

Lottery preference

- 사람들은 복권을 좋아한다
 - 복권의 기대수익률이 0보다 작아도 복권을 산다
- 주식 투자자들은 lottery asset 을 좋아한다
 - Lottery asset의 기대수익률이 낮아도 lottery asset을 산다
- Lottery asset은 무엇인가?
 - Assets that have a small probability of a large payoff
 - Maximum daily return over the past one month
 - Bali, Cakici, and Whitelaw (2011), Journal of Financial Economics
 - “Maxing out: Stocks as lotteries and the cross-section of expected returns”
- Horsetrack betting
 - Thaler and Ziemba (1988), Journal of Economic Perspectives
 - “Parimutuel betting markets: racetracks and lotteries”

Output

1962. 7월 – 2005.12월 (44년, 522개월)

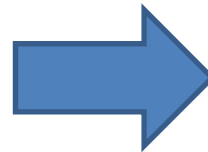
	count	mean	std
max			
1	522.0	0.012279	0.037078
2	522.0	0.014200	0.043389
3	522.0	0.014412	0.047005
4	522.0	0.014086	0.050443
5	522.0	0.015058	0.054747
6	522.0	0.014426	0.058352
7	522.0	0.013831	0.062821
8	522.0	0.013144	0.067173
9	522.0	0.011268	0.074790
10	522.0	0.006998	0.091219

	max	maxret
0	1	0.014610
1	2	0.023243
2	3	0.029323
3	4	0.035252
4	5	0.041730
5	6	0.049350
6	7	0.058998
7	8	0.072613
8	9	0.095931
9	10	0.190235

(1) 종목별, 월별 max(daily return) 계산

	permno	date	ret
0	79365	2005-01-03	NaN
1	68742	2005-01-03	-0.052893
2	68830	2005-01-03	-0.005925
3	68857	2005-01-03	0.000803
4	69032	2005-01-03	0.006844
...
531669	90249	2005-12-30	0.003077
531670	90251	2005-12-30	-0.001189
531671	90270	2005-12-30	0.023810
531672	90272	2005-12-30	-0.015663
531673	90303	2005-12-30	-0.002143

531674 rows × 3 columns



2005.1월 – 2005.12월(1년)

	permno	year	month	maxret
0	10042	2005	1	0.067308
1	10042	2005	2	0.081395
2	10042	2005	3	0.086420
3	10042	2005	4	0.043478
4	10042	2005	5	0.104478
...
23547	93105	2005	8	0.027197
23548	93105	2005	9	0.039675
23549	93105	2005	10	0.031378
23550	93105	2005	11	0.051813
23551	93105	2005	12	0.037576

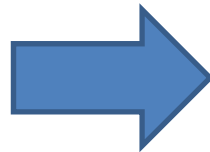
23552 rows × 4 columns

(2) 월별 max portfolio 구성

1962.1월 – 2005.12월(44년)

	permno	year	month	maxret
0	10006	1962	1	0.023723
1	10006	1962	2	0.019130
2	10006	1962	3	0.017065
3	10006	1962	4	0.031915
4	10006	1962	5	0.035398
...
1145841	93105	2005	8	0.027197
1145842	93105	2005	9	0.039675
1145843	93105	2005	10	0.031378
1145844	93105	2005	11	0.051813
1145845	93105	2005	12	0.037576

1145846 rows × 4 columns



	permno	form_date	max	hdate1	hdate2
0	10006	1962-01-31	3	1962-02-01	1962-02-28
1	10006	1962-02-28	3	1962-03-01	1962-03-31
2	10006	1962-03-31	2	1962-04-01	1962-04-30
3	10006	1962-04-30	7	1962-05-01	1962-05-31
4	10006	1962-05-31	2	1962-06-01	1962-06-30
...
1145841	93105	2005-08-31	4	2005-09-01	2005-09-30
1145842	93105	2005-09-30	6	2005-10-01	2005-10-31
1145843	93105	2005-10-31	4	2005-11-01	2005-11-30
1145844	93105	2005-11-30	7	2005-12-01	2005-12-31
1145845	93105	2005-12-31	7	2006-01-01	2006-01-31

1145846 rows × 5 columns

(3) merge

	permno	form_date	max	hdate1	hdate2
0	10006	1962-01-31	3	1962-02-01	1962-02-28
1	10006	1962-02-28	3	1962-03-01	1962-03-31
2	10006	1962-03-31	2	1962-04-01	1962-04-30
3	10006	1962-04-30	7	1962-05-01	1962-05-31
4	10006	1962-05-31	2	1962-06-01	1962-06-30

	permno	date	ret
0	10006	1962-01-31	0.087523
1	10006	1962-02-28	0.011986
2	10006	1962-03-30	-0.071672
3	10006	1962-04-30	0.056985
4	10006	1962-05-31	-0.160000



	permno	form_date	max	hdate1	hdate2	date	ret
1	10006	1962-01-31	3	1962-02-01	1962-02-28	1962-02-28	0.011986
271	10006	1962-02-28	3	1962-03-01	1962-03-31	1962-03-30	-0.071672
541	10006	1962-03-31	2	1962-04-01	1962-04-30	1962-04-30	0.056985
811	10006	1962-04-30	7	1962-05-01	1962-05-31	1962-05-31	-0.160000
1081	10006	1962-05-31	2	1962-06-01	1962-06-30	1962-06-29	-0.012552
...
6476683	90992	2005-11-30	4	2005-12-01	2005-12-31	2005-12-30	0.065421
6476687	90993	2005-11-30	3	2005-12-01	2005-12-31	2005-12-30	0.125387
6476691	90994	2005-11-30	1	2005-12-01	2005-12-31	2005-12-30	-0.136364
6476695	90996	2005-11-30	5	2005-12-01	2005-12-31	2005-12-30	-0.208333
6476699	91012	2005-11-30	1	2005-12-01	2005-12-31	2005-12-30	-0.033999

1133589 rows × 7 columns

(4) Portfolio return

1962. 7월 – 2005.12월 (44년, 522개월)

	count	mean	std
max			
1	522.0	0.012279	0.037078
2	522.0	0.014200	0.043389
3	522.0	0.014412	0.047005
4	522.0	0.014086	0.050443
5	522.0	0.015058	0.054747
6	522.0	0.014426	0.058352
7	522.0	0.013831	0.062821
8	522.0	0.013144	0.067173
9	522.0	0.011268	0.074790
10	522.0	0.006998	0.091219

	max	maxret
0	1	0.014610
1	2	0.023243
2	3	0.029323
3	4	0.035252
4	5	0.041730
5	6	0.049350
6	7	0.058998
7	8	0.072613
8	9	0.095931
9	10	0.190235