



FINANCIAL TRADING IN R

Setting up a Strategy - I

Three Important Dates

- Quantstrat needs an initDate, a from date, and a to date.
- YYYY-MM-DD, eg “2000-01-01”

```
> initdate = "1999-01-01"  
> from = "2003-01-01"  
> to = "2015-12-31"
```

Setting up quantstrat

```
> # Set system environment timezone:
> Sys.setenv(TZ = "UTC")

> # Set currency (we'll use USD for now):
> currency("USD")

> # Obtain financial data:
> getSymbols("LQD", from = from, to = to, src = "yahoo", adjust =
TRUE)

> # Treat as basic equity
> stock("LQD", currency = "USD", multiplier = 1)
```

Overview

```
> initDate = "1999-01-01"  
> from = "2003-01-01"  
> to = "2015-12-31"  
> Sys.setenv(TZ = "UTC")  
> currency("USD")  
> getSymbols("LQD", from = from, to = to, src = "yahoo", adjust =  
TRUE)
```



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Let's practice!



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Setting up a Strategy - II

Trade Size and Initial Equity

- In order to work with returns, you need to define trade size and initial equity to calculate profit and loss

```
> tradesize <- 100000  
> initeq <- 100000
```

**tradesize should not be more than
initeq**

Three Important Objects

- Account
 - Portfolio
 - Strategy

Naming Account, Portfolio, and Strategy

- Naming the account, portfolio, and strategy all the same name suffices for basic strategies

```
> strategy.st <- portfolio.st <- account.st <- "firststrat"
```

Removing Existing Strategy

- If you ran the strategy already, you need to remove it from your environment

```
> rm.strat(strategy.st)
```

Initialize...

- Portfolio
- Account
- Orders
- Strategy

Initializing Portfolio

- Portfolio initialization is called with `initPortf()`
- `initPortf()` requires portfolio name, symbols (inside the portfolio), initialization date, and currency

```
> initPortf(portfolio.st, symbols = "LQD", initDate = initdate,  
currency = "USD")
```

Initializing Account

- Account initialization is called with `initAcct()`
- `initAcct()` requires account name, portfolios (inside the account), initialization date, currency, and initial equity

```
> initAcct(account.st, portfolios = portfolio.st, initDate =  
initdate, currency = "USD", initEq = initeq)
```

Initializing Orders

- Order initialization is called with `initOrders()`
- `initOrders()` requires portfolio name and initialization date

```
> initOrders(portfolio.st, initDate = initdate)
```

Initializing Strategy

- Strategy initialization is called with `strategy()`

```
> strategy(strategy.st, store = TRUE)
```

Overview

```
> tradesize = 100000
> initeq = 100000

> strategy.st <- portfolio.st <- account.st <- "firststrat"
> rm.strat(strategy.st)

> initPortf(portfolio.st, symbols = "LQD", initDate = initdate,
currency = "USD")
> initAcct(account.st, portfolios = portfolio.st, initDate =
initdate, currency = "USD", initEq = initeq)
> initOrders(portfolio.st, initDate = initdate)
> strategy(strategy.st, store = TRUE)
```




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Let's practice!