

# ECON 4115/5115

## Chapter 2. Time Series Graphics



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- Time series graphs are the best way to visualize the data and look for patterns.
- There are three types of patterns: trend, seasonality, and cycles.
- In R, the first thing to do is transform the data into a time series object.
- Following the textbook, we will create a “tsibble” object.
- The named “tsibble” object can be graphed using *autoplot()*.

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- Examples of time series graphs:
  - Regular time series plot [autoplot()]
  - Seasonal subseries plot [gg\_subseries()]
  - Scatter plot [ggplot()]
  - Lag plot [gg\_lag()]
  - Correlogram or Plot of Autocorrelation Function [ACF()]
- Applications: Stock Market, Wyoming Economy, and Global Temperatures datasets