Data Appendix

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The following data summarizes the properties of the collected data and variables. All data is from either the Bloomberg or Yahoo finance. There is total 161 observation.

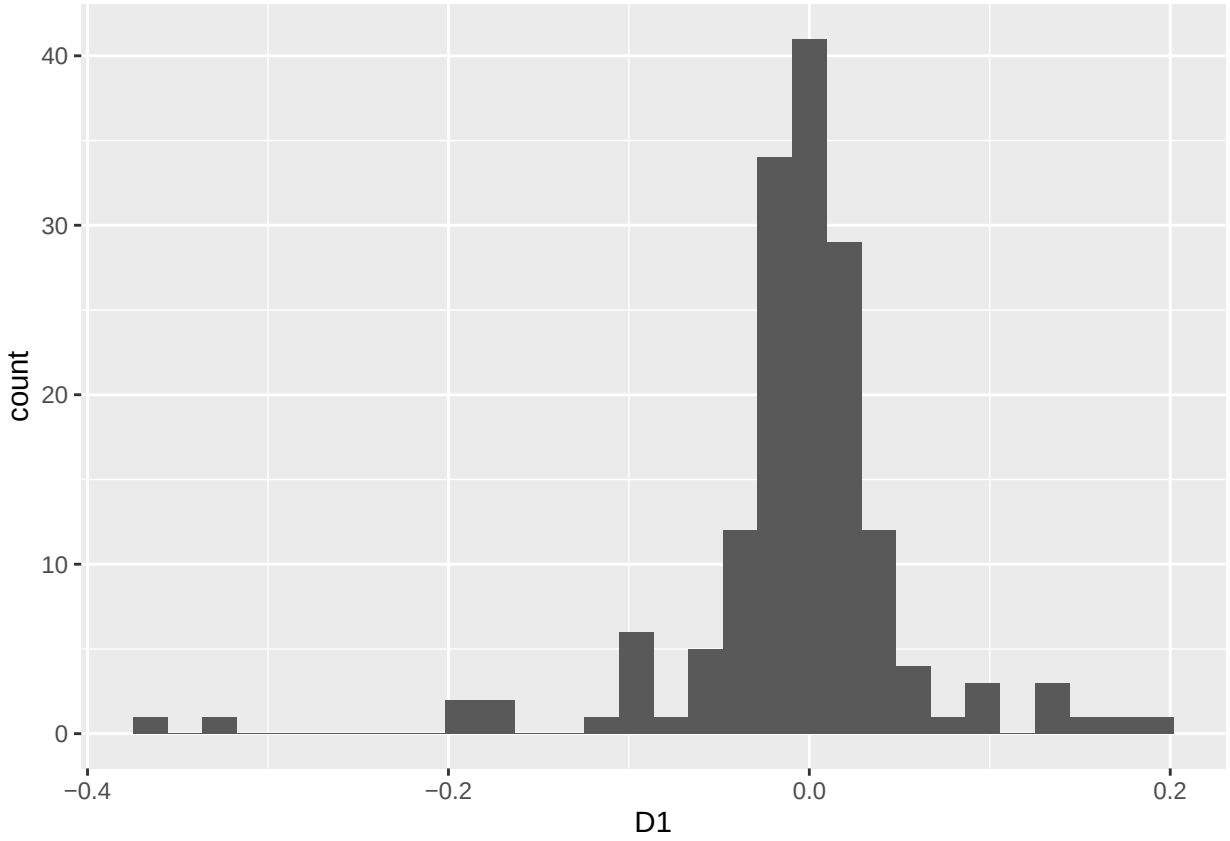
```
##
## Table 1: Summary Statistics
## ========================================
## Statistic  N   Mean  St. Dev.  Min    Max
## ----------------------------------------
## D1        161 -0.007  0.066   -0.374 0.183
## D2        161 0.005   0.058   -0.266 0.216
## D3        161 0.003   0.036   -0.136 0.133
## D5        161 0.003   0.031   -0.071 0.145
## D10       161 0.007   0.438   -3.784 1.025
## D20       161 0.002   0.025   -0.088 0.101
## Beta      161 1.155   0.400   0.082  2.519
## M1        161 0.002   0.008   -0.018 0.019
## M2        161 0.003   0.010   -0.017 0.019
## M3        161 0.0003  0.010   -0.017 0.019
## M5        161 0.002   0.009   -0.017 0.019
## M10       161 0.001   0.009   -0.020 0.019
## M20       155 0.002   0.005   -0.015 0.013
## ----------------------------------------
```

D1~20: Return of a stock on Day 1~20 of earning report release M1~20: Return of the market on Day 1~20

of earning report release Beta:the linear relationship of the stock related to the market based on historical data Dnews – News Categories — Extremely Bad/Bad/No News/Good/Extremely Good

Now we want to see the stock return's normal distribution.

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

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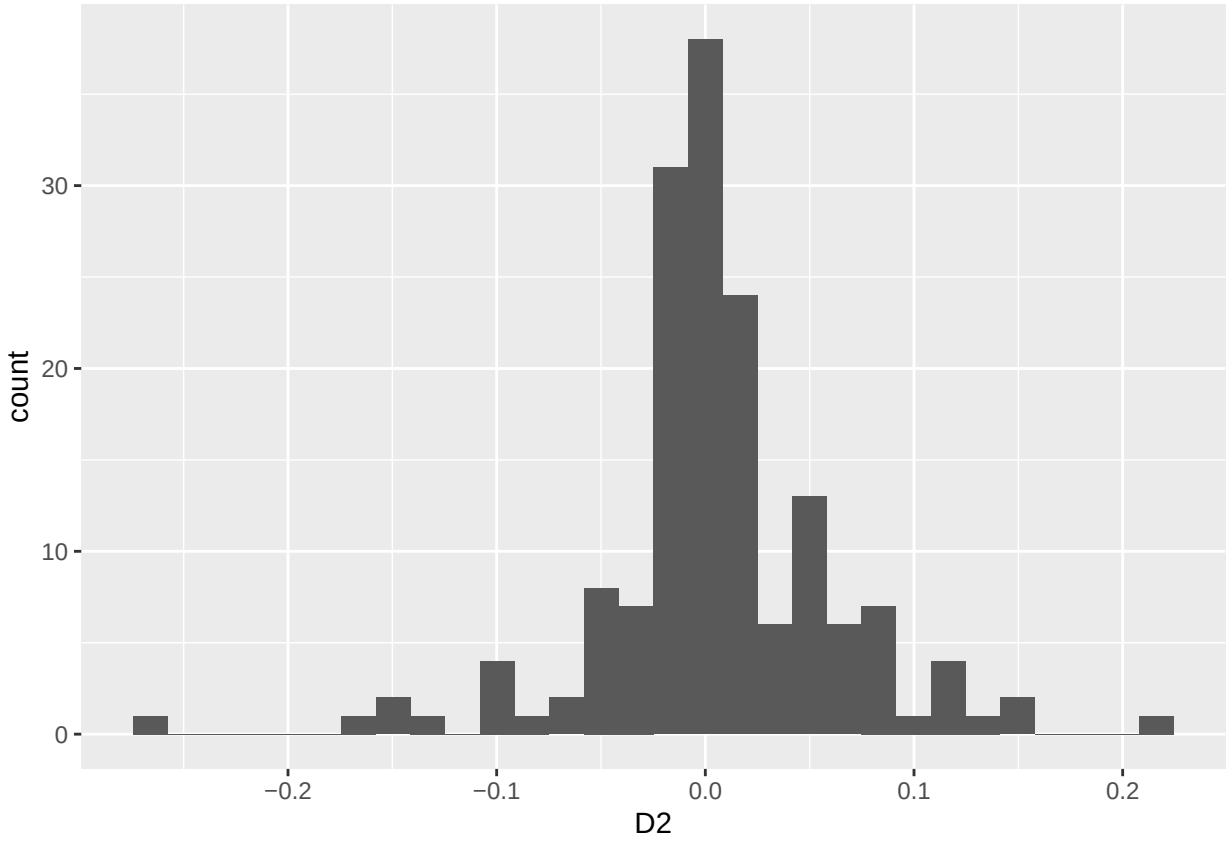


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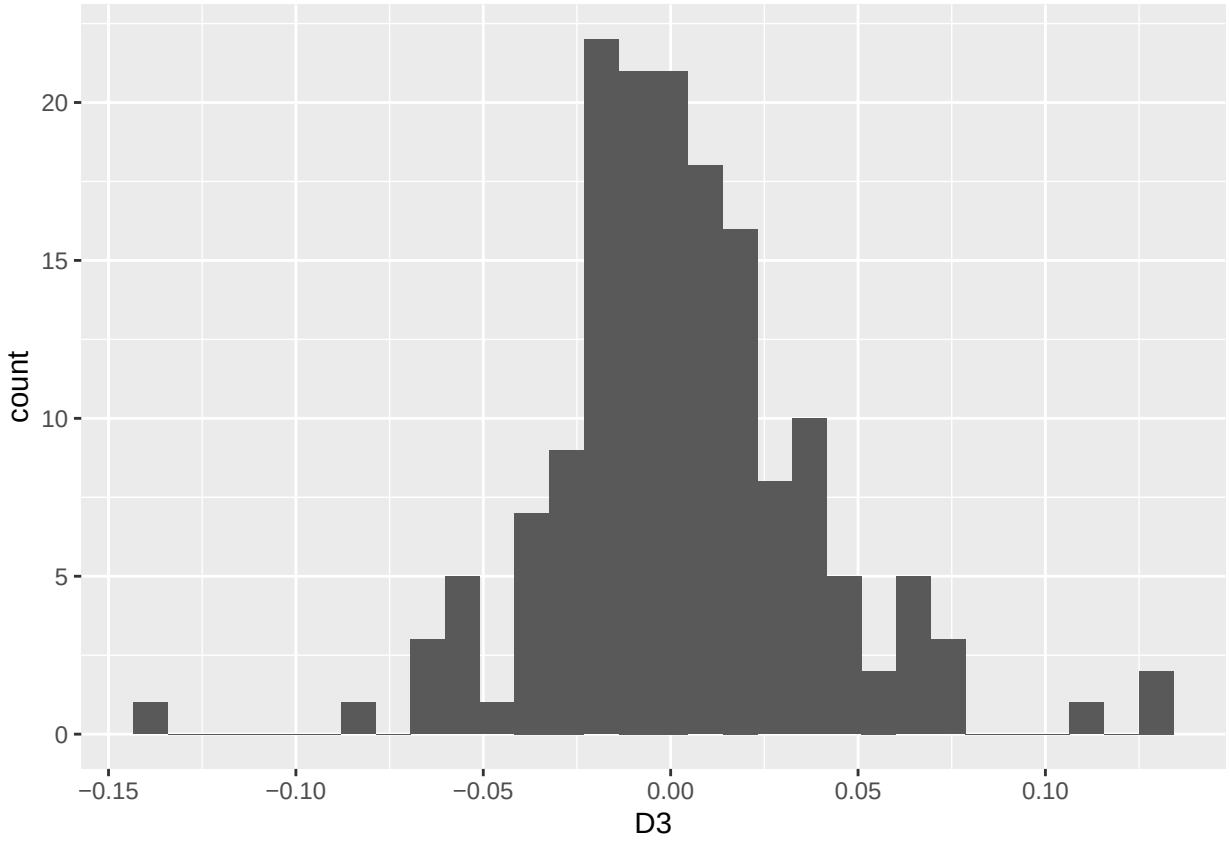
```

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```

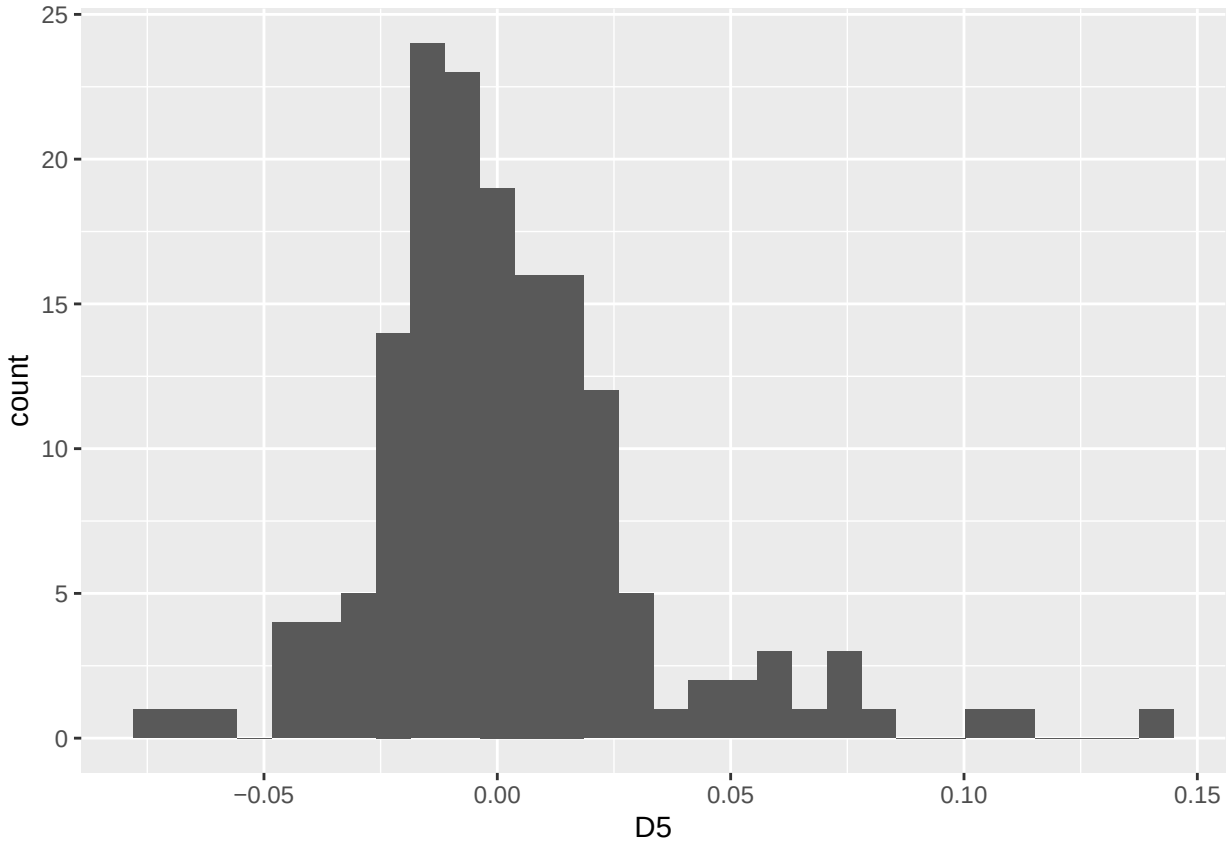


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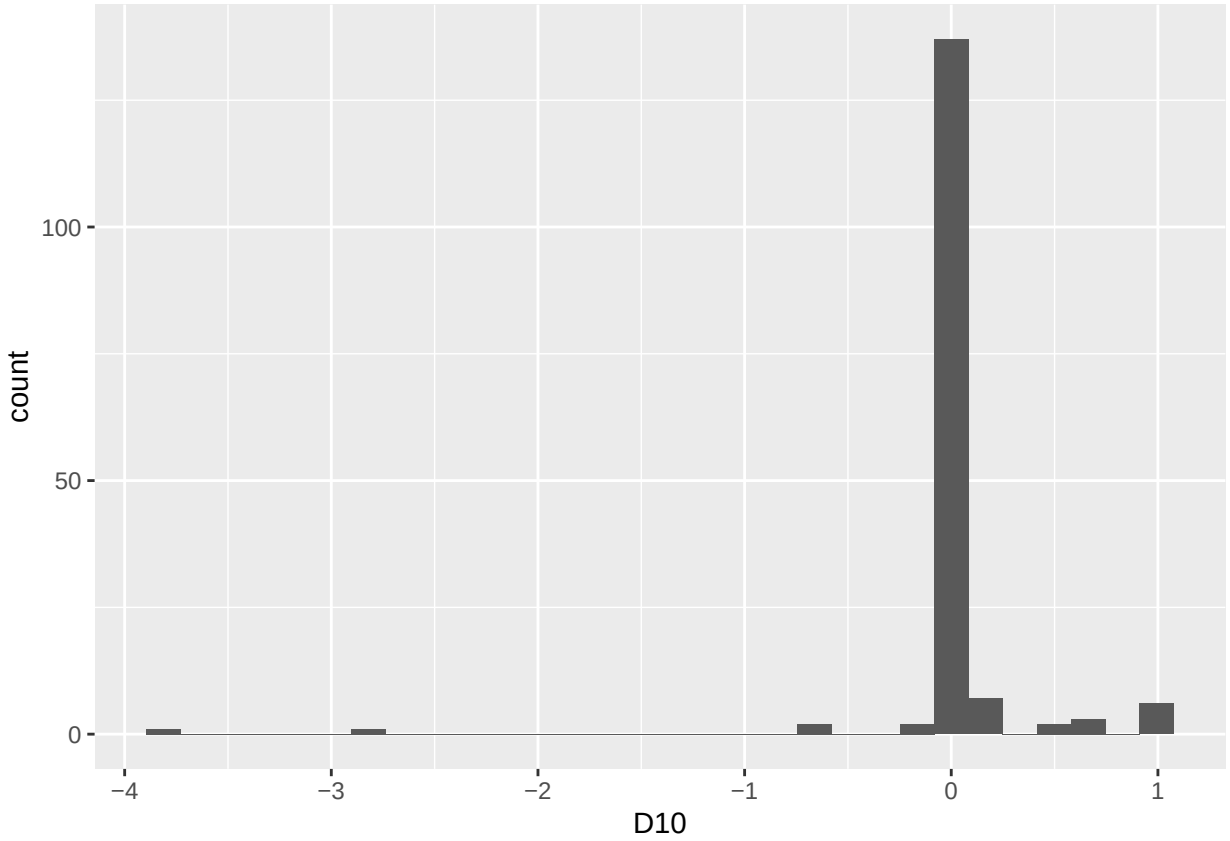
```

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```

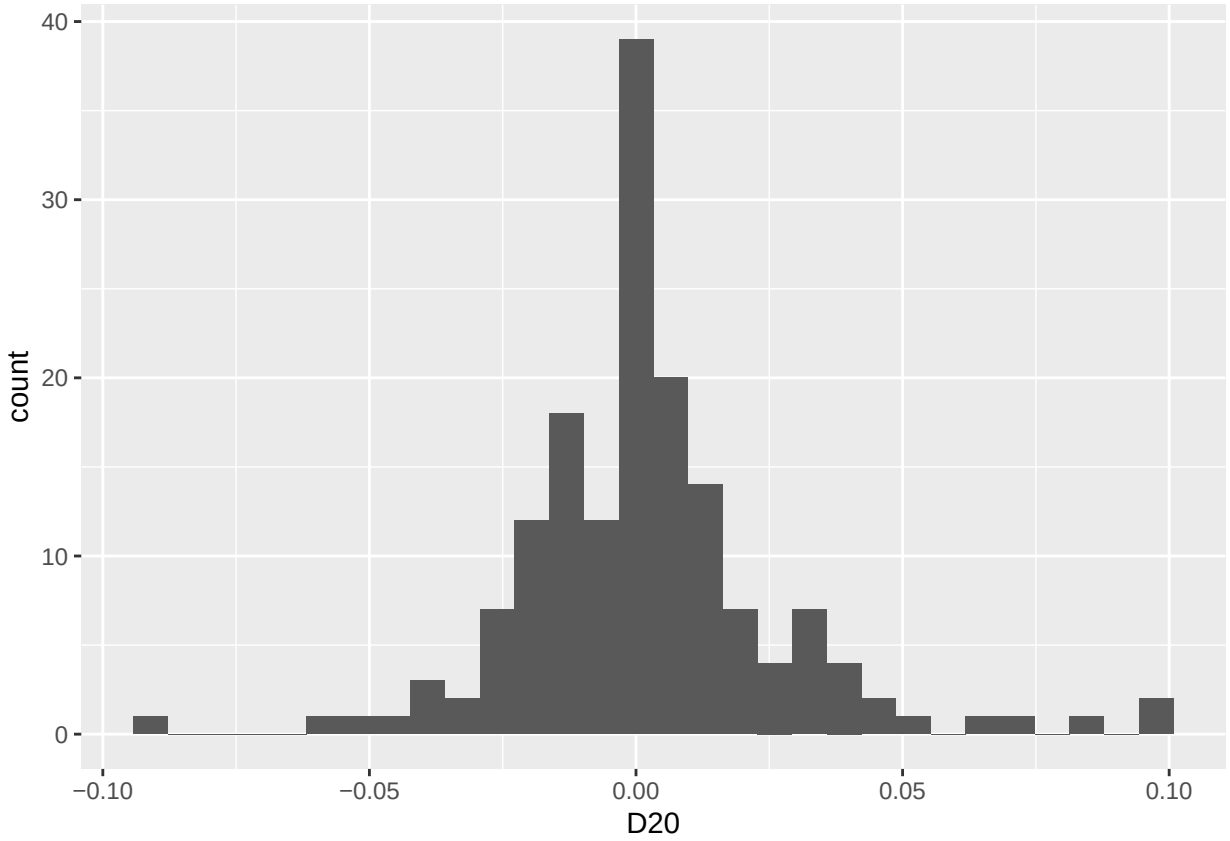

Now we want to see the market return's normal distribution

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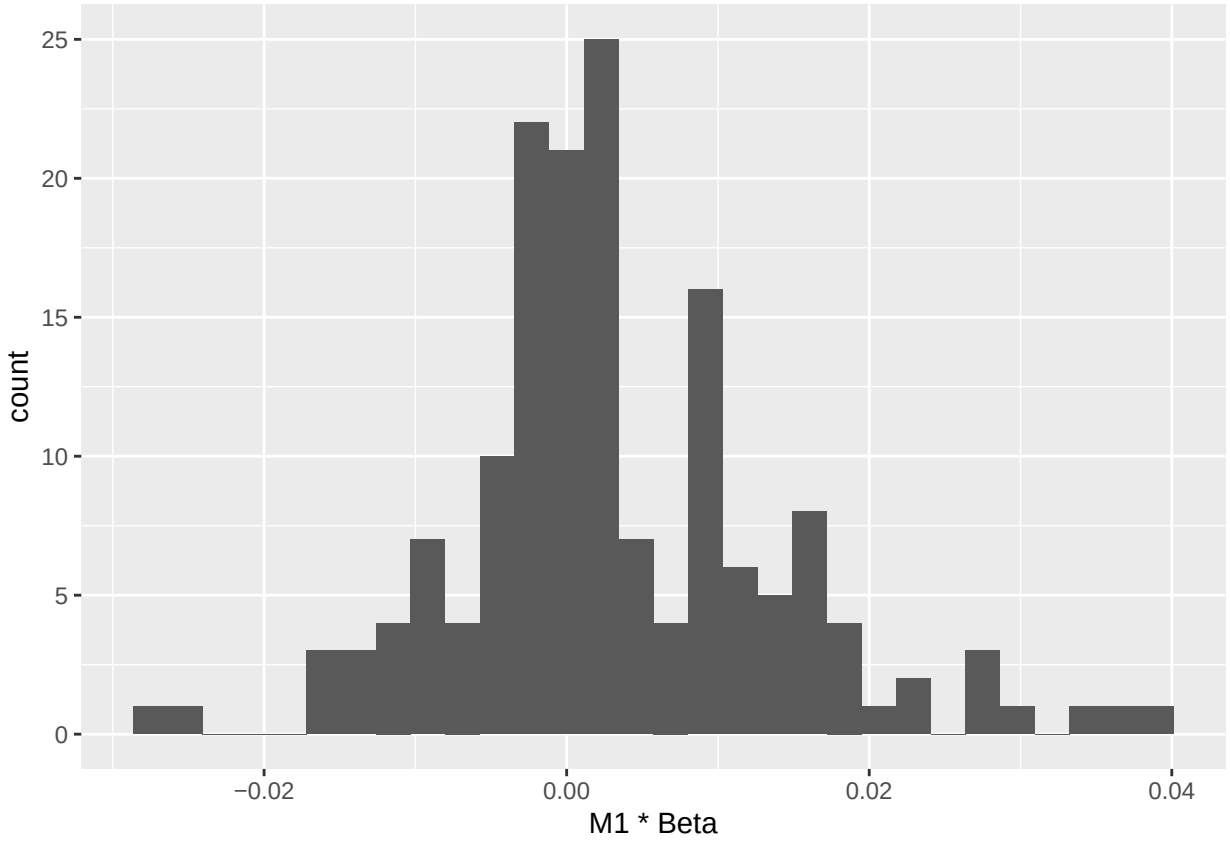


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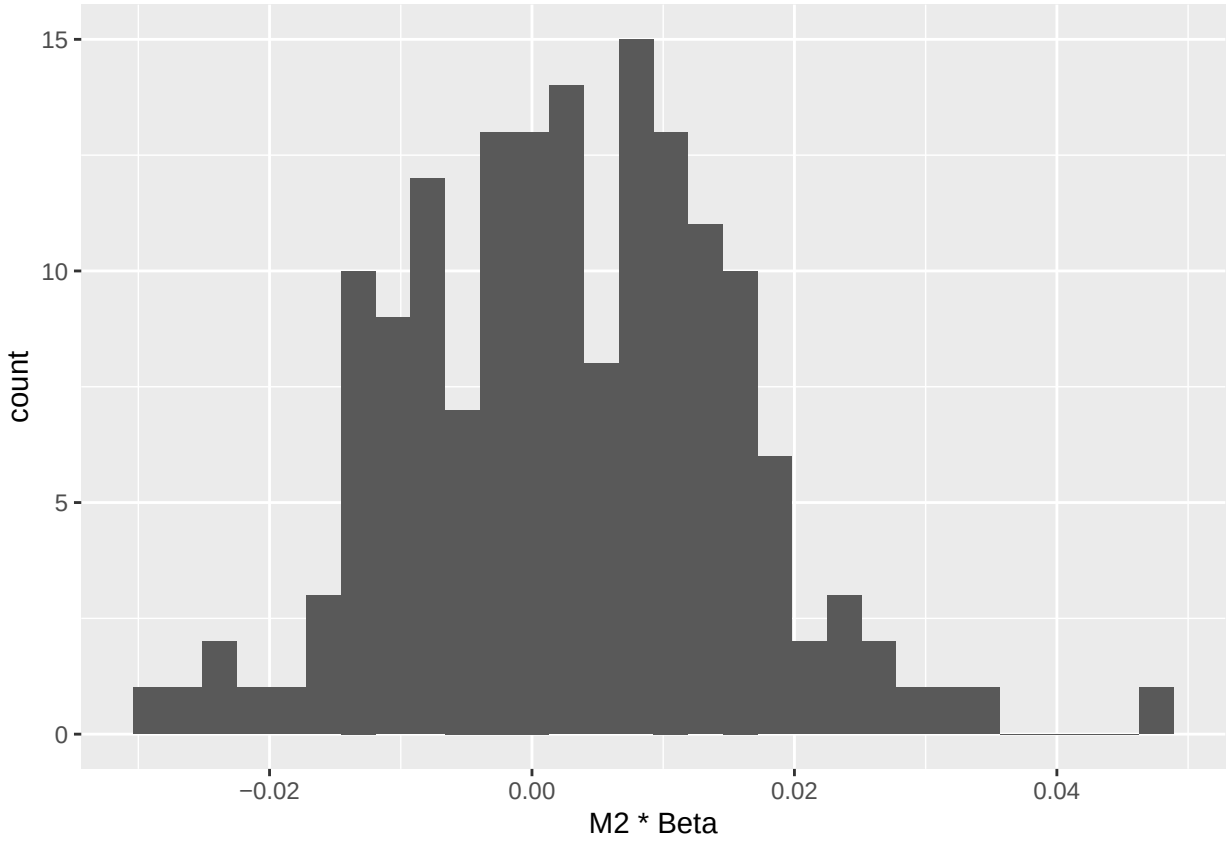
```

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## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```
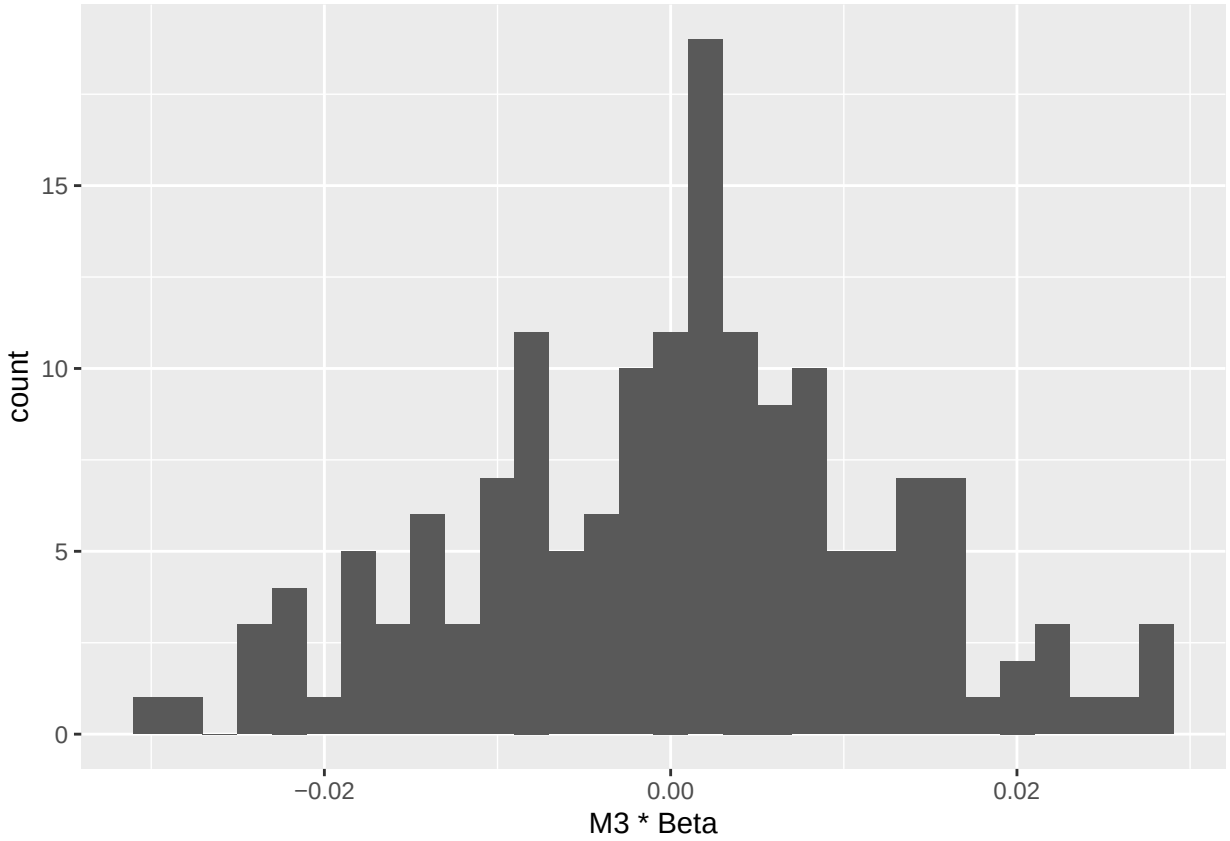
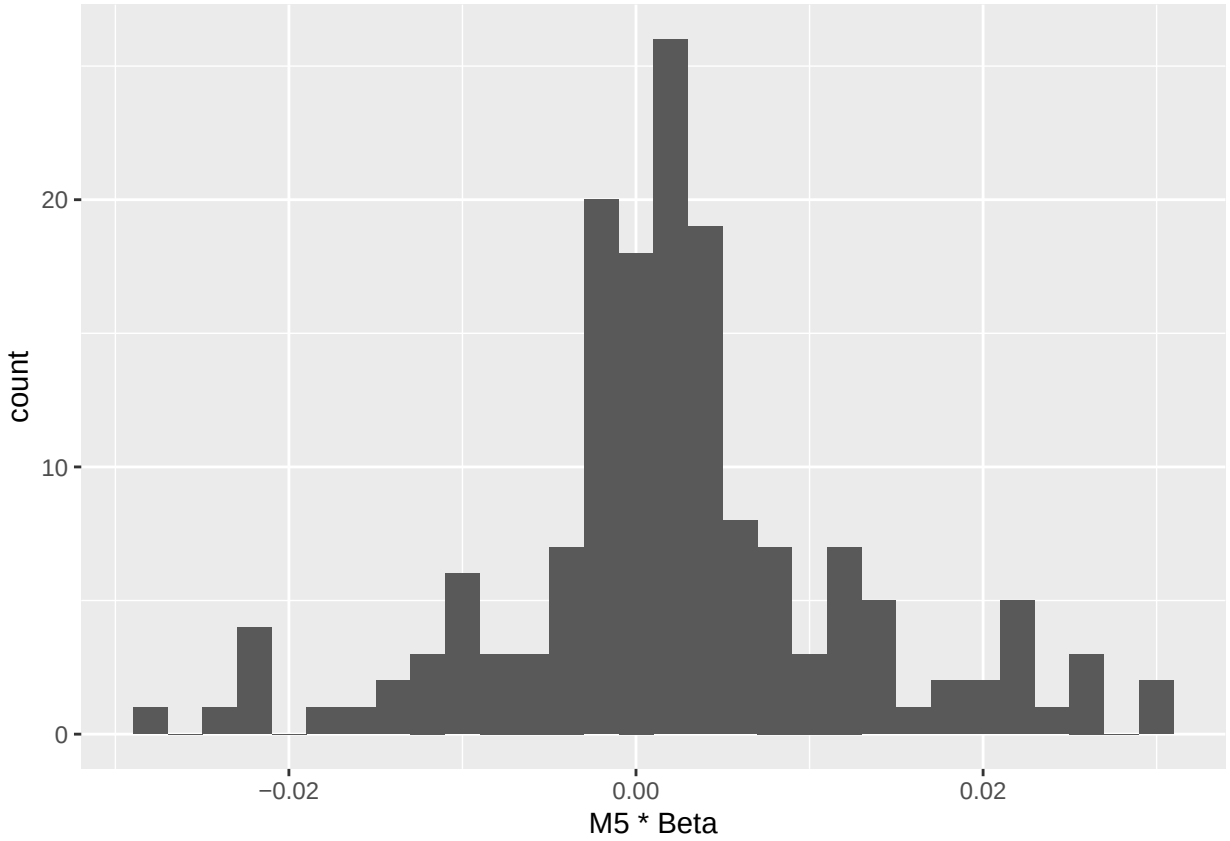
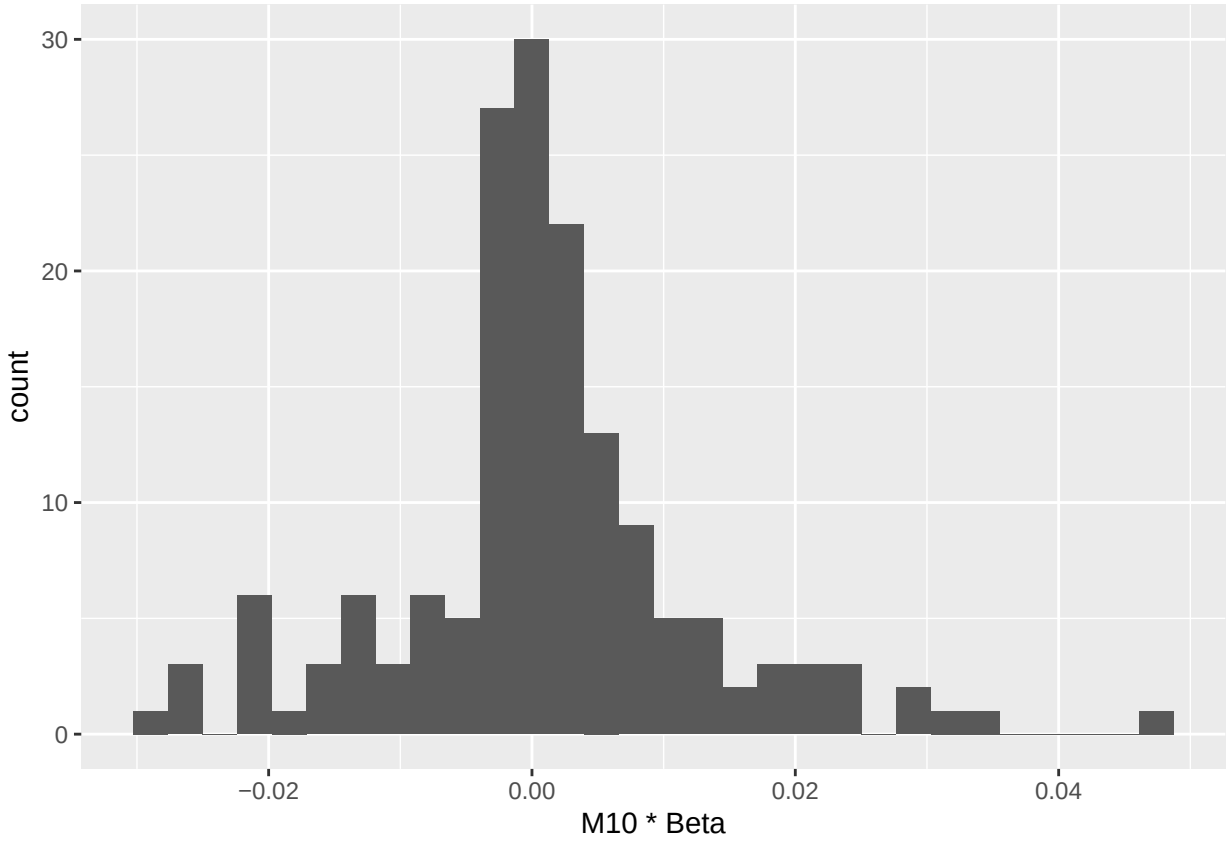



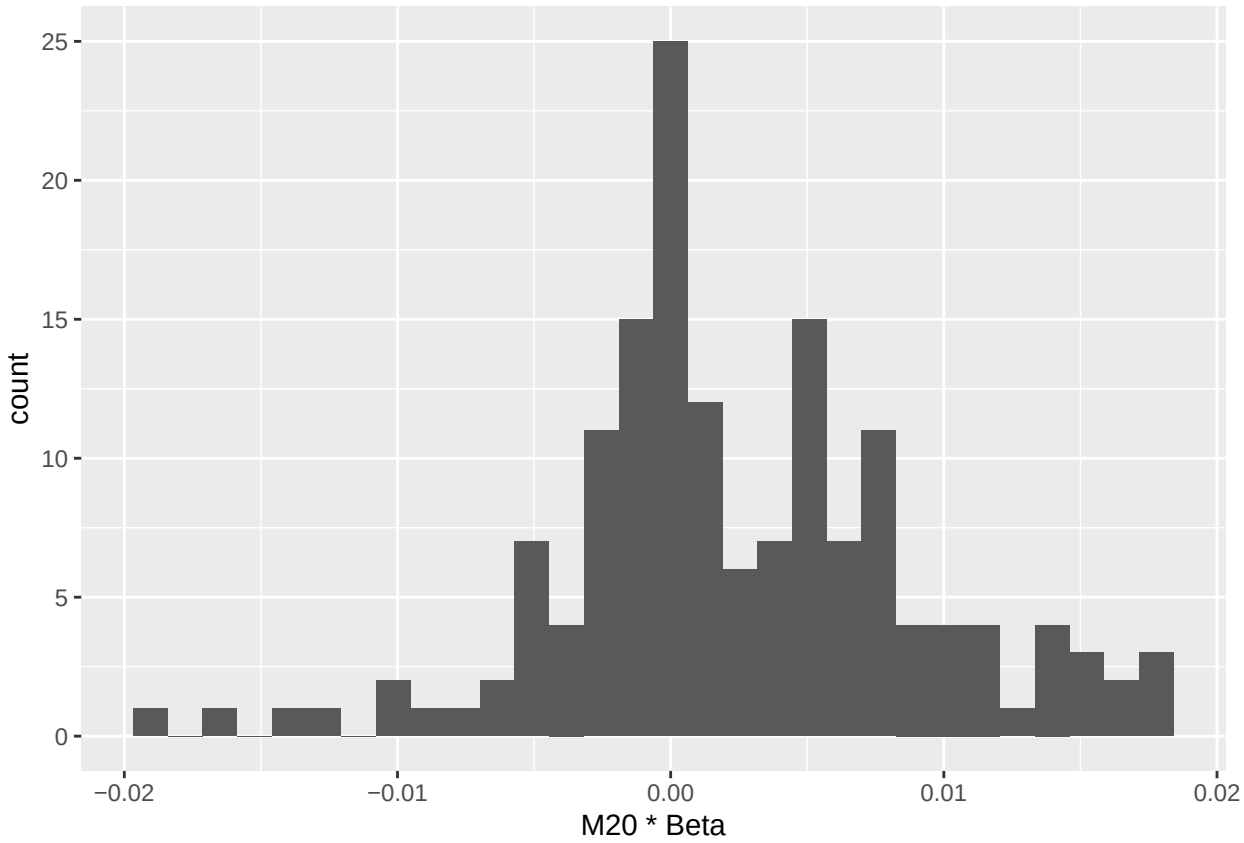

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

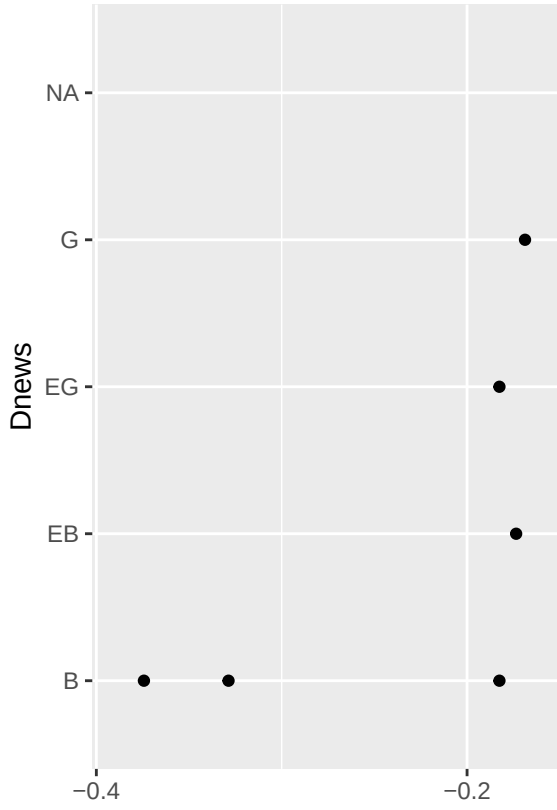



```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

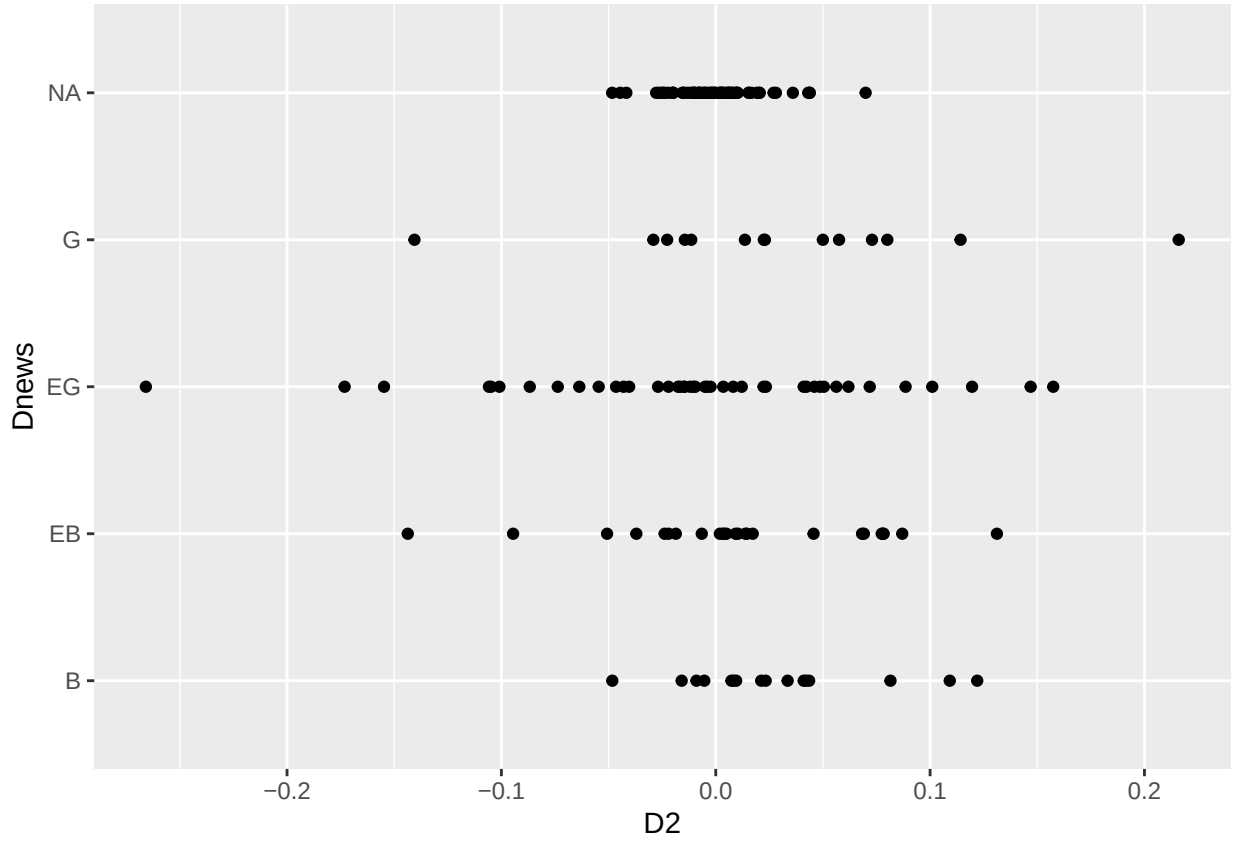


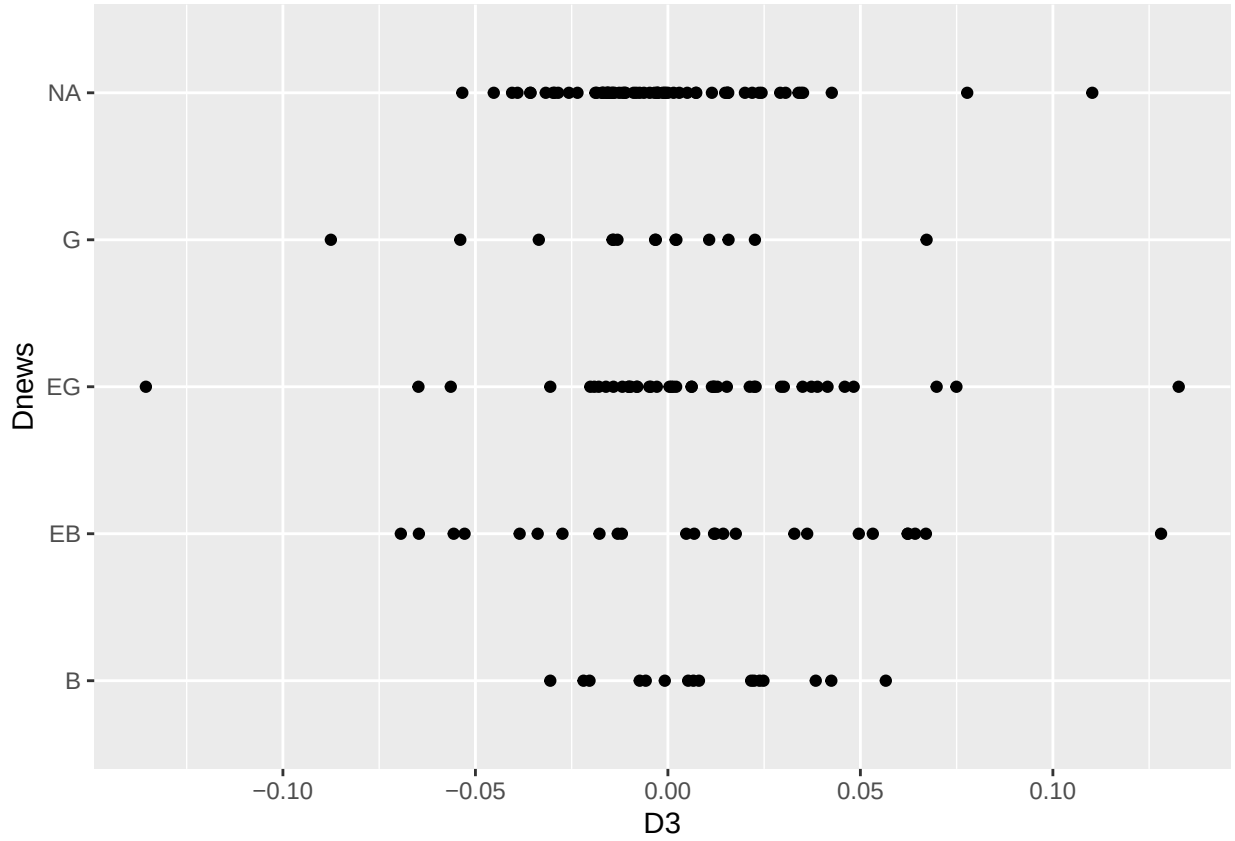

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.

## Warning: Removed 6 rows containing non-finite outside the scale range
## (`stat_bin()`).
```

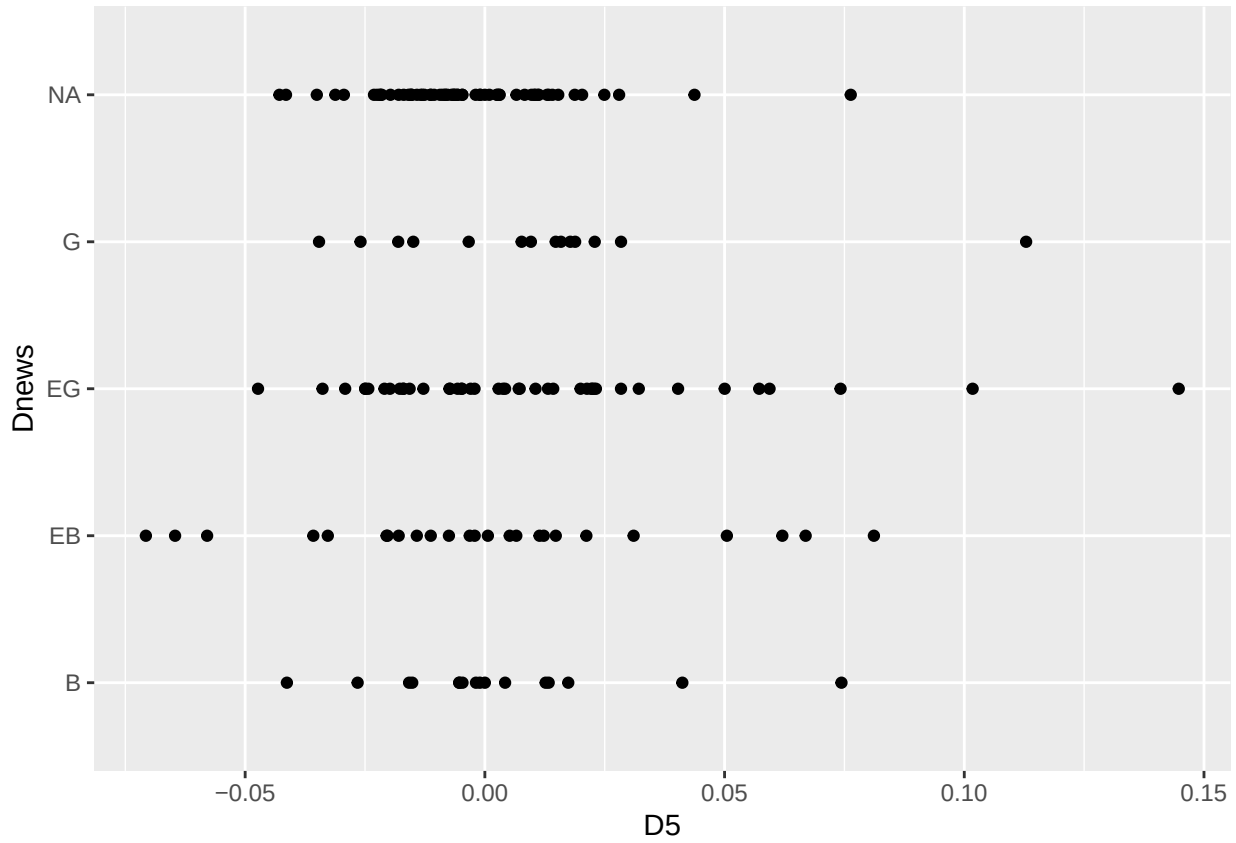

25
20
15
10
5
0
count
−0.02
−0.01
0.00
0.01
0.02
M20 * Beta

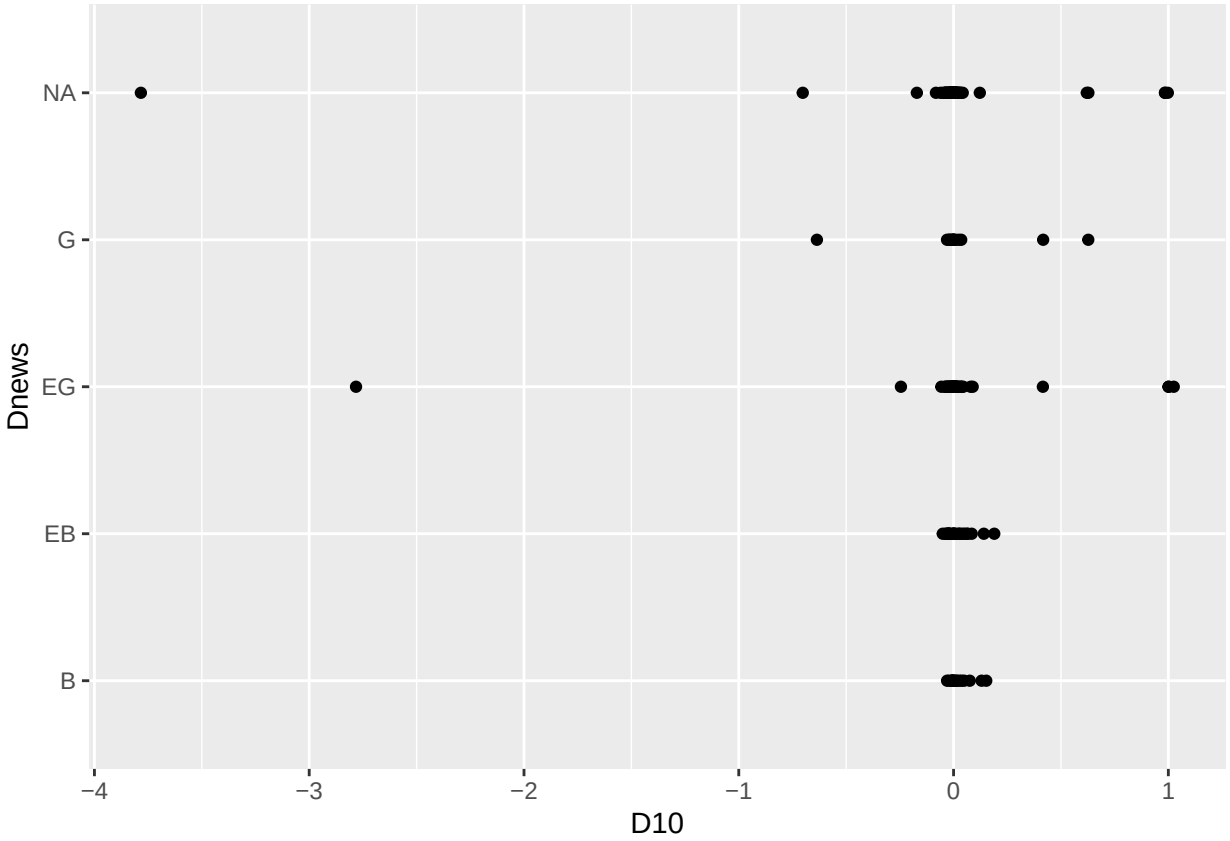


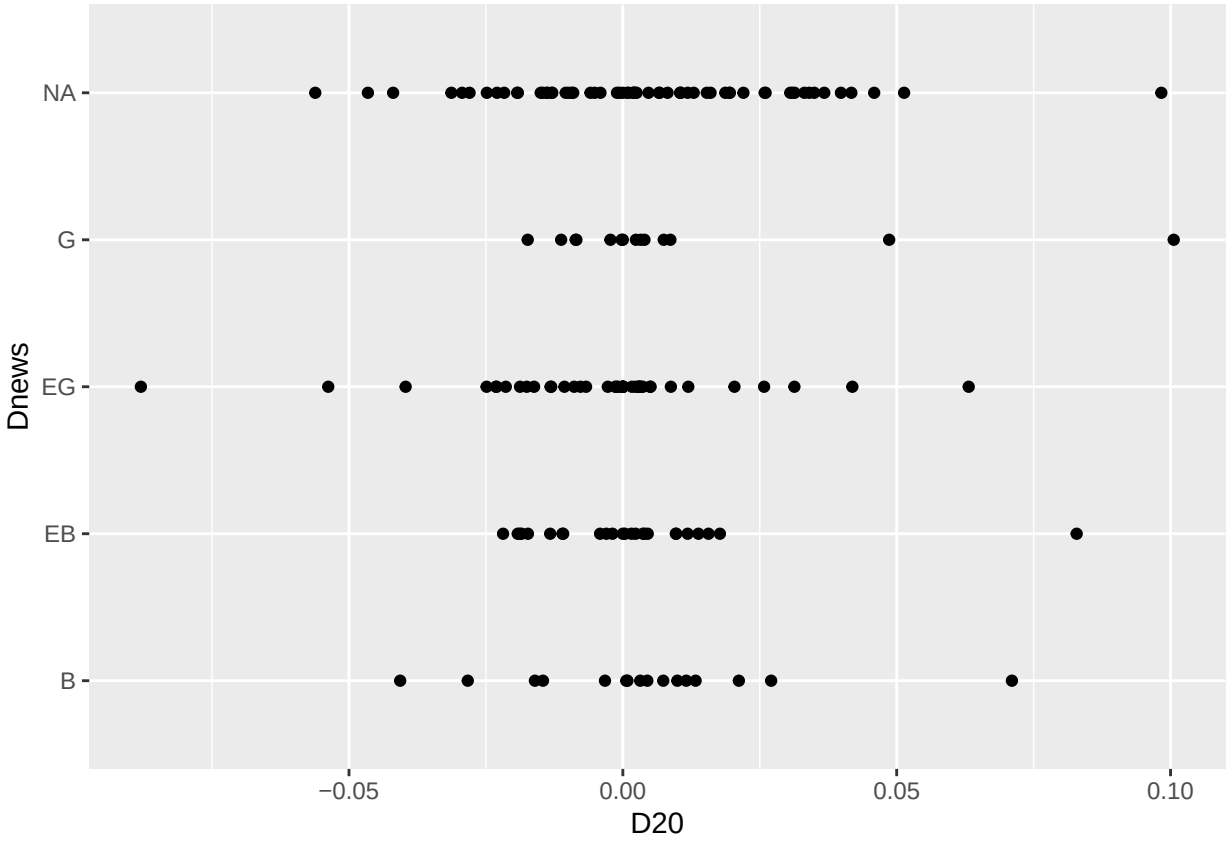
Under different news categories whether the stock return is distributed or not


NA
G
EG
EB
B
Dnews
−0.2
−0.1
0.0
0.1
0.2
D2

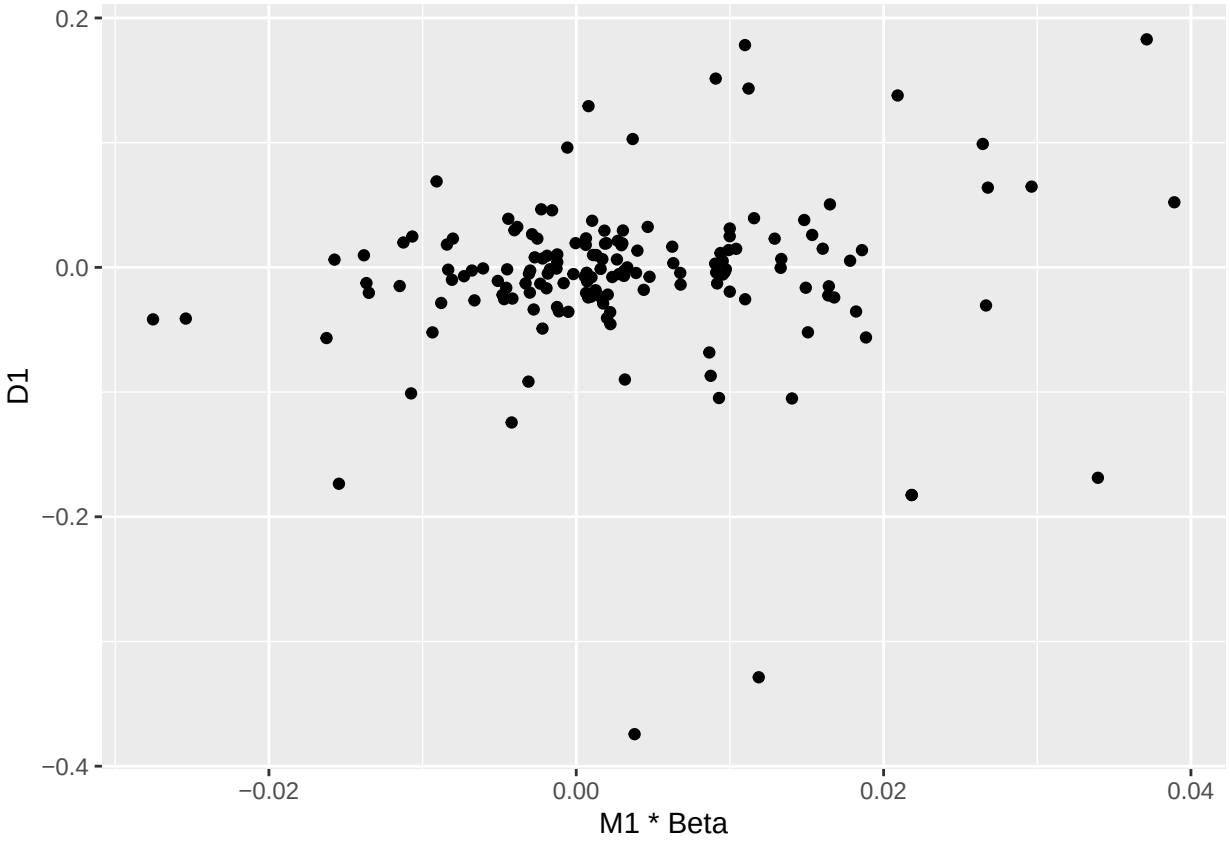

NA
G
EG
EB
B
Dnews
−0.10
−0.05
0.00
0.05
0.10
D3

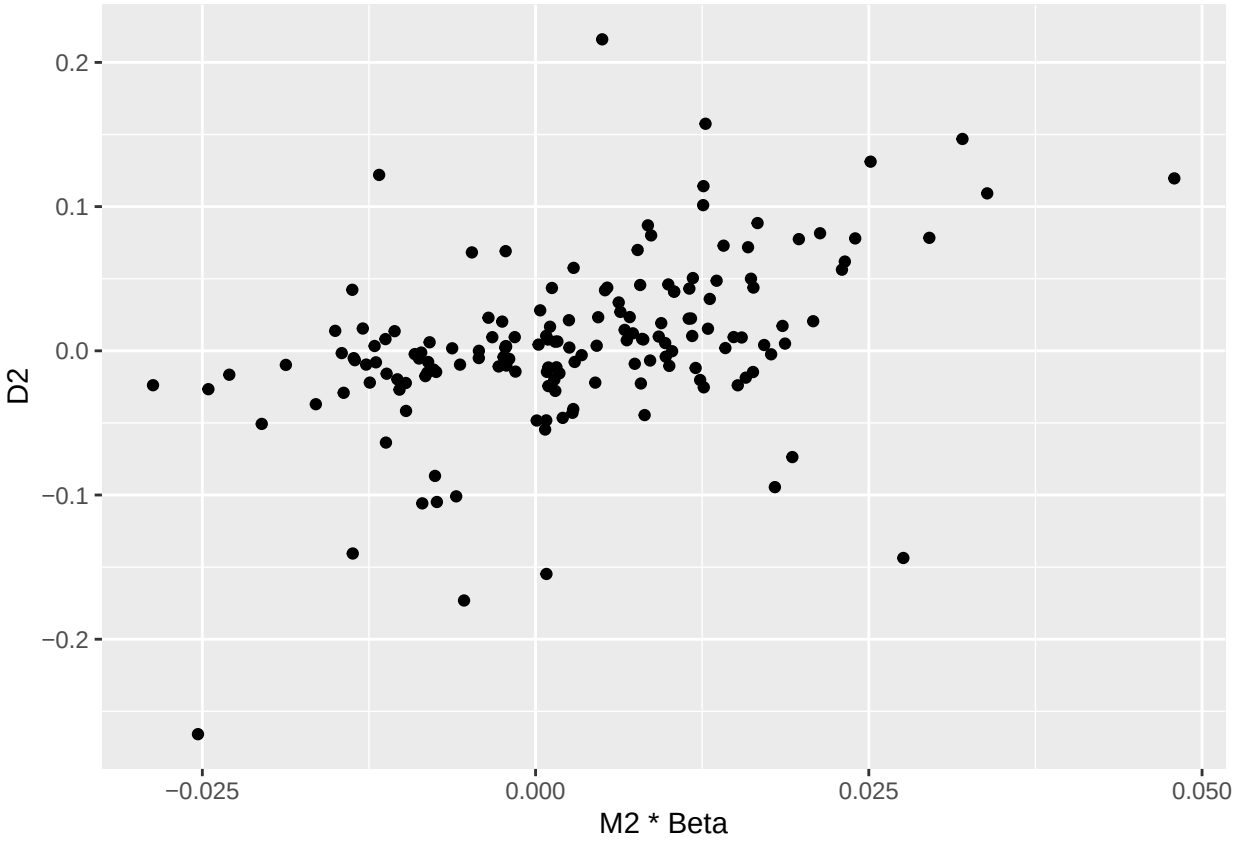

NA
G
EG
EB
B
Dnews
−0.05
0.00
0.05
0.10
0.15
D5

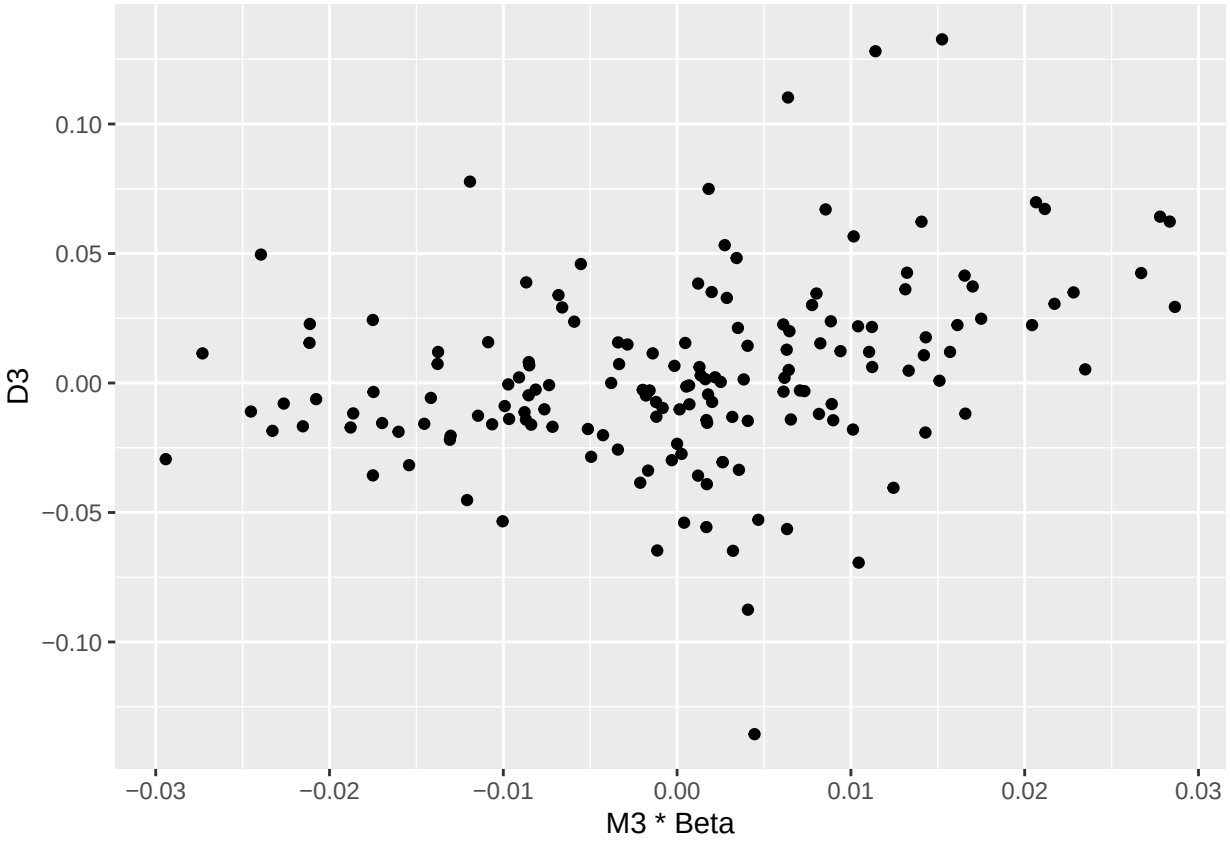

NA
G
EG
EB
B
Dnews
−4
−3
−2
−1
0
1
D10

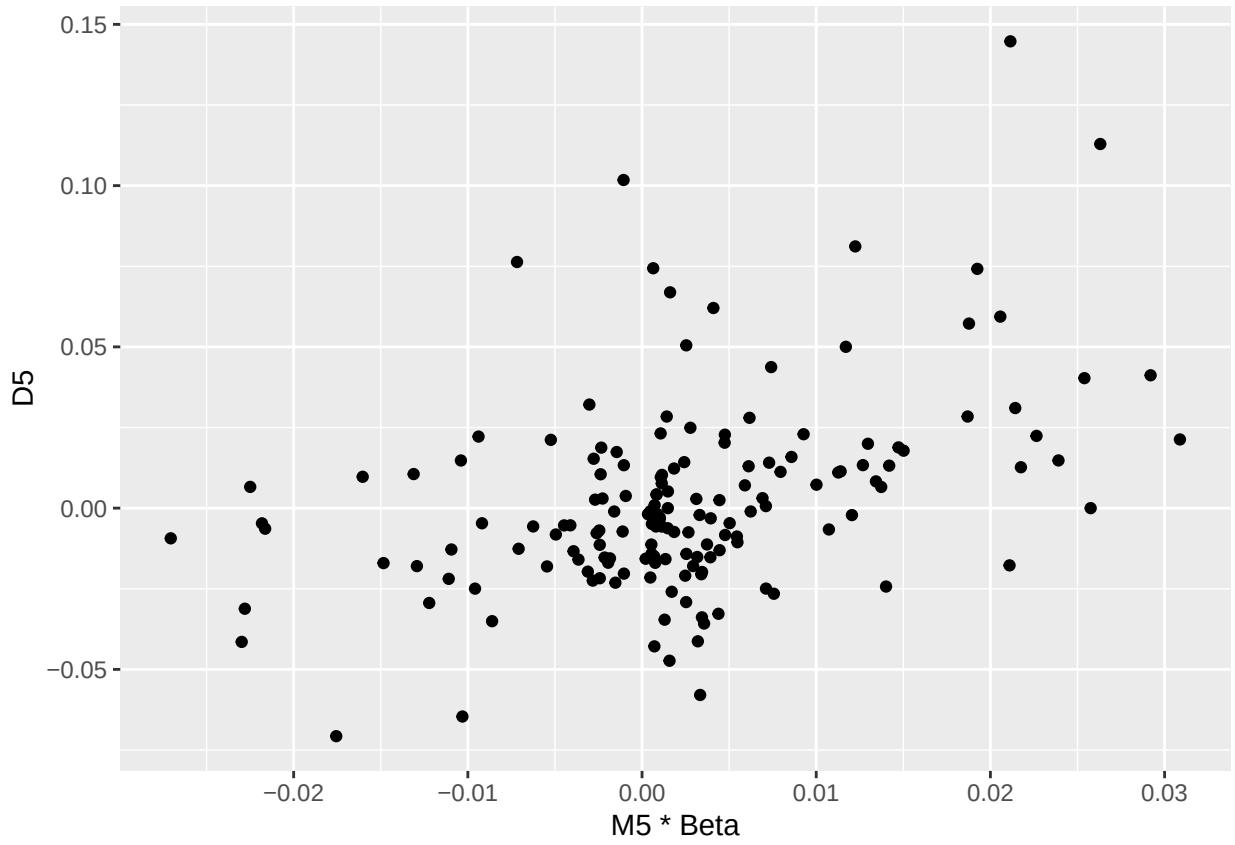


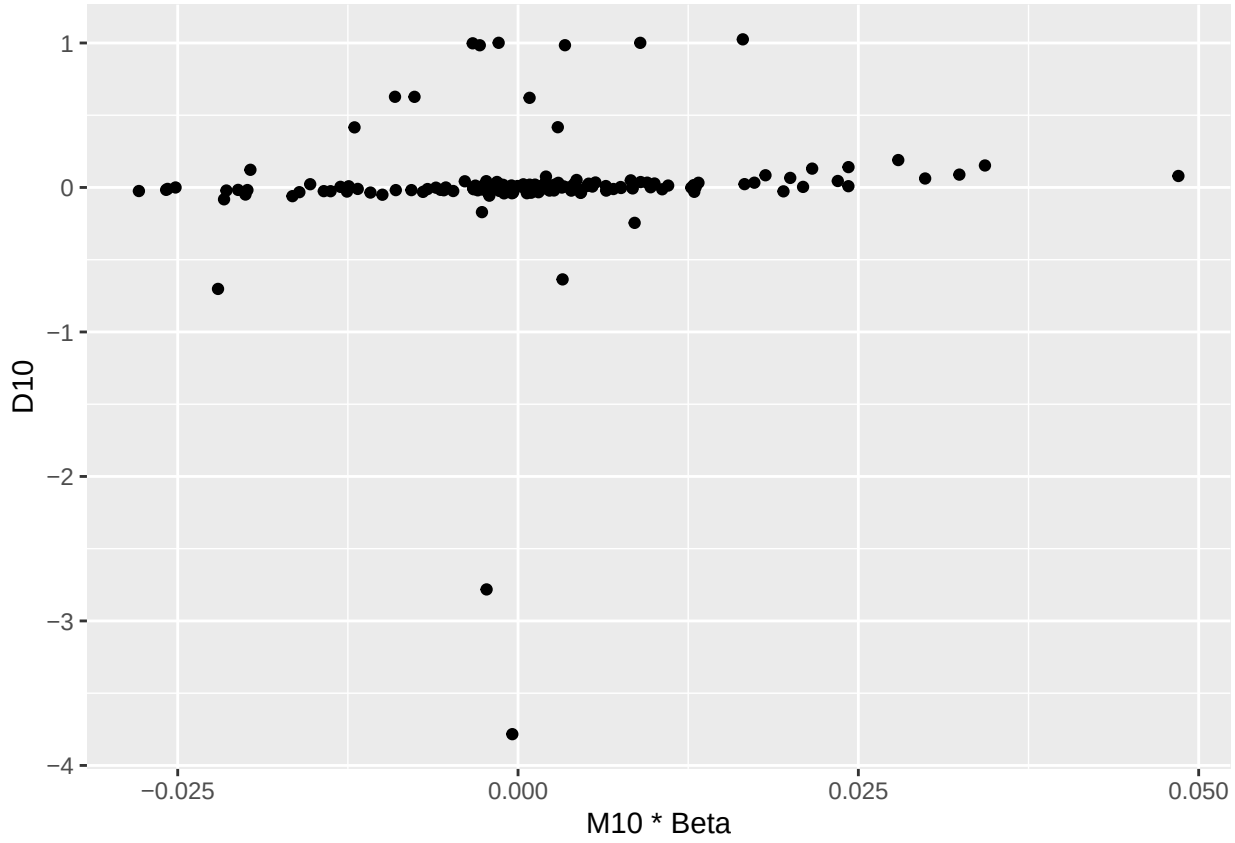
Whether there is a linear relationship between stock return and market return.


0.2
0.0
−0.2
−0.4
D1
−0.02
0.00
0.02
0.04
M1 * Beta

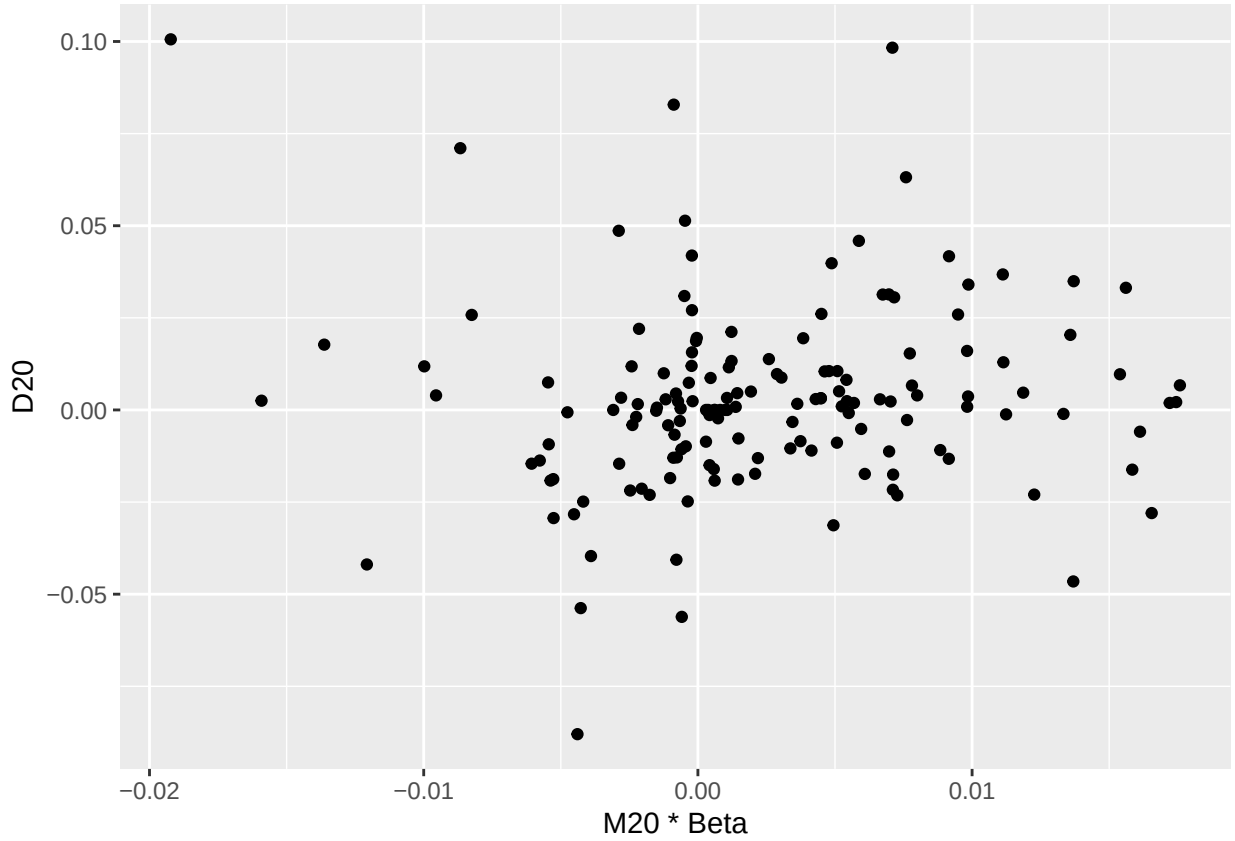

0.2
0.1
0.0
−0.1
−0.2
D2
−0.025
0.000
0.025
0.050
M2 * Beta


0.10
0.05
0.00
−0.05
−0.10
D3
−0.03
−0.02
−0.01
0.00
0.01
0.02
0.03
M3 * Beta


0.15
0.10
0.05
0.00
−0.05
D5
−0.02
−0.01
0.00
0.01
0.02
0.03
M5 * Beta




```
## Warning: Removed 6 rows containing missing values or values outside the scale range
## (‘geom_point()‘).
```


0.10
0.05
0.00
−0.05
D20
−0.02
−0.01
0.00
0.01
M20 * Beta