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The Ecological Boundaries of Green Keynesianism

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Abstract

To stop climate change, we must drastically cut greenhouse gas emissions. The current reduction rate is inadequate, accelerating climate change. This calls for a drastic shift in economic policy. Given the effectiveness of aid programs applied during the COVID-19 pandemic, some scholars believe that a unique opportunity has arisen to fundamentally change the paradigm and enact new economic policies to address ecological problems. This includes merging Keynesian fiscal policy with environmental objectives, known as Green Keynesianism, a key component of the Green New Deal. This article evaluates if Green Keynesianism, a variation of traditional economic policy focused on growth, is genuinely eco-friendly and can aid in greening the economy. It explores the fundamental characteristics of Green Keynesianism and reviews criticisms from ecological economists. The paper first defines Green Keynesianism and its Green New Deal role. It then debates ecological objections before presenting counterarguments.

Keywords: green Keynesianism, post-Keynesian economics, climate crisis, green new deal, ecological economics

JEL classification: B52, E02, E12, Q2, Q5

1. Introduction

On Monday 3 July 2023 the media worldwide reported that the Earth's average temperature had reached its highest value since regular measurements began. For the first time, Earth's global average 24-hour temperature exceeded the previously impassable limit of 17 °C. According to the IPCC report, if the Earth's temperature is to increase by no more than 1.5 °C, global emissions should be reduced to zero by 2050 (Rogelj *et al.*, 2018). Currently, the rate of reduction is insufficient, which is why climate change is progressing rapidly. Thus, we need a radical change in economic policy. Given the effectiveness of aid programs applied during the COVID-19 pandemic, some scholars believe that a unique opportunity has arisen to fundamentally change the paradigm and enact new economic policies to address ecological problems (Hepburn *et al.*, 2020; Chen and Li, 2021; Robinson, 2022). One suggestion is to combine the Keynesian fiscal policy with environmental goals, referred to as Green Keynesianism (Harris, 2013, 2019; Goldstein and Tyfield, 2018; Cömert, 2019; Green, 2022; Legiędź, 2023). Such economic policies are an important element of the Green New Deal (GND), with advocates of this approach directly referring to Keynesianism, which is now developed mainly by the post-Keynesian school. However, the main objective of traditional economic policy based on the Keynesian paradigm has always been economic growth, which begs the question of whether Green Keynesianism can indeed be green.

The aim of this article is to evaluate whether Green Keynesianism is truly ecological and whether it can help the green transformation of the economy. This article examines the basic features of Green Keynesianism and discusses its critiques by ecological economists. This study uses a qualitative analysis method that includes literature review and descriptive analysis. The methods used included deductive and causal relationship analyses. The paper is organised as follows: The first section explains what Green Keynesianism is and its role in the Green New Deal. Ecological arguments against Green Keynesianism are then discussed. In the third section, counterarguments are presented. Finally, the fourth and last section of the article consists of concluding remarks.

2. What is Green Keynesianism

Green Keynesianism is a term used to describe the combination of Keynesian fiscal policy with environmental goals (Harris, 2013). It proposes that government spending can be used to stimulate economic growth, while also promoting environmentally sustainable practices. The idea is that investment in green technologies and infrastructure can create jobs and boost economic growth, while also reducing carbon emissions and promoting sustainability. The concept of Green Keynesianism is still relatively new and has been explored by economists and policymakers. It is noteworthy that Green Keynesianism now draws more on heterodox post-Keynesianism than traditional Keynesianism[1]. Although it shares some similarities with traditional Keynesianism, it also incorporates important differences that reflect the need to address the urgent environmental challenges facing the world today.

Just as traditional Keynesianism was linked to Roosevelt's New Deal policies, Green Keynesianism is closely linked to the Green New Deal. The term "Green New Deal" was initially used by American journalist Thomas L. Friedman in (2007), advocating for economic policies to create a clean energy industry. Around the same time, the British think tank New Economics Foundation published a report titled "A Green New Deal" (Elliott *et al.*, 2008). The report highlighted the interconnectedness of financial, economic, and ecological systems, proposing a significant transformation of these systems to protect the environment. The Great Recession temporarily shifted focus away from climate issues, but the idea of using Keynesian economics and increasing state spending, particularly in green sectors, soon gained traction to revive the economy and address climate concerns (Pettifor, 2022). Governments worldwide have begun considering investments in energy efficiency and renewable energy as part of their recovery packages. However, austerity measures took precedence in 2010 because of growing budget deficits (Mastini, Kallis and

[1] Keynesianism dominated mainstream economics for several decades until around the 1970s. However, there is no consensus on how to understand Keynesianism. Thomas I. Palley (2016), following James Tobin, refers to 'old Keynesianism' as an approach to macroeconomics derived from John Maynard Keynes (1973). However, the mainstream tended to be dominated by, as Joan Robinson (1962) put it, the "bastard Keynesianism" of the IS/LM model, that is, the interpretation of the General Theory through the lens of price and nominal wage rigidity. Today, mainstream economics includes New Keynesian economics, which Palley (2016, p. 632) calls "a genetic mutant of so-called IS/LM «bastard Keynesianism»". This approach retains almost nothing of traditional Keynesianism, while being very close to the economic thought of Milton Friedman. In this text, when the author writes about "Green Keynesianism", he is referring to "old Keynesianism", currently represented mainly by the post-Keynesian school, now classified as a heterodoxy.

Hickel, 2021). Despite this temporary setback, the concept of the Green New Deal continued to be discussed in academic circles, among environmental and social activists, and as a popular political slogan. GND proponents argue that addressing climate change requires involvement of the government, public investment, industrial policy, and economic planning. They believe that this approach represents a significant deviation from conventional economic thinking (Altenburg and Rodrik, 2017; Tienhaara, 2018; Aronoff *et al.*, 2019; Eckersley, 2021; Stilwell, 2021).

During economic crises, governments often turn to Keynesian economics to stimulate demand. This approach became popular during the Great Recession, and in response to the COVID-19 pandemic. However, although the climate crisis significantly impacts economies worldwide, it is not directly linked to business cycles or inadequate demand. This raises the question of whether government intervention through fiscal and monetary policies that aim to rebuild aggregate demand and confidence can effectively address the environmental crisis. Mainstream economics, including neoclassical synthesis, recognises market failures in the short run but assumes equilibrium and efficient resource allocation in the long term. However, they often overlook Keynes' emphasis on uncertainty (Keen, 1995; Berr, 2015). Given an uncertain future, business decisions regarding investments with long-term returns rely more on psychological factors than rational calculations. This uncertainty leads to fluctuations in investment demand, resulting in economic expansion and recessions. This parallel relationship between Keynesian economics and environmental protection highlights the inadequacy of market incentives to address long-term resource management and environmental problems such as pollution accumulation. Traditional market solutions are insufficient and extensive state interventions are required. Monetary policy alone, which is commonly relied upon in orthodox macroeconomic policy, does not direct investments towards climate change measures and cannot eliminate uncertainty to incentivise green investments effectively. To overcome these challenges, fiscal policies and direct state involvement in green investments are necessary.

However, there are some limitations to Green Keynesianism (Legiędź, 2023). First, some researchers have pointed to the problems of deficits and debt. Increased state spending on green investment can lead to increased public debt. According to the dominant economic approach, the government has three main sources of funding: tax revenue, bond sales, and printing money. Mainstream economics clearly takes a bad view of money printing, usually equating it with hyperinflation. Therefore when the problem of financing green investments arises, the government budget is treated in the same way as a household budget; you can only spend what you earn; if you run a deficit, you have to borrow money or tax people (Neneman, 2022). From this perspective, fiscal austerity is the most desirable economic policy. Post-Keynesians reject this approach, assuming that the government has a much greater capacity to finance investments through debt. Regardless of how big the deficit and public debt problem are, the second limitation of Green Keynesianism appears to be much more serious, and this is what the rest of the article is devoted to.

3. Ecological arguments against Green Keynesianism

In the previous section, we argued that Green Keynesianism assumes that economic growth can be combined with ecological goals, but for ecological economists, this is still not sufficient. Although ecological economics and post-Keynesian economics are both considered to be "heterodox" schools of thought, they differ in ecological issues, and ecological economists have raised several arguments against Green Keynesianism and post-Keynesianism (Tienhaara, 2018; Green, 2022).

First, they strongly disagree with Keynesians' focus on economic growth, which is considered a solution to environmental problems (Ward *et al.*, 2016; Hickel, 2019; Althouse, Guarini and Porcile, 2020; Hickel and Kallis, 2020). Ecological economists have criticised post-Keynesians for neglecting environmental issues and for succumbing to the same growth paradigm as the neoclassical school (Daly, 2007). They argue that the growth of the global economy may no longer be welfare-improving. Continued economic growth is unsustainable, and we need to reduce overall economic activity to reduce the environmental impact and prioritise social and ecological well-being. Green (2022) claims that the Green New Deal, which is based on Green Keynesianism, is unreliable. He believes that Keynesian commitment to a virtuous circle of rising investment, full employment, increasing income, and economic growth generates internal inconsistencies within Green New Deal proposals, undermining their coherence and suitability as visions of a green transition. This is because Keynesian inheritance is premised on the denial of ecological limits and tarnished by its historical association with environmental destruction. Its foundations and macroeconomic imaginaries are unfit as a response to the Anthropocene. The economic upswing experienced by capitalist countries implementing Keynesian-inspired macroeconomic policies after World War II resulted in a substantial surge in consumption, which significantly contributed to heightened emissions and climate change. Even if the government increases investment in green sectors of the economy, there is no assurance that the resulting green jobs will not generate revenue for further fuel consumption. As Hickel and Kallis (2020, p. 12) argue: "Growth amplifies energy demand, making the transition to renewable energy more challenging, and leads to increased emissions from land use changes and industrial processes." According to McCollum (2022), the pursuit of production and consumption growth under capitalism implies that renewable energy must continually increase its output to support its ongoing production and consumption. Failure to do so would result in stagnation and the potential collapse of employment, government finances, and household budgets.

Second, ecological economists argue that Keynesians and post-Keynesians do not go far enough in terms of environmental policies. They state that Keynesian approaches focus too much on technological solutions and are not sufficient to reduce overall consumption and production. As Kronenberg (2010) points out, work in the Keynesian vein tends not to address environmental issues, which has led ecological economists to criticise Keynesians and post-Keynesians for not bringing important insights into the environmental policy debate. Many ecological economists have shown growing interest in degrowth as a response to the environmental challenges facing the world today (Klitgaard and Krall, 2012; Hanaček *et al.*, 2020). Degrowth is defined as an equitable downscaling of production and consumption that reduces society's throughput of energy and raw materials. While there is no consensus among ecological economists on the feasibility and desirability of degrowth, some researchers believe that the world economy has to incorporate post-development theories, *Buen vivir*, and degrowth if they want to change something. It is difficult to combine the ideas of Green Keynesianism with the concept of degrowth.

Third, ecological economists argue that Green Keynesianism and Post-Keynesianism do not pay sufficient attention to ecological limits (Fontana and Sawyer, 2016). They state that these approaches assume that economic growth can continue indefinitely without causing environmental harm, which is impossible. Post-Keynesians, unlike neoclassical economics, do not pay much attention to scarcity, which is why mainstream economics, especially environmental economics, started paying more attention to ecological issues earlier than economists following the Keynesian approach. Ecological economists emphasise the importance of treating the economy as a subsystem of Earth's larger ecosystem and emphasise the preservation of natural capital. That is why Green Keynesianism should focus more on reducing overall consumption and production, and implementing policies that combine the awareness of environmental limits to growth with the wish for social justice.

4. Is Green Growth Possible

Although later than mainstream economists, post-Keynesians now acknowledge that ecological problems are among the greatest challenges facing humanity today (Harris, 2019). Moreover, owing to a number of assumptions that differentiate this school of economics from neoclassical economics (the rejection of equilibrium or the assumption of fundamental uncertainty), this approach will be much more useful than the mainstream approach that reduces environmental problems to externalities. However, the main issue remains the question of whether economic growth can be green. Can the ideas of Green Keynesianism or GND be reconciled with degrowth?

Some scholars associate Green Keynesianism with growth because, in the more traditional Keynesian view, the debt incurred to finance green investment is supposed to be repaid through economic growth, according to the principle of the multiplier effect. Certain versions of the GND assume that green bonds will be issued to finance green investment, which will then stimulate economic growth by generating sufficient tax revenue to offset debt. Therefore, the traditional model of 'public expenditure-growth-tax' may not align with ecological principles (Bailey, 2015). However, Mastini et al. (2021) point out three strategies for financing public investment without relying on economic growth. First, public spending can be reallocated from socially and environmentally damaging sectors (e.g. armaments or fossil fuel subsidies) or extracted from the expected positive effects of ecological transformation (e.g. reduced public health costs, unemployment benefits, defense spending, and climate change adaptation). Second, public investment can be financed through progressive taxation, which reduces inequality and generates revenue for public investment. Third, public investment can be financed through public banks, which would provide low-interest loans for public investment. These strategies can help finance energy transitions and public deficits without generating excessive economic growth.

Nevertheless, some proponents of the Green New Deal often downplay the deficit problem by adopting the views of economists associated with modern monetary theory (MMT),

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which challenges the notion that a country with sovereign currency is financially constrained (Nersisyan and Wray, 2019, 2021; Nersisyan, 2022). Unlike household budgets, the government has the power to issue currency. The feasibility of GND is not determined by the amount of money available but by the availability of resources. If resources are underutilised, the government can purchase and use them without causing inflation. In cases of insufficient resources, increased spending may lead to inflation; however, the government can mitigate the negative effects through measures such as tax increases, rationing, and price controls. Planning for GND requires efficient resource management, such as reducing investments in conventional energy sources to free resources for green energy projects. The MMT approach also emphasises job guarantee programmes as a means to achieve full employment and price stability, in which the government employs individuals by providing basic wages and welfare. In the context of GND, the job guarantee program could provide labour for planned green investments.

Therefore, there are many opportunities for growth that do not have a negative impact on the environment in terms of services, human capital, environmental infrastructure, renewable energy, and other benefits. As Harris (2013) correctly points out, even if growth is not possible in the long term, this does not mean that economic stagnation must be accompanied by high unemployment. The job guarantee can enable full employment even in a shrinking economy, thus allowing people to earn a living outside the realm of capital accumulation (Mastini, Kallis and Hickel, 2021). Other institutional solutions, such as reducing statutory working hours, are also available to increase employment, while reducing resource consumption. Keynesian policy instruments include measures that can be applied directly to environmental objectives. Environmentally damaging consumption can be effectively reduced by taxing specific goods and services or by increasing taxation on higher-income groups of the population. Some GND programmes go beyond the Keynesian approach and assume, for example, public ownership of energy companies and assets. The absence of a profit requirement for green investments could avoid the extensive growth necessary to ensure profits in the case of private investments.

Another major objection to Green Keynesianism is that it fails to address the global shift towards a sustainable economy. Most GND programs and Keynesian macroeconomic models focus on local, closed economies. However, to combat climate change effectively, there is a need for a significant global reduction in greenhouse gas emissions, which has not yet been achieved. Some countries have managed to reduce emissions while increasing production, but studies have shown that this often occurs through outsourcing pollution and causing environmental degradation in the Global South (Teixidó-Figueras *et al.*, 2016; Duro, Schaffartzik and Krausmann, 2018; Wiedmann and Lenzen, 2018; Zhu *et al.*, 2018). A proposal for a global version of the Green New Deal emerged after the global financial crisis to account for the unique challenges faced by developing countries. These countries not only lack resources for transitioning to a low-carbon economy but also lack the necessary technology (Barbier, 2010). Therefore, the global Green New Deal requires assistance from developed countries. However, as Chen and Li (2021) point out, such a global version of GND completely ignores the external and internal structural factors that countries in the Global South have to face. Even with financial and technological support, a successful transition may not be feasible because of the dominant mechanism of relocating polluting industries to the Global South, which leads to economic and environmental exploitation. The implementation of Keynesian or post-Keynesian policies poses problems that are primarily related to financing. Developing countries have limited room to increase their public debt, particularly in foreign currencies (Epstein, 2019; Palley, 2019; Vernengo and Pérez Caldentey, 2020). While issuing their own currency prevents default, dependence on foreign currency for resources and technology, along with borrowing needs, creates risk. A growing deficit can lead to currency depreciation, inflation, higher interest rates, capital flights, and a decline in real wage. Consequently, countries in the Global South are compelled to restrict borrowing in both foreign and domestic currencies. This does not imply that developing countries cannot use Keynesian policies but suggests that post-Keynesian perspectives, acknowledging the significant limitations of such policies, may be more appropriate for their case. Relying on the work of post-Keynesians, rather than Modern Monetary Theory theorists, would provide better inspiration.

Finally, there is an important argument regarding Green Keynesianism. Although neoliberal policies and the austerity paradigm continue to dominate economics, rapid climate change and its consequences are forcing pro-environmental change. In such a situation, from the point of view of social acceptance and political realism, the application of some form of Green Keynesianism seems much more feasible than the fulfilment of the demands of degrowth advocates. Green Keynesianism, after all, is a policy within capitalism that sees market actors as central to the transformation towards sustainability. The degrowth project envisages systemic change to bring about a profoundly different social order, demands citizen-led transformation, finds scientific legitimacy in the field of ecological social economics, and entails far-reaching global redistribution of economic resources. While proponents of degrowth do not suggest that all parts of the economy would have to shrink, it would entail a significantly lower standard of living for most citizens and would require the transfer of economic resources from the overdeveloped North to the Global South to make the world more equitable and less unequal (Buch-Hansen and Carstensen, 2021). In this context, the arguments of researchers who believe that degrowth is a luxury of the middle class and that many of the very poor still need economic growth to escape poverty seem to be valid. Implementing degrowth requires a wider transformation of social values; such a change does not occur overnight.

5. Concluding remarks

Environmental degradation is a consequence of a major flaw in modern economic systems. This flaw can be reduced by implementing ambitious social investment programs and redirecting economic policy towards more sustainable development. Green Keynesianism, even despite the flaws in this approach, can help in this. The most serious argument against Green Keynesianism has been presented by ecological economists. As they rightly point out, environmental degradation and climate change are precisely a consequence of economic growth, and Keynesianism is usually identified with growth. However, proponents of green Keynesianism and promoters of GND believe that an active macroeconomic policy directed at environmental goals can truly promote green economic growth. Moreover, even if further growth is not advisable, these tools can be used under growth-reducing circumstances. In such a situation, solutions such as a guaranteed work program, reduced working hours, taxation of environmentally harmful goods and services, or increased taxation for the richest can help reduce unemployment, even in the absence of further economic growth. Most importantly, however, proponents of Green

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Keynesianism and GND, unlike some ecological economists, propose solutions that only involve reforming existing capitalist economies and not abandoning the current economic system altogether. Thus, Green Keynesianism seems far more practical.

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