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Computer tools

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Contents

1 Computer tools for finance

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

- Statistical tools

  Econometric analysis, e.g.

    - regressions
    - time series analysis

Unless one has strong nerd tendencies, the latter two types of tools are unknown to most people.

If you never encounter them in school, you will end up using spreadsheets (excel) for everything, which is the approach of way too many people. 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 matrix handler available in some of the computer labs. Similar packagers, Scilab and Octave, are freely available for installation on your computer).