

## Note on stock market data

### Step 1: get data on Yahoo ! Finance

To get the stock market data, I use [Yahoo ! Finance](http://Yahoo! Finance) website.

To get stock prices for Carnival (CCL), I've just type the name of the company in the search bar.

The screenshot shows the Yahoo Finance website interface. At the top, there's a navigation bar with links for Home, Mail, Flickr, Tumblr, News, Sports, Finance, Celebrity, Answers, Groups, Mobile, and More. Below this is the Yahoo Finance logo and a search bar. The main content area displays market indicators for S&P 500, Dow 30, Nasdaq, Crude Oil, and Gold. A prominent blue banner advertises a podcast titled "China vs the World: Smartphone giants face a low-cost threat". Below the banner, the stock page for Carnival Corporation (CCL) is shown, with a current price of 65.48 and a change of -1.06 (-1.59%). The page includes tabs for Summary, Conversations, Statistics, Profile, Financials, Options, Holders, Historical Data, and Analysts. A table at the bottom provides key statistics like Previous Close, Open, Market Cap, and Beta.

Click on the tab « Historical data » to select the data.

You may choose the start and end dates of the selection and the data frequency as shown below.

The screenshot shows the historical data selection interface on Yahoo Finance. It includes a "Time Period" dropdown set to "Jul 07, 2016 - Jul 07, 2017", a "Show" dropdown set to "Historical Prices", and a "Frequency" dropdown set to "Daily". There is an "Apply" button and a "Download Data" link. A table of historical data is displayed with columns for Date, High, Low, Close, Adj Close\*, and Volume. A date selection dialog is open, showing "Start Date" as 7/7/2016 and "End Date" as 7/7/2017, with "Done" and "Cancel" buttons.

Date	High	Low	Close	Adj Close*	Volume
Jul 06, 2017	6.03	65.22	65.48	65.48	2,946,613
Jul 03, 2017	6.34	65.24	65.25	65.25	1,773,400
Jun 30, 2017	5.99	65.45	65.57	65.57	2,599,300
Jun 29, 2017	66.03	66.10	65.15	65.15	2,765,400

Click on the button « Download data ».

The file downloaded is a CSV file (*comma separated value*). Each observation is in the first column of the file (column A).

### Step 2: use the data with a spreadsheet

Open the CSV file with a spreadsheet like Excel.

Convert the data: in the ribbon, go to « Data » then « Convert » and indicate the type of separator (comma, semi-column, etc.).

Save with the "xls" format. Each observation is now in different columns of the file (column A, B, C, etc.) and the data can be easily manipulated to do computations (to calculate returns from prices for example) and to get figures for the evolution of stock market prices.