

Common Goods & Distribution

Public Finance and Environmental Policy in an Unequal World

David Christian Klenert

Abstract

Tax policy in the 21st century faces three key challenges: mitigating inequality, the possibility of high levels of global warming through the unregulated release of greenhouse gases into the atmosphere and a lack of investment in infrastructure. Global warming and underfinanced infrastructure are a consequence of mismanaged common goods. This thesis argues that policies regulating the use and the supply of these common goods can also have beneficial effects on the distribution of wealth and income.

For that purpose I analyze the distributional effects of different policy designs which regulate the use and supply of common goods. The thesis consists of two parts each corresponding to one of the two common goods:

In the first part, I study policies that manage the common good of the atmosphere in its function as a carbon sink and their distributional impacts. Such climate policies can affect poor households disproportionately since they spend a higher share of their income on carbon-intensive subsistence goods. The overarching research question in Part I is: how can climate policies be designed such that they are distributionally neutral or progressive? In this context I also discuss the following, more general question: to what extent can interactions between public and climate policies enhance welfare?

Part II of this thesis focuses on infrastructure in a broad sense including transport and energy infrastructure as well as investment in the education sector. Infrastructure is of major importance for an economy's growth trajectory, but also underfinanced in large parts of the world. I therefore analyze the equity and efficiency impacts of different financing mechanisms for public investment in infrastructure. The main research question is: how can public investment in infrastructure be financed to be distribution-neutral or even inequality-reducing? I further use a model in which wealth is disaggregated into physical capital and land, and in which households differ in the strength of their savings motive, to answer the following question: which combination of wealth-based taxes can reduce inequality without harming efficiency?

This thesis analyzes different design options for policies that regulate common goods in terms of their equity and efficiency implications. The main finding of this thesis is that, when equity considerations are included in the assessment of policies which regulate common goods, these policies can be designed to be distribution-neutral or even progressive. It thus provides additional reasons for implementing stricter common good policies, such as a higher carbon price and increased public investment in infrastructure. It further argues that accounting for interactions between public and climate policies is needed for a sound appraisal of second-best policies. Finally, this thesis demonstrates that wealth inequality can be reduced without harming economic output.