

In working in the financial industry, dealing with a computer is necessary.

There are a number of tools (computer programs) one need to be able to deal with

A rough listing

- ▶ Obvious (general tools)
 - ▶ Word Processing
 - ▶ Word
 - ▶ AbiWord
 - ▶ Libreoffice
 - ▶ \LaTeX
 - ▶ ...
 - ▶ Presentation tools
 - ▶ PowerPoint
 - ▶ Libreoffice
 - ▶ Beamer (\LaTeX)
 - ▶ ...
 - ▶ Graphics manipulation
 - ▶ Photoshop
 - ▶ Gimp
 - ▶

Of more special interest for finance

- ▶ Spreadsheet
 - ▶ Excel
 - ▶ Libreoffice
 - ▶ Gnumeric
 - ▶
- ▶ Matrix tools
 - ▶ matlab
 - ▶ scilab
 - ▶ octave
 - ▶ ...
- ▶ Statistical tools
 - ▶ R
 - ▶ Stata
 - ▶ SAS
 - ▶

Choosing the right tool for the task (finance specific)

Spreadsheet

Suited for

Designed for accounting statements, simulating cashflows, etc,

Basic finance calculations, such as present values

Basic Statistics

Not suited for

Complex calculations (derivatives pricing)

Complex statistics (econometrics)

Matrix tools

Complex calculations, e.g.

- ▶ Term Structure
- ▶ Derivatives Pricing

Statistics tools

Econometric analysis, e.g.

- ▶ regressions
- ▶ time series analysis

Unfortunate tendency: using Spreadsheets (excel) for everything, If the only tool you have is a hammer, all problems look like nails. To counter this spreadsheetshortsightedness, the lectures and problems show examples of using R, a statistical tool available at the computer labs, (and also freely available for installation on your own computer), and `matlab`, a commercial matrix handler available in some of the computer labs. Similar packagers, Scilab and Octave, are freely available for installation on your computer).