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Post-growth theories in a global world: A comparative analysis

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Abstract

The process of globalisation, the global pecking order, and most international development policies are anchored on the concept of economic growth, which is at the same time increasingly questioned on social and ecological grounds. Increases in global output (GDP) are indeed among the main drivers of energy and natural resources overuse, with potentially destructive consequences for the overall ecological balances sustaining life on the planet. As a consequence, a number of post-growth theories and approaches have emerged over the past few years. This article carries out a comparative analysis of three main post-growth schools of thought in order to trace back their origin, evolution, and policy impacts at the global level. It also investigates the main points of tension and synergy to advance the debate on how best to challenge conventional growth-based policies in the international arena.

Keywords: degrowth; global policy; post-growth; steady-state economy; well-being economy

Introduction

In contemporary international politics and global governance, power and status are intimately connected with the size and growth of a country's economy. In his influential book *The Rise and Fall of the Great Powers*, historian Paul Kennedy concludes that economic wealth is arguably more significant than military strength when it comes to determining a country's global status. Since the Bretton Woods conference of 1944, which instituted the current international economic and financial architecture, the objective of growth in the gross domestic product (GDP) has deeply influenced global dynamics and incentives in all policy areas, from international trade to foreign investment, from the actions of institutions such as the International Monetary Fund (IMF) and the World Bank to the membership of coveted 'clubs' such as the G7, the G20, and the Organisation for Economic Cooperation and Development (OECD), resulting in a global pecking order (e.g. the distinction between 'super powers', 'developed nations', 'emerging markets', and the membership of the various 'G' groupings are all based on these countries' historical GDP and growth rates).

As is also discussed in the Introduction to this Special Issue, there are many ways in which the concept of GDP growth has affected – often unconsciously – the various schools of thought

¹Lorenzo Fioramonti, 'Post-GDP world? Rethinking international politics in the 21st century', *Global Policy*, 7:1 (2016), pp. 15–24.

²Paul Kennedy, *The Rise and Fall of the Great Powers* (London: Vintage, 1988).

³Fioramonti, 'Post-GDP world'; Federico Demaria and Ashish Kothari, 'The post-development dictionary agenda: Paths to the pluriverse', *Third World Quarterly*, 38:12 (2017), pp. 2588–99.

in International Relations (IR). For instance, from a realist perspective, one may say that GDP growth has contributed to reshaping the notion of 'national interest', with a primary position given to economic expansion as opposed to past categories such as territorial expansion and military dominance. From a liberal/idealist perspective, we may argue that the GDP framework is underpinning an invariably positive notion of economic globalisation, as a virtuous process to bring about development and progress all over the world. From a constructivist perspective, the growth 'norm' can be described as a powerful tool to socialise different countries and different societies into thinking that there is only one way to achieve development, namely through the market economy (whose output is the only thing that GDP measures, as opposed to other forms of non-market production). Finally, from a post-colonial perspective, it is depicted as a new form of 'imperialism', which captures economic 'value' for the Global North (where most added-value activities happen) at the expense of the Global South (where the most polluting phases of production have been shifted), thus also obfuscating the fact that the overall material footprint of nations is still caused by mass consumption in the North, although it may be statistically attributed to production in the South.⁴

Over the past decades, a growing number of scholars, policymakers, and opinion leaders have begun to criticise the GDP growth framework on all grounds, pointing out how this approach may very well lead the international community towards social and ecological self-destruction.⁵ For some, GDP operates as a 'statistical laundromat', washing away the negative impacts of global industrial activities, including ecological catastrophes and social inequalities (within countries but also among countries).⁶ An 'accelerationist logic' seems to permeate the international community, which appears more intent to check 'how fast the wheels are running, [but] not where the car is going.⁷

Others have long pointed out how GDP treats those transactions in the global economy that cause negative impacts on human welfare (from military and security expenses to the expenditures needed to deal with environmental pollution) equally as those enhancing welfare (for instance, developing vaccines).⁸

Similarly, the concept of GDP growth does not consider the loss of value caused by increasing global production and consumption, especially in terms of social and environmental impacts, as indicated also by the United Nations Statistics Commission through its system of environmental-economic accounting (SEEA). On the contrary, the substitution of social and natural capital by economic capital (e.g. trust-based interactions such as personal and family care replaced by paid services such as private frail care, pristine forests turned into timber markets, ecosystem-based pest control mechanisms replaced by pesticides) is paradoxically considered 'positive' by GDP, insofar as it may increase economic monetary output.⁹

The pursuit of GDP growth has come under increasing criticism in global policy also because of the challenge to decarbonise the energy system and limit the adverse impacts of climate change. As a myriad of peer-reviewed scientific articles indicate, there is a strong correlation between energy

⁴John Smith 'The GDP illusion: Value added vs. value capture', *Monthly Review* (1 July 2012), available at: {https://monthlyreview.org/2012/07/01/the-gdp-illusion/}; Thomas O. Wiedmann, Heinz Schandl, Manfred Lenzen, and Keiichiro Kanemoto, 'The material footprint of nations', *PNAS*, 112:20 (2013), pp. 6271–76.

⁵Dennis Meadows, Donella Meadows, Jørgen Randers, and William W. Behrens III, *Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind* (Washington: Potomac Associates, 1972); Johan Rockström, Will Steffen, Kevin Noone, et al., 'A safe operating space for humanity', *Nature*, 461:7263 (2009), pp. 472–5; Sandrine Dixson-Declève, Owen Gaffney, Jayati Ghosh, et al., *Earth for All: A Survival Guide for Humanity* (Brussels: Club of Rome, 2022).

⁶Lorenzo Fioramonti, Gross Domestic Problem: The Politics behind the World's Most Powerful Number (London: Zed Books, 2013); Lorenzo Fioramonti, The World after GDP: Economics, Politics and International Relations in the Post-Growth Era (Cambridge: Polity Press, 2017).

⁷Herman E. Daly and Joshua Farley, *Ecological Economics, Principles and Applications* (London: Island Press, 2004), p. 268. ⁸Clifford Cobb, Ted Halstead, and Jonathan Rowe, 'If the GDP is up, why is America down?', *The Atlantic Monthly* (October 1995), available at: {http://www.theatlantic.com/past/politics/ecbig/gdp.htm}.

⁹Fioramonti, 'The world after GDP'.

use (and the ecological impacts thereof) and aggregate levels of GDP and growth. ¹⁰ In a world pursuing relentless GDP growth, reducing environmental impacts becomes extremely difficult, if not impossible altogether. ¹¹ For instance, the International Energy Agency finds that – between 2017 and 2018 – global energy-related CO_2 emissions grew by 1.5% (from 32.6 to 33.1 $GtCO_2$) in spite of improvements in energy efficiency ($-0.3 GtCO_2$) and of the deployment of more renewables ($-0.2 GtCO_2$). ¹² This is because, in the exact same period, GDP growth caused global CO_2 emissions to increase by 1.3 $GtCO_2$. Analysing advanced economies that have reduced their national emissions over the period 2005–15, some studies have found that – in addition to investments in renewables and energy efficiency – reductions in energy demand deriving from lower GDP growth rates have been a key driver of reduced emissions. ¹³

In 2020, a statement in the journal *BioScience* (endorsed by over 11,000 scientists in 153 nations) declared that the climate crisis could only be addressed through 'major transformations in the ways our global society functions and interacts with natural ecosystems'. In particular, they emphasised that 'our goals need to shift from GDP growth and the pursuit of affluence toward sustaining ecosystems and improving human well-being by prioritizing basic needs and reducing inequality'. In 2022, also the 6th Assessment Report of the Intergovernmental Panel on Climate Change predicated various transition scenarios based on post-growth principles. In 2025, and 2025 is a scenario of the Intergovernmental Panel on Climate Change predicated various transition scenarios based on post-growth principles.

Against this backdrop, this article explores the main schools of thought related to the concepts of post-growth and offers a comparative analysis of their stance and impact on global politics. The purpose of this analysis is to enhance our understanding of their genesis, evolution, commonalities, and differences, while advancing a global debate on the policy implications of post-growth.

Post-growth theories

The next sections will analyse various streams of work on post-growth, grouping them under three specific labels: steady-state economy, degrowth, and well-being economy. Although all these approaches have many similarities, common origins, and objectives, some of them focus mostly on balancing social needs and environmental limits, thus striving to achieve a long-term equilibrium between contrasting demands (these strands of work are grouped under the label 'steady-state economy'), others criticise the concept of growth head-on and believe that only a more convivial society can reconcile social development and ecological boundaries (these strands are grouped under the label 'degrowth'), while for other approaches the key is to reinvent the concept of growth itself, by replacing GDP and its focus on consumption and production with human and ecological well-being (this is the strand labelled 'well-being economy').

Steady-state economy

Strongly influenced by John Stuart Mill's postulation of a stationary state, the American ecological economist Herman Daly developed in the late 1970s the first macroeconomic model of a desirable zero-growth economy, which he termed 'steady-state economy' (SSE). Daly defines it

¹⁰See, for instance, the review carried out by Helmut Haberl, Dominik Wiedenhofer, Doris Virág, et al., 'A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part II: Synthesizing the insights,' *Environmental Research Letters*, 15:6 (2020), p. 065003.

¹¹Richard York and Shannon Elizabeth Bell, 'Energy transitions or additions? Why a transition from fossil fuels requires more than the growth of renewable energy, *Energy Research and Social Science*, 51 (2019), pp. 40–3.

¹²International Energy Agency, 'Change in global energy-related CO2 emissions and avoided emissions, 2017–2018,' Global Energy & CO2 Status Report 2019, available at: {https://www.iea.org/data-and-statistics/charts/change-in-global-energy-related-co2-emissions-and-avoided-emissions-2017-2018}.

¹³Corinne Le Quéré, Jan Ivar Korsbakken, Charlie Wilson, et al., 'Drivers of declining CO2 emissions in 18 developed economies', *Nature Climate Change*, 9:3 (2019), pp. 213–17 (p. 213).

¹⁴William J. Ripple, Christopher Wolf, Thomas M. Newsome, et al., 'World scientists warning of a climate emergency', *BioScience*, 70:1 (2020), pp. 8–12.

¹⁵IPCC, IPCC Sixth Assessment Report: Impacts, Adaptation and Vulnerability (Geneva: IPCC, 2022).

as an economy with 'a constant flow of throughput at a sustainable (low) level, with population and capital stock free to adjust to whatever size can be maintained by the constant throughput.' Therefore, steady state is defined in biophysical terms by three quantities: constant flows, constant stocks, and sustainable scale. However, Daly also emphasises areas of human activity that can grow indefinitely, from technological advancement to knowledge sharing, from cultural exchanges to information. Essentially, while the global biophysical economy needs to remain in equilibrium, there can and should be what Daly calls 'moral growth'. 18

This approach is underpinned by the idea that the economy is a subsystem embedded in a finite natural environment of limited resources and vulnerable ecosystems. This subsystem is 'open' in thermodynamic terms, that is, it can exchange both energy and matter with its surroundings. Hence, the economy imports natural resources for sustaining the production of goods and services and it exports waste and pollution as a result of consumption in a constant and irreversible flow. Since any subsystem of a finite non-growing system (the biosphere) must itself at some point also become non-growing, the SSE argues that the human economy must maintain itself in a steady state as an indication of stability and maturity. In this regard, proponents of a steady state do not reject economic growth altogether: from their perspective, the problem is that most countries pursue growth for too long, even when it becomes 'uneconomic,' that is, when the negative social and environmental impacts far exceed the benefits of increased consumption.¹⁹

Whereas classical economists believed that the economy would settle by itself in a stationary state as the rate of profit fell and capital accumulation came to an end, the proponents of a steady-state economy propose to reform of the global economy through intentional policies. A first policy would involve issuing and selling depletion quotas to the global population, with a view to imposing quantitative restrictions on the flow of resources throughout the world economy. To stabilise population, family planning should be enforced to ensure a levelled replacement rate across countries. Similarly, minimum and maximum thresholds on income and wealth should be adopted across countries, including universal welfare systems. In a low-growth scenario over a 30-year period (from 2005 to 2035), some studies indicate that, with the right mix of policies curbing excessive consumption and supporting social welfare, unemployment can be massively reduced, leisure can be increased, poverty can be virtually eliminated, greenhouse gas emissions can be minimised, and government debt can be kept under control.

With a view to flattening the curve in terms of material consumption but not on 'moral growth', more recent scholars have called for the world to replace its narrow definition of materialistic prosperity with one centred on providing the capabilities for people to flourish within ecological limits.²⁴ In a similar fashion, others have argued that prosperity can only be achieved through a balancing act involving the imperative of not exceeding planetary boundaries while guaranteeing

¹⁶Herman E. Daly, *A Steady-State Economy* (London: Sustainable Development Commission, 2008).

¹⁷Christian Kerschner, 'Economic de-growth vs. steady-state economy', *Journal of Cleaner Production*, 18:6 (2010), pp. 544–51.

¹⁸Herman E. Daly, 'The steady-state economy: Toward a political economy of bio-physical equilibrium and moral growth', in Herman E. Daly and Kenneth N. Townsend (eds), *Valuing the Earth: Economics, Ecology, Ethics* (Cambridge, MA: MIT Press, 1993), pp. 149–74.

¹⁹Frederik Berend Blauwhof, 'Overcoming accumulation: Is a capitalist steady-state economy possible?' *Ecological Economics*, 84 (2012), pp. 254–61.

²⁰Martin Fritz and Max Koch, 'Economic development and prosperity patterns around the world: Structural challenges for a global steady-state economy', *Global Environmental Change*, 38 (2016), pp. 41–8.

²¹Herman E. Daly, *Steady-State Economics: The Economics of Biophysical Equilibrium and Moral Growth* (San Francisco: W.H. Freeman, 1977); Daly, 'A steady-state economy'.

²²Philip Lawn, 'Facilitating the transition to a steady-state economy: Some macroeconomic fundamentals', *Ecological Economics*, 69:5 (2010), pp. 931–6.

²³Peter A. Victor, *Managing without Growth: Slower by Design, Not Disaster* (London: Edward Elgar Publishing, 2008).

²⁴Tim Jackson, *Prosperity without Growth: Economics for a Finite Planet* (London: Earthscan, 2009); Tim Jackson, *Post Growth: Life after Capitalism* (London: John Wiley & Sons, 2021).

the respect of minimum levels of social welfare.²⁵ In what has come to be known as the 'doughnut', the central hole of the model depicts the proportion of people that lack access to life's essentials (healthcare, education, basic income, and so on) while the edge represents the ecological limits that must not be exceeded to ensure a safe operating space for humanity.²⁶

Degrowth

While the concept of a steady-state economy was largely developed in a North American context (and has primarily spread to other English-speaking regions of the world), the degrowth movement emerged in France in the 1990s and has primarily spread to other European countries.²⁷ The term degrowth is often presented by environmental and anti-capitalist activists as a 'missile word, which strikes down the hegemonic imaginary of both development and utilitarianism.' According to Serge Latouche – arguably the primary scholar associated with this post-growth school of thought – degrowth is 'not a concept', but a 'political slogan with theoretical implications ... primarily designed to make it perfectly clear that we must abandon the goal of exponential growth.²⁹ Since 2008, academics and activists have been organising biennial international conferences making degrowth also a subject of scientific research, with hundreds of articles published in peer-reviewed journals. Environmental and social activists increasingly turn to degrowth as a framework for articulating their demands for a more ecologically sustainable and economically fair society.³⁰

The most detailed definition of degrowth is probably the one published in the proceedings of the 2008 Paris conference: 'We define degrowth as a voluntary transition towards a just, participatory, and ecologically sustainable society ... The objectives of degrowth are to meet basic human needs and ensure a high quality of life, while reducing the ecological impact of the global economy to a sustainable level, equitably distributed between nations.'³¹ In this regard, proponents of degrowth place more emphasis on social goals and democratic deliberation than SSE theorists. ³² For instance, the concepts of cooperation, autonomy, and direct democracy play a central role in the degrowth policy proposals. ³³ Abraham argues that a degrowth polity 'would ideally be orchestrated by municipalities governed and federated according to the principles of direct democracy ... based on the restoration and creation of the commons – self-managed collectives whose members equitably share the means of production (land, tools, knowledge, etc.)'. ³⁴ While degrowth presents itself as a bottom-up policy transformation, mostly relying on cross-cutting collaboration at the local level rather than global politics, the majority of its policy proposals imply top-down intervention (61%) and require direct control by national governments and international institutions, such as the case with consumption caps, increased taxation, and global trade regulations. ³⁵

 $^{^{25}}$ Kate Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist* (London: Random House, 2017). 26 Raworth, *Doughnut Economics*.

²⁷Daniel W. O'Neill, Measuring Progress towards a Socially Sustainable Steady State Economy (Leeds: University of Leeds, 2012).

²⁸Federico Demaria, Francois Schneider, Filka Sekulova, and Joan Martinez-Alier, 'What is degrowth? From an activist slogan to a social movement,' *Environmental Values*, 22:2 (2013), pp. 191–215 (p. 196).

²⁹Serge Latouche, *Farewell to Growth* (Cambridge: Polity Press, 2009), p. 8.

³⁰Giacomo D'Alisa, Frederico Demaria, and Giorgos Kallis (eds), *Degrowth: A Vocabulary for a New Era* (London: Routledge, 2014).

³¹Research and Degrowth, 'Degrowth declaration of the Paris 2008 Conference', *Journal of Cleaner Production*, 18:6 (2010), pp. 523–24 (p. 524).

³²O'Neill, Measuring Progress.

³³Martin Weiss and Claudio Cattaneo, 'Degrowth: Taking stock and reviewing an emerging academic paradigm', *Ecological Economics*, 137 (2017), pp. 220–30.

³⁴Yves-Marie Abraham, 'Décroissance: How the degrowth movement is blooming in Quebec', *Briarpatch Magazine* (29 April 2019), available at: {https://briarpatchmagazine.com/articles/view/decroissance}.

³⁵Inês Cosme, Rui Santos, and Daniel W. O'Neill, 'Assessing the degrowth discourse: A review and analysis of academic degrowth policy proposal', *Journal of Cleaner Production*, 149 (2017), pp. 321–34.

Well-being economy

While the SSE postulates the need for a balancing act between inherently contrasting demands (social and economic development vs. ecological limits) and degrowth puts forward a cultural critique of growth as an obstacle towards the creation of a more convivial and participatory society, the proponents of the 'well-being economy' (WE) believe that the problem is not growth per se, but the meaning it has acquired in contemporary societies. Rather than focusing on growth in production and consumption, the WE proposes to focus on growth in human and ecological well-being.³⁶

A new conceptualisation of growth requires moving beyond GDP (or abandoning it altogether) and adopting well-being indicators, which reveal the interconnectedness between natural, social, and economic value creation. In their view, replacing the 'wealth of nations' with the 'well-being of nations' would alter global policy dynamics and objectives: regionalisation of economic exchanges would be preferred to globalisation, collaboration across sectors would be preferred to competition, and decentralised forms of production (of energy, goods, etc.) would be considered more effective and productive than industrial centralisation through large corporations.³⁷

Departing slightly from the steady state and degrowth, the well-being economy maintains that a mere reduction in material consumption is no guarantee of expanding human and ecological well-being, unless specific policies are put in place and modes of production are fundamentally transformed. In their view, what is needed is a proactive transformation of governance, replacing all current macro and microeconomic performance indicators (from GDP to companies' bottomline Key Performance Indicators [KPIs]) with well-being parameters, in order to transition from economies of scale and mass production to customisation and self-production, and from centralisation and accumulation of profit to distribution of resources and economic democracy.³⁸ If operationalised within a well-being economy, governance systems, innovations based on peerto-peer, open-source software and hardware, 3D printing, blockchains, decentralised renewable energy systems (microgrids), and precision agriculture have the potential to help to localise and customise production and consumption, while promoting shorter value chains and local empowerment, providing economic opportunities for multiple forms of entrepreneurs while reducing overproduction and waste of resources.³⁹ Moreover, these innovations are redefining the very role of producers and consumers, blurring the boundaries between the two and enabling the emergence of prosumer models, 40 which increase participation in the economy and contrast with the passive consumption mode of contemporary consumerism, which is a significant cause of many social and psychological pathologies.

Comparing post-growth policies on global governance

Although all post-growth approaches share a common critique of the global economy predicated on the growth imperative, they present some differences as regards their stances vis-à-vis system transformation. For instance, degrowth scholars identify a potential incompatibility between the foundational institutions of market economies and the goal of a degrowth transition. As noted also

³⁶Lorenzo Fioramonti, 'Wellbeing economy: A scenario for a post-growth horizontal governance system', The Next System Project, available at: {https://thenextsystem.org/sites/default/files/2017-08/LorenzoFioramonti.pdf}; Lorenzo Fioramonti, Wellbeing Economy: Success in a World without Growth (Johannesburg: Macmillan, 2017); Robert Costanza, Elizabeth Caniglia, Lorenzo Fioramonti, et al., 'Towards a sustainable wellbeing economy', Solutions Journal, 9:2 (2018), available at: {https://thesolutionsjournal.com/toward-sustainable-wellbeing-economy/}; see also Wellbeing Economy Alliance, available at {www.weall.org}.

³⁷Fioramonti, 'The world after GDP'.

³⁸Lorenzo Fioramonti, Luca Coscieme, Robert Costanza, et al., 'Wellbeing economy: An effective paradigm to mainstream post-growth policies?' *Ecological Economics*, 192 (2022), p. 107261.

³⁹Fioramonti, 'Wellbeing economy: A scenario'; Fioramonti, Wellbeing Economy: Success.

⁴⁰European Environment Agency (EEA), *Textiles and the Environment in a Circular Economy* (2019), available at: {https://www.eionet.europa.eu/etcs/etc-wmge/products/etc-wmge-reports/textiles-and-the-environment-in-a-circular-economy/@@download/file/ETC-WMGE_report_final%20for%20website_updated%202020.pdf}.

Table 1. Main post-growth policy proposals for global governance.

Degrowth	Steady-state economy	Well-being economy
Indicators Abolish GDP and establish metrics of environmental limits	Indicators Total cost accounting and genuine progress	Indicators Multidimensional well-being dashboard
Fiscal reform Green tax reform, stop subsidies and public investment for polluting activities, incentivise the social and solidarity economy	Fiscal reform Adopt a cap–auction–trade systems for basic resource, an ecological tax and public trusts for the commons	Fiscal reform Shift taxes from 'flows' (labour) to 'harms' (pollution, waste) and 'stocks' (wealth, land), establish a progressive VAT, tax hikes for well- being diminishing activities and rebates for well-being enhancing production
Labour policy Promote work-sharing and reduction in working hours as well as curb inequality through basic and maximum income	Labour policy Limit inequality in income distribution with a minimum income and a maximum income and allow greater flexibility for part-time work and short working week	Labour policy Labour reform based on allencompassing definition of work: short working week, extended parental leave, decent pay, home office, and a better work-life balance
Globalisation Encourage local and sub-national exchanges, self-production, and self-sufficiency	Globalisation Stronger regulations on international commerce, move away from free trade, free capital mobility and downgrade financial institutions such as the World Trade Organization, the IMF, and the World Bank	Globalisation Redesign global economy through focus on regionalisation/locali- sation thanks to new sustainable technologies, while maintain- ing global flow of ideas and some services.

Sources: Giorgos Kallis, *Degrowth* (Newcastle upon Tyne: Agenda Publishing, 2018); Herman E. Daly, 'Top 10 policies for a steady state economy', Centre for the Advancement of the Steady-State Economy, available at: {https://steadystate.org/top-10-policies-for-a-steady-state-economy/}; Fioramonti et al., 'Wellbeing economy: An effective paradigm'.

by Michael Albert in this volume, there is a critical relationship between post-growth approaches and capitalism. The promoters of degrowth are sceptical that a post-growth economy can be achieved in a capitalist system, ⁴¹ while steady-state proponents do not necessarily reject the possibility that some form of capitalism may be compatible with a post-growth world. ⁴² For advocates of the well-being economy, the well-being transition may potentially be compatible with capitalism, yet a profoundly transformed one: while private property and proprietorship will continue to have their place, the role of public, collective, and shared ownership will increase significantly in recognition of the centrality of the nurturing of common resources to human well-being. ⁴³

Table 1 lists the most relevant global policy proposals put forward by post-growth proponents over the years. There are several nuances, but all schools of thought highlight the importance of four policy areas of intervention at the national and global level: (1) replace GDP with a set of integrated socio-economic-environmental indicators; (2) shift taxation from income to consumption and wealth; (3) achieve better balance through labour reform; (4) rein in globalisation by relocalising/reshoring economic activities.

Their common understanding is that post-GDP indicators are indispensable to assess the overall effectiveness of economic policies (from macro to micro), thereby informing policymakers and the private sector about the total cost of any industrial decision. In this vein, the so-called total cost accounting, for which many indicators have been produced (from the genuine progress indicator to the inclusive wealth index), is a precondition to reorient economic policymaking

⁴¹Latouche, *Farewell to Growth*, p. 8; Jason Hickel and Giorgos Kallis, 'Is green growth possible?', *New Political Economy*, 25:4 (2020), pp. 469–86.

⁴²Lawn, 'Facilitating the transition'.

⁴³Fioramonti, 'The world after'.

away from production and consumption towards a more comprehensive inclusion of social and environmental factors.⁴⁴

This connects with fiscal reform, with all post-growth approaches calling for a global and national tax system designed to take positive and negative externalities into account. In particular, goods and services produced at great cost for society and nature (for instance, because they generate negative impacts on collective health or ecosystem services) must be taxed more heavily than what is, by contrast, produced through regenerative and socially positive processes. Given that reduced consumption may lead to fewer tax revenues, some propose the introduction of new taxes on the wealthiest segments of society, with stronger safety nets for the poorest households: in short, an overall taxation system focusing on wealth and transactions (including energy and resource use), thus moving away from the current system based on direct taxation of labour and income. 45 As Jackson argues, conspicuous consumption – meaning the drive for people to consume expensive commodities as status symbols - is one of the main drivers of economic growth in affluent societies, which is why taxing luxury and resource-intensive goods at a higher rate than goods of everyday needs - through what could be called a 'progressive VAT' - would help address this form of positional consumption. 46 Furthermore, as 'well-being economists' argue, differential taxation should be introduced on goods that are more durable, more useful, and less harmful to the environment and collective health. Tax breaks on repairs would make it attractive for consumers to keep products longer in use but also create pressure on producers to offer long-lasting, repairable products.⁴⁷ Tax breaks on repairs would also support the spread of local initiatives such as repair shops and 'makerspaces', which would strengthen local communities and build social capital, as opposed to e-commerce or shopping malls. 48 From a well-being-economy perspective, customised forms of production, where goods and services are co-produced by producers and consumers and are personalised via repair, reuse, and recycling, new-generation manufacturing technologies, and decentralisation of energy production and consumption, are much less threatened by the risks that automatisation will reduce jobs, as opposed to the conventional processes of mass production, where personalisation and the 'human factor' plays virtually no role.⁴⁹

In this regard, all post-growth approaches argue for a redefinition of the concept of work, which should include all paid and non-paid activities (especially those performed in households and communities), with a view to rebalancing all socially useful activities and sharing roles in a more balanced fashion.⁵⁰ By reducing working hours and sharing more effectively, societies may also reduce all negative social impacts of existing imbalances, including crime and family breakdown, which would positively affect public expenditure on safety, health and social inclusion.⁵¹ All this is expected to further incentivise more sustainable lifestyles. Empirical research reveals that

⁴⁴Lorenzo Fioramonti, Luca Coscieme, and Lars F. Mortensen, 'From Gross Domestic Product to wellbeing: How alternative indicators can help connect the new economy with the sustainable development goals', *The Anthropocene Review*, 6:3 (2019), pp. 207–22.

⁴⁵David Klenert, Gregor Schwerhoff, Ottmar Edenhofer, and Linus Mattauch, 'Environmental taxation, inequality and Engel's law: The double dividend of redistribution', *Environmental and Resource Economics*, 71:3 (2018), pp. 605–24.

⁴⁶ Jackson, *Prosperity*; Armenak Antinyan, Gergely Horváth, and Mofei Jia, 'Curbing the consumption of positional goods: Behavioral interventions versus taxation', *Journal of Economic Behavior & Organization*, 179 (2020), pp. 1–21.

⁴⁷Claudio Cattaneo and Aaron Vansintjan, *Alternatives to Growth* (Brussels: Green European Foundation, 2016).

⁴⁸Fioramonti, Wellbeing Economy: Success; Magdalena Meißner, 'Repair is care? Dimensions of care within collaborative practices in repair cafes', Journal of Cleaner Production, 299 (2021), p. 126913.

⁴⁹Fioramonti, *Wellbeing Economy: Success*; Panagiotis Fragkos and Leonidas Paroussos, 'Employment creation in the EU related to renewables expansion', *Applied Energy*, 230 (2018), pp. 935–45.

⁵⁰Miklós Antal, 'Post-growth strategies can be more feasible than techno-fixes: Focus on working time', *The Anthropocene Review*, 5:3 (2018), pp. 230–6.

⁵¹Gerhard Bosch and Steffen Lehndorff, 'Working-time reduction and employment: Experiences in Europe and economic policy recommendations', *Cambridge Journal of Economics*, 25:2 (2001), pp. 209–43.

a 1% reduction in working time may cut energy use and greenhouse gas emissions by about 0.7% and 0.8% respectively.⁵²

Finally, all post-growth schools of thought demand a profound reform of globalisation to reorient industrial policies towards localisation and regionalisation. Paraphrasing Keynes's concept of national self-sufficiency, they argue that all forms of 'light' production (from culture to knowledge, from research to innovation as well as most of the service industry) should remain global, while the 'heavy' side of it should be localised to reduce the need for global trade in goods. Short supply and value chains would be imperative not only in sectors such as energy and food production (where long distances also mean loss of energy, additional conservation costs, and little or no community control over the production processes) but also in manufacturing, where additive technologies already allow to produce locally (with local inputs) anything that has been designed globally.⁵³

Building on a long-standing tradition of thought in political ecology, all post-growth approaches point towards forms of 'deep regionalism' or 'bioregionalism' as the best way forward for global governance, with a view to ensuring participation of local communities and joint management of natural resources. By bioregionalism, they mean cross-national regional governance arrangements driven by bottom-up pressures rather than top-down state policies, rising organically in accordance with social and spatial factors, including the production of transboundary renewable energy and the shared management of natural resources. While for some, this would entail a preponderance of localism (and even autarchy) at the expense of international collaboration, ⁵⁵ for others cross-border collaboration would be preserved and even enhanced as opposed to the current form of top-down globalisation, given that such micro-regions of sustainable cooperation would find themselves reciprocally entangled in multiple webs of territorial continuity, in a gradual shift 'from globalisation to continentalisation'. This form of bioregionalism would reduce global transportation of goods and would shorten value chains, thus ensuring less detrimental impacts on the environment and more social equity through a predominance of small enterprises as opposed to global corporations.

In terms of policy impact, the various post-growth approaches have thus far experienced varying degrees of success. The concept of steady state has so far not made significant inroads in policy implementation, although the 'Center for the Advancement of the Steady State Economy' based in Virginia has been since 2009 lobbying local, state, and federal decision makers in the United States to prioritise social and environmental objectives over GDP growth. Noteworthy, in this regard, has been the case of the 'doughnut' methodology, which has spread among several cities in Europe as a practical tool to advance post-growth objectives by assessing development policies at the local level. Degrowth advocates have been attempting to influence global policy processes mostly through publications and public events (for example, the 'Post-growth Conference at the European Parliament' held in Brussels in October 2018 and the conference 'Averting Systemic Collapse' organised by the OECD in 2019), yet they appear to face an uphill battle in being embraced bypolicy makers and politicians. Perhaps the radical concept of degrowth itself – originally intended

⁵²Jonas Nässén and Jörgen Larsson, 'Would shorter working time reduce greenhouse gas emissions? An analysis of time use and consumption in Swedish households', *Environment and Planning: Government and Policy*, 33:4 (2015), pp. 726–45.

⁵³Kristofer Dittmer, 'Community currencies', in Giacomo D'Alisa, Federico Demaria, and Giorgos Kallis (eds), *Degrowth: A Vocabulary for a New Era* (London: Routledge, 2014), pp. 149–51; Michel Bauwens, Vasilis Kostakis, and Alex Pazaitis, *Peer-to-Peer: The Commons Manifesto* (London: Westminster University Press, 2018).

⁵⁴Fioramonti, 'Post-GDP world', pp. 15–24.; Fioramonti, Wellbeing Economy: Success.

⁵⁵Rita Calvário and Giorgos Kallis, 'Alternative food economies and transformative politics in times of crisis: Insights from the Basque Country and Greece', *Antipode*, 49:3 (2017), pp. 597–616; Cosme, Santos, and O'Neill, 'Assessing'; Angelos Varvarousis and Giorgos Kallis, 'Commoning against the crisis', in Manuel Castells (ed.), *Another Economy Is Possible* (Cambridge: Polity Press, 2017), pp. 128–59.

⁵⁶Jeremy Rifkin, *The Third Industrial Revolution* (Basingstoke: Palgrave, 2011), p. 61.

⁵⁷Doughnut Economics Action Lab, *Designing the Doughnut: A Story of Five Cities*, available at: {https://doughnuteconomics.org/stories/93}.

as a 'missile word'⁵⁸ – runs the risk of 'backfiring' when used in active politics, policymaking, and electoral campaigns.⁵⁹ By contrast, the less confrontational approach of the well-being economy has thus far proven more successful at influencing policymakers and legislators at all levels of government. The most striking example is the establishment of a global policy alliance called Wellbeing Economy Governments (WEGo), officially launched in November 2018 at the OECD's World Forum. Within a few years of its launch, the network has come to include six national governments (New Zealand, Scotland, Iceland, Wales, Finland, and Canada), with a few more having indicated their intention to join in.⁶⁰ Although it is still too early to gauge the truly transformative impact of this policy initiative, it is quite encouraging to note that – since joining WEGo – all governments have set themselves very ambitious targets for the reduction of greenhouse gas emissions. Moreover, New Zealand has replaced its national budget law with a 'national wellbeing budget' prioritising the environment and the needs of future generations, Scotland has revised its national performance indicators away from a sole focus on GDP, Finland has proposed a four-day working week, and Wales has instituted a Future Generations Commissioner.

Conclusions

As public concern regarding the adverse effects of pollution and climate change is rising globally, the key tenets of economic growth are increasingly called into question. Consequently, post-growth discourses are becoming more and more prominent in academic debates. Their main thrust is to transform the global economy in a way that is not only environmentally sustainable, but also socially desirable.

This article has operated an initial synthesis of the best-known post-growth approaches grouping them into three categories: steady-state economy, degrowth, and well-being economy. Albeit these approaches stress different aspects of their critique of growth, they share numerous proposals and applications. The promoters of a steady-state economy have developed very advanced models for economic reform, yet they have had limited policy impact (with some notable exceptions, such as the 'doughnut' approach). The advocates of degrowth have been successful at shaping public discourse, especially among younger generations in Europe. Finally, well-being economists have had some successes in policymaking, for instance through the launch of the WEGo, a group of countries endorsing well-being-based economic policy reforms; but it is too soon to assess their policy impact.

When it comes to global policy, all post-growth strands share a deep critique of economic global-isation, which they criticise for being ecologically unsustainable and socially undesirable, especially insofar as it drives inequalities within and across countries. All the policies they propose, from post-GDP indicators measuring the ecological and social costs of international trade to the fiscal reforms aimed at eliminating subsidies for polluting activities, would push the global economy towards a realignment with the biosphere and the needs of people at the local level. Their aim is to contribute to shaping an international system that cares for 'people and planet', as the current sustainable development agenda of the United Nations indicates. At the same time, they reject the possibility of a mere return to inward-looking nationalism and autarchy, which is why they imagine the possibility of a new form of regional cooperation, not driven by states but by local communities, where civic participation and adaptability to social and ecological needs are of the essence.

In his contribution to this volume, Bentley Allan wonders 'what comes after growth'. All post-growth theories and applications discussed in this article indicate possible ways forward, although one should not underestimate the resilience of the current growth-based system to endure or water down any meaningful transformation. Most global economic processes, from international trade to credit rating and foreign investment, keep on rewarding those countries that pursue growth at

⁵⁸Demaria, Schneider, Sekulova, and Martinez-Alier, 'What is degrowth'.

⁵⁹Stefan Drews and Miklós Antal, 'Degrowth: A "missile word" that backfires?', Ecological Economics, 126 (2016), pp. 182–7.

⁶⁰See also the non-governmental global organisation Wellbeing Economy Alliance, available at: {https://weall.org/}.

all costs, generating perverse incentives. Yet the policy discourse of some financial institutions, in particular the OECD but also the World Bank and the IMF, is increasingly questioning the sustainability of the neoliberal global order. In particular, the OECD has been explicit about the need to focus on well-being and move beyond growth.⁶¹

The increasing costs of fossil-fuel energy and the security issues thereof and the need to transition towards greener industrial production and mobility as enshrined in global treaties about climate change are likely to affect the globalised economic system. These post-growth reflections are as much a set of policies to mitigate the risks of an unsustainable development trajectory as they are a blueprint for an international system based on progress and emancipation rather than one of sacrifices and restrictions.

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⁶¹OECD, Beyond Growth: Towards a New Economic Approach (Paris: OECD, 2020).