Title

Subtitle

1 Section

This is an .Rnw-file. It integrates Latex-text (incl. equations) and R-code, and its output can be published as a .pdf-file (by clicking "Compile PDF" in the top-left panel in R-Studio).

1.1 Subsection

Some text. Some inline-equation: $\theta = 2$.

Another beautiful equation:

$$x_i = \theta + u_i \ , \quad \text{with} \quad \mathbb{E}[u_i|\theta] = 0 \ .$$

1.2 Another Subsection

Some text in bold.

Some text in italics.

```
# A comment and some code:

a = 3
b = 4
a*b

## [1] 12
```

1.3 R-Markdown (.Rmd) vs Knitr (.Rnw)

Whereas .Rmd-files integrate Markdown-text and R-Code, .Rnw-files integrate latex-text and R-Code. I prefer .Rmd-files. With them, you can generate both .html- and .pdf-files, whereas .Rnw only gives you .pdf-files. Also, I find the error messages of .Rmd-files easier to read. In my experience, the only disadvantage of .Rmd-files relative to .Rnw-files is that they can't generate automatic enumerate-environments with R-code in between, but one has to write manually 1. , 2. , etc.

More generally, I think that the integration of text and R-code in a single document is useful for reports where the focus is on the coding (e.g. problem set solutions, data exploration, etc.), for which Markdown is good enough. For reports where the focus is on substance, there is typically no need to show your R-code integrated with latex-code in the document itself. Therefore, instead of using an .Rnw-file, you can set up a proper .tex-file and just include the output of your R-code (figures, tables, etc.) in it.