

Dataset: Chicago\_Citygate\_Daily.xlsx

- Unit of Observation: Each row in the dataset represents data from a singular day in Chicago from the summer of 1993 to February 2025.
- The data file contains 6 variables, issue\_dates, lows, highs, averages, volumes, and deals.
- Variables:
  - issue\_dates
    - This is the day after the trade date in which the price of the natural gas is traded at. It is the day in which the price of the natural gas was issued.
    - Date/time variable
    - Examples: 7/14/93
  - lows
    - This is the lowest price that natural gas sold at the Chicago citygate on the issue date.
    - Float
    - Unit: \$/MMBtu
    - Example: 2.190
  - highs
    - This is the highest price that natural gas sold at the Chicago citygate on the issue date.
    - Float
    - Unit: \$/MMBtu
    - Example: 2.600
  - averages
    - This is the average price that natural gas sold at the Chicago citygate on the issue date.
    - Unit: \$/MMBtu
    - Float
    - Example: 2.450
  - volumes
    - The total quantity of natural gas contracts traded or the number of contracts bought and sold over a specific period
    - Unit: MMBtu
    - Integer
    - Example: 1333
  - Deals
    - The number of contracts or agreements entered to purchase natural gas at the Chicago citygate
    - Integer
    - Example: 157
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Dataset: noaa\_chicago\_weather\_basic\_1960-now.csv

- Unit of Observation: Each row in the dataset is a singular day from 1960 to now with weather observations from the Chicago O'Hare International Airport.
- The data file contains many variables, all abbreviated weather observations. The relevant variables are explained below.
- Variables:
  - DATE
    - The date in which the weather was recorded.
    - Example: 1975-12-01
  - SNOW
    - The amount of snowfall, recorded in inches.
    - Float
  - TAVG
    - The average daily temperature.
    - Float
  - TMAX
    - Maximum recorded daily temperature
    - Float
  - TMIN
    - Minimum recorded daily temperature
    - Float
  - PRCP
    - The amount of rainfall recorded in inches
    - Float