

Introduction to rules

FINANCIAL TRADING IN R



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What are rules?

- Rules are functions used to create a transaction given you wish to make one based on a signal
- Rules in R: more complex than indicators and signals

Using add.rule()

- Many arguments
- Enter rules: buying shares
- Exit rules: selling shares (converting them back into cash)

```
add.rule(strategy.st, name = "ruleSignal",  
         arguments = list(sigcol = "filterexit",  
                           sigval = TRUE, ... ),  
         type = "exit")
```

Let's practice!

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More rule mechanics

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More arguments to ruleSignal

- orderqty
- ordertype
- orderside

Using add.rule()

```
add.rule(strategy.st, name = "ruleSignal",  
         arguments = list(sigcol = "filterexit",  
                           sigval = TRUE,  
                           orderqty = "all",  
                           ordertype = "market",  
                           orderside = "long", ... ),  
         type = "exit")
```

Let's practice!

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More rule mechanics

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More arguments to ruleSignal

- replace
- prefer

Structure

```
add.rule(strategy.st, name = "ruleSignal",  
         arguments = list(sigcol = "filterexit",  
                           sigval = TRUE, orderqty = "all",  
                           ordertype = "market",  
                           orderside = "long",  
                           replace = FALSE, prefer = "Open")  
         type = "exit")
```

- replace: TRUE is other signals canceled, else FALSE
- prefer: when to enter into a position
 - bar: open, high, low, close
 - default: buy at close of next day/bar

Let's practice!

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Order sizing functions

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```
add.rule(strategy.st, name = "ruleSignal",  
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                           orderside = "long",  
                           replace = FALSE, prefer = "Open")  
         type = "exit")
```

- Specify how much to buy or sell if `orderqty` not used
- Create dynamic order sizes as opposed to `orderqty`'s static order size

What are rules?

```
add.rule(strategy.st, name = "ruleSignal",
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                          sigval = TRUE, orderqty = "all",
                          ordertype = "market",
                          orderside = "long",
                          replace = FALSE, prefer = "Open",
                          osFUN = ..., tradeSize = ...,
                          maxSize = ...),
         type = "exit")
```

What are rules?

```
add.rule(strategy.st, name = "ruleSignal",
         arguments = list(sigcol = "filterexit",
                          sigval = TRUE,
                          ordertype = "market",
                          orderside = "long",
                          replace = FALSE, prefer = "Open",
                          osFUN = ..., tradeSize = ...,
                          maxSize = ...),
         type = "exit")
```

- Order sizing function under same list of arguments in `ruleSignal`
- Similar to `apply()`

Let's practice!

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