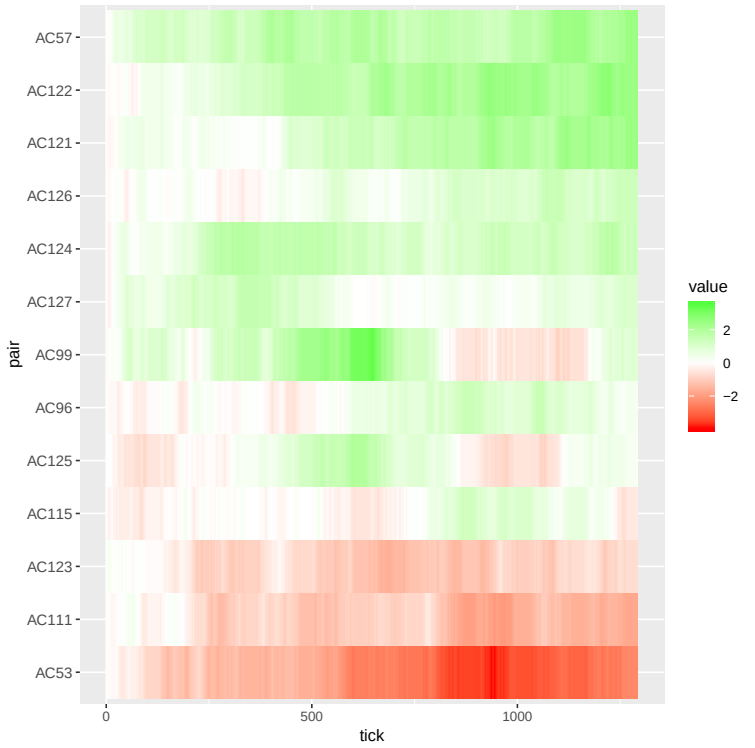


15 AC performance image

Cummulative P&L (bps)



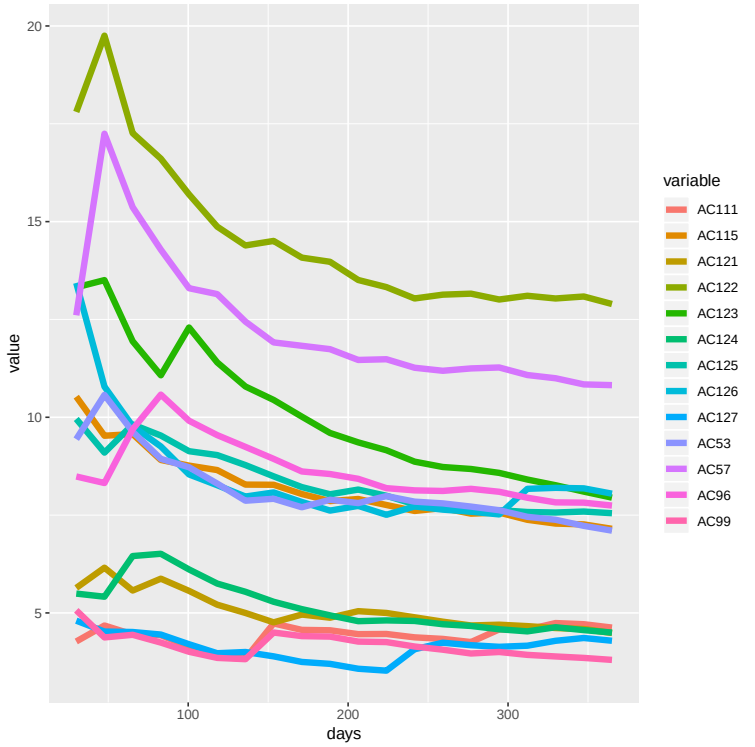
Cummulative hit ratio (pct)



Conviction ratios

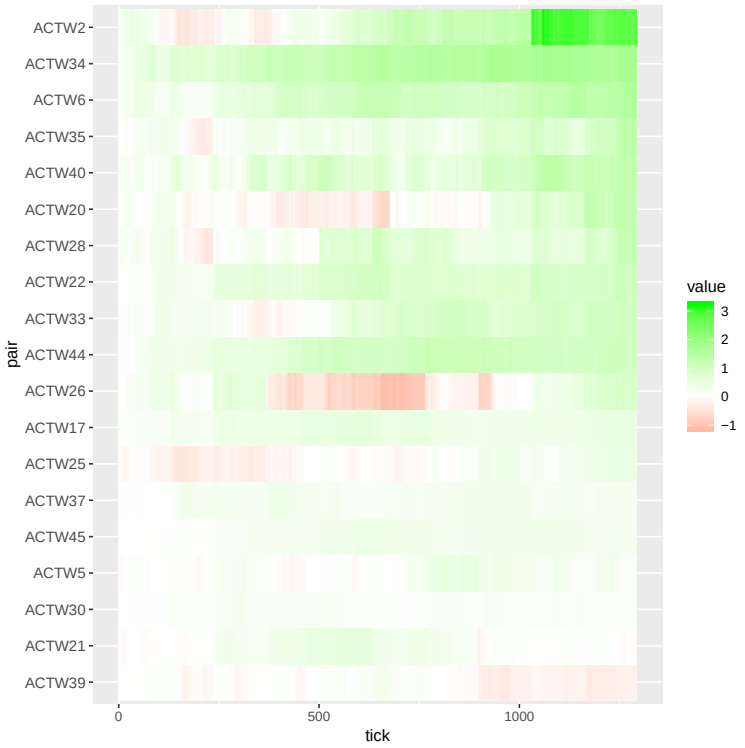
	pair	daily conviction	intraday conviction
1	AC122	1.93	1.58
2	AC57	1.62	1.67
3	AC126	1.12	0.83
4	AC125	1.08	1
5	AC96	1.03	1.1
6	AC123	1.01	1.18
7	AC53	0.96	0.95
8	AC115	0.95	1.04
9	AC111	0.8	0.55
10	AC121	0.64	0.76
11	AC124	0.63	0.74
12	AC127	0.59	0.55
13	AC99	0.53	0.61

Historical vols

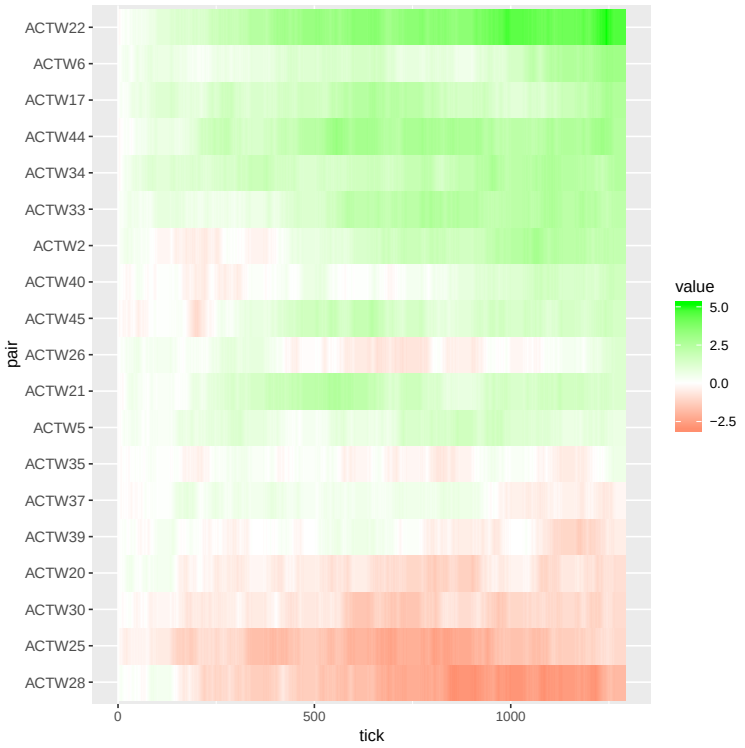


16 ACTW performance image

Cummulative P&L (bps)



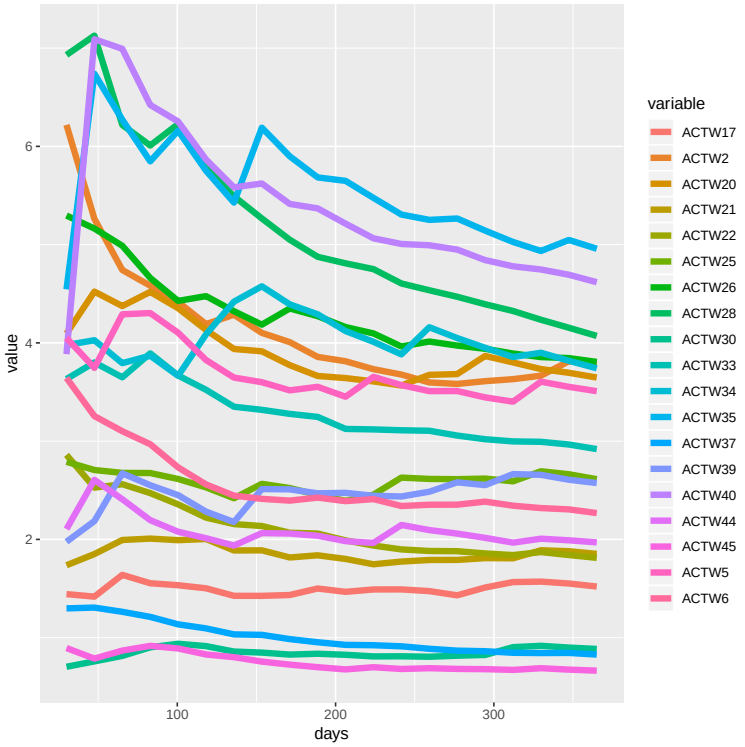
Cummulative hit ratio (pct)



Conviction ratios

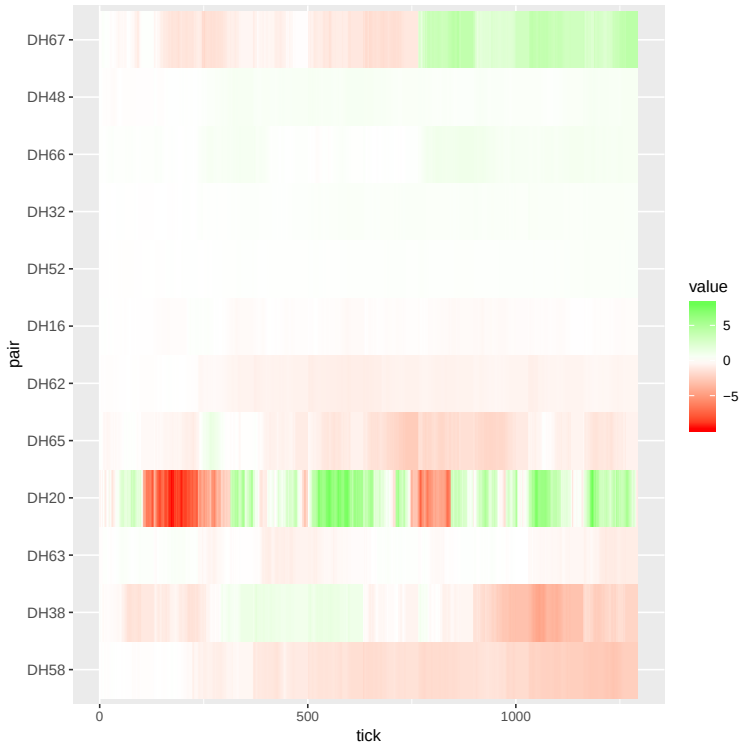
	pair	daily conviction	intraday conviction
1	ACTW35	1.8	1.49
2	ACTW2	1.69	2.66
3	ACTW20	1.63	1.84
4	ACTW40	1.59	1.61
5	ACTW26	1.51	1.83
6	ACTW28	1.41	1.71
7	ACTW34	1.31	1.04
8	ACTW5	1.27	0.93
9	ACTW33	1.1	1.02
10	ACTW25	1	0.83
11	ACTW39	0.9	0.72
12	ACTW21	0.86	0.76
13	ACTW6	0.83	1
14	ACTW44	0.69	0.73
15	ACTW22	0.64	0.71
16	ACTW17	0.55	0.47
17	ACTW37	0.32	0.47
18	ACTW30	0.31	0.35
19	ACTW45	0.25	0.2

Historical vols

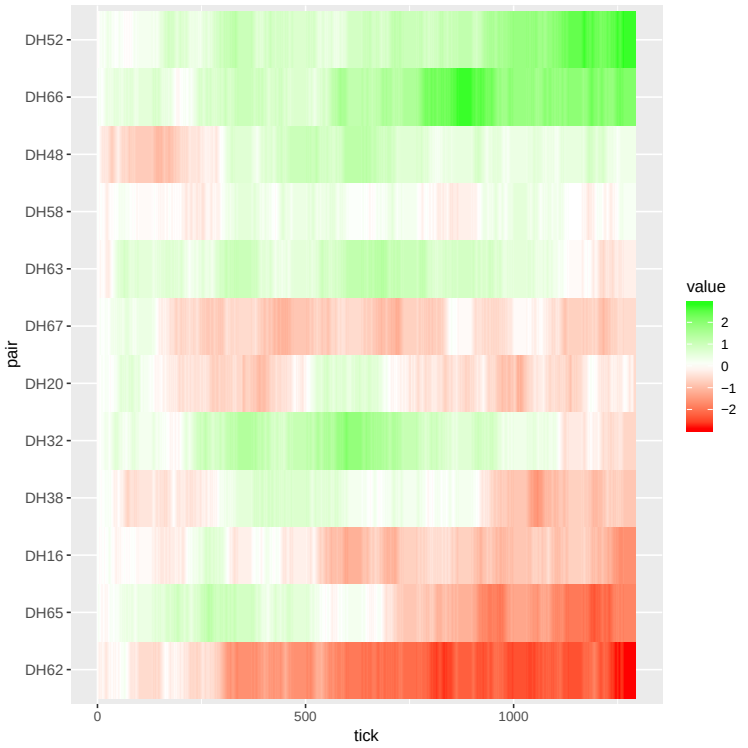


17 DH performance image

Cummulative P&L (bps)



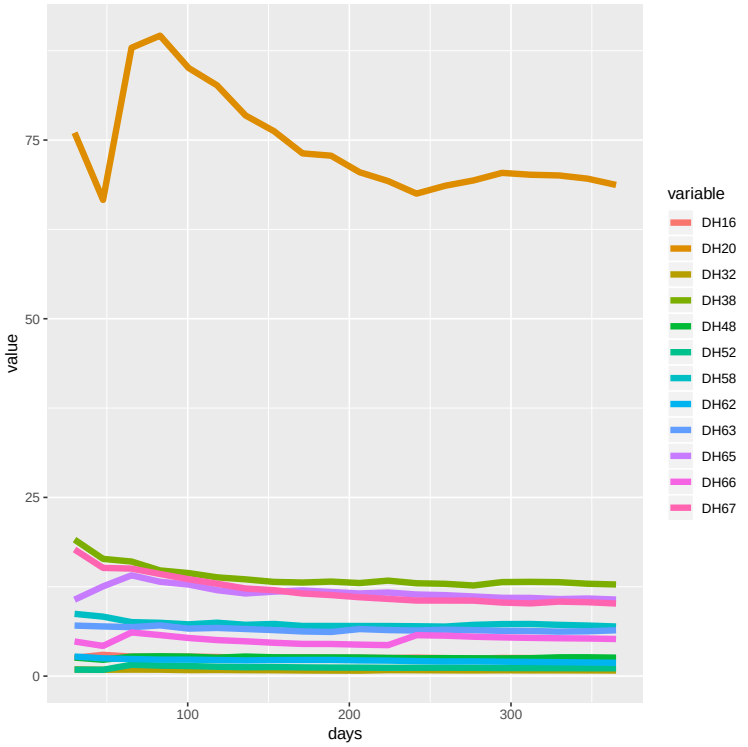
Cummulative hit ratio (pct)



Conviction ratios

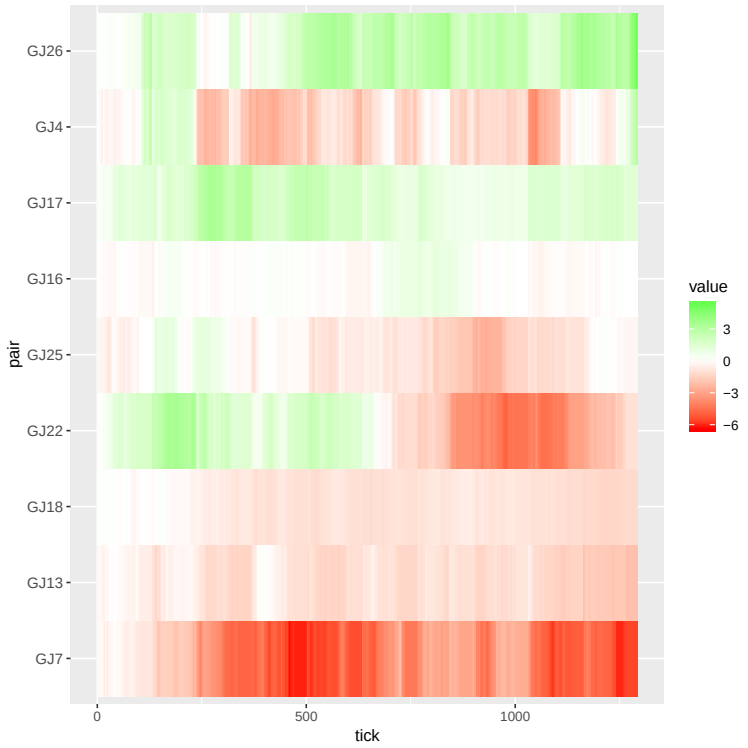
	pair	daily conviction	intraday conviction
1	DH20	5.9	7.57
2	DH67	1.82	1.79
3	DH38	1.16	1.26
4	DH65	1.01	0.92
5	DH58	0.67	0.55
6	DH63	0.57	0.6
7	DH66	0.45	0.3
8	DH48	0.24	0.21
9	DH16	0.21	0.23
10	DH62	0.15	0.23
11	DH52	0.11	0.08
12	DH32	0.08	0.13

Historical vols

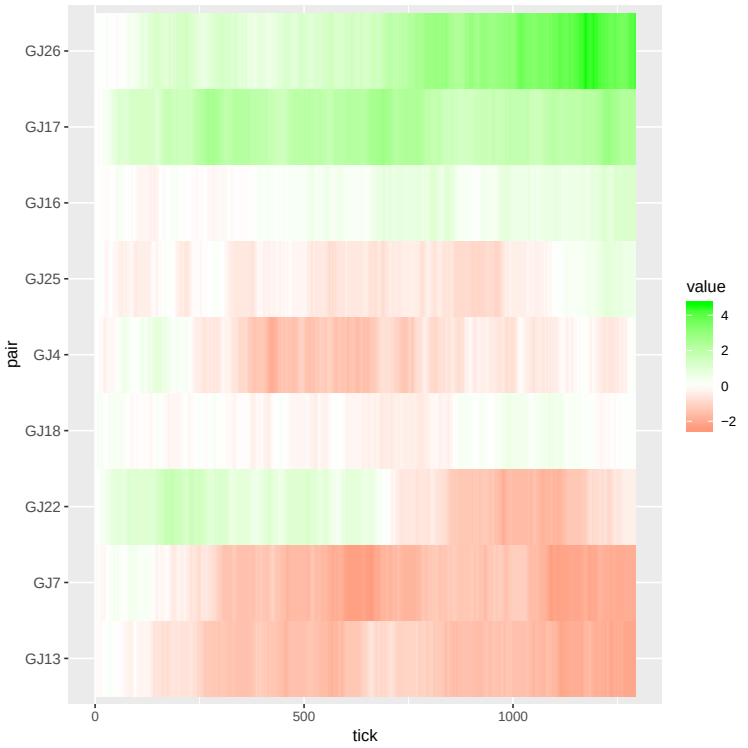


18 GJ performance image

Cummulative P&L (bps)



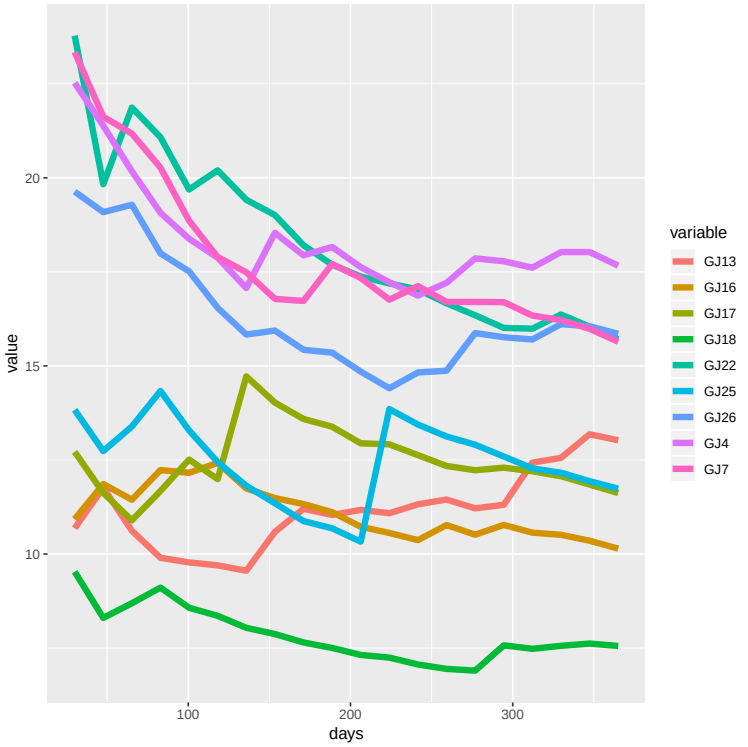
Cummulative hit ratio (pct)



Conviction ratios

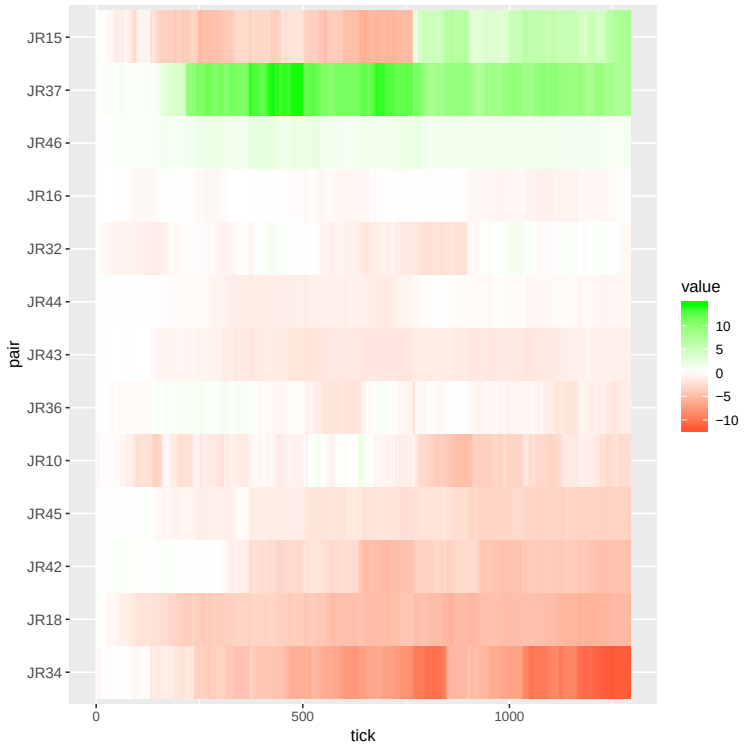
	pair	daily conviction	intraday conviction
1	GJ4	1.25	1.92
2	GJ22	1.11	1.27
3	GJ13	1.1	0.81
4	GJ26	1.07	1.64
5	GJ7	1.07	1.53
6	GJ17	0.9	0.98
7	GJ25	0.84	0.94
8	GJ16	0.77	0.57
9	GJ18	0.74	0.41

Historical vols

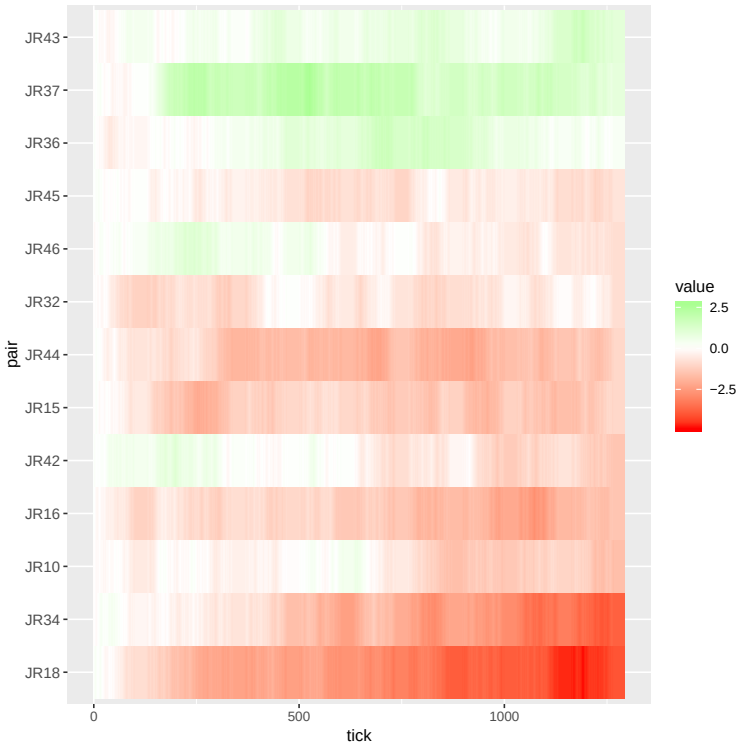


19 JR performance image

Cummulative P&L (bps)



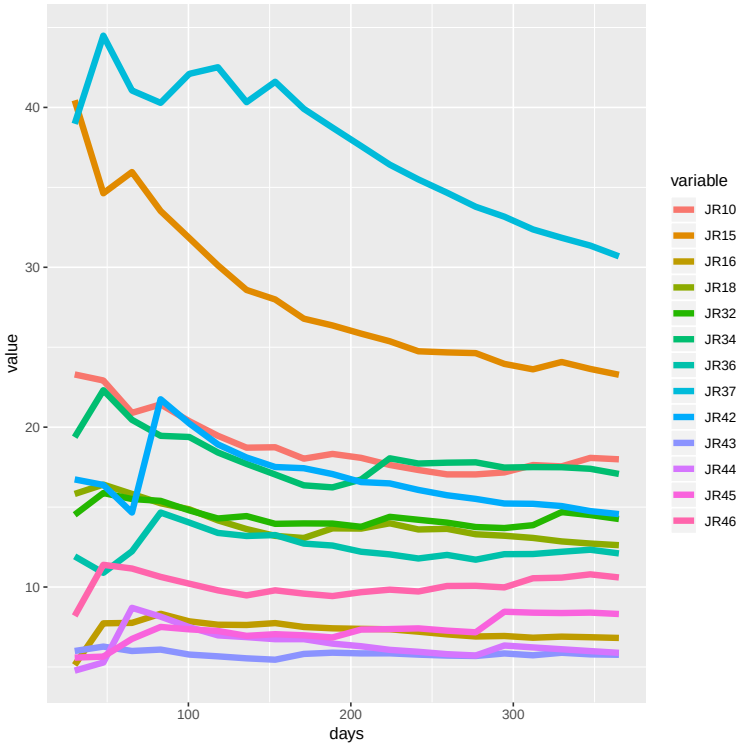
Cummulative hit ratio (pct)



Conviction ratios

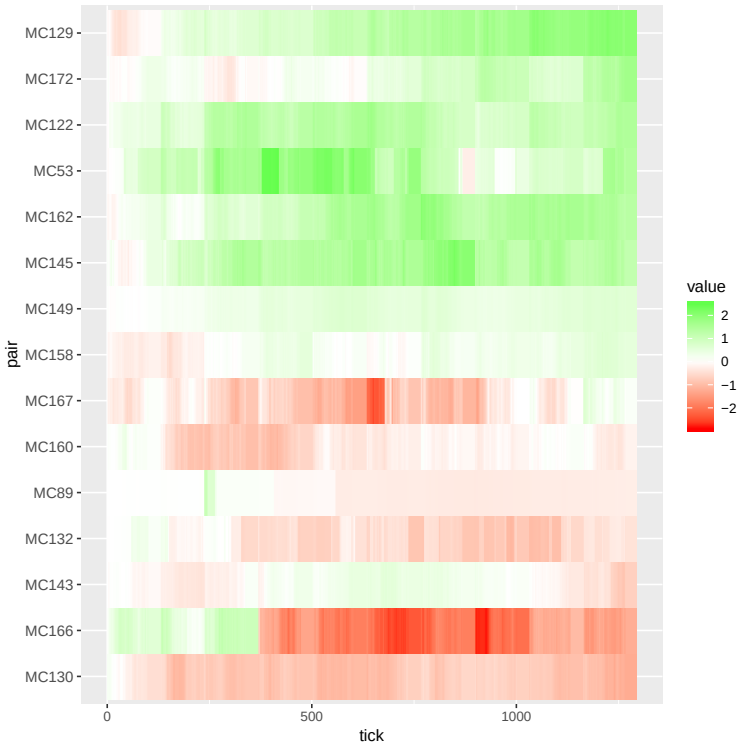
	pair	daily conviction	intraday conviction
1	JR15	3.26	2.98
2	JR37	2.08	2.22
3	JR10	1.59	1.8
4	JR34	1.36	1.65
5	JR42	1.1	0.98
6	JR32	1.1	1.06
7	JR36	0.9	1.32
8	JR46	0.88	0.75
9	JR18	0.84	0.89
10	JR45	0.75	0.6
11	JR16	0.68	0.53
12	JR43	0.42	0.45
13	JR44	0.41	0.58

Historical vols

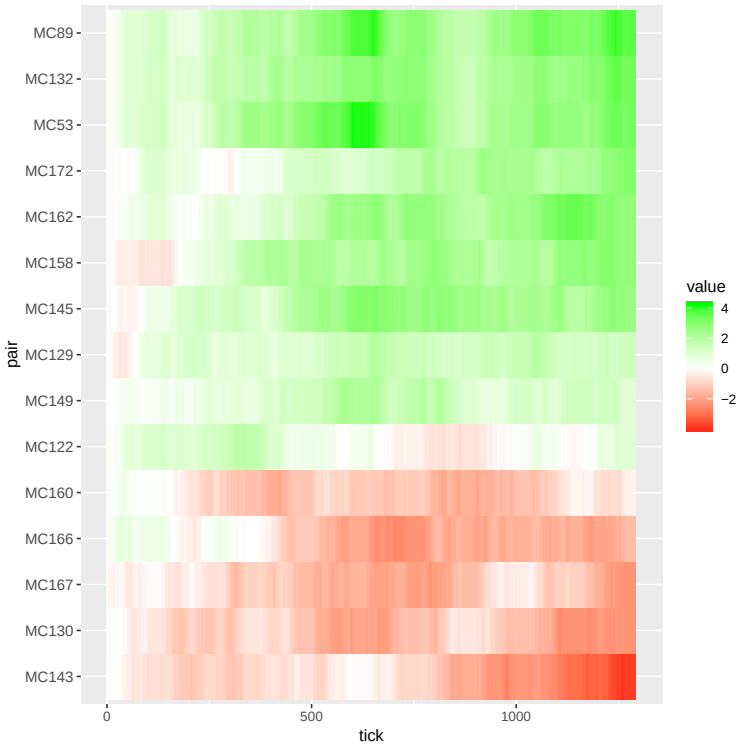


20 MC performance image

Cummulative P&L (bps)



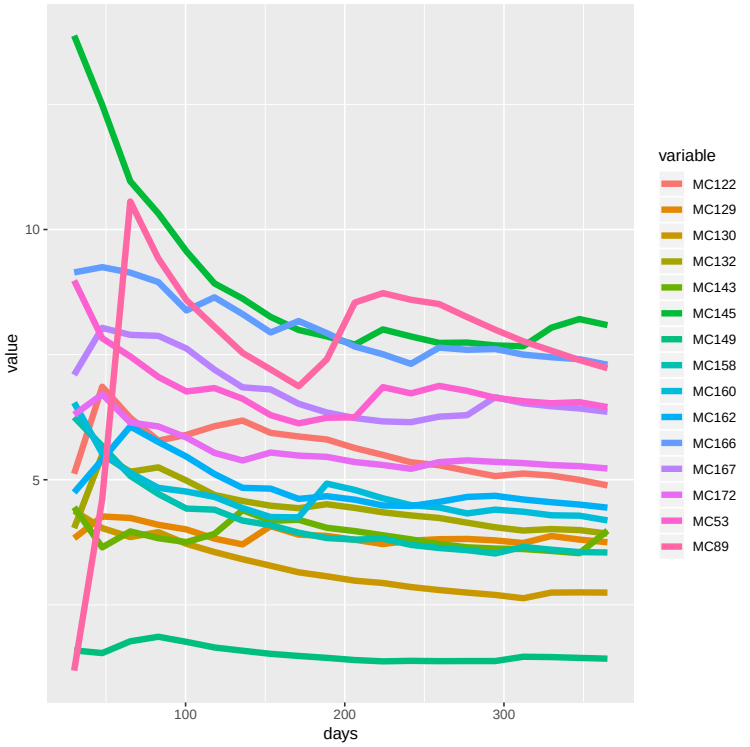
Cummulative hit ratio (pct)



Conviction ratios

	pair	daily conviction	intraday conviction
1	MC167	1.56	2.1
2	MC145	1.52	1.29
3	MC166	1.51	1.87
4	MC53	1.44	1.88
5	MC172	1.17	0.91
6	MC89	1.12	0.84
7	MC162	1.09	0.8
8	MC160	0.94	0.88
9	MC122	0.88	0.84
10	MC158	0.76	0.74
11	MC143	0.74	0.63
12	MC129	0.73	0.82
13	MC130	0.63	0.71
14	MC132	0.6	1.22
15	MC149	0.3	0.31

Historical vols



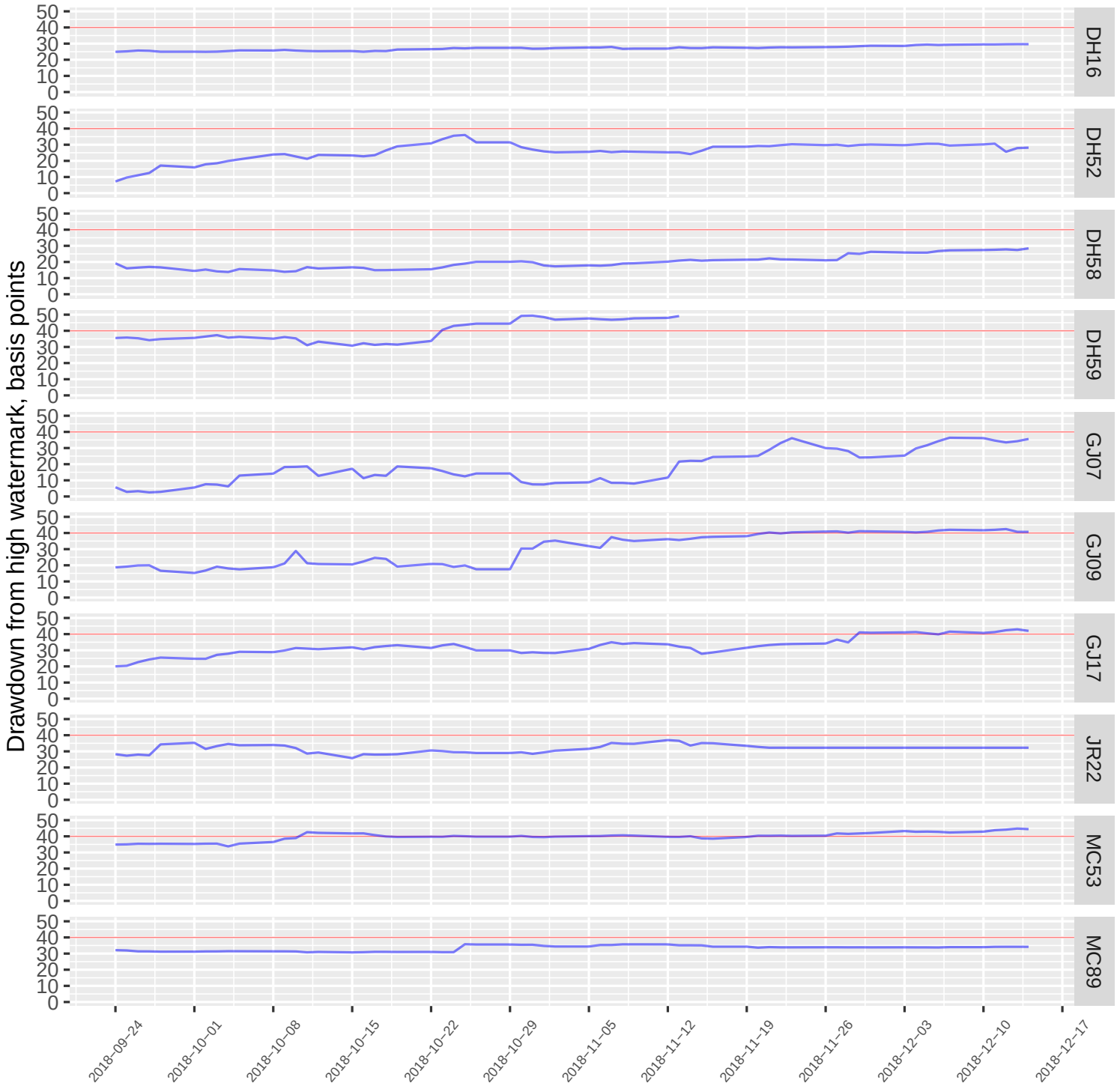
21 Data sources

- We rely on the performance attribution database to obtain pair P&L time-series.
- The allocation of positions (and P&L) to pairs is a daily manual process that relies on a feed of settled trades from our custodian.
- This means that our information is out of date by at least the settlement period (best practice would be to have exposures on the day they were traded).
- Because coverage at the performance team varies, our numbers can be out of date beyond the settlement lag.
- A standard portfolio management system would bring this process up to current best practice.

Latest bucket P&L date	
LUKE	2018-12-11 12:00:00.0000000
DUKE	2018-12-14 12:00:00.0000000

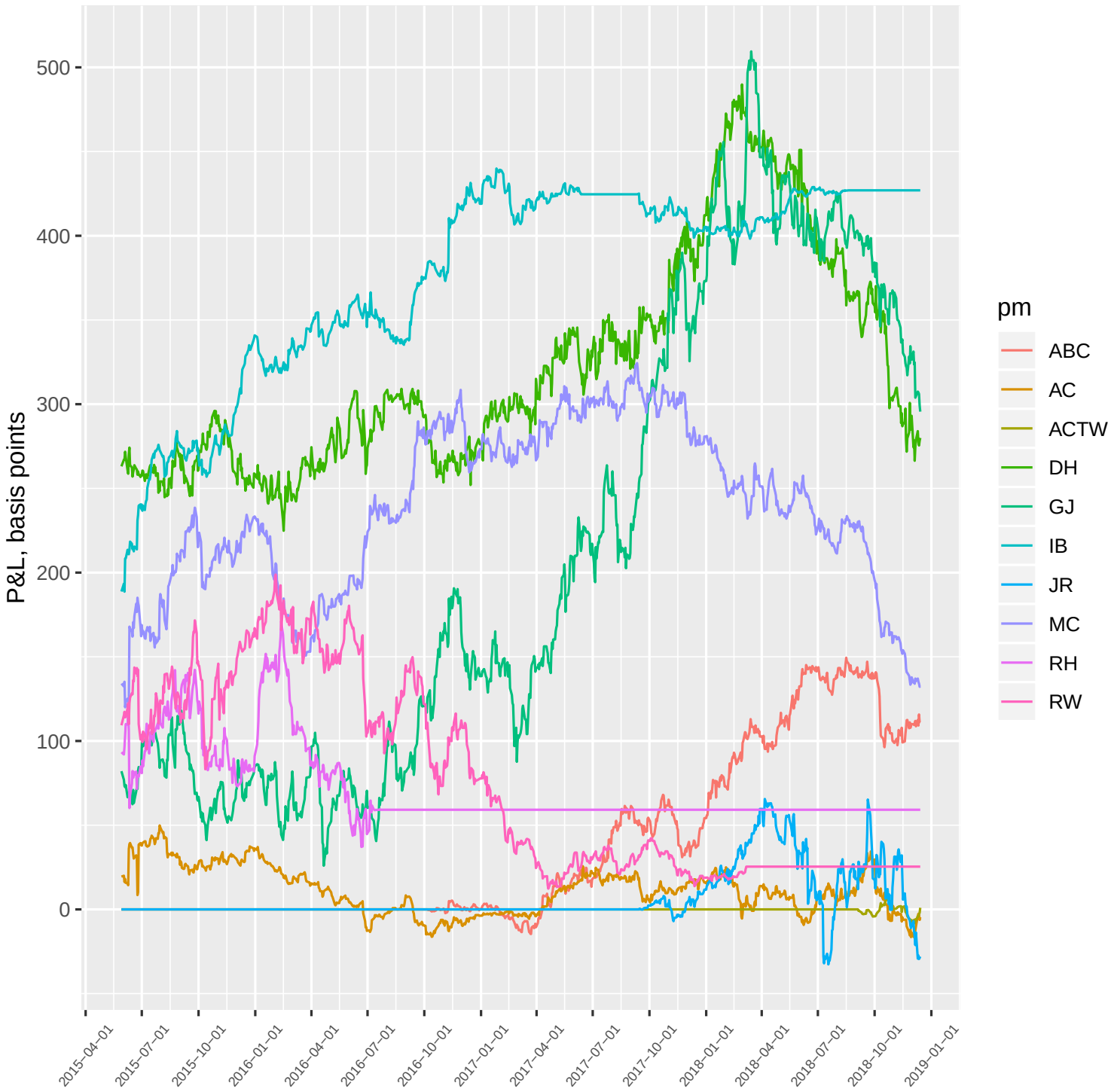
Database copy date	
rn	V1
PRDFundPerformance_BackupDateTime	2018-12-17 23:05:34
PRDQSTFundPerformance_RestoreDateTime	2018-12-18 05:00:04

22 top DUKE drawdowns, as of 2018-12-14



23 Historical DUKE performance by manager: 2015-05-29 to 2018-12-14

23.1 DUKE: All together



23.2 DUKE: By manager