

## Abstract

This thesis evaluates the evidence of decoupling of emissions and economic growth. More specifically, it draws upon previous literature and estimates both the short run and long run elasticities of emissions using an altering method. Most recent data for production and consumption based CO<sub>2</sub> emissions on the world's top 23 emitters is used. The baseline model is extended to measure decoupling at the global level by using panel data analysis and by aggregating emissions and growth variables to create a world level time series. Further, the validity of the Environmental Kuznets Curve hypothesis is tested at the individual country and global levels. Results provide evidence of absolute decoupling in richer nations and relative decoupling in less developed countries. At the global level evidence of decoupling is mitigated. Comparison between consumption and production based elasticity estimates also provides evidence in favor of the Pollution Haven Hypothesis. Finally, sensitivity checks are conducted by estimating elasticities on a subsample and robustness checks suggest evidence is weak and not robust to the estimation method.

**Keywords::** Emissions-output decoupling, HP filter, OLS, absolute decoupling, Environmental Kuznets Curve, emissions-output elasticity

**Title:** Emissions-output decoupling: evidence from long-run and short-run elasticities