

## 2nd set SAS assignments

For the current and the coming SAS exercises: *Get familiar with the included SAS Help function and the SAS Online Tutorial which can be found here:*

<http://support.sas.com/onlinedoc/913/docMainpage.jsp>.

### 1. Working with data

- i) Create a library named `saskurs` pointing to a directory of your choice.
- ii) Import the dataset `stockprices.xls` with `PROC IMPORT` into your library call it `stockprices`.

Hint `PROC IMPORT`: Use SAS help. See `PROC IMPORT Statement`. Define in the procedure `datafile`, `out` and the options `replace` and `DBMS`.

- iii) Use a data step and format the variable `DATUM` as `date8.`. Label the variables:
  - DAX: DAX Index
  - BAS: BASF Stock Price
  - BAY: Bayer Stock Price
  - HOE: Hoechst Stock Price
  - CBK: Commerzbank Stock Price
  - DBK: Deutsche Bank Stock Price
  - DRB: Dresdner Bank Stock Price

**Hint:** Use a macro for labeling the stocks to avoid a too long code.

- iv) Make use of a data step to create a series of the lagged price for each stock (use function `lag()`) and calculate the log-return for each stock price series (use function `log()`). Drop the lagged prices from the dataset. **Hint:** Use a macro to avoid a too long code.

- v) Choose a return series and/or a price series and plot them. (Use `PROC GPLOT`) **Hint:** Write a macro that is flexible regarding the plotted variable (=return or price) and the stock.
- vi) Create a data set from `stockprices` that contains the first or the last observation of each year. **Hint:** `dat_year=year(datum)`; Sort the data by `datum`. Then use a data step with a `by` statement, as `by dat_year datum`; and `first.dat_year` or `last.dat_year`.
- vii) Export the data set from vi) into a `.txt` file with `PROC EXPORT`. **Hint** `PROC EXPORT`: Use SAS help. See `PROC EXPORT Statement`. Define in the procedure `DATA`, `OUTFILE` and the options `REPLACE` and `DBMS`.