

Science Funding

SCIENCE POLICY RESEARCH UNIT

Climate Change

Innovation Systems Energy Sustainability

Growth Development Emerging Techno

Government borrowing for Net Zero carbon investment: What are the real resource constraints?

Chair: Prof. Tim Foxon

Professor of Sustainability Transitions,
SPRU, University of Sussex, UK

MMT Conference, Leeds, 17th July 2024

Socio-technical Systems Transitions Fo

Poverty Low Carbon Infrastructure In

Inclusive Growth

Creative Industries



BUSINESS
SCHOOL

Digital Training

Biomedical Ur

Outline

- Challenges for Net Zero carbon investment from an MMT perspective
- UK and EU viewpoints from:
- Prof. Tim Foxon, Professor of Sustainability Transitions, SPRU, University of Sussex
- Dr Eric Kemp-Benedict, Associate Professor of Ecological Economics, School of Earth and Environment, University of Leeds
- Dr Dirk Ehnts, Author of 'Modern Monetary Theory: A Simple Guide to the Monetary System', Steinbeis University Berlin and Torrens University, Adelaide
- Dr Josh Ryan-Collins, Associate Professor in Economics and Finance, Institute for Innovation and Public Purpose, UCL

Investment for Net Zero

- For the UK to be on track to be Net Zero by 2050, Committee on Climate Change estimates additional capital investment of £50 billion per year is needed by 2030
- This requires public investment to lever private investment, for large-scale low carbon electricity generation and industrial transformation
- In their manifesto, UK Labour Party reduced the public funding for Green Prosperity Plan from £28 billion per year to £15 billion per year, citing the need to need to stay within the fiscal rule of UK government 'debt' falling as a proportion of GDP by the end of 5 year period
- Ambitious plans for Clean Power by 2030, Great British Energy (£8.3bn) to invest in low carbon generation, Warm Homes Plan (£1.3bn) and National Wealth Fund for industrial transformation (£7.3bn)
- But are these large enough to stimulate private investment, compared to \$369bn for public energy investments under US Inflation Reduction Act?

What are real constraints on public investment?

- Avoiding fuelling inflation – though current inflation is largely a result of supply-side shocks, including increasing international energy prices, and firms increasing prices to protect profits (Weber and Wasner, 2023)
- Political perceptions of ‘fiscal responsibility’ and ‘fiscal rules’
- Real ecological or biophysical constraints, in relation to natural resource inputs and impacts on natural systems, including climate change and biodiversity loss
- Can macroeconomic policy distinguish between areas of government spending that are socially and ecologically useful (e.g. Green New Deal) and areas of spending that are not socially and ecologically useful, e.g. subsidies for fossil fuel production and tax breaks for wealthy individuals
- Need to combine insights from MMT and ecological economics

Perspective 1 – Green Growth

- Mainstream environmental economic perspective – Green Growth
 - Possible to decouple GDP growth from carbon emissions
 - Role of public investment is to lever and de-risk private investment
 - Public investment in low-carbon technologies will deliver a Keynesian economic stimulus that will lead to increasing jobs and tax revenues for governments to spend on other environmental and social priorities
- Critics from an ecological economics perspective question:
 - The ability to decouple GDP growth (increasing value of production and consumption) from carbon emissions
 - Does not address other ecological impacts, including material basis of economy and impacts on biodiversity loss
 - Does not directly address social equity issues (most of the gains from GDP growth in rich countries go to the already wealthy)

Perspective 2 – Post growth or Degrowth

- Alternative ecological economic perspective – Post growth or Degrowth
 - Unlimited economic growth is not possible on a finite planet
 - Economies should be restructured to focus on meeting needs of all within planetary boundaries
 - Delinking human well-being from economic growth, including universal provision of basic services (energy, housing, food, etc), whilst scaling down destructive forms of production in a just and stable way
 - Emphasis on equitable energy demand reduction measures, as well as low-carbon energy supply
- Critics from an environmental economics perspective question:
 - Danger of keeping people locked in poverty without economic growth
 - Source of funds for public spending on social goods
 - Limits on individual freedom for high-impact consumers

Combining MMT and ecological economics insights

- Olk, Schneider and Hickel (2023), 'How to pay for saving the world: Modern Monetary Theory for a degrowth transition', [*Ecol Economics* 214](#)
- Degrowth: against artificial scarcity of essential goods
- MMT: against artificial scarcity of money
- Mutually enriching: incorporating ecological constraints into MMT
- Common monetary and fiscal policies:
 - Shifting taxation away from labour to wealth and resources
 - Credit regulations: supporting credit for social and ecological goals
 - Price controls, reduced working time and universal public services
 - Job guarantee
- Further research needed to synthesise MMT and ecological economics perspectives