Dividend strategy: towards to the efficient market

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R/Finance 2017: Applied Finance with R
May 20, Chicago, IL, USA
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

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

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
Buy dividends with 10% tax
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   0.008387 **
discr_hlc_vol            -0.07480    0.01838   -4.069   4.72e-05 ***
discr_mdtv3              -0.12301    0.04964   -2.479   0.013016 **
discr_Morning_runtest    -0.03042    0.01456   -2.075   0.038022 *
discr_Evening_kurtosis   -0.05087    0.01678   -3.027   0.002387 ***
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 ***

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signif. codes:  
  ‘***’ 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)
✓ Capacity of strategy
Thank you for your attention!