Financial Data Analysis
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Student Portfolios

Grading of this course is based to 60% on student portfolios that document the achievements of individual students. A student portfolio is a booklet in the following form:

- PDF, format A4 landscape
- 15-25 pages, excluding cover, references
- Note: document interactive visualizations using screenshot(s) and the URL

The booklet must contain

- Title page
- Your selected data visualizations
  Note: Decide what to include. One topic may correspond to more or less than 1 page. The exact contents and the weighting of subjects is up to you, as long as you fulfill all requirements.
- A reference page (last page), containing
  - Sources for all data sets
  - Software used that was NOT part of the course, e.g. additional R packages.
    You may use any tool. You may improve the visualizations you have created in R or other programs using any additional software.
  - Sources for third party sample plots (i.e. the "good" and "bad" examples)
- Beyond annotations of your visualizations, text is only necessary if required in a task

Deadline

- Hand in the printed and bound booklet by (date subject to student input)

Grading Metric

- Appropriateness of chosen visualization technique
- Conformity to the rules of data visualization and design
- Statistical/economic correctness
- Relevance + graphic appeal
- Complexity + difficulty + own resources
- Consistency + breadth of the entire portfolio

Note that these criteria are presented in decreasing order of importance. Graphical appeal cannot, for example, compensate choosing the wrong type of graph.

Individual work
Work individually.

Requirements

The following tasks should, as a minimum, be fulfilled in your portfolio. You may add additional visualizations up to the maximum number of pages.

You should fulfill each task with a single visualization and present them in the order below.

1. Find a bad and/or manipulative visualization. Write a 100-150 word critique of the visualization.
2. Create an improved version of the "bad/manipulative" visualization.
3. Find a good visualization and write a 100-150 word critique of it.
4. Create a viz about yourself
5. Create a viz using the world bank data set
6. Create a viz that uses data from at least two data sources (i.e. is based on merged data)
7. Create a visualization that vigorously maximizes Tuftes "data -ink ratio"
8. Document the creation process of one visualization from idea and sketch to several versions and the final version (add up to 150 words explaining the process if you want)
9. Create one interactive visualization
10. Create one data map
11. Create a visualization that is none of the following: map, bar chart, scatter plot, pie chart, line chart, box plot, density plot, histogram
12. (Additional visualizations if you want).
13. Document (using as many words as you require) your favorite tools for data vis
     This can be: R packages, other software programs, web sites, cheat sheets, books, data sources, news organizations with good/bad data visualizations, blogs, other sources of inspiration