

Beta arbitrage trading in crypto market

Vyacheslav Arbuzov, PhD

- ✓ Data Scientist, Olympia Capital, Moscow, Russia
- ✓ Assistant professor, Department of Economics, Perm State University, Perm, Russia
- ✓ Chief Scientist, Criptoconomics & Blockchain Systems Lab, Perm State University, Perm, Russia

email: arbuzov1989@gmail.com

skype: [vyacheslav.arbuzov](https://www.skype.com/people/vyacheslav.arbuzov)

Perm Winter School 2018

January 30, Perm, Russia



Пузырь золота (спот цена)

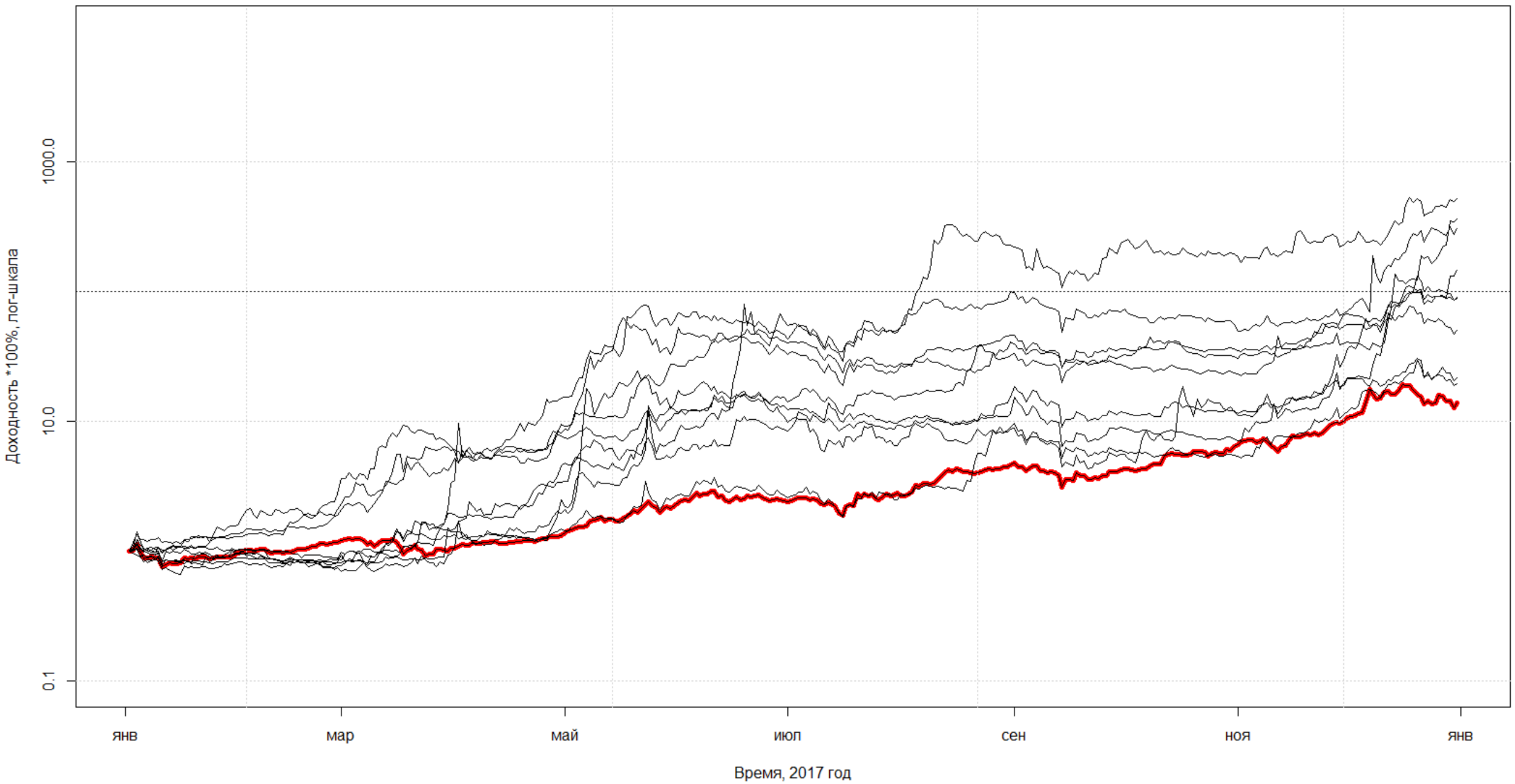


Пузырь цифрового золота

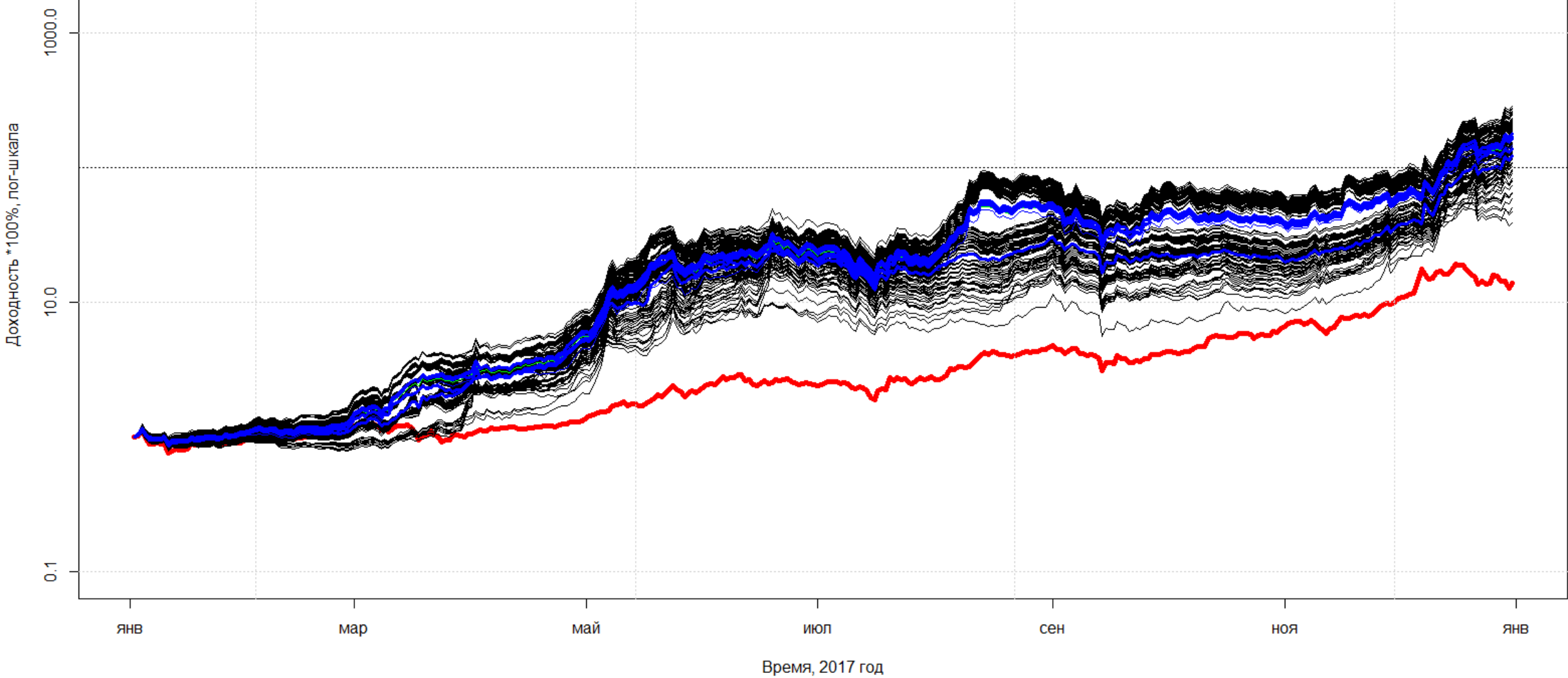


Метод Монте-Карло –
численный метод получения
результата на основе создания
большого числа реализаций
случайного процесса

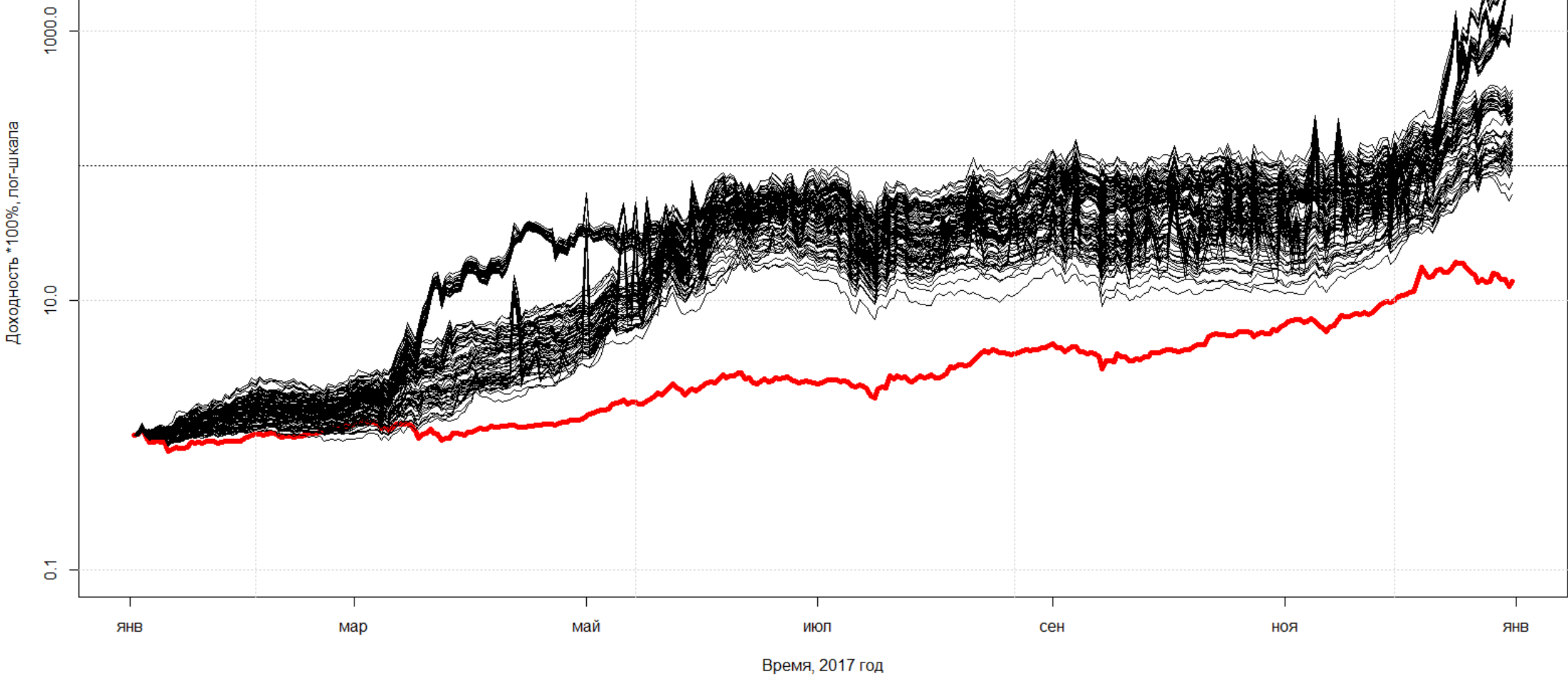




Топ 20 по капитализации



Топ 100 по капитализации



Junk-crypto, rank>100

Доходность *100%, лог-шкала

1000.0
10.0
0.1

янв

мар

май

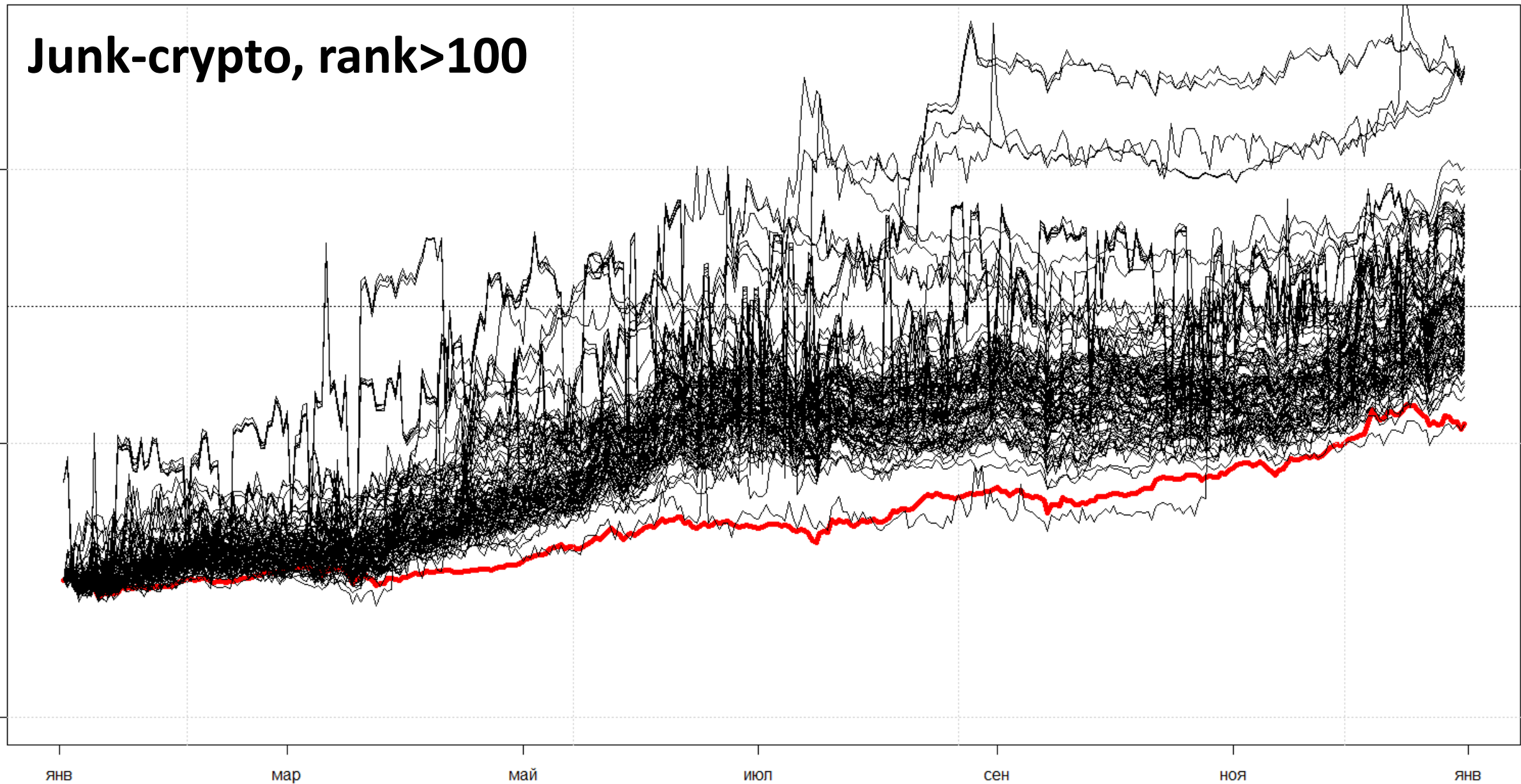
июл

сен

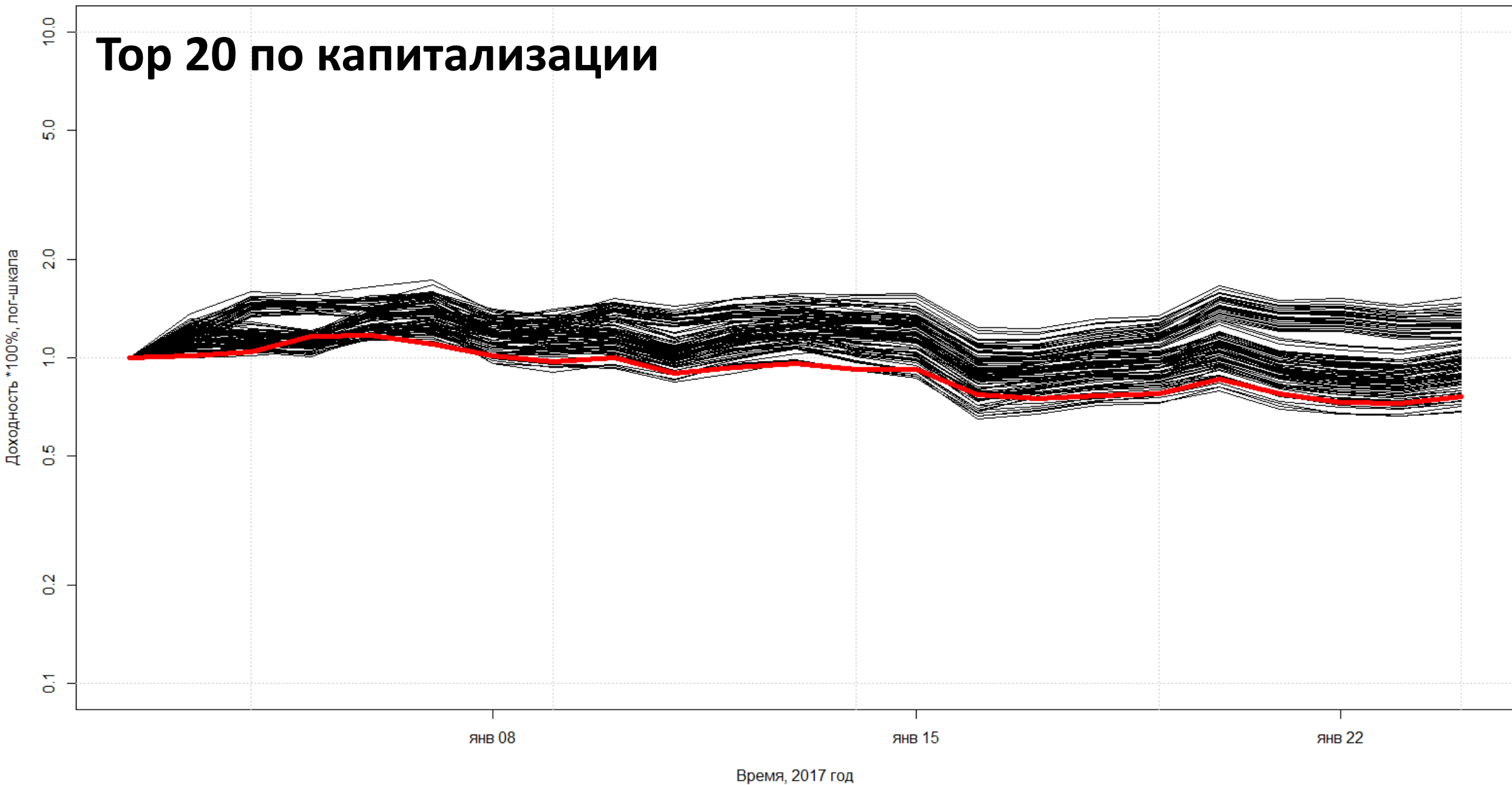
ноя

янв

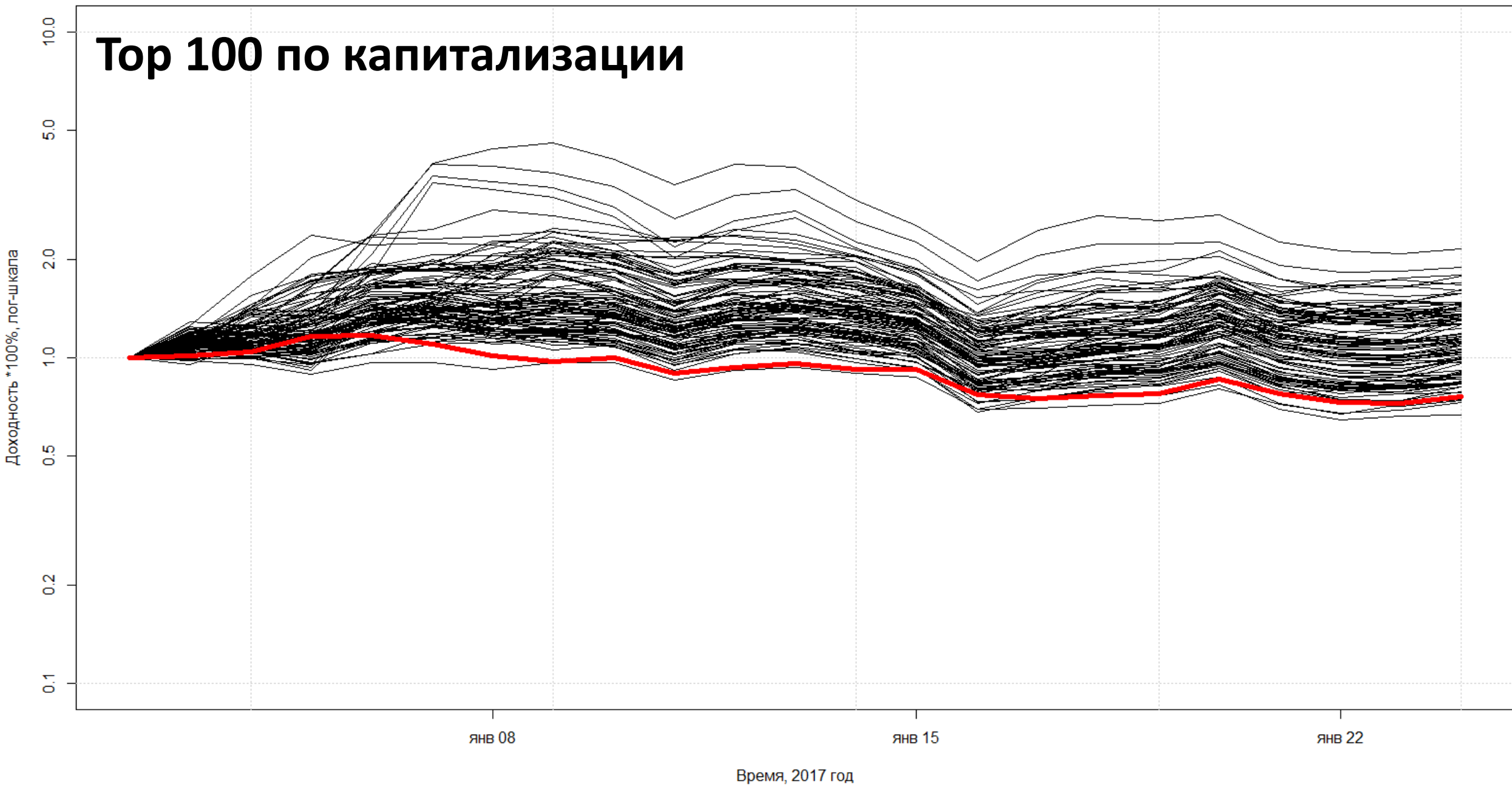
Время, 2017 год



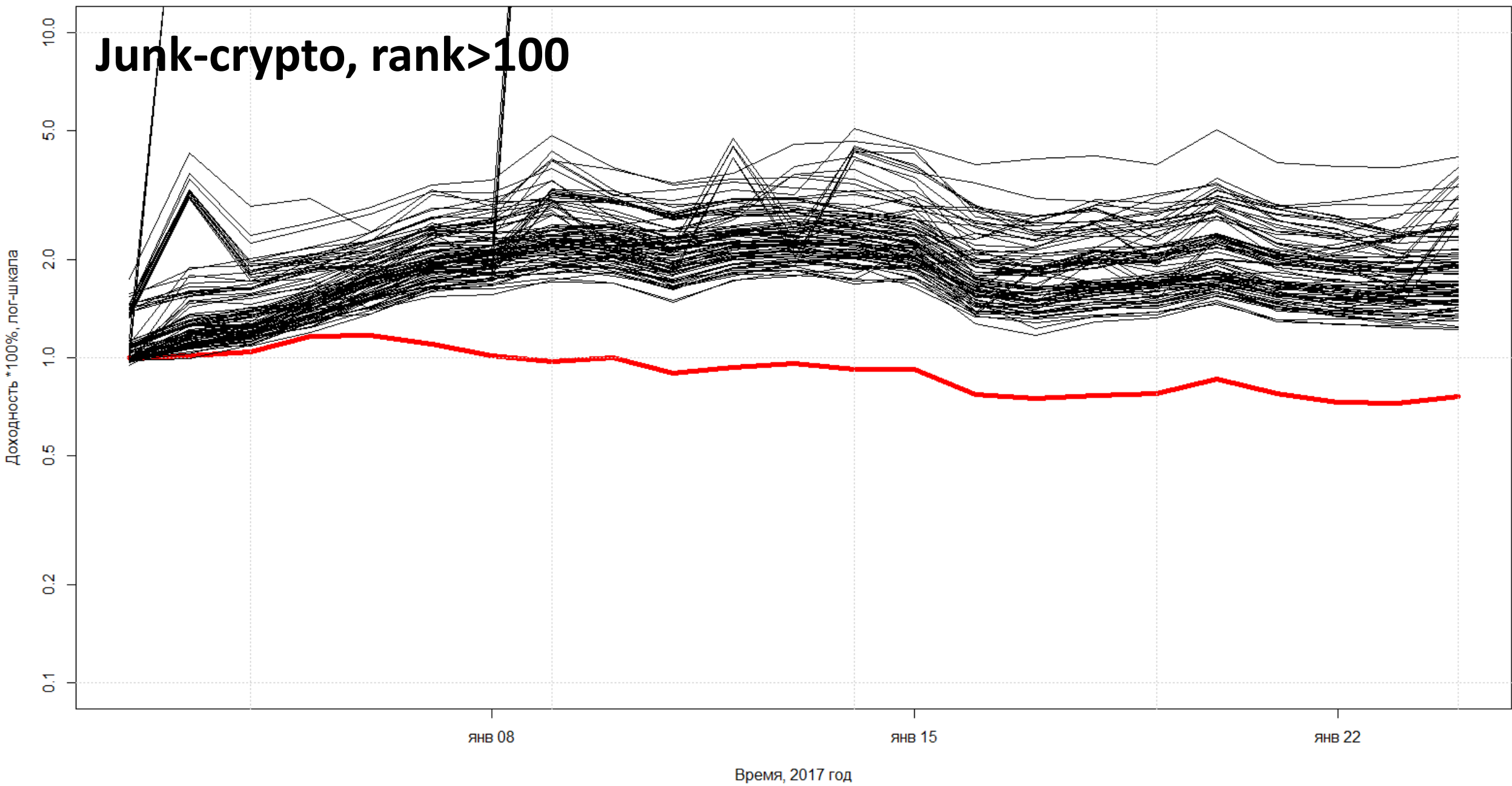
Топ 20 по капитализации



Топ 100 по капитализации



Junk-crypto, rank>100

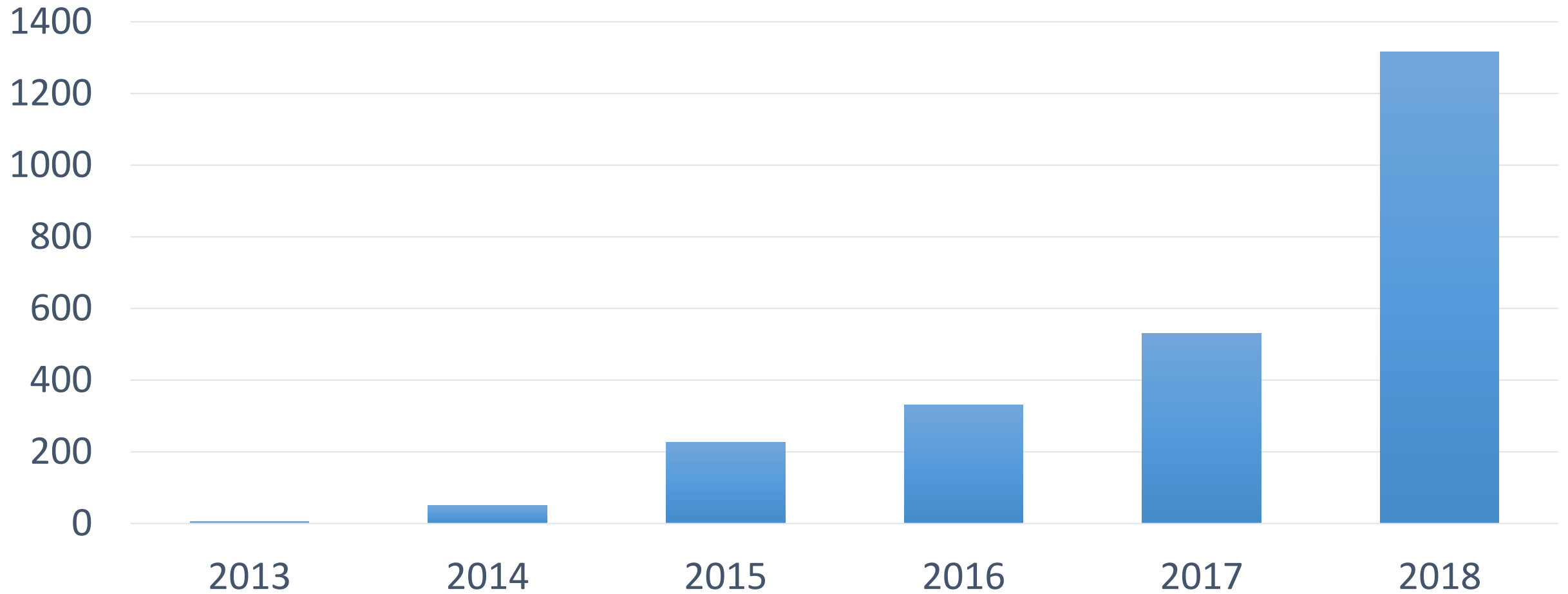


Data

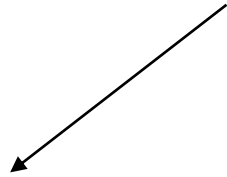
apr 2013 – jan 2018

coinmarketcap.com

Number of coins

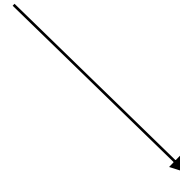


Market (Crypto) index



S&P 500

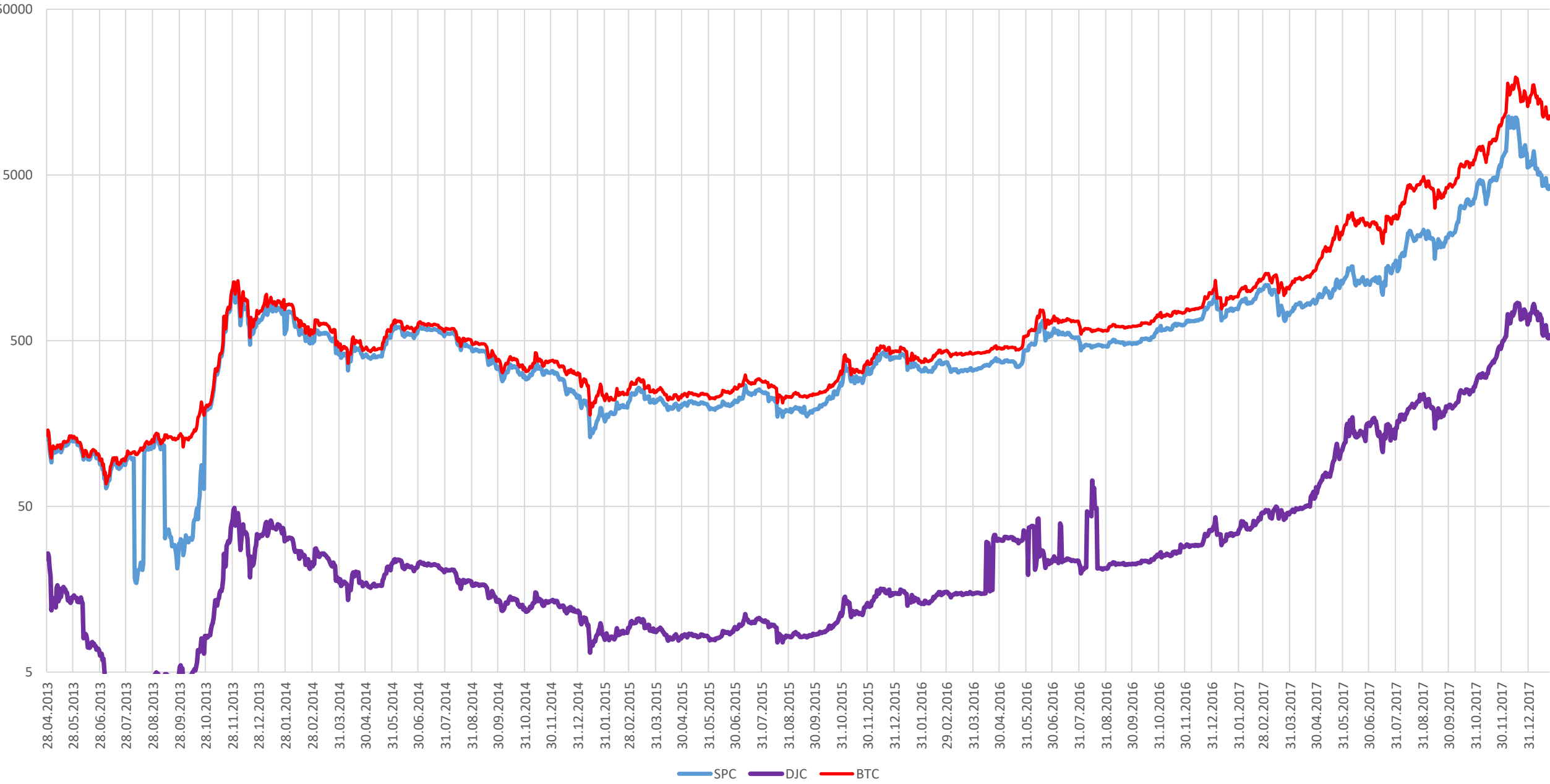
capitalization-weighted index of 500 largest US company; that is, movements in the prices of stocks with higher market capitalizations have a greater impact on the value of the index than do companies with smaller market caps



DJIA

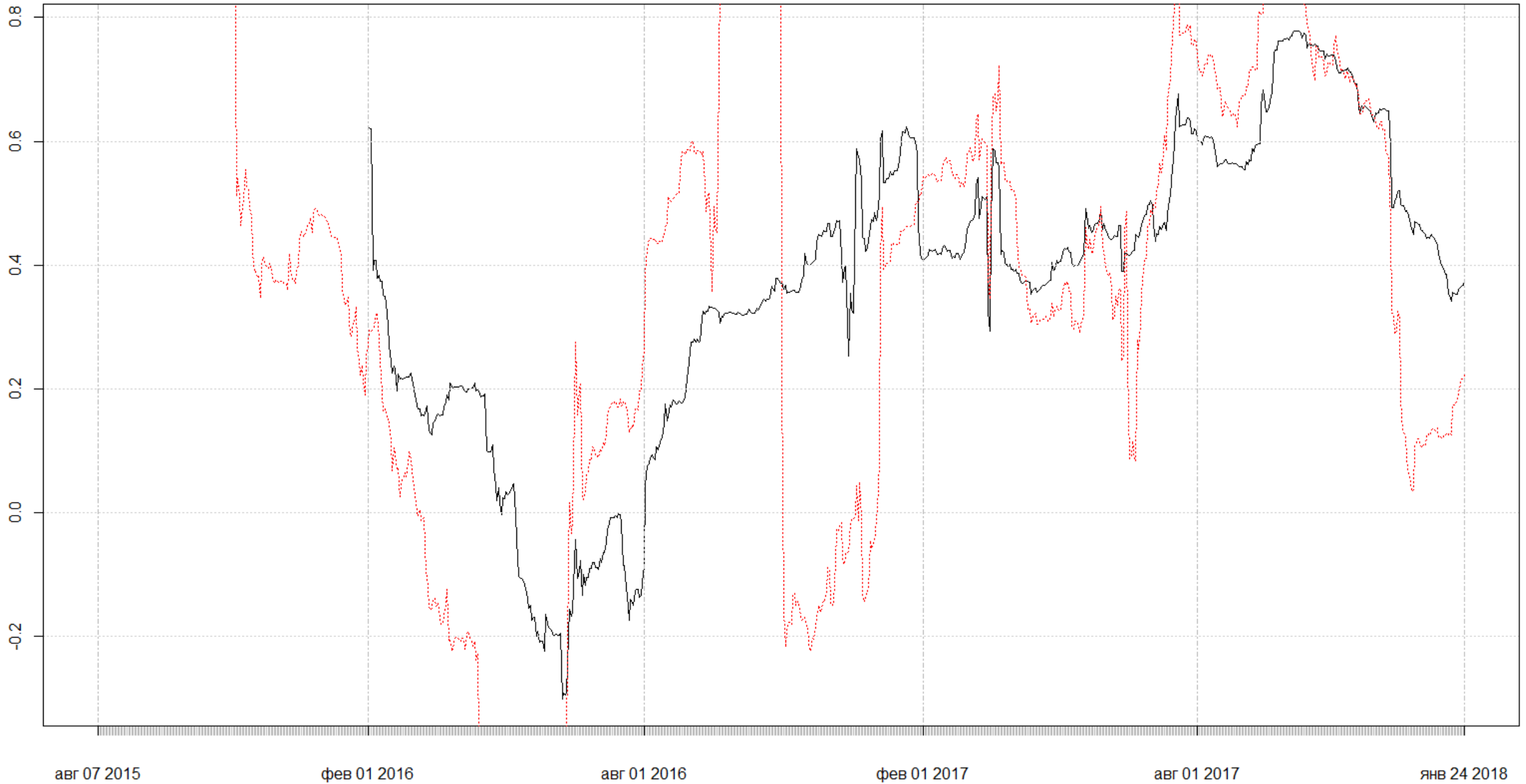
DJIA - a simple arithmetic average price of 30 biggest stocks

Dow Jones Crypto (DJC) and S&P Crypto 500 (SPC500)



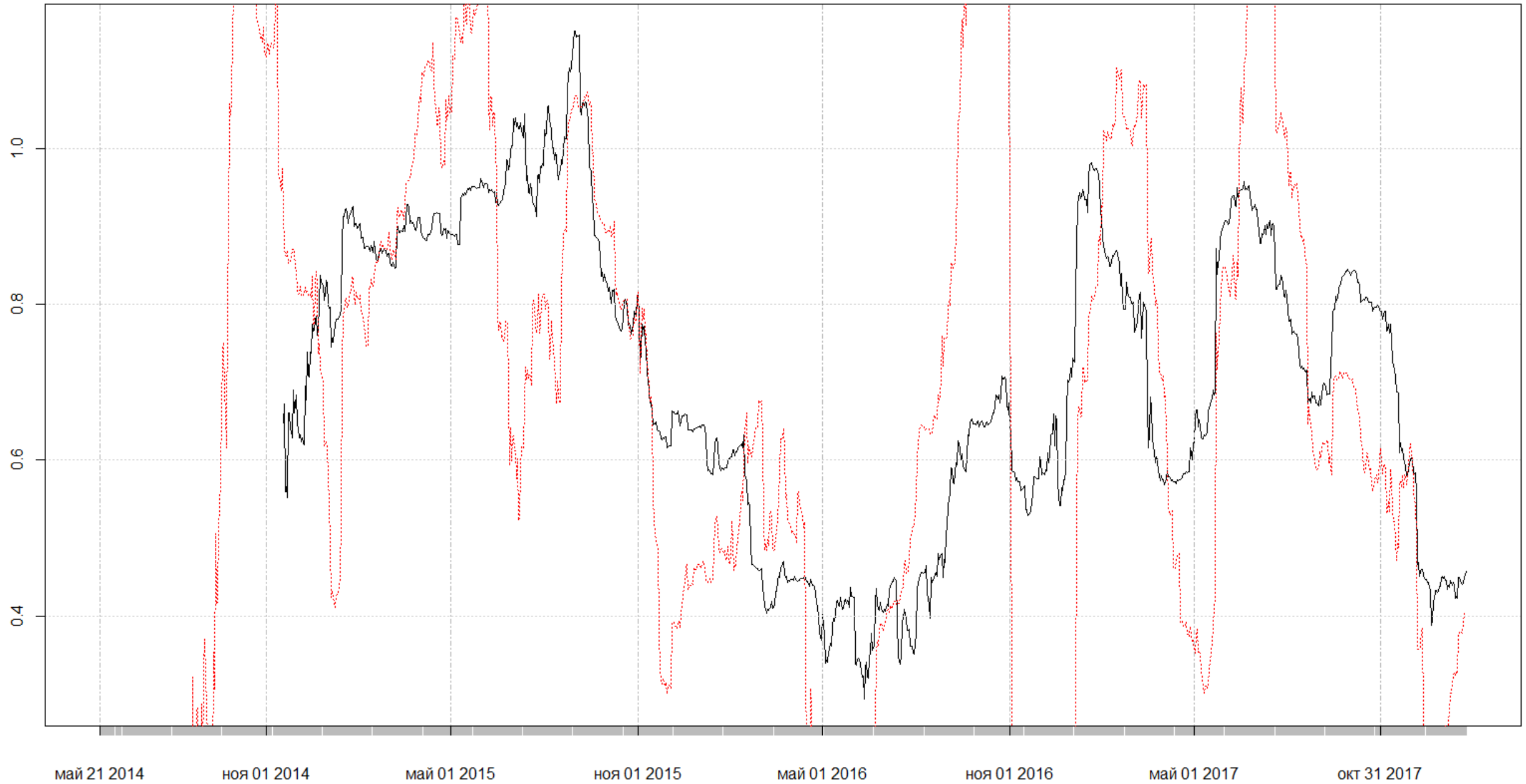
Ethereum beta dynamics

ETH beta



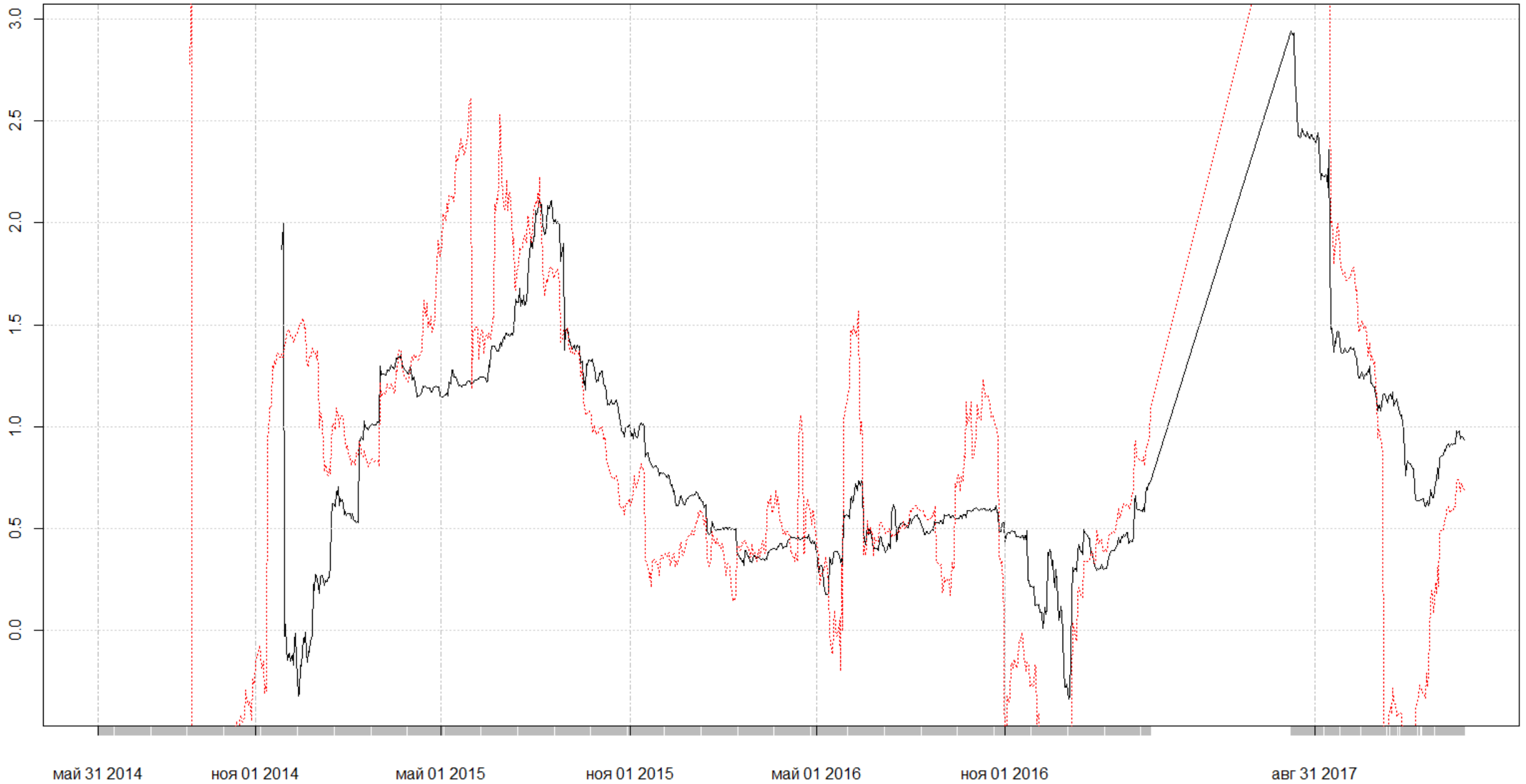
Monero beta dynamics

XMR beta



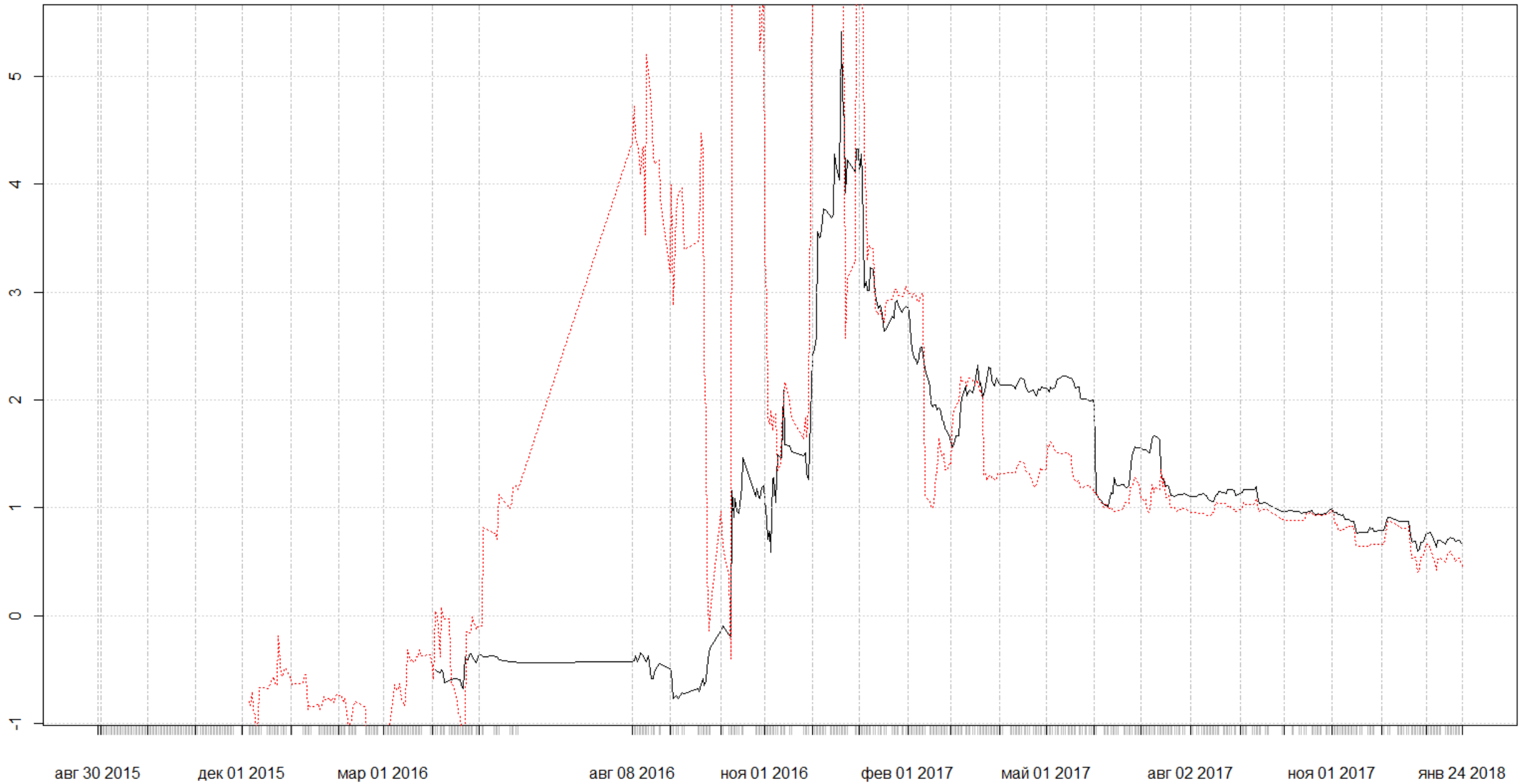
Hyper beta dynamics

HYPER beta



DeltaCredits beta dynamics

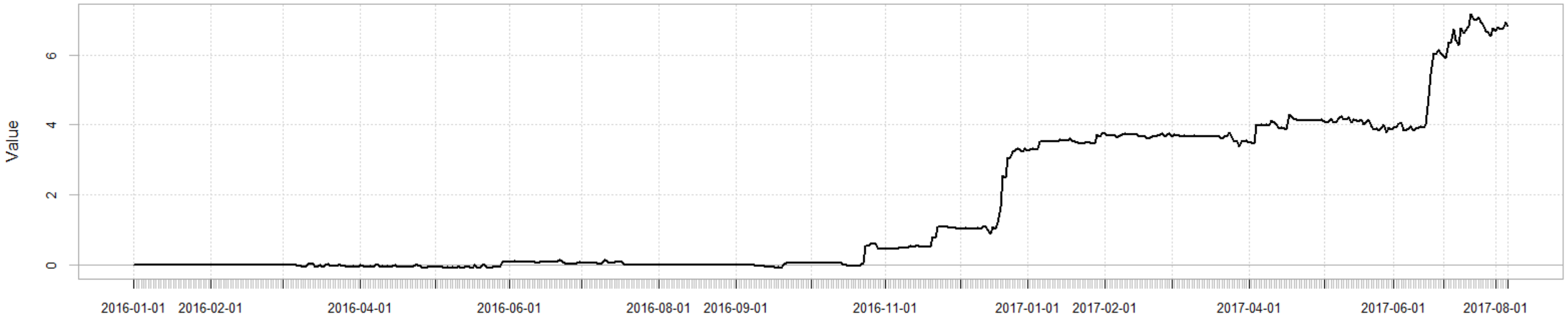
DCRE beta



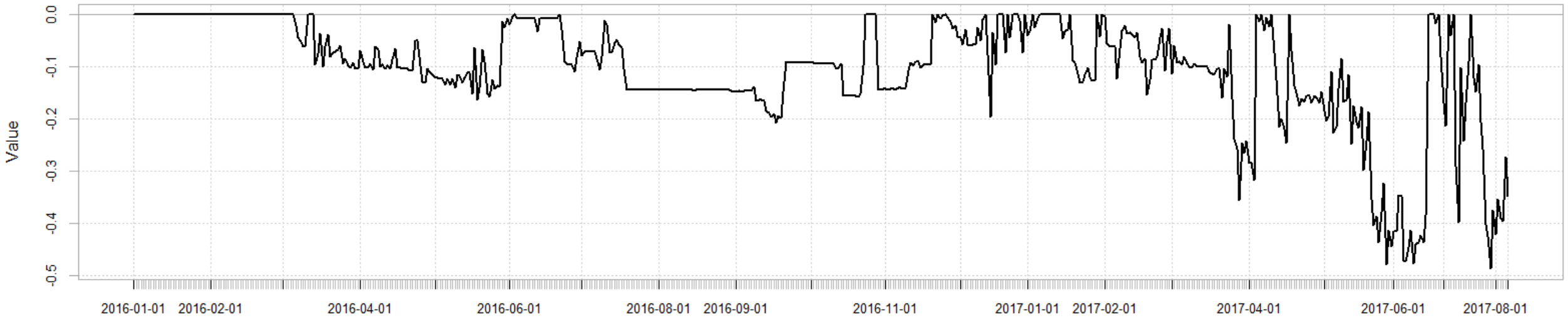
High beta invest

1.91915294842987

5% per position



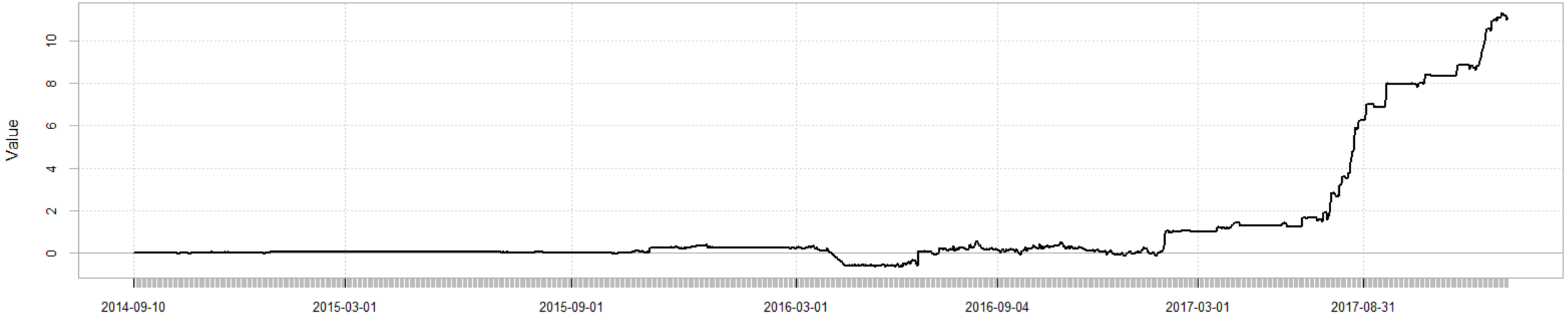
Drawdown from Peak Equity Attained



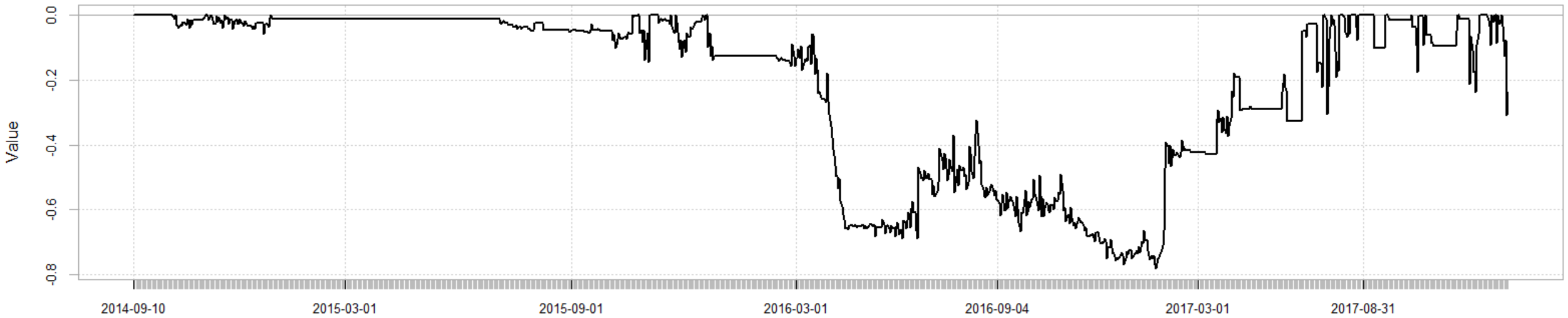
Low beta invest

1.78718040020221

5% per position

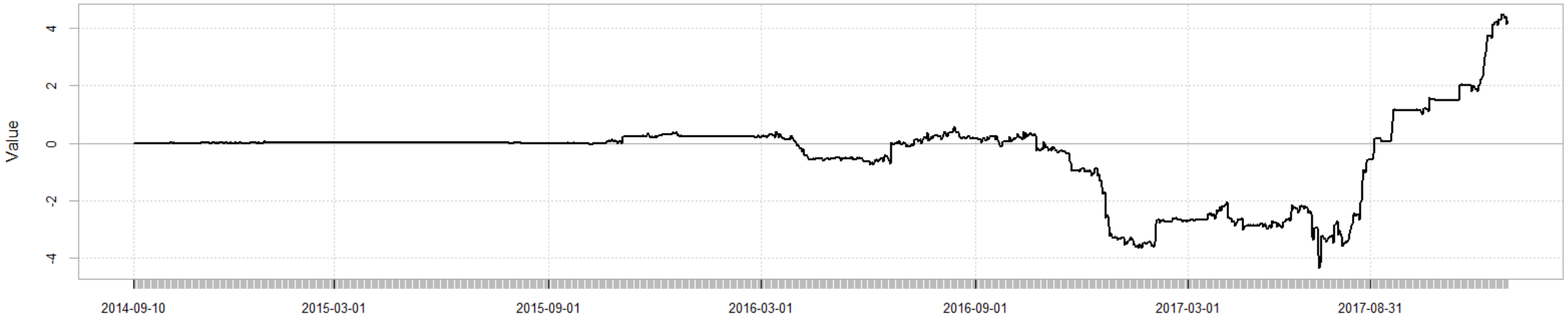


Drawdown from Peak Equity Attained

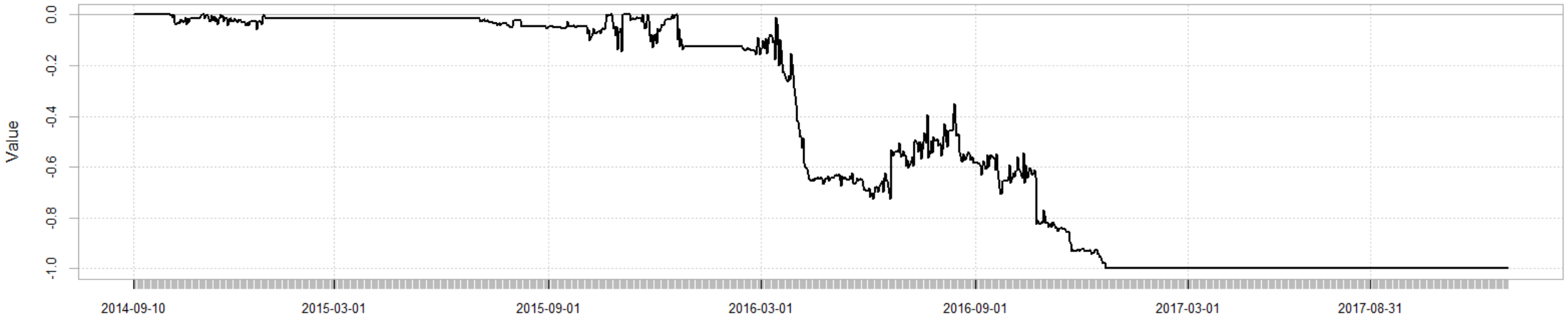


Beta-arbitrage strategy

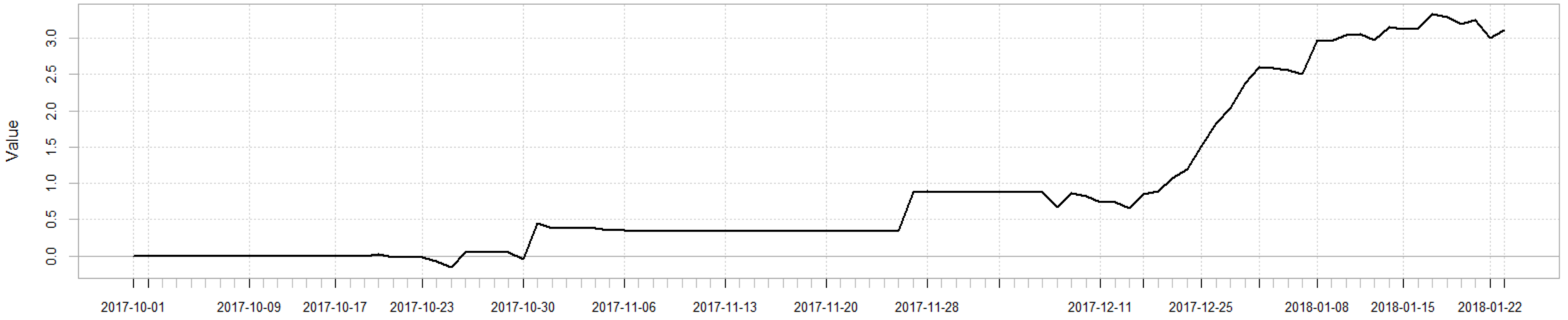
0.513235320080015



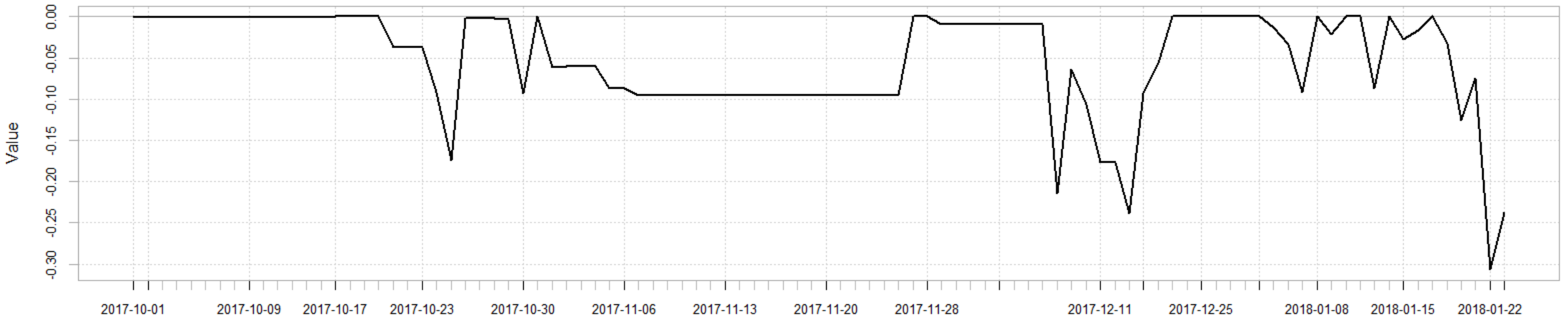
Drawdown from Peak Equity Attained



4.09892861392818



Drawdown from Peak Equity Attained



Thank you for your
attention!