

Why Do Some Nations Have More Renewable Energy Policies?

By Melissa Dahl

Renewable Energy



Previous Literature

- J.L. Lewis: Found that markets have a big influence on the adoption of renewable energy policies
- Rolf Wustenhagen: Found that “Social Acceptance” has a big influence on the adoption of renewable energy policies

Variables

- ◉ Dependent Variable: Number of renewable energy policies that each nation has

What is a Renewable Energy Policy?

- ◉ The principle driver of today's growth in renewable energy use
- ◉ Measures taken to reduce greenhouse gas emissions, improve energy efficiency, and support renewable energy development and deployment
- ◉ Different examples of renewable energy policies:
 - > Policy Targets
 - > Feed-in Tariff
 - > Renewable Portfolio Standard Policies

Variables Cont.

◉ Independent Variables:

- > GDP
- > GDP per capita
- > Party in control
- > Whether the party is left-wing
- > How many years since 1990 the party in control has been left-wing
- > Type of government
- > Number of prominent parties in the nation

- ◉ Population
- ◉ Labor force
- ◉ Voice and accountability
- ◉ Political stability and absence of violence/terrorism
- ◉ Government effectiveness
- ◉ Regulatory quality
- ◉ Rule of law
- ◉ Industrialization

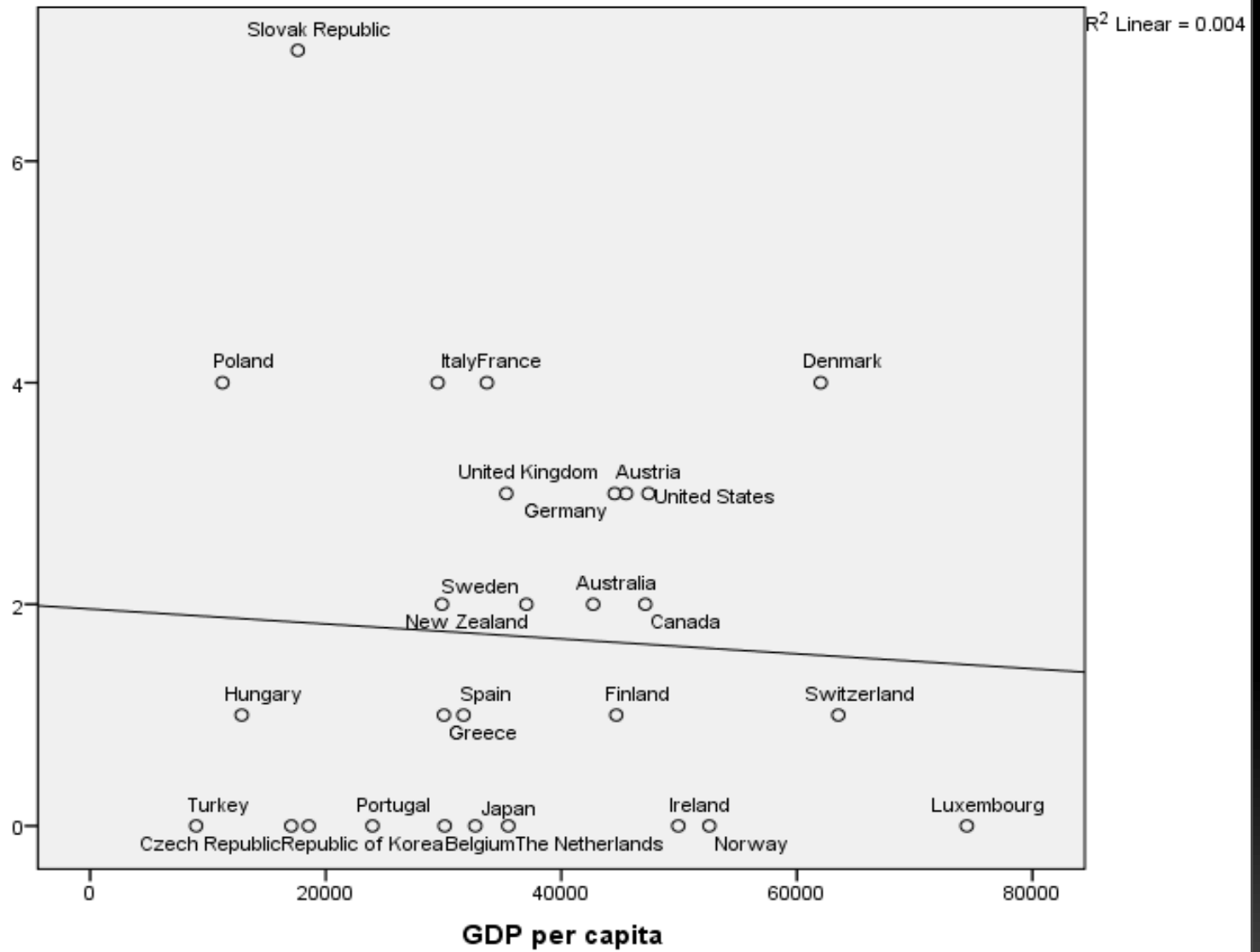
Leaders:

- Right now, the leader in the number of renewable energy policies is Slovakia
- Trailing behind are Poland, Italy, and France
- The U.S. is behind with only three renewable energy policies in place today
- Why?

Nations Studied

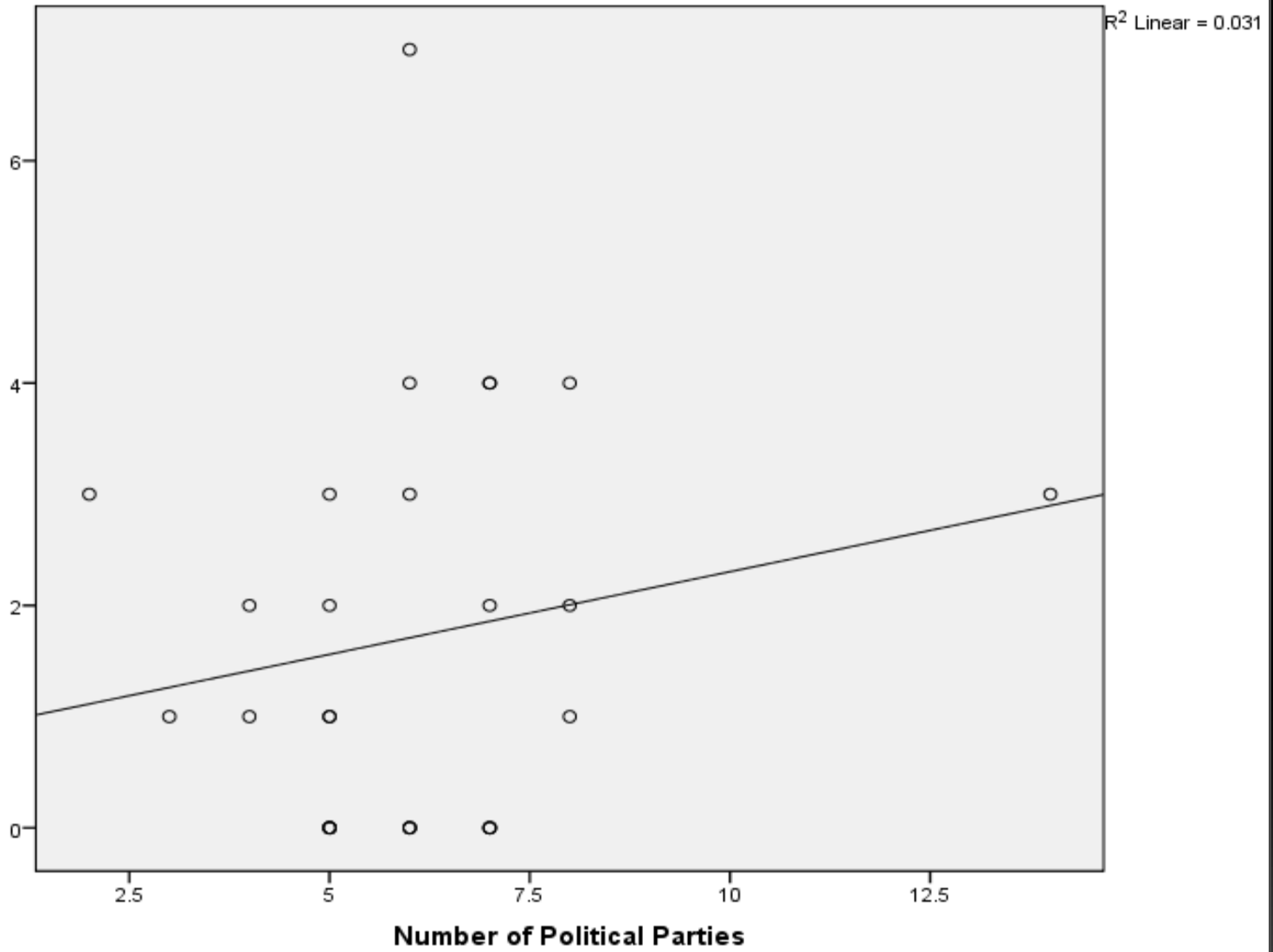
- 28 nations, all members of the Organisation for Economic Co-operation and Development (OECD) and members of the International Energy Agency (IEA)
- Why these nations?

GDP PER CAPITA



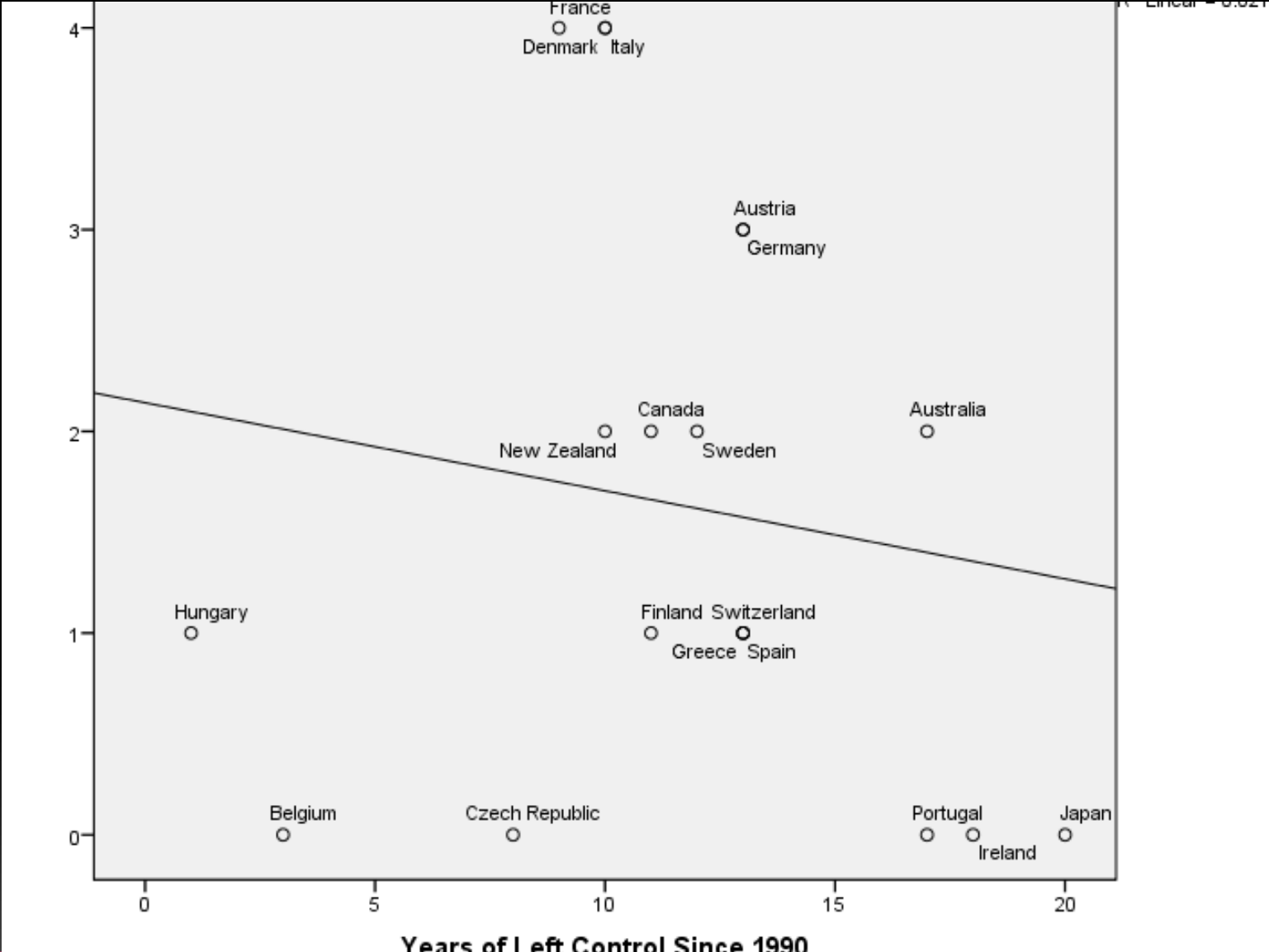
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NUMBER OF PARTIES



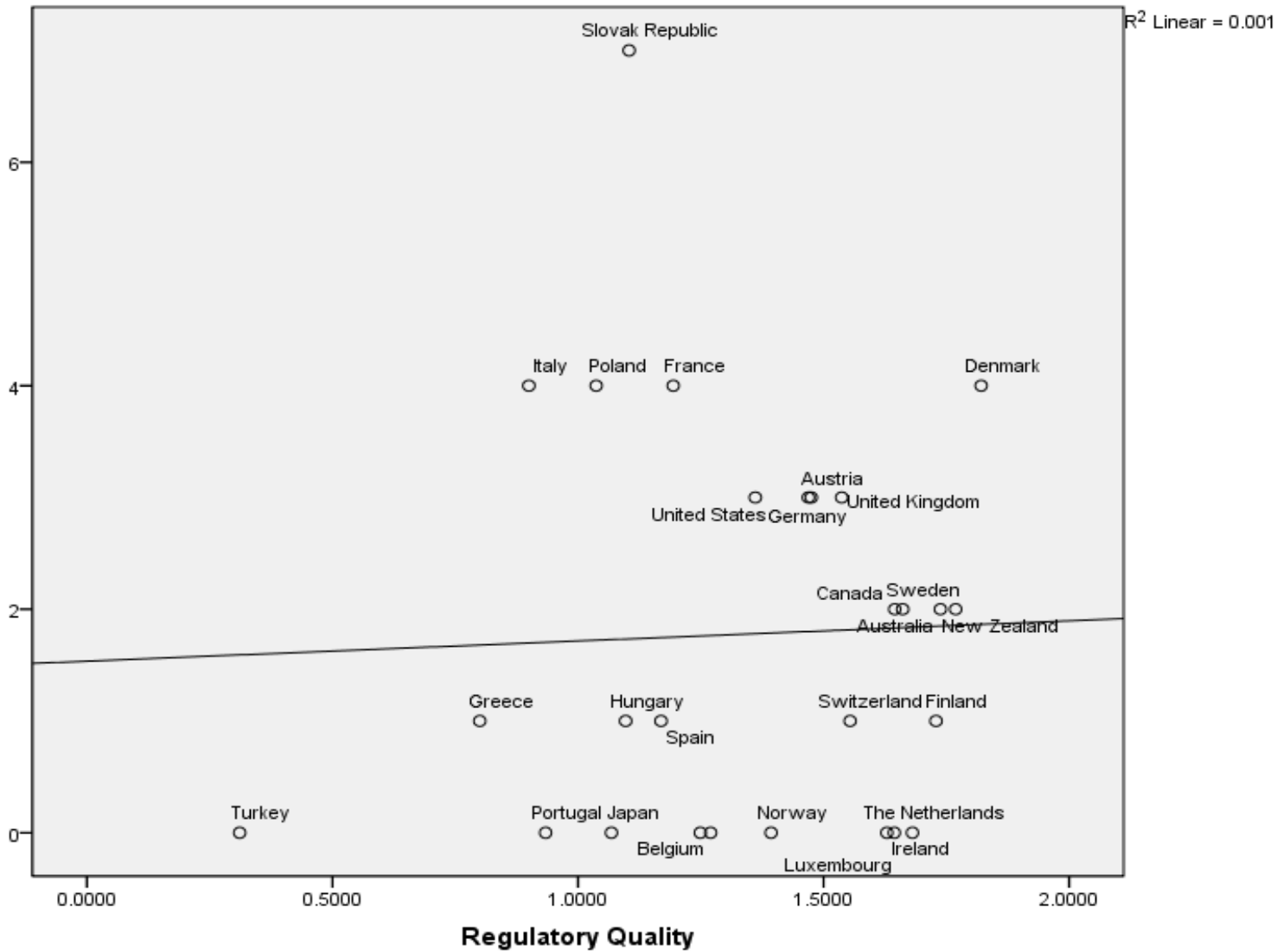
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NUMBER OF YEARS SINCE 1990 THE LEFT SIDE HAS BEEN IN CONTROL



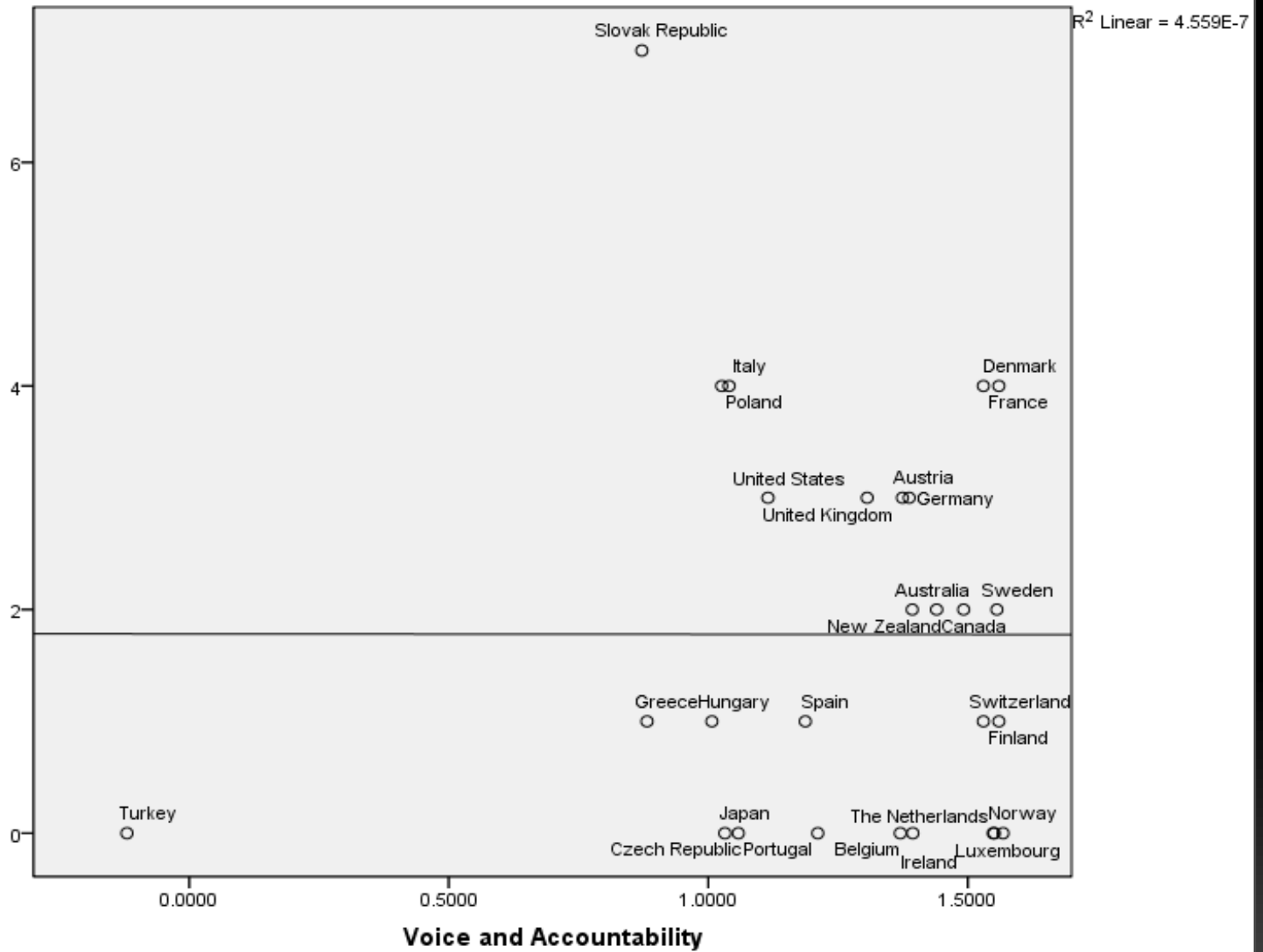
R2 = .021
Sig. = .557

REGULATORY QUALITY



Sig. = .918

VOICE AND ACCOUNTABILITY



Sig = .913

Conclusion/Findings

- The only variable that matched up with my hypothesis was the # of parties
- The number of years in left party control since 1990 had surprising results (as the years went up, the number of renewable energy policies went down)
- Other variables had little to no effect on the number of renewable energy policies



Conclusion Continued

- One possible reason that Slovakia is a leader in renewable energy policies is that it is a newer nation and in order to join the EU and IEA they needed to meet certain renewable energy requirements
 - > In order to reduce its dependency on imported energy



A little more on Slovakia

- Types of renewable energy policies:
 - > Act on support of renewable energy sources and high efficiency CHP
 - Incentives/subsidies
 - Policy processes
 - Regulatory instruments
 - > Biomass action plan 2008-2013
 - Policy processes
 - > Excise tax exemption for electricity generated from renewable energy sources
 - Financial
 - > Ordinance: rights and obligations of the electricity market participants
 - Regulatory instruments
 - > Slovak Republic new energy policy
 - Policy processes

Slovakia Continued

- > Act on energy and amendments
 - Policy processes
- > Environmental fund
 - Subsidies/Incentives

Revisions/Additions

- Run more tests in order to find some other connections or inferences as to why some nations have more renewable energy policies than others
- Do these nations that have more renewable energy policies have more renewable energy use?

Sources

- ◉ International Energy Agency
- ◉ CIA World Factbook
- ◉ Wikipedia
- ◉ Worldbank
- ◉ ZPC European Governments
- ◉ Scholarly Journals

Questions?

Thank you for coming 😊