

Dividend strategy: towards to the efficient market

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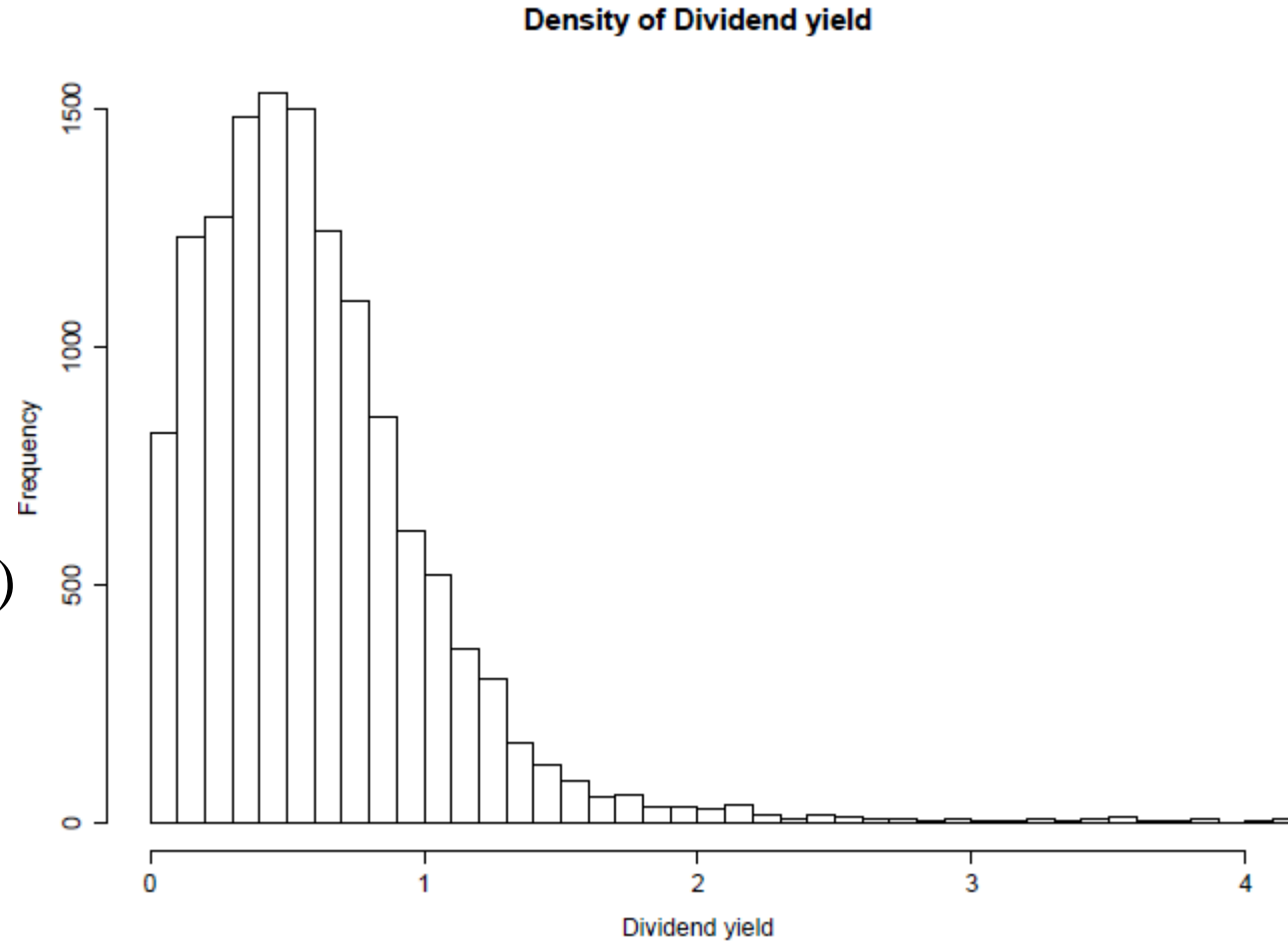
Ex-dividend date

- ✓ Ex-dividend day anomaly (Campbell, Beranek, 1955)
- ✓ Possible explanation:
 - Tax-effect (Elton, Gruber, 1970)
 - Microstructure effect (Frank, Jagannathan 1998))



Data

- ✓ Period: 2009-2017
- ✓ Universe: 1850 US stocks
- ✓ Periodicity:
 - ✓ Quarterly
 - ✓ Yearly
- ✓ Source:
 - ✓ Yahoo (quantmod package)
 - ✓ Bloomberg (Rblpapi package)
- ✓ Adjusted dividends for adjusted price

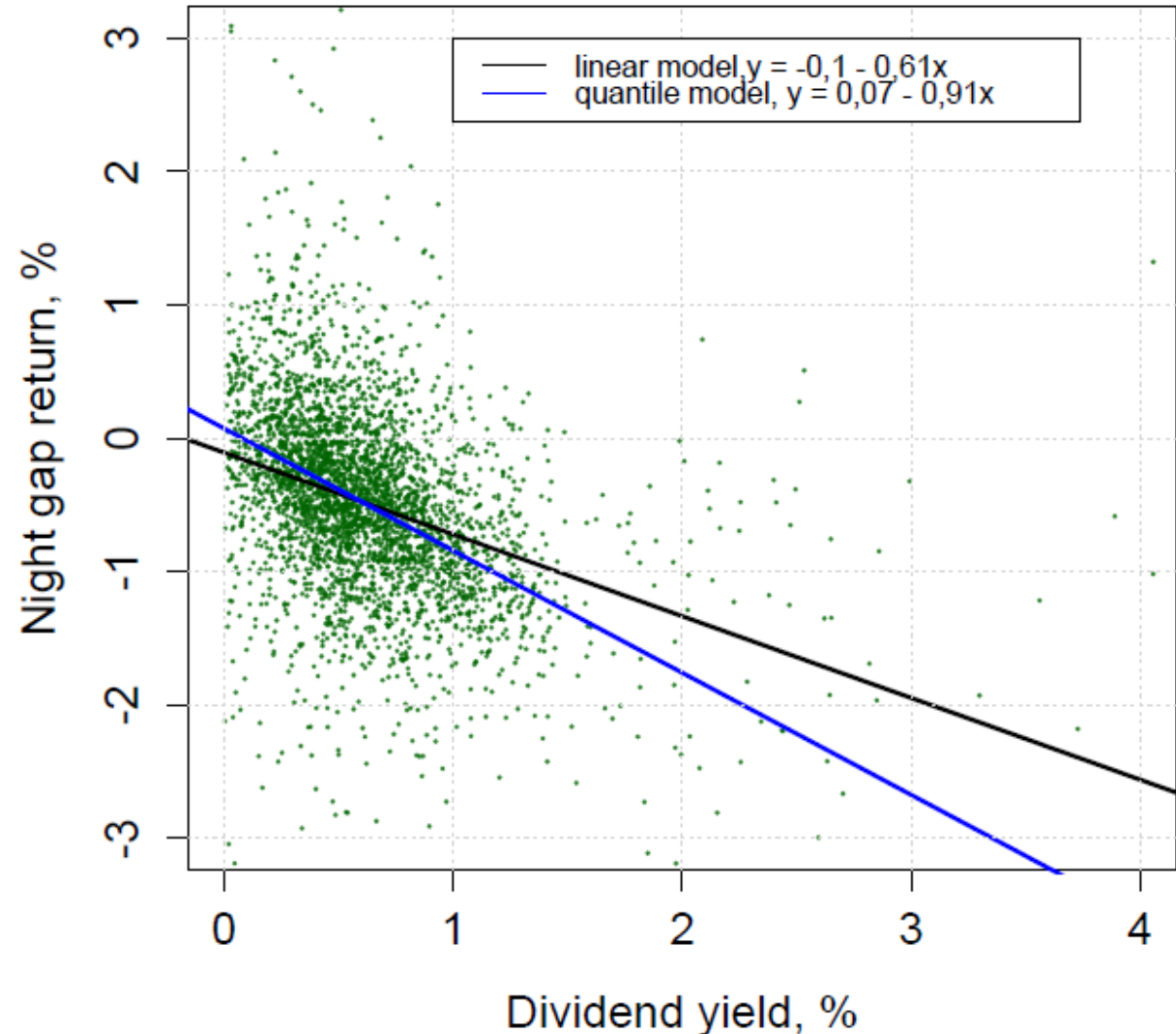


Market efficiency

$$\text{Night gap return} = \text{Open}(\text{ex-div day}) / \text{Close}(\text{ex-div day} - 1) - 1$$

Main conclusions:

- ✓ a negative correlation exists between gap and dividend yields
- ✓ stock price drops less than the dividend payment
- ✓ excluding tax from dividend, gives in median, the size of gap

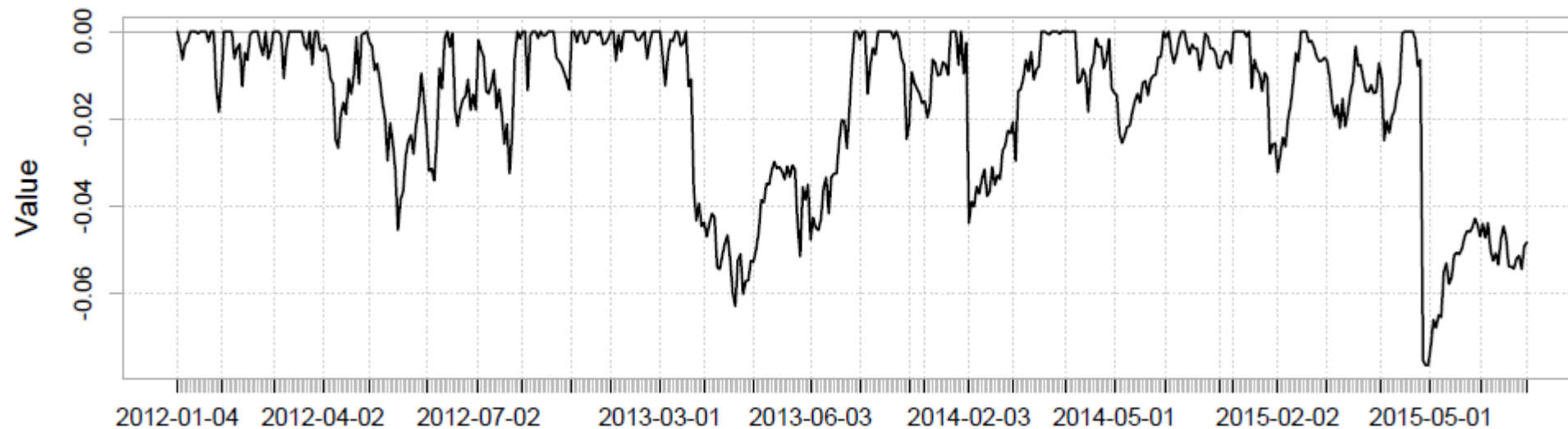


Buy dividends without tax

1.68843472706313



Drawdown from Peak Equity Attained

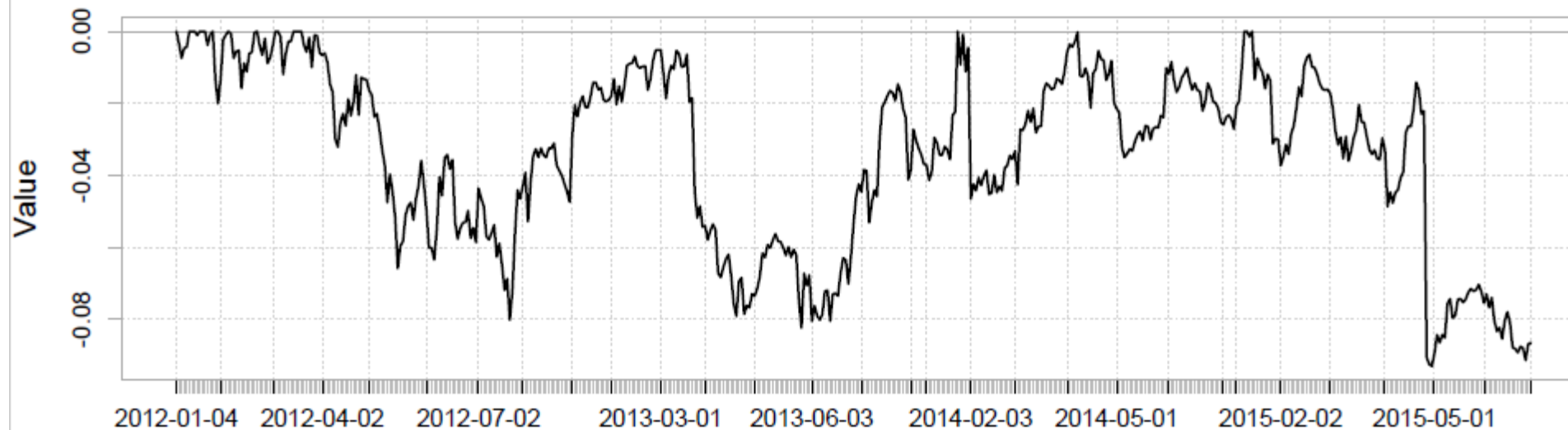


Buy dividends with 10% tax

0.156935626024915



Drawdown from Peak Equity Attained



Prediction of dividend performance after tax

```
Call:
glm(formula = paste("Target ~ ", paste(names(Dividend_train_sample)[logit_factors],
collapse = " + "), sep = ""), family = binomial("logit"),
data = Dividend_train_sample)
```

Deviance Residuals:

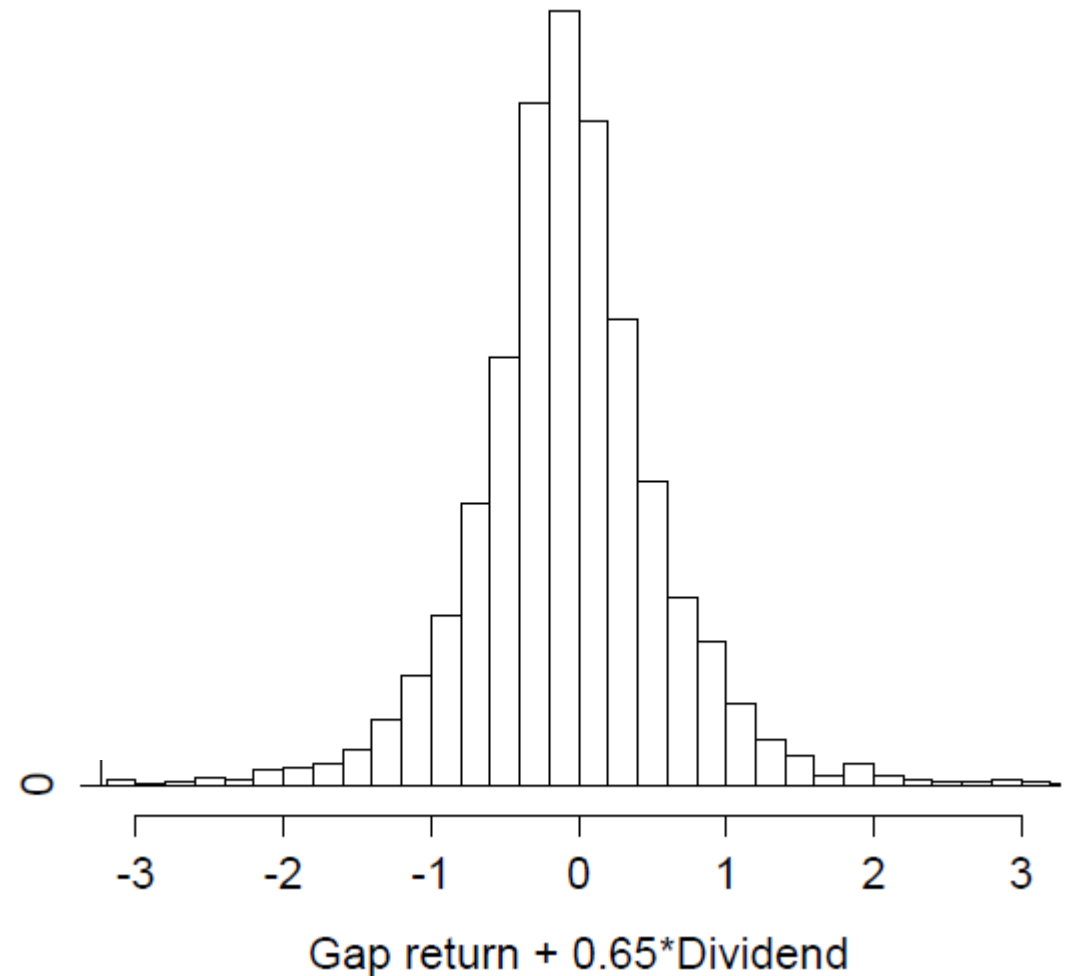
Min	1Q	Median	3Q	Max
-2.6951	-0.8397	-0.3245	0.8634	2.5598

Coefficients:

	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	-0.52087	0.16608	-3.136	0.001712	**
discr_volume	0.13316	0.05043	2.640	0.008287	**
discr_HLC_vol	-0.07480	0.01838	-4.069	4.72e-05	***
discr_MDTV3	-0.12801	0.04964	-2.579	0.009916	**
discr_Morning_runtest	-0.03042	0.01466	-2.075	0.038022	*
discr_Evening_kurtosis	-0.06087	0.01678	-3.627	0.000287	***
discr_Evening_skew	0.33321	0.02095	15.906	< 2e-16	***
relative_dividend	0.25911	0.08129	3.188	0.001435	**
day_return	168.48285	7.29013	23.111	< 2e-16	***

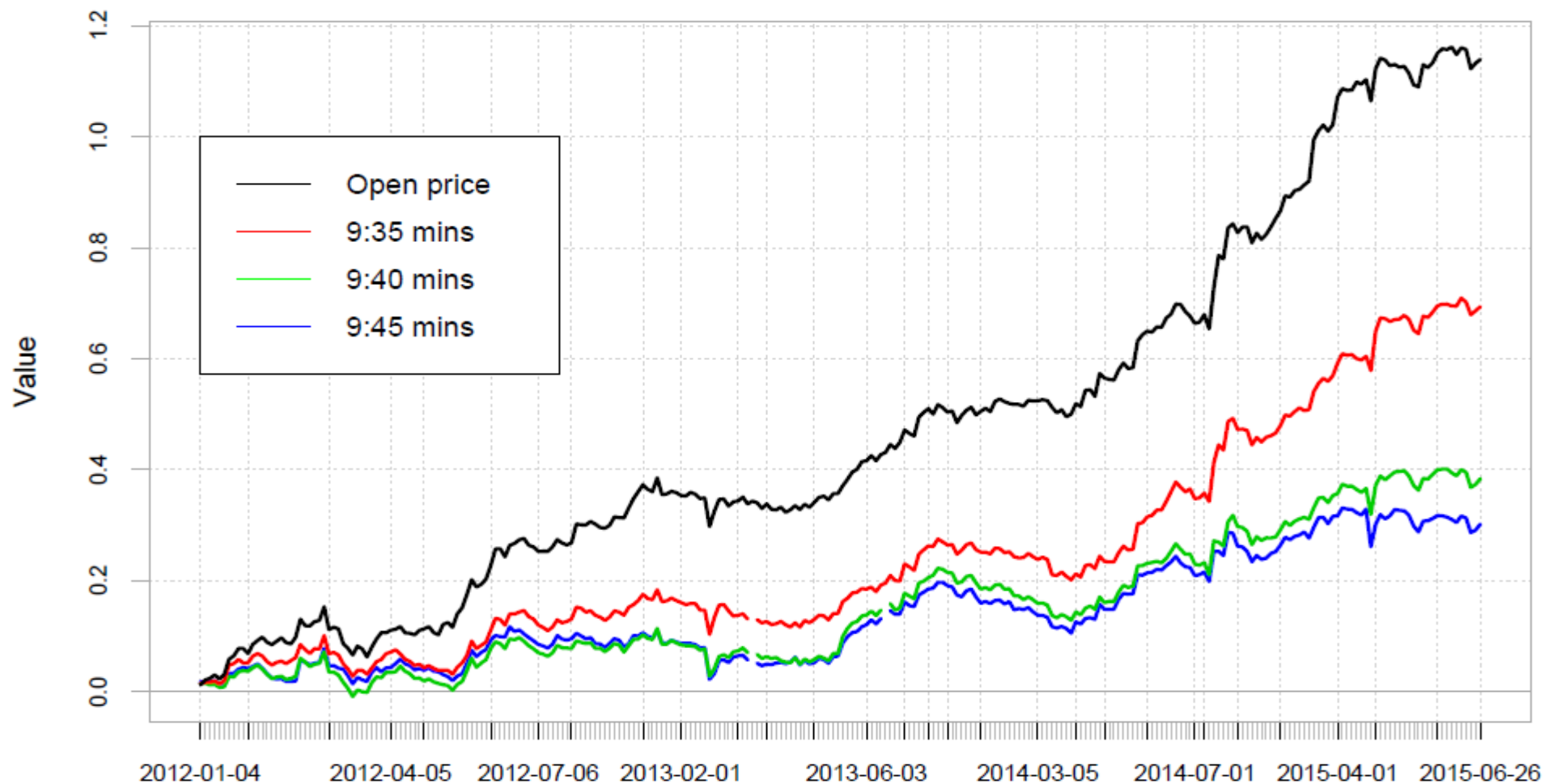
signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)



Result strategy

- ✓ Sensitive to execution (Sharpe from 2 to 0.6)
- ✓ Commission per trade 2 b.p. + Slippage per trade 2 b.p.
- ✓ Capacity of strategy



Thank you for your
attention!