R Studio®

Reproducible
Reporting with
R Markdown

Materials: github.com/nrohr/learn-r
Questions? financial-services@rstudio.com

Nick Rohrbaugh
RStudio
nick@rstudio.com

R Markdown

What is R Markdown?

Code (R) + formatting (Markdown) -> document (HTML/PDF/Word/etc.)

A way to create reproducible reports for sharing our code and results

Supports multiple languages (R, Python, SQL, …)

R Markdown: The Definitive Guide: https://bookdown.org/yihui/rmarkdown/

The problem

1.   Analyze data in R script (analysis.R)
2.   Copy and paste results, plots, etc. to Word, PowerPoint, email …
3.   Collect more (or different) data
4.   ???

The solution: R Markdown

1. Analyze data in R Markdown (notebook.Rmd)
2. Knit analysis to Word, PowerPoint, email, ...
3. Collect more (or different) data
4. **Rerun analysis and update report with little manual work**

R Markdown makes your <u>reporting</u> more automated and reproducible

R Studio

What can I make with R Markdown?

- [Web pages (HTML)](#)
- [Notebooks](#)
- [PDFs](#)
- [Word docs](#)
- [PowerPoint slides](#)
- Other slides (beamer, HTML5, xaringan)
- Web sites / blogs ([blogdown](#), [distill](#))
- Books and technical documents ([bookdown](#))
- Shiny apps ([flexdashboard](#))
- Send custom emails ([blastula](#))

Useful related packages

- [distill](#) - for web-native scientific and technical writing
- [blogdown](#) - for more complex web pages and blogs
- [bookdown](#) - for books and technical documents
- [blastula](#) - for sending rich-formatted custom emails
- [reactable](#) - for interactive tables
- [gt](#) - for static tables
- [reticulate](#) - for using R and Python together (including in Rmd)