



### strategy description

Certain varying groups of stocks have volatility consistently larger than the index to which they belong. These groups outperform or underperform the index with mean-reverting behaviour. The Erdős strategy uses graph theory concepts and time-series analysis to exploit the ensuing arbitrage opportunities in a consistent way. While the returns are inhomogeneous, over very long horizons they easily exceed 35% annually.

### statistics (2007-2021)

- Average net return** : 14.29% (S&P500: 9.76%)
- Average volatility** : 13.83% (S&P500: 18.61%)
- Average Sharpe Ratio** : 0.77 (S&P500: 0.88%)
- Maximum draw-down** : 16.81% (S&P500: 56.78%)
- Live trading** : since **October 2021**

(The results do not include transaction costs which would reduce the yearly average return by approximately 0.01%.)

### Key facts

- Currency** : USD
- Instruments** : iShares S&P100 ETF and S&P500 stocks
- Liquidity** : daily
- Risk factors** : long positions, short positions, no derivatives
- Trading** : algorithmic, with human surveillance

### performance details

Year	Performance		Volatility		Max. draw-down	Sharpe ratio
	Strategy	S&P500	Strategy	S&P500		
2007*	4.63%	2.09%	10.69%	15.82%	7.95%	0.10
2008	43.88%	-38.49%	28.39%	41.05%	14.48%	1.47
2009	32.21%	23.45%	23.34%	27.29%	16.81%	1.36
2010	-3.83%	12.78%	10.39%	18.05%	10.48%	-0.40
2011	-2.47%	0.00%	9.88%	23.27%	15.72%	-0.27
2012	33.06%	13.32%	15.10%	12.83%	11.59%	2.20
2013	4.69%	29.73%	8.61%	10.94%	15.18%	0.53
2014	2.89%	11.41%	9.66%	11.19%	9.41%	0.29
2015	7.86%	-0.76%	10.08%	17.05%	5.53%	0.75
2016	33.13%	9.53%	14.26%	12.63%	8.55%	2.28
2017	7.92%	19.41%	11.54%	6.66%	7.30%	0.59
2018	-2.29%	-6.24%	8.90%	17.02%	10.59%	-0.52
2019	20.47%	28.88%	10.18%	12.48%	11.37%	1.83
2020	31.56%	16.26%	23.11%	34.50%	11.26%	1.34
2021	0.66%	25.08%	13.27%	11.64%	13.78%	0.05

\* starting 31.01.2007

