taiyō

DOMAIN INFO

Presented by Ubaid Khan

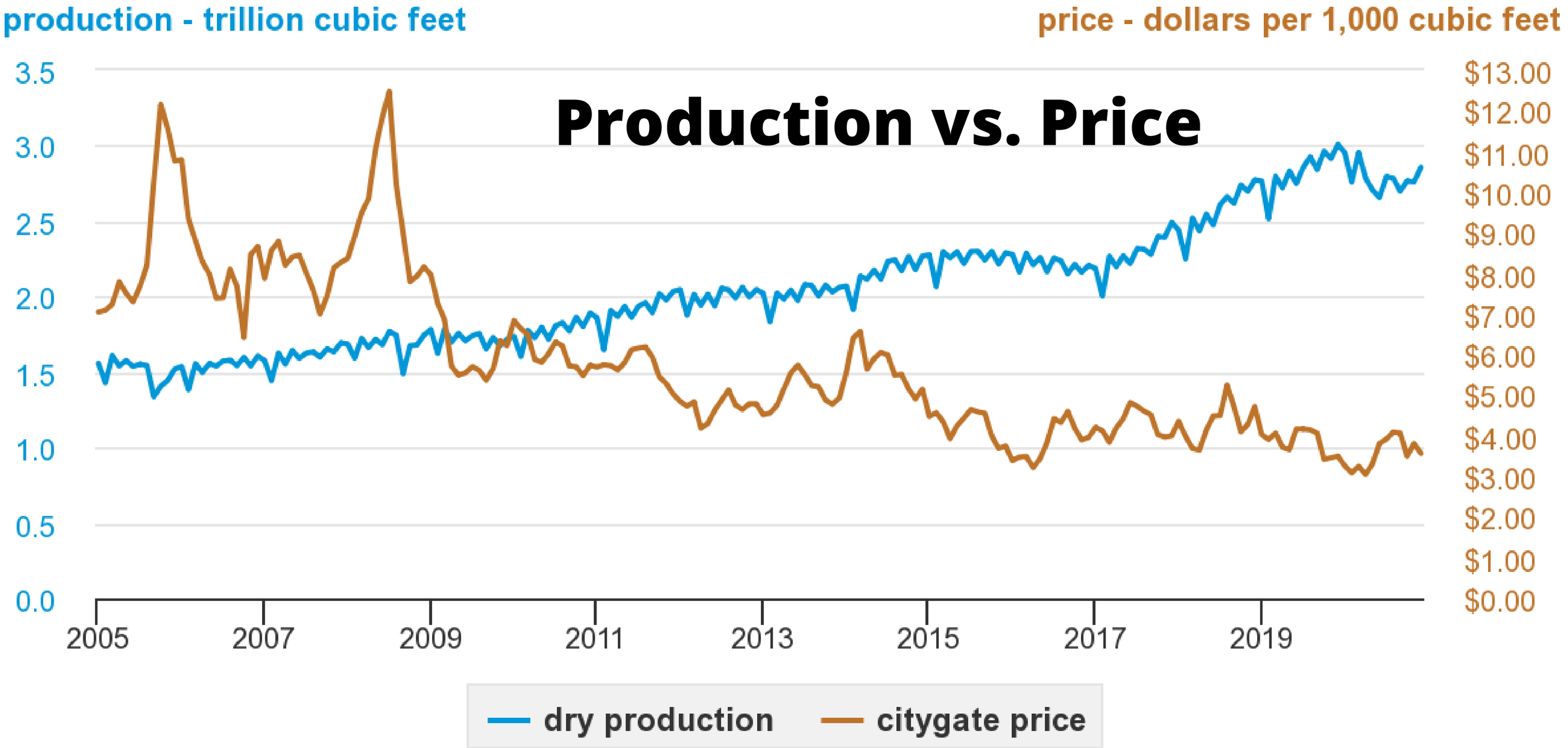
Natural gas prices are a function of market supply and demand.

Three major supply-side factors affect prices:

- Amount of natural gas production
- Level of natural gas in storage
- Volumes of natural gas imports and exports

Source: www.eia.gov/

U.S. monthly dry natural gas production and monthly average citygate price, 2005-2020



Natural gas prices are a function of market supply and demand.

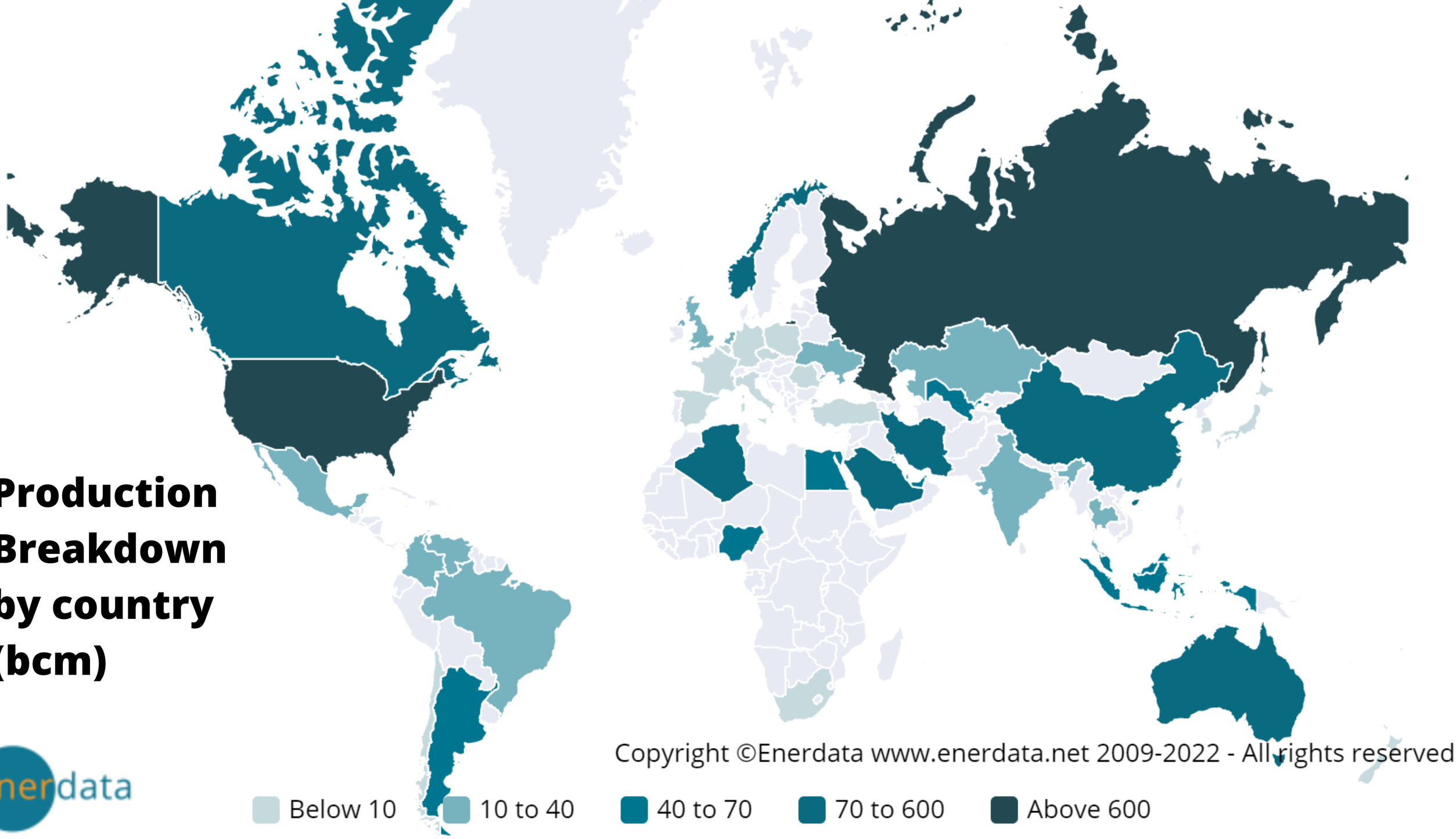
Three major demand-side factors affect prices:

- Variations in winter and summer weather
- Level of economic growth
- Availability and prices of other fuels

Source: www.eia.gov/

Severe weather can disrupt Natural Gas supply

Production Breakdown by country (bcm)



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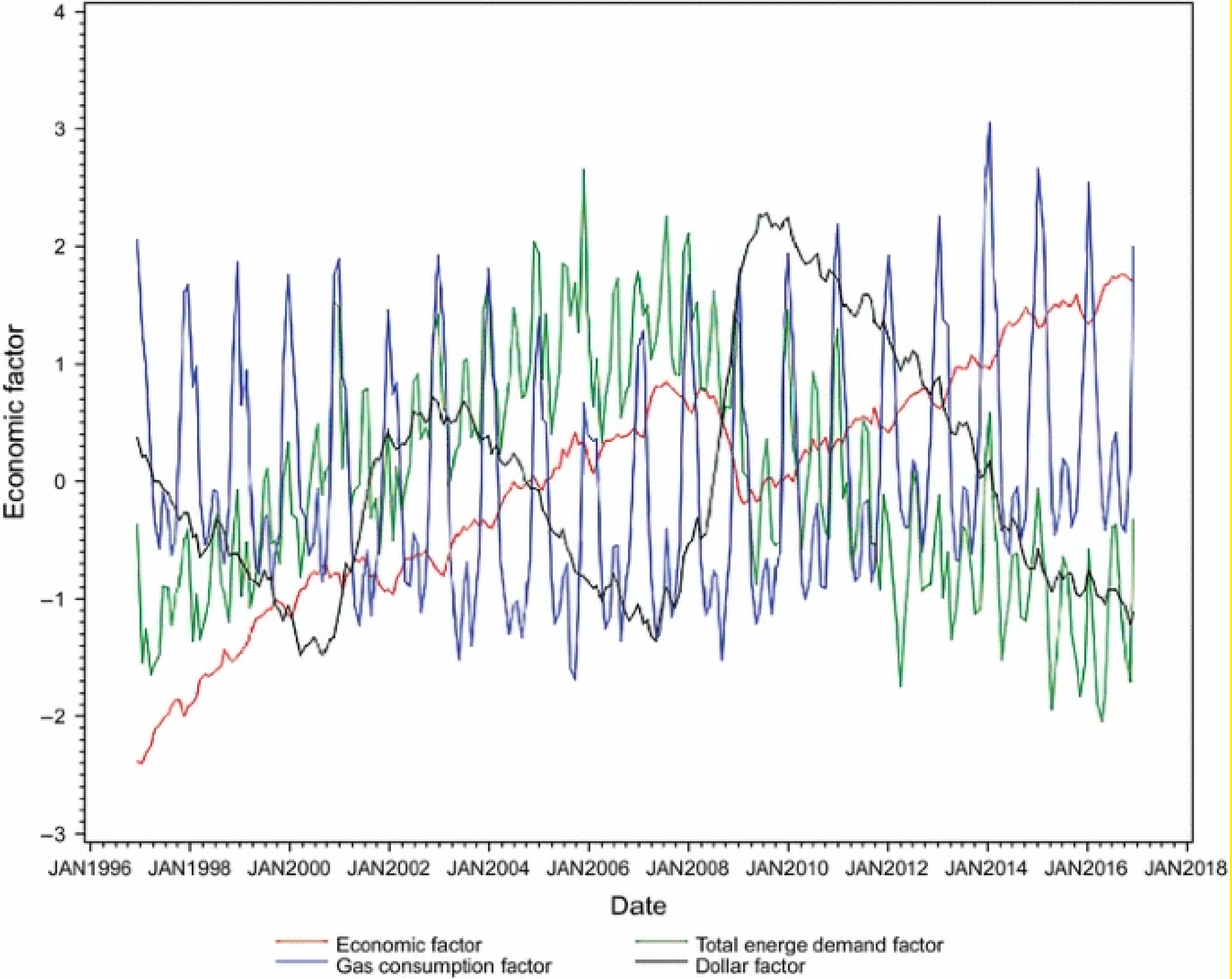


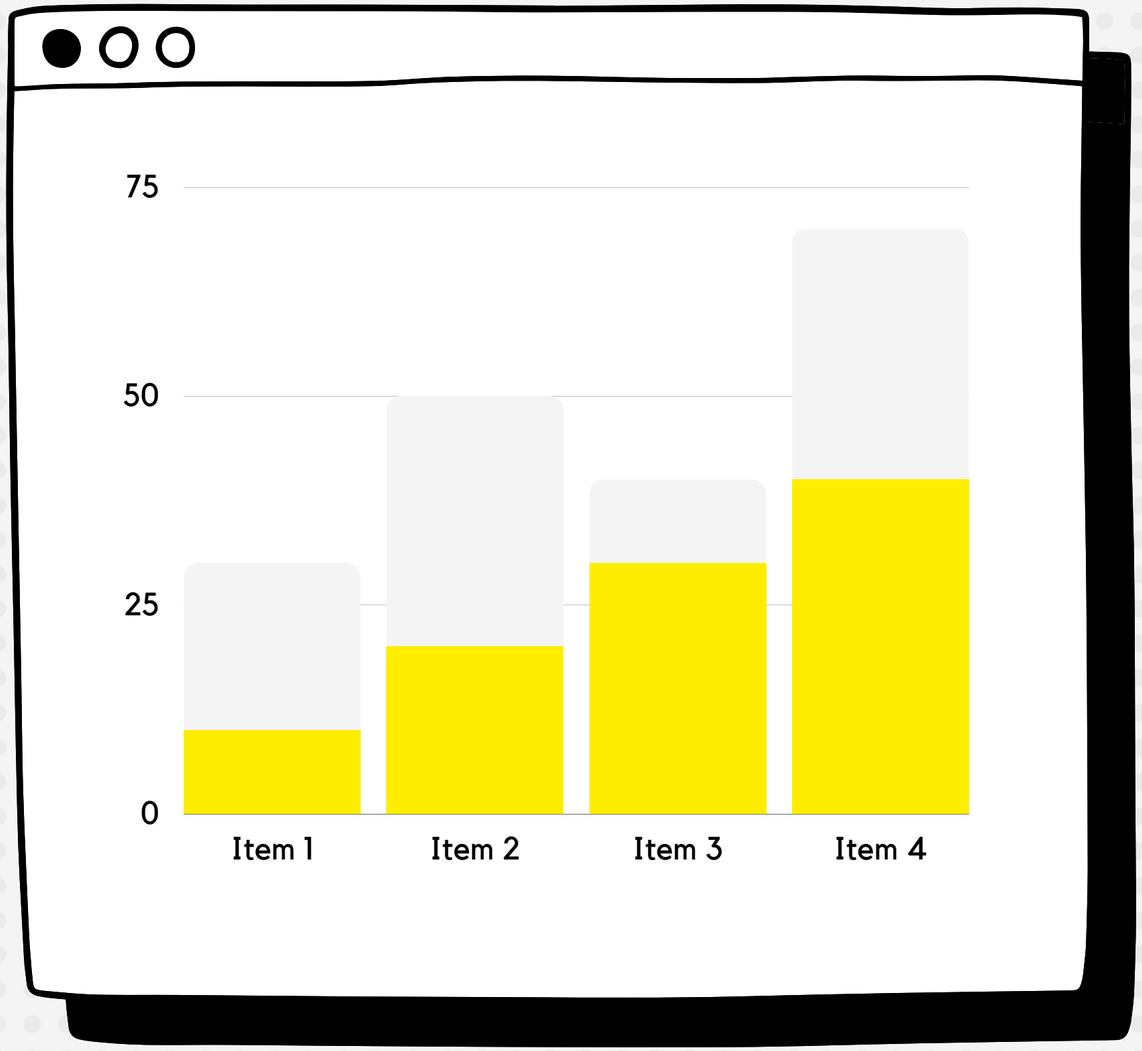
Variation trend of factors and price fluctuation mechanism

Analysis of factors influencing the natural gas price based on factor analysis:

Source: https://link.springer.com/article/10.1007/s12182-017-0192-z/tables/3

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Eigenvalue
US coal consumption	− 0.17	− 0.09	0.90	0.07	− 0.06	0.15
US 50 states oil consumption	0.25	− 0.26	0.76	− 0.29	− 0.15	0.19
US carbon dioxide emissions	− 0.05	− 0.15	0.83	− 0.10	0.50	0.03
US gas exploitation rate	0.58	0.28	− 0.53	0.25	0.27	0.17
Term premium	0.02	0.85	− 0.14	0.04	0.04	0.25
US gas imports	− 0.40	− 0.26	0.74	− 0.32	− 0.14	0.11
US total population	0.79	0.44	− 0.19	0.35	0.06	0.01
Risk premium	0.07	0.77	− 0.10	− 0.14	− 0.03	0.37
Risk-free interest rate	− 0.39	− 0.83	0.25	− 0.17	− 0.08	0.06
CPI	0.79	0.49	− 0.21	0.40	0.06	0.01
Trade-weighted dollar index	− 0.35	− 0.07	0.18	− 0.85	− 0.02	0.11
US average pay level	0.97	0.01	0.09	− 0.08	− 0.00	0.04
US GDP	0.84	0.35	− 0.17	0.36	0.05	0.01
US industrial production	0.97	− 0.11	0.09	0.02	0.03	0.03
US unemployment rate	0.10	0.77	− 0.24	0.52	0.01	0.07

Source: https://link.springer.com/article/10.1007/s12182-017-0192-z/tables/3

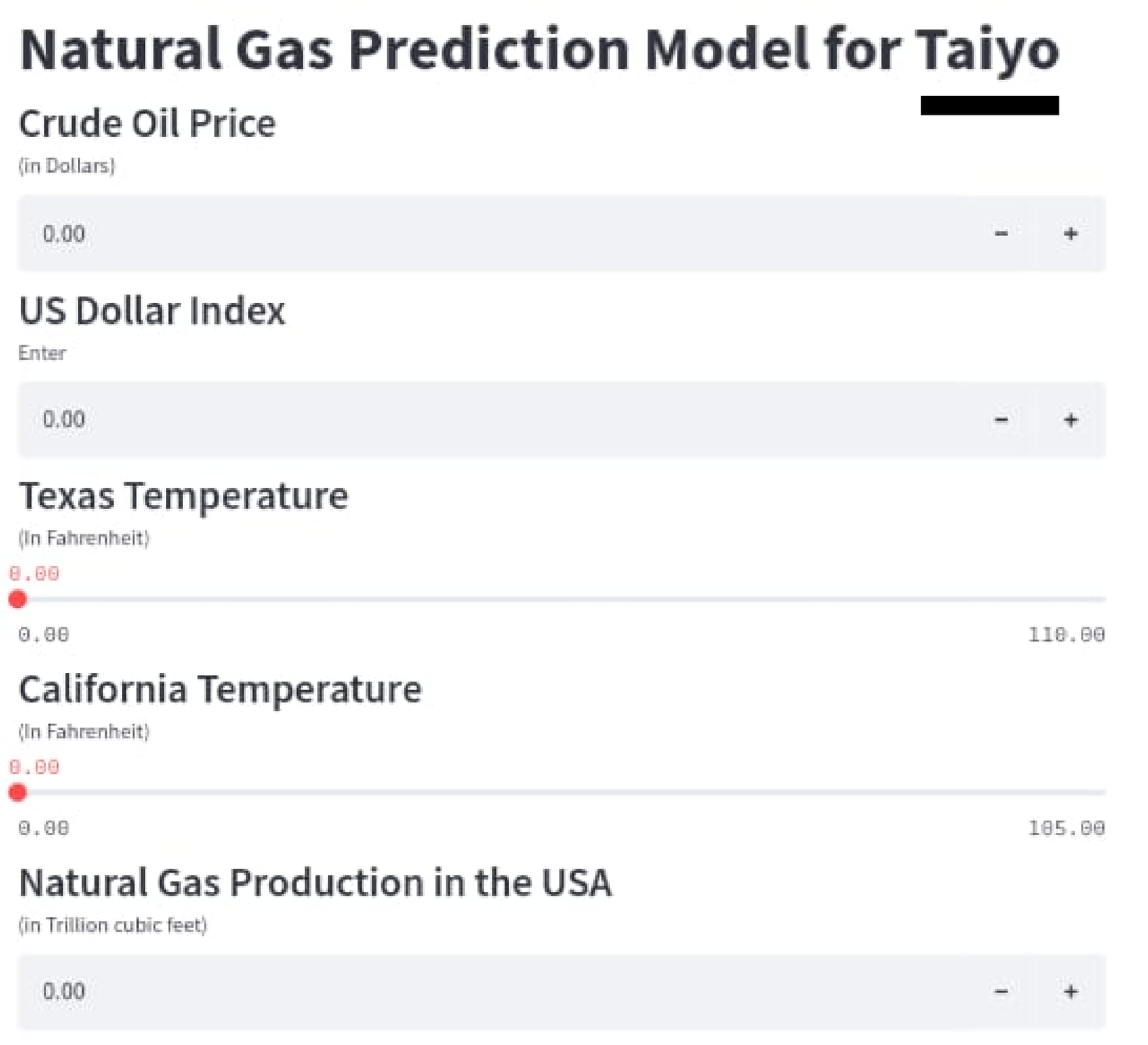


DATA SELECTION

Hence, through conclusions, the final dataset was created by web scrapping, csv collection, and more!

Source: link.springer.com/article/10.1007

A web application built by me using the machine learning mode.



THANK YOU!

I hope you enjoyed reviewing my assignment!

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