

# Analysing the Effect of Longitude and Latitude on European Inflation Dynamics

Valentin Leuthard, Panagiotis Patsias, Liam Kane, Liam Tessendorf

December 4, 2024

# Motivation & Aim

- ▶ Inflation can stimulate economic growth but has limitations. <sup>1</sup>
- ▶ Rising prices reduce purchasing power, disproportionately affecting wage earners. <sup>1</sup>
- ▶ Understanding drivers of inflation is crucial.
- ▶ **We focus on whether geographic coordinates (longitude, latitude) influence inflation rates in Europe.**

---

<sup>1</sup> “The Effect of Inflation on Economic Development” (1963) 

# Data

- ▶ Inflation data: *OECD dataset* (29 European countries, Dec. 2005 – Sep. 2024).
  - ▶ Removed missing time periods for consistency.
- ▶ Geographic data: Google's *countries.csv*, filtered for European countries.
- ▶ **Processed data ready after running:** `make data`.

# Methodology

- ▶ Longitude-latitude
  - ▶ Use centroid-based longitude and latitude for each European country.
- ▶ Model
  - ▶ Linear regressions on inflation using longitude, latitude, and both.
- ▶ **Goal: Identify any measurable geographic influence on inflation.**

# Results

...

# Discussion

...

# References I



“The Effect of Inflation on Economic Development” (1963). In: *IMF Staff Papers* 1963(001), A001.