

The jobs on the following dates were terminated by an external process:

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The following dates were terminated due to a market-data computation errors:

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Intraday Capital Drawdowns Sorted from Worst (in BPS)

Symbol	Days Traded	Average	Median	Sigma	Bottom 10%	Bottom 5%	Bottom 1%	Max
ACLS	54	19.737	17.814	10.798	43.153	49.504	56.47	56.47
AA	54	18.038	15.802	12.24	43.281	54.755	65.354	65.354
ALGN	54	17.375	14.361	10.481	40.059	44.201	44.801	44.801
AEO	54	16.948	14.993	8.801	34.277	38.79	45.326	45.326
AG	54	16.737	14.339	8.683	34.537	37.649	39.456	39.456
ALB	54	15.948	14.774	10.053	38.312	44.756	50.896	50.896
ACAD	54	14.017	11.663	9.383	33.371	40.11	50.277	50.277
AAL	54	13.767	10.449	10.283	37.065	46.672	54.048	54.048
ADSK	54	13.755	12.359	7.944	30.058	33.927	38.246	38.246
ADT	54	13	11.5	8.514	31.703	33.869	34.868	34.868
AAP	54	12.863	11.785	6.071	24.33	25.432	26.634	26.634
AER	54	12.782	9.279	9.382	33.569	37.66	40.799	40.799
AEM	54	11.669	11.25	7.17	26.752	30.922	31.662	31.662
AKAM	54	9.251	8.587	5.209	19.93	21.666	24.269	24.269
AEP	54	9.062	7.561	5.244	19.179	20.689	23.711	23.711
AEE	54	9.019	8.589	4.864	18.072	19.517	20.16	20.16
SPY	54	8.992	7.72	4.715	18.895	23.159	26.66	26.66
ACGL	54	8.78	6.262	5.984	21.506	22.354	22.903	22.903
ACN	54	8.692	8.155	4.909	17.969	18.991	20.174	20.174
ADP	54	8.457	8.047	4.971	18.761	20.002	20.718	20.718
AAPL	54	8.431	7.438	4.854	17.637	18.98	20.063	20.063
AJG	54	8.2	6.486	5.248	18.5	21.604	28.347	28.347
ABT	54	8.171	6.083	5.226	18.513	22.222	24.983	24.983
ALC	54	7.992	6.611	5.494	19.979	24.996	32.991	32.991

Symbol	Days Traded	Average	Median	Sigma	Bottom 10%	Bottom 5%	Bottom 1%	Max
ADM	54	7.477	6.276	5.378	18.434	22.903	36.813	36.813
ABBV	54	7.275	6.331	4.662	16.127	19.528	30.333	30.333
ABB	54	6.725	5.872	4.442	16.213	19.351	19.577	19.577
ACI	54	5.485	5.079	3.274	11.446	12.709	15.442	15.442
AAXJ	54	3.996	3.628	2.85	9.808	11.22	15.208	15.208
AGG	54	2.572	2.212	1.675	6.343	7.665	8.887	8.887
portfolio	54	24.328	23.07	9.693	45.217	53.392	64.332	64.332

Intraday Capital Drawups Sorted from Best (in BPS)

Symbol	Days Traded	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Max
AG	54	18.776	16.014	11.131	42.392	47.111	49.858	49.858
ACLS	54	16.738	15.817	8.31	30.984	34.843	41.781	41.781
AA	54	15.383	12.169	9.889	37.127	45.249	56.071	56.071
ALGN	54	14.531	12.086	10.128	36.07	43.992	62.302	62.302
AAL	54	14.169	13.086	8.09	32.002	39.259	41.222	41.222
AEO	54	13.017	11.266	7.237	27.987	30.991	32.604	32.604
ACAD	54	12.912	8.953	10.08	34.412	43.956	55.112	55.112
ADT	54	12.136	8.908	9.291	31.615	37.826	57.281	57.281
AER	54	12.083	9.038	9.428	31.599	40.758	58.437	58.437
ALB	54	11.971	9.652	7.006	26.083	28.436	32.982	32.982
AEM	54	10.085	8.449	6.42	23.89	29.61	34.881	34.881
ADSK	54	9.76	8.595	4.791	19.623	22.243	23.247	23.247
AAP	54	9.701	8.828	4.914	19.158	22.146	27.01	27.01
AAPL	54	9.183	8.393	5.133	19.532	23.14	26.089	26.089
SPY	54	9.015	7.121	5.499	20.126	22.985	25.751	25.751
AEP	54	8.968	8.206	5.275	19.703	22.453	23.787	23.787
AEE	54	8.492	7.626	4.935	18.461	20.311	21.948	21.948
AKAM	54	8.412	7.523	4.68	17.49	18.785	21.151	21.151
ACN	54	8.114	6.578	5.675	20.912	26.41	33.099	33.099
ACGL	54	7.992	6.762	5.186	19.418	23.277	24.38	24.38
AJG	54	7.791	6.591	4.29	16.309	17.784	20.847	20.847
ABT	54	6.849	5.432	5.399	19.118	23.604	28.031	28.031
ADP	54	6.727	6.398	3.242	12.576	13.685	16.984	16.984
ABB	54	6.309	5.024	4.466	16.194	18.793	25.028	25.028

Symbol	Days Traded	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Max
ADM	54	6.044	5.757	3.049	12.413	14.521	17.696	17.696
ABBV	54	6.032	5.306	3.536	13.749	16.07	17.423	17.423
ALC	54	5.995	4.858	4.097	15.114	17.083	20.405	20.405
ACI	54	4.854	4.231	2.636	10.279	10.856	11.916	11.916
AAXJ	54	3.375	2.891	2.836	9.094	11.23	16.101	16.101
AGG	54	2.166	1.82	1.473	5.314	6.707	7.958	7.958
portfolio	54	21.617	19.485	8.797	39.894	43.995	45.966	45.966

Intraday Capital Drawdown to Drawup Ratio

Symbol	Days Traded	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Bottom 10%	Bottom 5%	Bottom 1%
ALC	54	2.479	1.236	3.741	10.252	14.927	23.896	9.494	12.661	18.82
AAXJ	54	2.381	1.198	2.938	9.113	11.708	15.78	8.606	10.652	13.533
ABT	54	2.377	0.985	2.897	8.785	10.766	15.046	8.38	9.965	12.332
ALB	54	2.254	1.194	2.788	8.198	10.541	17.19	7.747	9.426	12.768
AEO	54	2.031	1.274	2.174	6.842	8.831	12.233	6.46	7.918	10.371
AER	54	1.935	0.951	2.772	8.378	11.782	14.689	7.655	10.83	13.27
AAL	54	1.93	0.76	4.933	10.148	17.271	35.964	9.086	13.836	23.206
ALGN	54	1.93	1.139	2.064	6.616	8.463	11.212	6.183	7.866	9.23
AEE	54	1.873	0.977	2.261	7.223	8.695	12.153	6.755	8.096	9.622
AEM	54	1.864	1.052	2.102	6.777	8.372	10.894	6.468	7.611	9.255
ADP	54	1.858	1.198	2.316	6.949	9.254	15.038	6.468	8.261	10.715
ADSK	54	1.842	1.476	1.795	5.953	8.282	9.866	5.561	7.195	8.693
AGG	54	1.837	1.239	1.912	6.622	7.723	8.07	6.188	7.392	7.819
ADT	54	1.806	1.212	2.145	6.84	8.908	12.082	6.36	8.084	10.388
AAP	54	1.768	1.321	1.448	4.983	6.715	7.073	4.686	5.928	6.993
ACGL	54	1.763	1.031	2.004	6.588	7.64	9.832	6.282	7.348	8.21
ACAD	54	1.736	1.107	2.022	6.24	8.203	12.744	5.79	7.378	9.543
AA	54	1.707	1.177	1.744	5.617	6.916	10.31	5.313	6.363	7.797
ADM	54	1.706	1.058	1.861	5.958	8.273	10.451	5.506	7.453	8.915
ABBV	54	1.691	1.083	1.352	4.447	5.059	6.158	4.261	4.863	5.365
ACLS	54	1.674	1.324	1.988	5.377	7.471	14.343	4.978	6.518	9.263
AKAM	54	1.644	1.211	1.494	5.074	5.829	6.567	4.88	5.524	6.306
AEP	54	1.638	1.11	1.956	5.988	8.182	11.904	5.607	7.293	9.328

Symbol	Days Traded	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Bottom 10%	Bottom 5%	Bottom 1%
ABB	54	1.605	1.214	1.537	5.263	6.17	7.157	4.937	5.97	6.452
SPY	54	1.569	0.965	1.602	5.486	6.77	7.743	5.184	6.226	7.282
ACI	54	1.565	1.128	1.451	4.952	5.526	6.928	4.802	5.262	5.986
AJG	54	1.51	1.098	1.401	4.681	5.635	5.8	4.482	5.215	5.691
ACN	54	1.491	1.115	1.243	4.507	4.99	5.393	4.207	4.846	5.102
AG	54	1.401	0.964	1.358	4.578	5.5	6.818	4.31	5.14	5.842
AAPL	54	1.322	0.934	1.241	4.124	4.889	5.992	3.938	4.564	5.194
portfolio	54	1.251	1.136	0.557	2.392	2.612	2.948	2.328	2.529	2.737

Intraday Capital Drawup to Drawdown metric (normalized: pure drawup=1, pure drawdown=0)

Symbol	Days Traded	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Bottom 10%	Bottom 5%	Bottom 1%
AAPL	54	0.525	0.517	0.2	0.854	0.884	0.906	0.843	0.872	0.901
AAL	54	0.524	0.568	0.189	0.804	0.836	0.909	0.795	0.822	0.856
AG	54	0.515	0.509	0.2	0.818	0.845	0.893	0.812	0.832	0.869
AJG	54	0.497	0.477	0.199	0.818	0.834	0.876	0.812	0.829	0.845
AEP	54	0.497	0.474	0.206	0.842	0.887	0.904	0.827	0.868	0.899
AER	54	0.494	0.513	0.217	0.834	0.864	0.887	0.826	0.851	0.881
ACGL	54	0.488	0.492	0.206	0.808	0.846	0.864	0.799	0.833	0.861
ABB	54	0.487	0.452	0.206	0.863	0.905	0.921	0.852	0.892	0.913
AEE	54	0.487	0.506	0.217	0.839	0.872	0.875	0.827	0.862	0.874
ACI	54	0.487	0.47	0.196	0.793	0.839	0.875	0.785	0.817	0.857
SPY	54	0.484	0.509	0.176	0.767	0.813	0.841	0.757	0.798	0.837
ACN	54	0.483	0.473	0.186	0.804	0.835	0.893	0.797	0.822	0.85
ADT	54	0.481	0.452	0.212	0.836	0.873	0.889	0.824	0.864	0.882
AKAM	54	0.479	0.452	0.207	0.854	0.883	0.947	0.845	0.871	0.906
ACAD	54	0.476	0.475	0.196	0.819	0.862	0.899	0.809	0.841	0.875
AEM	54	0.475	0.488	0.208	0.812	0.858	0.935	0.803	0.836	0.895
AA	54	0.474	0.46	0.202	0.842	0.894	0.916	0.831	0.873	0.901
ADM	54	0.469	0.486	0.182	0.786	0.824	0.849	0.774	0.81	0.844
ACLS	54	0.466	0.431	0.178	0.777	0.814	0.838	0.765	0.8	0.824
ADP	54	0.465	0.455	0.19	0.763	0.798	0.874	0.754	0.786	0.819
ABBV	54	0.462	0.48	0.2	0.819	0.85	0.914	0.802	0.838	0.868
AGG	54	0.461	0.447	0.19	0.777	0.805	0.821	0.771	0.792	0.82
ABT	54	0.46	0.504	0.233	0.825	0.841	0.861	0.818	0.837	0.846

Symbol	Days Traded	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Bottom 10%	Bottom 5%	Bottom 1%
ALGN	54	0.46	0.468	0.208	0.809	0.855	0.87	0.798	0.844	0.859
AAXJ	54	0.456	0.455	0.241	0.864	0.914	0.934	0.851	0.898	0.923
ALB	54	0.447	0.456	0.217	0.823	0.84	0.874	0.816	0.832	0.849
AEO	54	0.444	0.44	0.197	0.773	0.808	0.864	0.763	0.798	0.823
ALC	54	0.44	0.447	0.207	0.761	0.779	0.799	0.752	0.771	0.789
ADSK	54	0.438	0.404	0.172	0.744	0.789	0.796	0.73	0.78	0.792
AAP	54	0.433	0.431	0.164	0.736	0.778	0.839	0.729	0.759	0.795
portfolio	54	0.469	0.468	0.105	0.639	0.65	0.653	0.635	0.645	0.652

End Of Day Profit & Loss (USD)

Symbol	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Bottom 10%	Bottom 5%	Bottom 1%	Daily Kelly Score
ACLS	1504.55	1037.77	1877.38	5457.23	6054.31	7589.23	5210.61	5777.29	6585.31	0.878592
AG	1100.72	1245.37	1255.51	3067.29	3277.07	3590.99	3009.69	3188.12	3409.71	0.892196
ALGN	740.647	647.319	1642.11	3505.03	3920.77	3995.24	3374.91	3779.87	3965.51	0.834327
AAL	722.164	883.692	907.888	1963.68	2258.88	2544.66	1912.28	2117.14	2488.61	0.935352
ALB	679.641	981.501	1383.94	2955.83	3501.69	3589.8	2803.44	3357.63	3544.51	0.963079
ADT	623.65	883.783	1292.67	2308.65	2627.21	3333.82	2253.59	2491.69	2819.12	1.03754
ADSK	599.876	646.553	1455.12	3321.98	4037.26	4511.9	3143.16	3747.07	4459.47	0.868632
AEO	596.025	669.647	1493	2821.96	3103.8	3271.76	2764.61	2988.55	3211.24	0.903894
AA	561.329	872.054	1380.34	2449.46	2562.42	2823.37	2420.88	2512.63	2647.05	1.0053
ACN	551.338	590.474	906.28	2092.29	2575.99	3711.18	1972.31	2379.3	2949.85	0.992938
AJG	470.223	529.975	795.801	1750.94	2079.32	2633.47	1669.11	1969.91	2268.82	0.976668
AER	435.705	527.48	1001.47	1942.03	2165.9	2565.3	1876.17	2079.79	2291.01	0.843309
ABBV	365.696	309.364	728.653	1844.25	2384.59	2890.41	1737.85	2164.98	2788.91	0.867747
ADP	363.508	466.81	908.484	1692.01	2085.26	2448.43	1608.88	1904.31	2248.26	1.0218
AAPL	331.309	402.342	753.904	1711.35	2154.32	3071.41	1613.65	1958.82	2527.83	0.916828
ACI	298.71	437.848	863.898	1722.45	2183.92	2423.23	1633.43	1982.74	2328.06	0.990389
ACGL	288.443	410.178	993.028	1900.06	2299.96	2892.02	1818.42	2133.46	2585.52	0.946881
ADM	246.678	271.16	909.675	1735.08	1860.71	1922.43	1696.02	1834.56	1900.29	0.949703
ACAD	246.196	541.092	1548.39	2805.71	2992.07	3269.45	2625.64	2947.02	3061.65	1.14002
AEE	211.664	280.881	837.27	1480.5	1716.41	1777.38	1437.27	1602.56	1747.95	0.954097
ALC	134.191	61.02	800.842	1607.34	1920.35	2603.53	1512.17	1819.91	2120.28	0.894085
ABB	130.92	193.925	603.246	1094.51	1419.85	1792.02	1035.18	1267.16	1608.6	0.986379
AKAM	128.022	297.936	1090.24	2094.3	3017.36	3538.93	1939.67	2601.96	3510.72	1.05583

Symbol	Average	Median	Sigma	Top 10%	Top 5%	Top 1%	Bottom 10%	Bottom 5%	Bottom 1%	Daily Kelly Score
AGG	118.108	143.879	322.76	731.807	870.345	1073.88	685.79	816.131	977.108	0.963377
AAP	14.782	84.062	1218.95	2108.3	2754.22	3294.12	1974.43	2466.07	3198.87	1.09315
AEP	14.6	5.729	941.113	1500.52	1704.78	1865.61	1455.17	1614.98	1853.59	0.979761
ABT	-35.131	108.745	826.814	1020.52	1126.49	1403.11	988.883	1089.15	1200.15	1.21985
AAXJ	-43.119	-11.77	325.471	518.83	638.763	744.79	485.681	604.447	677.497	1.21979
AEM	-111.741	161.324	1113.38	1318.16	1458.22	1479.37	1270.32	1421.36	1467.27	1.32454
SPY	-2261.87	-3416.72	11598.5	17811.8	22536.5	25720.2	16126.7	21733.2	23524.9	1.06505
portfolio	9026.84	9669.9	7150.85	19301	20529.1	21413.4	18981.1	20136.4	21206.8	0.905793

- (1) Identify symbol/datetime time-slices: 17.233s
- (2) Start multiprocessing for 54 jobs using 40 process-threads: 133.206s
 - (2a) Extract market data for unique date: 4.27242592593s avg
 - (2b) Reindex & group dataframe: 0.036462962963s avg
 - (2c) Apply map-reduce on dataframe: 70.6159259259s avg
- (3) Compute high-level portfolio statistics & summary: 0.481s

[Click here to toggle on/off the raw code.](#)