Downloading data from the Swiss National Bank, and getting them into a neat format

This document shows you how to download data on exchange rates and exports/imports. It also shows you what to do if the data look messy when you open them in Excel (or read them into R).

We will use these data to explore how Swiss imports and exports react to the CHF exchange rate, and what's the effect of events like January 15, 2015…

Go the website of the Swiss National Bank and go to "Statistiken" on the left sidebar.

Go to "Datenportal der SNB" on the right side.
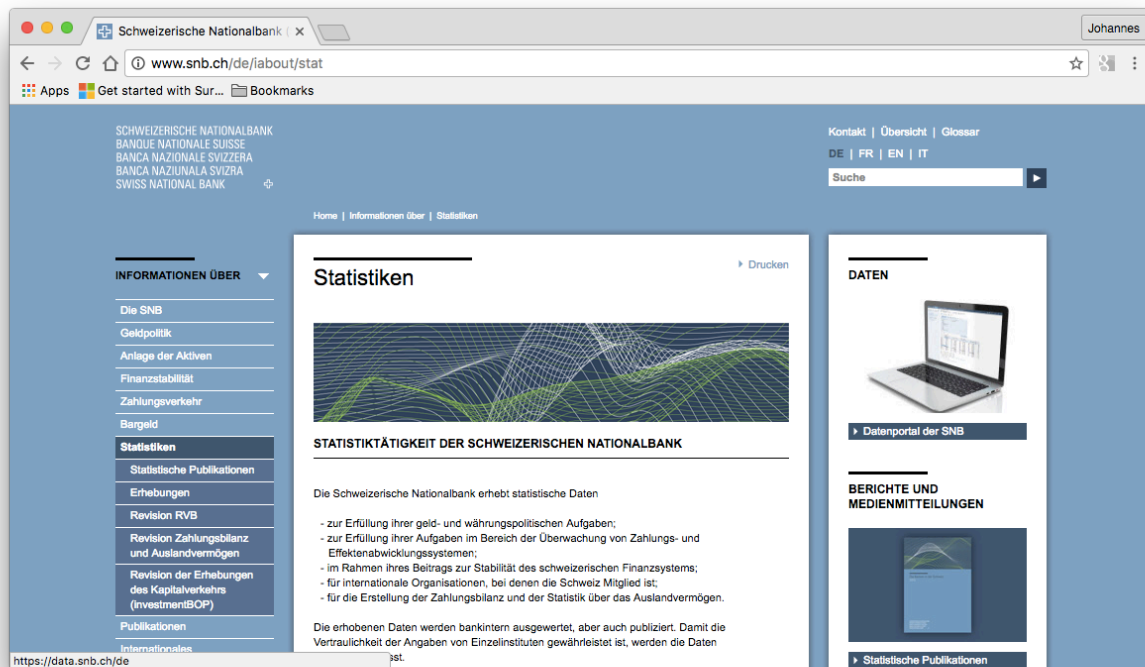
Go to "Zinssätze und Devisenkurse".
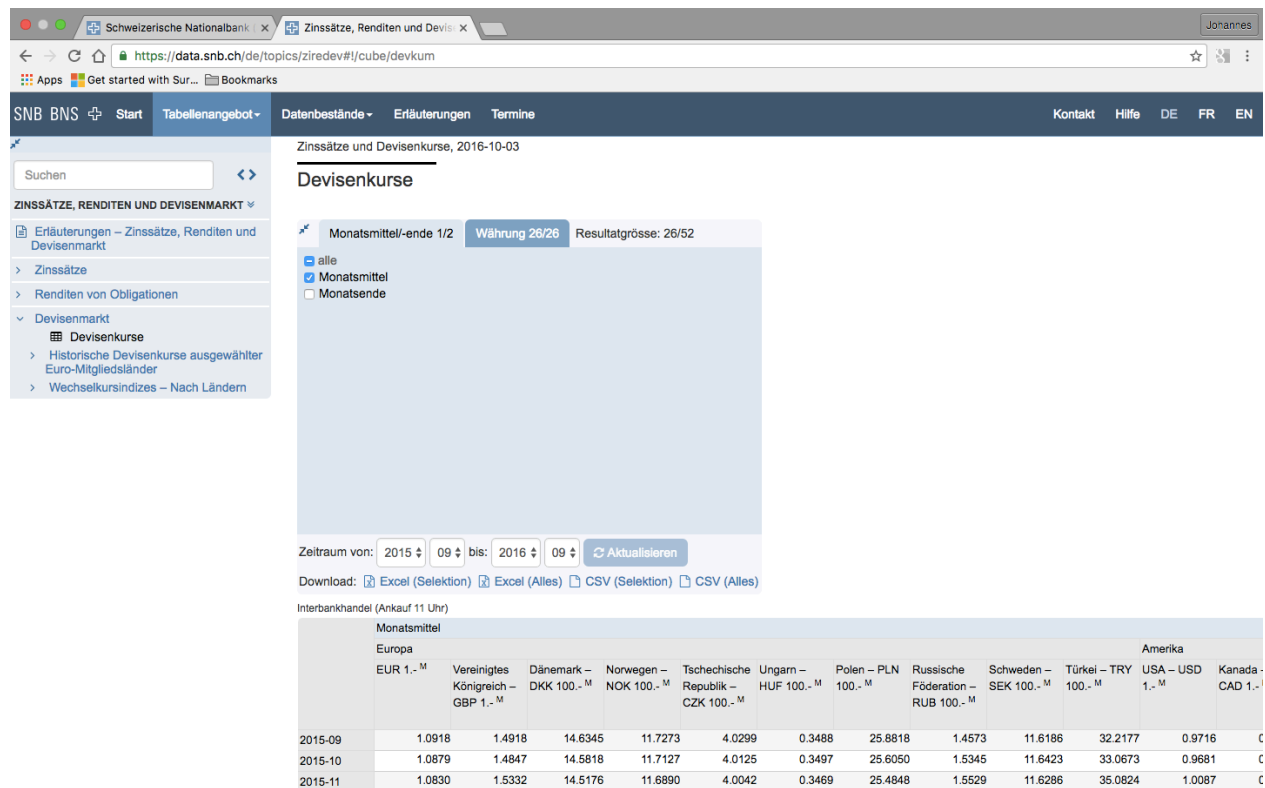
Go to "Devisenkurse"

So you get this. Click on "CSV (Alles)" to download all data.

The data get downloaded into the download folder in csv format, as you can see on the lower left corner of the browser below.

Open the file to inspect it, and save it to a folder where it is convenient for this course. I have it in a folder called "Data", which lies within the folder where I have all documents for this course.

I saved it as "SNB Xrates downloaded". Delete the first three rows (selected and marked as gray in the below screenshot) and then save.
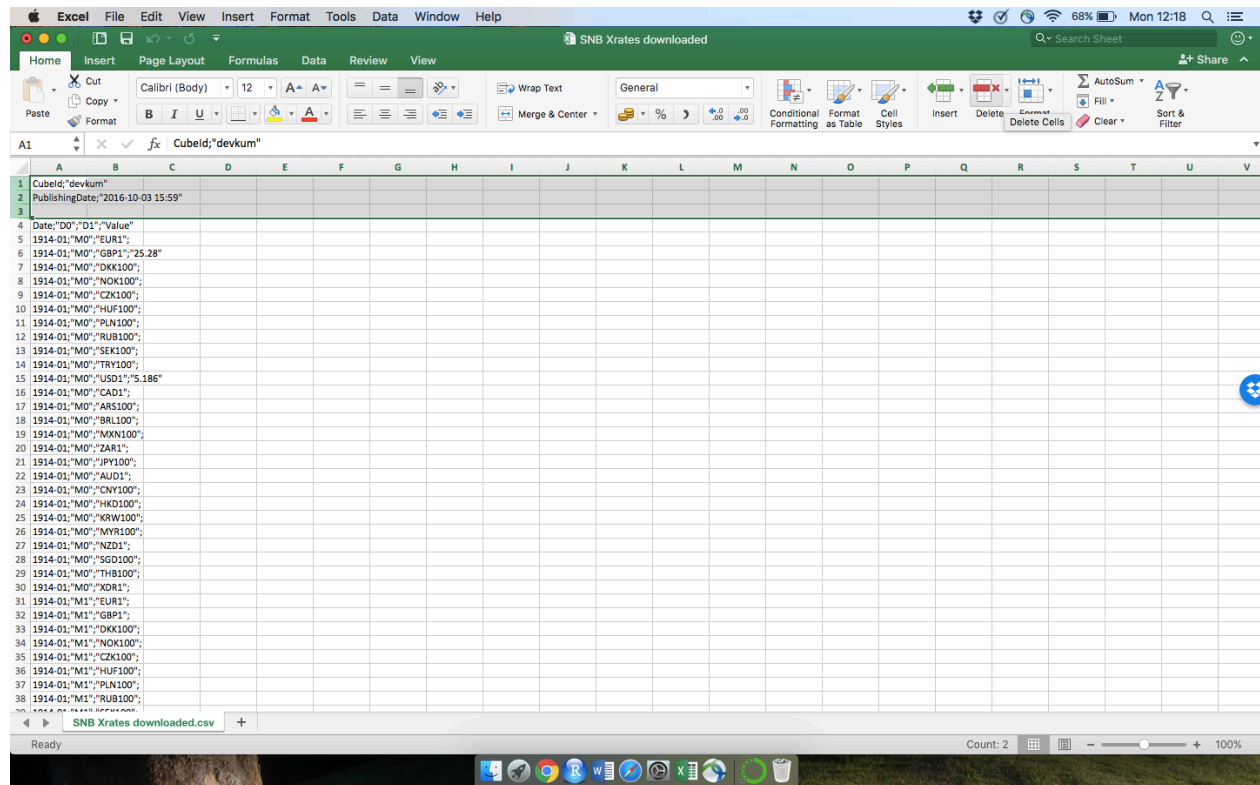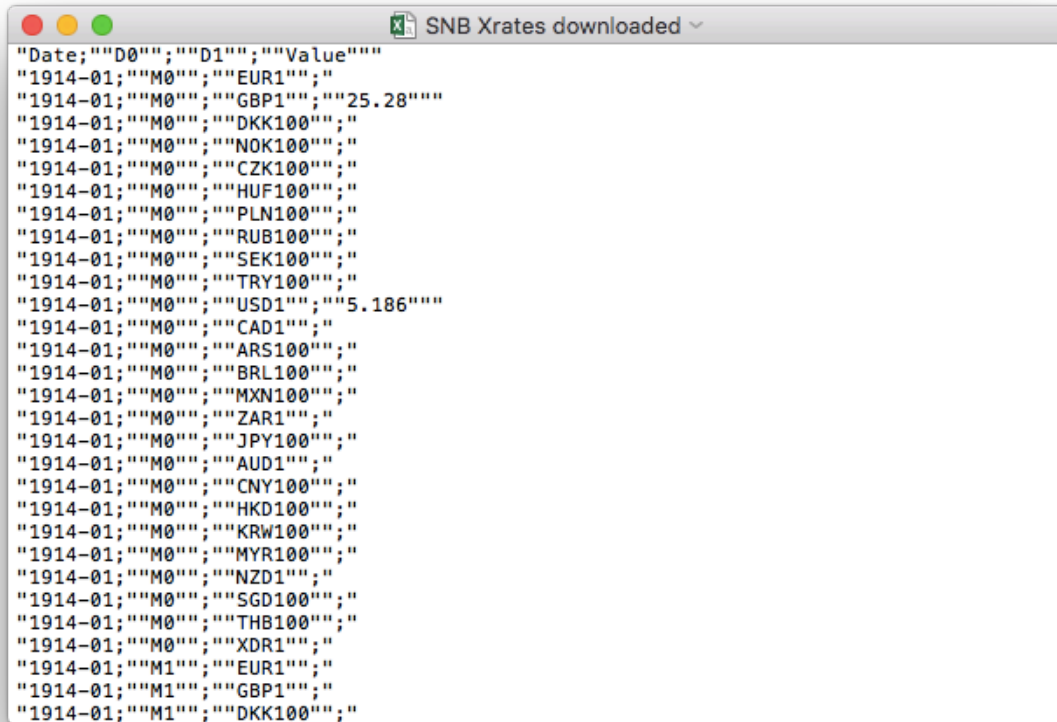
In your case, the file may look neat, but in my case, it looks pretty ugly. Everything is cramped into one column (see screenshot above). Reading the file into R will not make it look any better. If your file looks like mine, there is some additional work to do, as shown below. This has to do with the fact that Excel did not properly understand the "delimiter" that separates entries in columns. The data have a different delimiter than what Excel expects as default. In this case, the reason is that the *regional settings* of my device do not match those of the SNB.

If you also have this problem, then the best way to check what's wrong with the delimiter is to open the file with a text editor, e.g. TextEdit on a Mac, or Notepad on Windows. Go to the file finder/explorer and choose "Open With" and then one of the two programs, depending on your system.
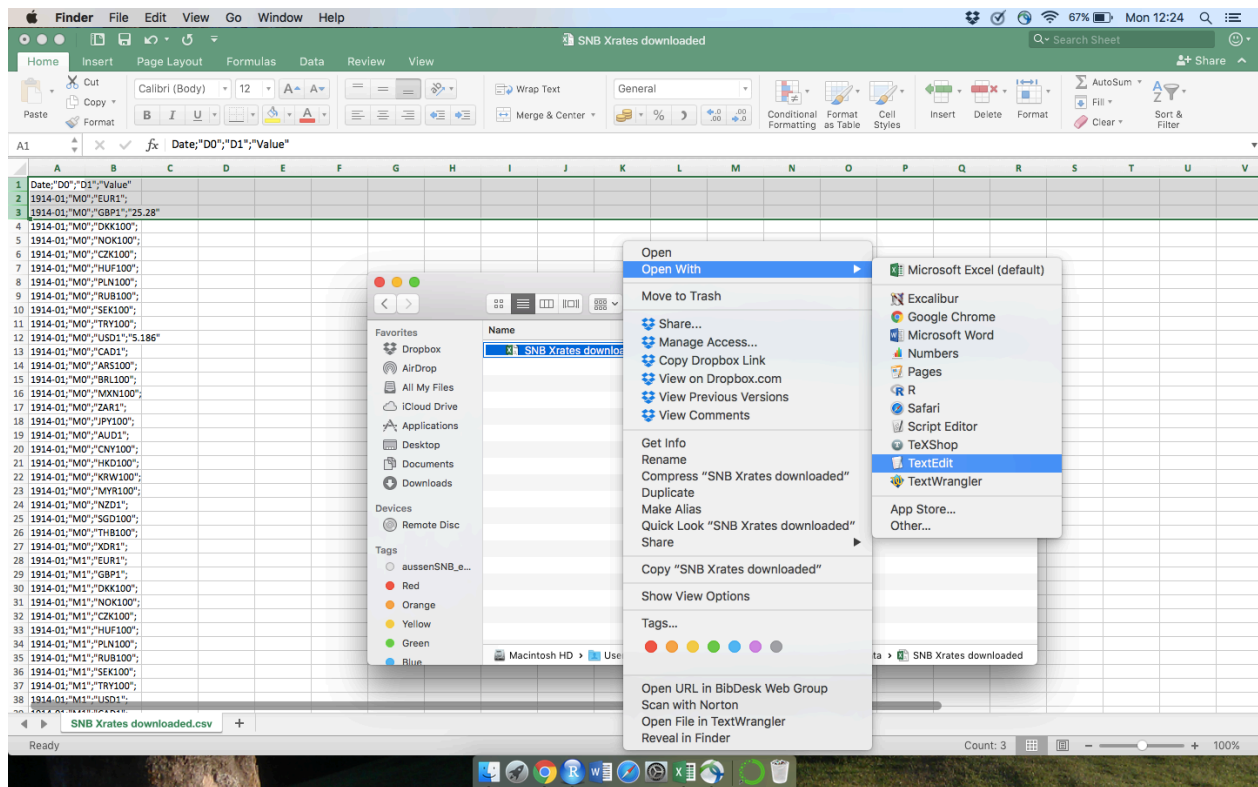
The result looks like this. Excel expects a single comma or semicolon. Instead, there are these weird double-double quotes that accompany the semicolon delimiter.


```
"Date;""D0"";""D1"";""Value"""
"1914-01;""M0"";""EUR1"";"
"1914-01;""M0"";""GBP1"";""25.28"""
"1914-01;""M0"";""DKK100"";"
"1914-01;""M0"";""NOK100"";"
"1914-01;""M0"";""CZK100"";"
"1914-01;""M0"";""HUF100"";"
"1914-01;""M0"";""PLN100"";"
"1914-01;""M0"";""RUB100"";"
"1914-01;""M0"";""SEK100"";"
"1914-01;""M0"";""TRY100"";"
"1914-01;""M0"";""USD1"";""5.186"""
"1914-01;""M0"";""CAD1"";"
"1914-01;""M0"";""ARS100"";"
"1914-01;""M0"";""BRL100"";"
"1914-01;""M0"";""MXN100"";"
"1914-01;""M0"";""ZAR1"";"
"1914-01;""M0"";""JPY100"";"
"1914-01;""M0"";""AUD1"";"
"1914-01;""M0"";""CNY100"";"
"1914-01;""M0"";""HKD100"";"
"1914-01;""M0"";""KRW100"";"
"1914-01;""M0"";""MYR100"";"
"1914-01;""M0"";""NZD1"";"
"1914-01;""M0"";""SGD100"";"
"1914-01;""M0"";""THB100"";"
"1914-01;""M0"";""XDR1"";"
"1914-01;""M1"";""EUR1"";"
"1914-01;""M1"";""GBP1"";"
"1914-01;""M1"";""DKK100"";"
```
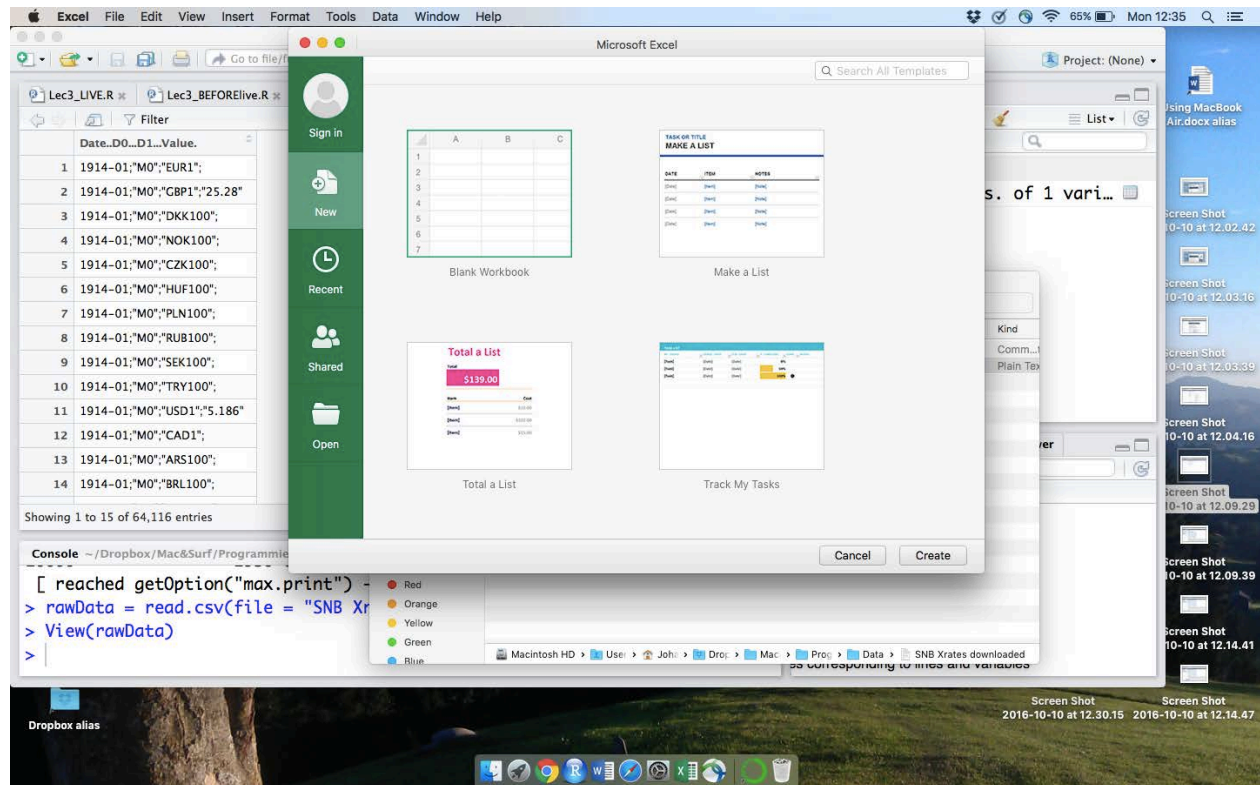
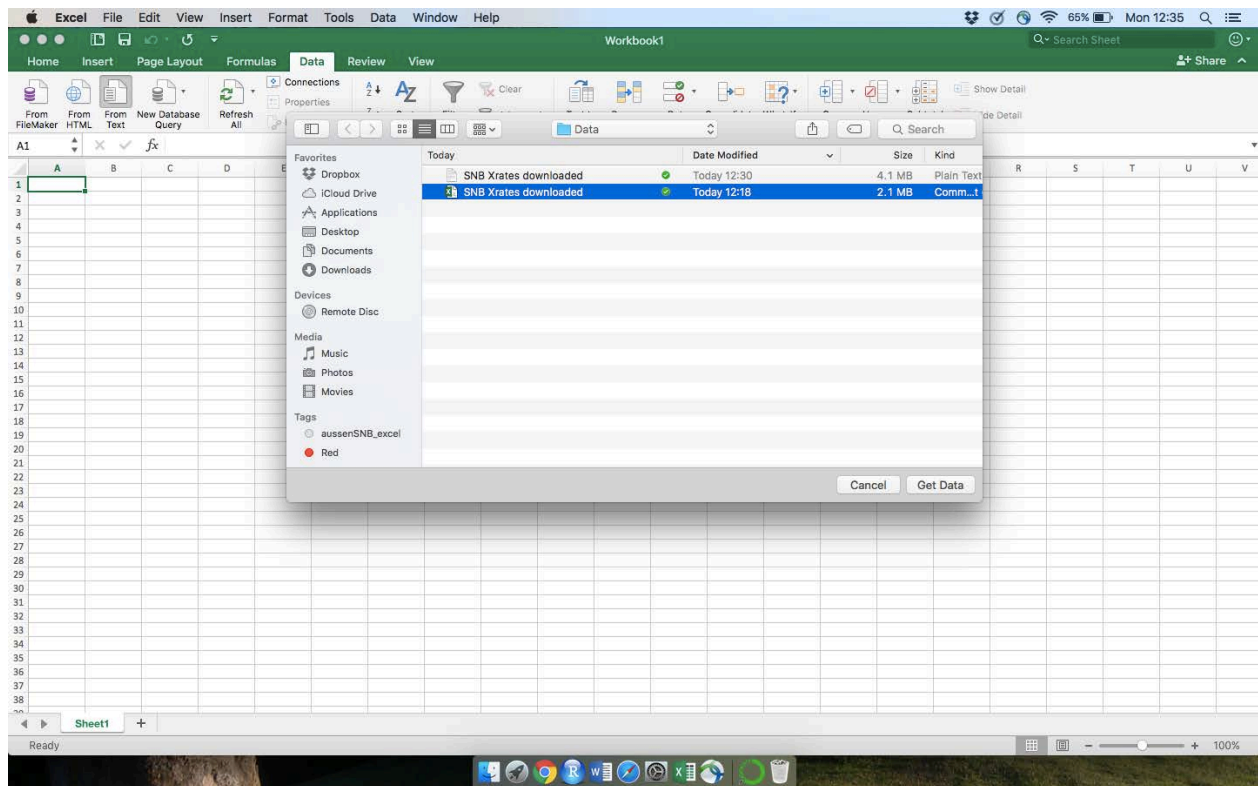Luckily, there is a solution for this…

Close your file with the data (you may be asked whether you want to save your changes; you can choose "don' t save"), and open a blank workbook in Excel, as shown below.
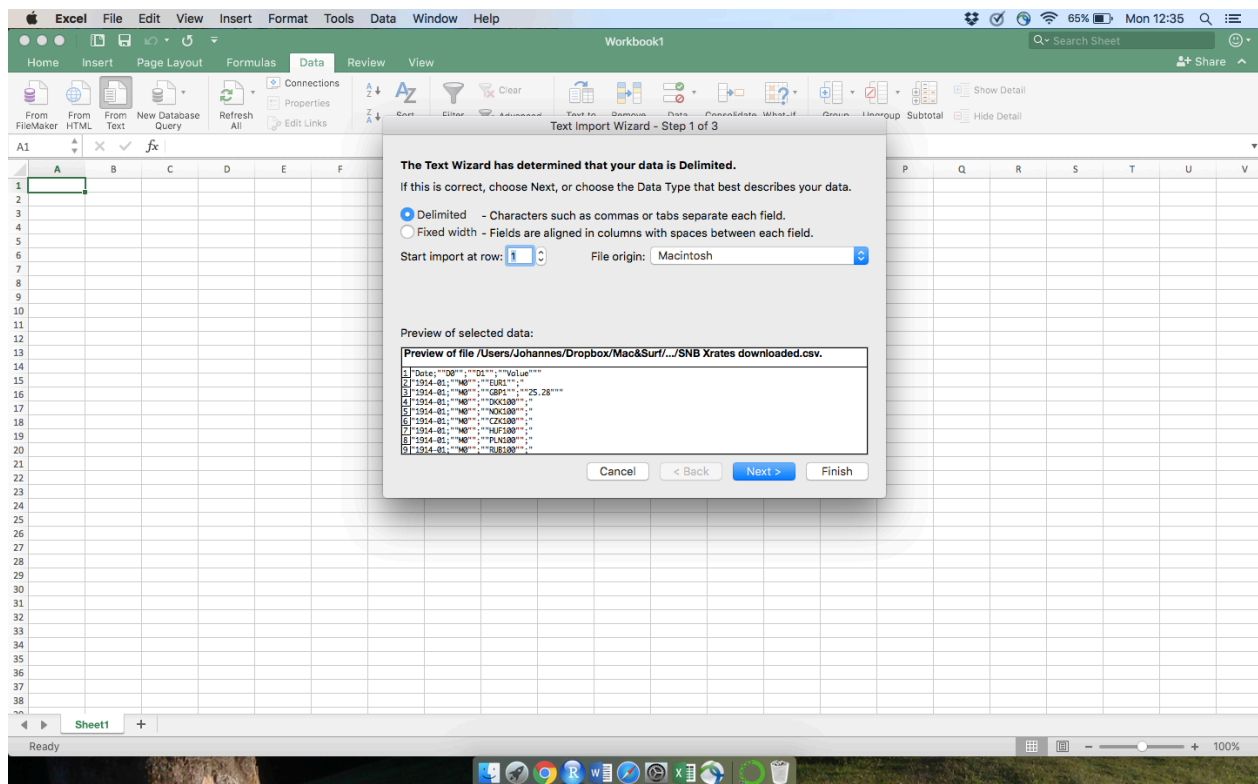

Go to the "Data" tab and choose "From Text" (third item from left).
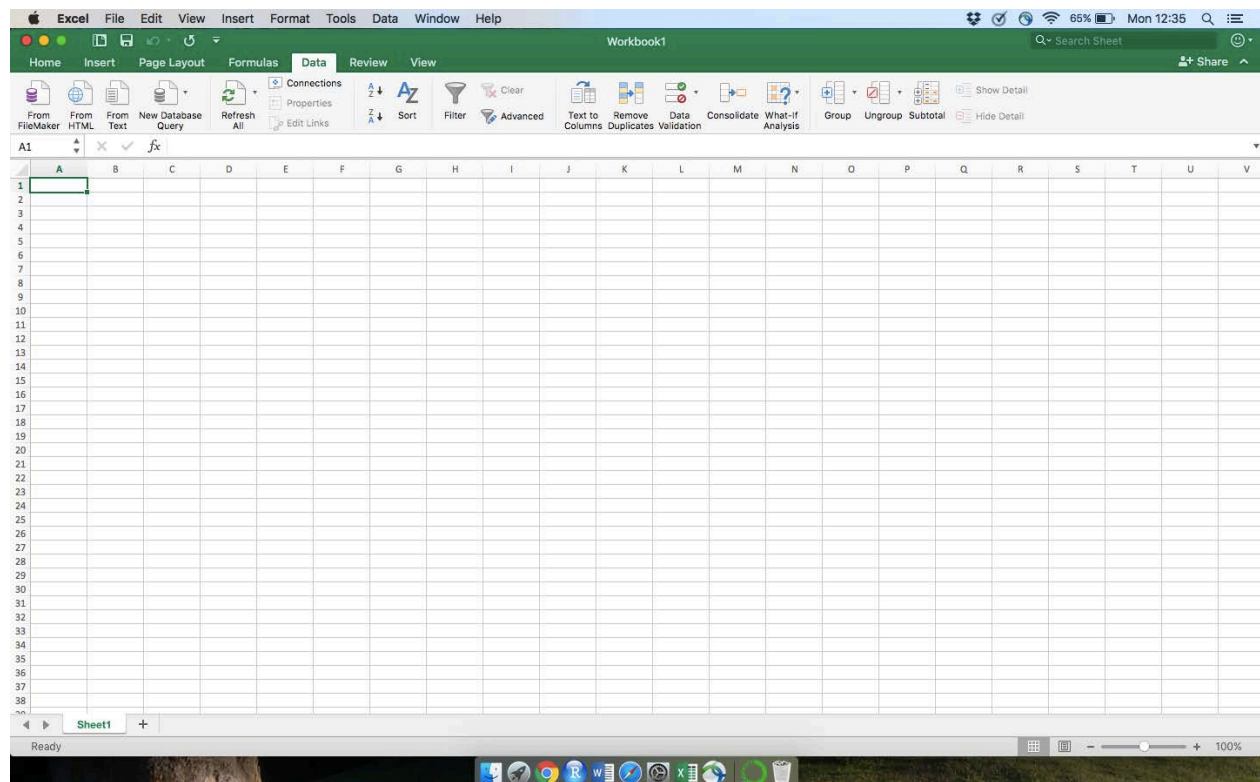
Select the data set in csv format with the data we want to make look neat. Then choose "Get Data".


On the resulting Wizard, choose "Delimited", and "Next".

What you have to enter on the next screen depends a bit on how the data look exactly on your machine. In my case, it is checking "Semicolon" and "Other", and filling a double quote sign into the field next to "Other". This will also create a few empty columns, but that's not too much of a problem, we will deal with that inside R. If the above solution does not work for you, inspect your data carefully in the text editor (as shown above) and let your imagination work! Sometimes it's a bit of a puzzle, but keep trying!
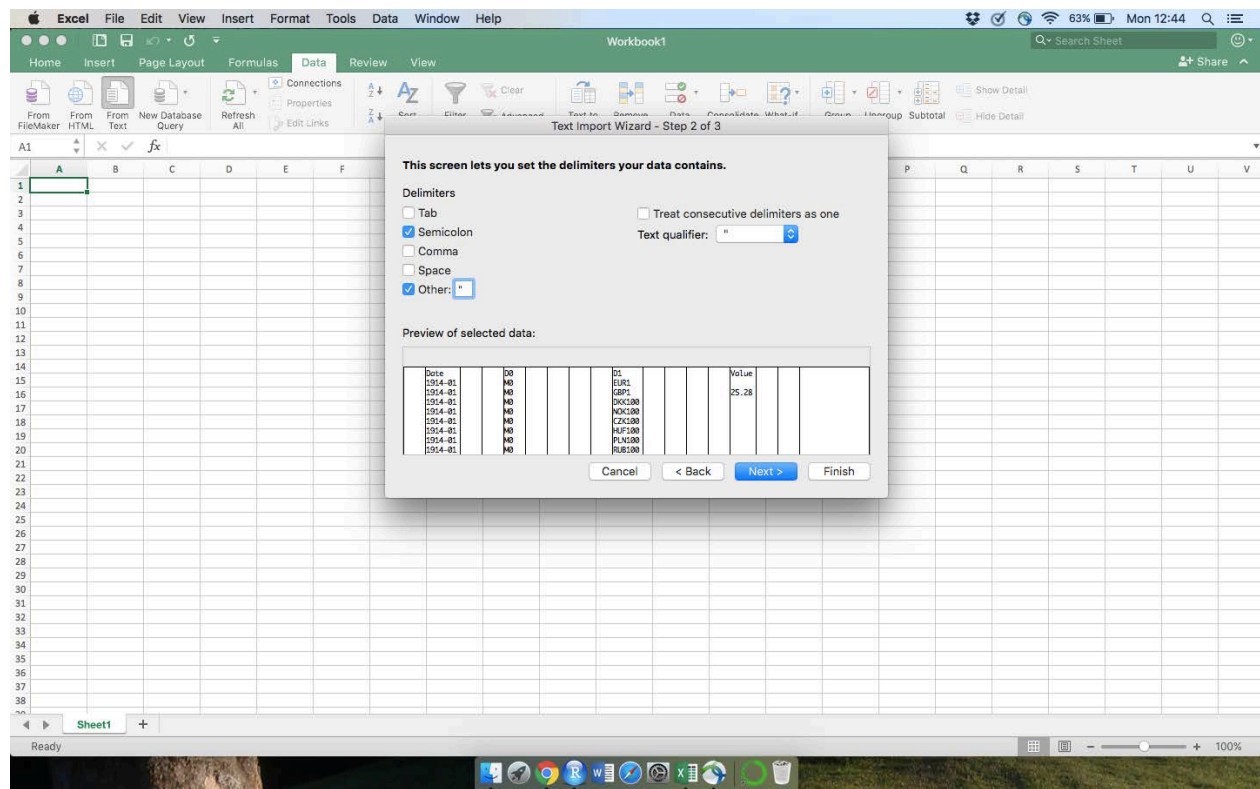
The next screen is just fine, choose "Finish"…
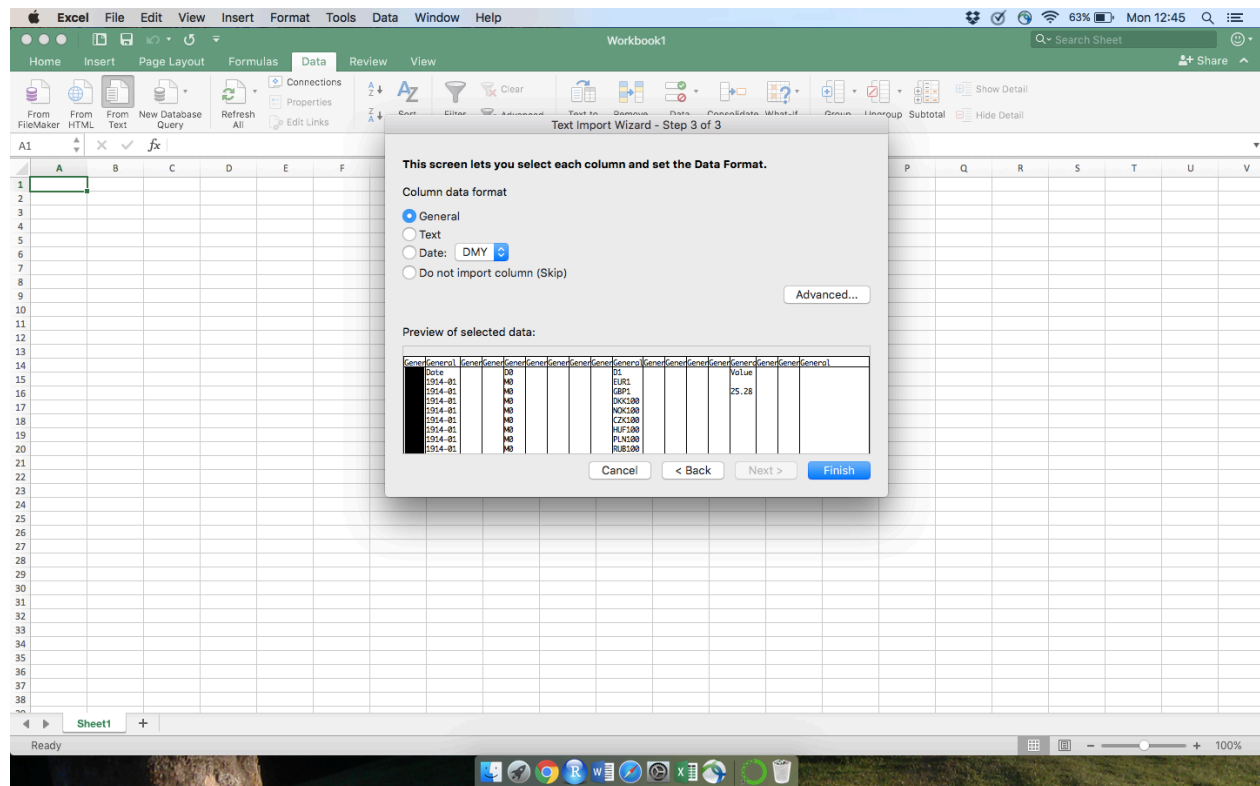
… and "OK".
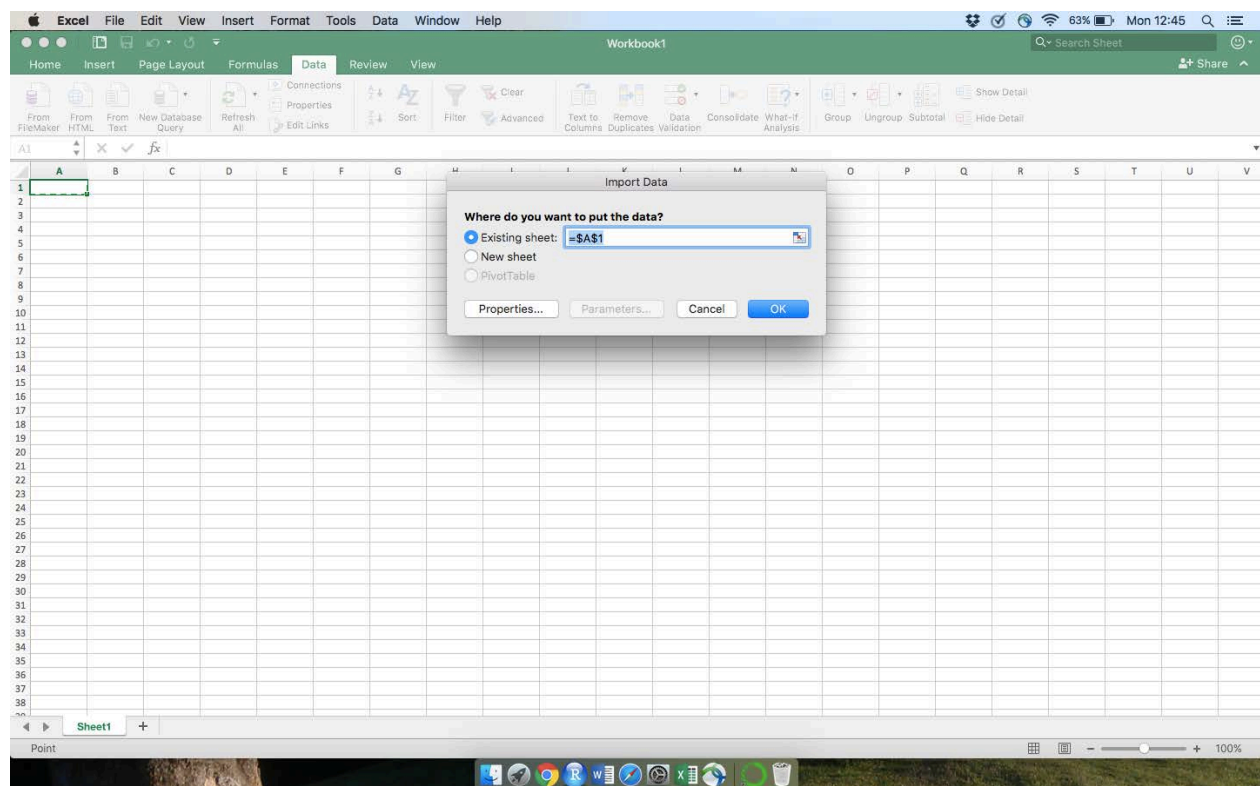
Now it looks much better. You can delete the empty columns manually in excel. But this only works for small data sets. I prefer to do this inside R.

Now save this file in **csv** format (e.g. with the name "SNB Xrates downloaded clean"). Do not save it in xlsx format (the default), since you will not be able to read the data into R in this way.

Go back to the SNB website for downloading data on exports and imports. I.e. go back to https://data.snb.ch/de. Go to the link "Volkswirtschaftliche Daten". Scroll down to the section "Aussenwirtschaft". Click on "Aussenhandel nach Warenarten". Download from the "CSV (Alles)" link. Save the file to the same folder as the previous file on exchange rates. Give it a reasonable name like "SNB Aussenhandel downloaded". Delete (again) the first three rows. If the file looks ugly i.e. everything is cramped into one column, repeat the procedure as for the previous file.