

Green growth and net zero policy in the UK: some conceptual and measurement issues.

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Abstract

This paper discusses some of the fundamental issues related to the future growth of productivity under net zero climate change policies. The aim of the paper is to discuss just how challenging it will be for an advanced economy with a net zero target to grow total factor productivity.

The paper proceeds as follows. We begin by discussing the concept of green growth and a green industrial revolution. The focus of economic development here is on growth with minimal environmental impact. We then relate the green economy to the circular economy. The circular economy emphasises reduced material consumption and increased material recycling. We then discuss GDP measurement and how this relates to productivity growth under climate policies. Finally, we use a worked example of the projected growth under net zero of the electricity sector in Great Britain to show just how challenging raising even maintaining the level of TFP will be in that sector in the years out to 2050.

Keywords:: Green growth, net zero, circular economy, future energy scenarios, productivity.

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