

What is really behind the adoption of new renewable electricity generating technologies?

By Patrick Narbel, Norwegian School of Economics

The share of power from renewable energy technologies which have not reached grid-parity is globally increasing, yet this share differs significantly between countries. The objective of this study is to demonstrate the importance of energy security, climate change mitigation and income levels in explaining these differences. In particular, the author explores the influence of coal and natural gas on a country's level of energy security and on its potential to mitigate climate change. Results from weighted least squares on 107 middle and high income economies show that the two political objectives of energy security and climate change mitigation are additive in the case of coal, while they may counterbalance each other in the case of natural gas. Rich countries largely relying on coal imports to generate their power are those achieving the highest shares of new renewables.