Homework 8 (18 Points)

Note. This homework needs to be written in `R Markdown` and submitted in either `html` or `pdf` format.

Problem Only (18 Points)

The FRED database at the Federal Reserve Bank of St. Louis contains **monthly** data on U.S. unemployment rates and job vacancy rates (also called the "job openings rate").

1. Plot U.S. unemployment rate from Jan. 2001 to Jan. 2018. (2 Points)

2. Plot U.S. job vacancy rate from Jan. 2001 to Jan. 2018. (2 Points)

3. Describe the movement of unemployment and vacancy rates during this time period. (2 Points)

4. What is the correlation between the two rates over this time period? (2 Points)

5. Plot the Beveridge curve for the U.S. labor market using a *connected scatter plot*[1]. Carefully label your graph. (2 Points)

6. Describe the movement along the Beveridge curve. What does the curve say about the U.S. economy during this time period? (2 Points)

7. Has the curve shifted during this period? If so, what might be the reason? (2 Points)

8. Read the following notes on unemployment and job openings. Then,

   - **in** $1 - 2$ **paragraphs**, clearly define the concept of unemployment and describe how unemployment rates are measured in practice. (2 Points)

   - **in** $1 - 2$ **paragraphs**, clearly define the concept of job openings and describe how job openings rates are measured in practice. (2 Points)

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[1]For a tutorial on connected scatter plots, see here.