Topic Outline: Matplotlib Graphics
Revised: March 3, 2016

Materials

- Today's handouts: this outline, book chapter, code practice, stickers

- All posted on *Topic list & links* page of website (except the stickers)

Preliminaries

- Tools and buzzwords
  - IPython notebooks in Jupyter.
  - Graphing with Matplotlib: dataframe plot methods, figure and axis objects.

- What is this?
  - Package
  - Pandas
  - `import` statement
  - A dataframe `df`
  - `df.shape`
  - `df.columns`
  - `df.index`
  - Dataframe methods: `set_index`, `rename`, `drop`, `plot`
  - Jupyter

- **Exercise**
  - Put red sticker on your laptop
  - Download IPython notebook
    https://github.com/DaveBackus/Data_Bootcamp/blob/master/Code/IPython/bootcamp_graphics_1.ipynb
    and save Raw file in `Data_Bootcamp` directory
  - Start Jupyter and open notebook
  - Replace red sticker with green when you're set

Python graphics: Introduction to Matplotlib

We'll follow the notebook:

- Jupyter

- Markdown

- Preliminaries: import statements, dataframes to work with

- Graphing in Excel

- Apply plot methods to dataframes

- `plot(x,y)`

- Figure and axis objects

- Recap

- Bells and whistles

- Examples

- Review
  - Put red sticker on, replace with green when done

Examples

If time permits, we'll go through some examples of economic and financial data and its properties. It's an IPython notebook that you can view on the GitHub repo: the `Code/IPython` directory, file `bootcamp_examples.ipynb`.

After class

- Required
  - Nothing

- Recommended (always)
  - **Write**: After class, write down everything you remember without using your notes
  - **Review:** Reread the chapter and fill in anything you missed.
  - Code Practice A