

VariableExitTimelines

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Method

We wish to determine whether a company has had a time-based gap of a certain size in their trading history. To do this, we group all observations by company and calculate the elapsed time between observations. As we are only interested in specific companies on a time basis, we can just take the maximum of elapsed time. The code below performs this operation.

```
#Basic filtering conducted on the read-in data
df <- df[df$trade_cost > 0, ]

df <- df %>% group_by(parent_id) %>% arrange(report_date, .by_group = TRUE) %>% mutate(
  diff = day(days(report_date - lag(report_date, default = report_date[1], order_by = report_date)))
)

#TODO: Not sure if this is correct because it assumes only one ob of interest
#TODO: May also want to change evaluate metrics to be lower-bounded (i.e >= 2 months but <= 6 months)
df <- df %>% group_by(parent_id) %>% summarize(
  maxDist = days(max(diff))
) %>% as.data.frame()
```

Output

We calculate the exit timelines of interest using multiple options for maximum distance, and output them below:

```
##                               Min.                               1st Qu.
##                               "0S"                               "69d 12H 0M 0S"
##                               Median                               Mean
##                               "189d 0H 0M 0S" "410d 1H 35M 55.7364914864302S"
##                               3rd Qu.                               Max.
##                               "499d 12H 0M 0S" "4131d 0H 0M 0S"

## [1] "Number of companies with at least a 1 month gap: 1181"

## [1] "Number of companies with at least a 2 month gap: 1038"

## [1] "Number of companies with at least a 3 month gap: 948"

## [1] "Number of companies with at least a 6 month gap: 691"
```

```
## [1] "Number of companies with at least a 1 year gap: 430"
```

```
## [1] "Number of companies with at least a 2 year gap: 234"
```

```
## [1] "Number of companies with at least a 5 year gap: 55"
```

```
## [1] "Number of companies with at least a 10 year gap: 2"
```