

# Drivers of Climate Change?

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Political and Economic Explanations of Greenhouse Gas Emissions

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Lægreid, Ole Martin. 2016. "Political and Economic Effects on Greenhouse Gas Emissions - a Quantitative Study". *World Political Science Review*, 10(2): 313-341.

Lægreid, Ole Martin. 2017. "Re-examining the GDP-CO<sub>2</sub> Relationship With a Heterogenous Panel Estimator and Accounts for Asymmetry". Unpublished manuscript.

Lægreid, Ole Martin & Povitkina, Marina. 2017. "Do Political Institutions Moderate the GDP-CO<sub>2</sub> Relationship?". Unpublished manuscript.

Lægreid, Ole Martin & Duit, Andreas. 2017. "The Power of Visible and Invisible Hands: SO<sub>2</sub> Emissions and Regulations in 33 Countries 1975-2008". Unpublished manuscript.

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**Abstract**

This PhD dissertation examines if social scientific theories can explain historical trajectories of greenhouse gas emissions. The manuscript includes an introductory chapter and four articles that consider annual emissions in countries across the world, during the time-period 1960-2014. In these texts, Ole Martin Lægreid addresses gaps that arise when environmental economic- and political science research are compared, and he utilizes modern econometric methods to produce reliable results. The main findings suggest that positive economic growth leads to increased greenhouse gas emissions, regardless of how rich countries are to begin with. The results furthermore suggest that the effect of economic growth on emissions is essentially unaffected by the extent of civil society participation, democracy, corruption, and institutional concentration of political power. Another finding is that positive economic growth does not lead to more extensive and stringent emission policies, but these policies still have considerable negative impact on emissions. In contrast to conventional theories in environmental economics and political science, the dissertation therefore concludes (1) that economic growth is not a viable path toward greenhouse gas emission reductions, and political-institutional reforms are unlikely to change this misfortune; and (2) that ambitious public emission limits may lead to emission reductions, but such policies are not necessarily driven forward by economic growth.

**Key Words:** Climate change mitigation, CO<sub>2</sub> emissions, Environmental Kuznets-curve, Corruption, Democracy.