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Green growth's false premises and alternative policy proposals

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Οι εσφαλμένες βάσεις της πράσινης ανάπτυξης και εναλλακτικές πολιτικές προτάσεις

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ABSTRACT

Green growth recognizes the pressing environmental problems that are threatening the planet, but holds an optimistic view on the relation between economic growth and environmental protection. It presumes that the economy can continue to grow as long as it is geared toward finding new investment opportunities in innovations and technological developments that will lead to the greening of the economy. This will supposedly lead to a gradual decoupling of economic growth from resource use and environmental impact. Scientific evidence seriously questions the decoupling hypothesis, and theories critical of growth have suggested alternative policy proposals for environmental and social sustainability. These non-mainstream theories and analytical frameworks seem to be earning a wider acceptance nowadays.

KEY WORDS: Degrowth policies, green growth, decoupling, sustainability, OECD, European Green Deal

ΠΕΡΙΛΗΨΗ

Η πράσινη ανάπτυξη αναγνωρίζει τα πιεστικά περιβαλλοντικά προβλήματα που απειλούν τον πλανήτη, αλλά διατηρεί μία αισιόδοξη οπτική αναφορικά με τη σχέση οικονομικής ανάπτυξης και περιβαλλοντικής προστασίας. Θεωρεί ότι η οικονομία μπορεί να συνεχίσει να αναπτύσσεται αρκεί να είναι προσανατολισμένη στην εξεύρεση νέων επενδυτικών ευκαιριών σε καινοτομίες και τεχνολογικές εξελίξεις που οδηγούν στο «πρασίνισμα» της οικονομίας. Αυτό υποτίθεται ότι θα οδηγήσει σε μία σταδιακή αποσύζευξη της οικονομικής ανάπτυξης από την χρήση των πόρων και τον περιβαλλοντικό αντίκτυπο. Τα επιστημονικά δεδομένα εγείρουν σοβαρές αιτιάσεις ως προς την υπόθεση της αποσύζευξης, και θεωρίες που στέκονται κριτικά απέναντι στην ανάπτυξη έχουν προτείνει εναλλακτικές πολιτικές για την περιβαλλοντική και κοινωνική βιωσιμότητα. Αυτές οι μη ορθόδοξες θεωρίες και αναλύσεις φαίνεται να αποκτούν ευρύτερη αποδοχή τελευταία.

ΛΕΞΕΙΣ-ΚΛΕΙΔΙΑ: Πολιτικές για την αποανάπτυξη, πράσινη ανάπτυξη, αποσύζευξη, βιωσιμότητα, ΟΟΣΑ, Ευρωπαϊκή Πράσινη Συμφωνία.

1. Introduction

There is mounting evidence and alarming warnings by the global scientific community that future environmental conditions will be far more dangerous than currently believed and that the "scale of threats to the biosphere and all its lifeforms -including humanity- is in fact so great that it is difficult to grasp for even well-informed experts" (Bradshaw et al. 2021. See also Ripple et al. 2020, 2017; IPCC 2018; Ehrenreich 2021). Main areas of concern include the rapid loss of biodiversity and declining ecosystem services (creating health risks, such as the Covid-19 pandemic), danger of mass extinction of 20 percent of all species, population growth, and most importantly, the emergence of an affluent middle class worldwide, resulting in overconsumption and an increasing demand for energy and materials. Moreover, this contributes to increased production of waste, anthropogenic despoliation of two-thirds of the oceans, and alteration of 70 percent of the planet's land and the climate. The most disturbing thing of all, however, is the failure of the mainstream sustainable development and green growth policies to achieve even modest sustainability goals.

While economic growth is seriously harming the environment, sustainability's record in terms of its socio-economic aspects is not so sterling either. In many cases, what we are witnessing is a rise in the rate of debt, unemployment, poverty and inequality. Since 1980, the world's top 1% income share has captured twice as much total growth than the bottom 50% – and the top 0.1% income bracket has captured as much of the planet's growth as the bottom half of the world's population. Income growth has been sluggish or even non-existant for individuals with incomes between the global bottom 50% and top 1% groups. Increasing income inequality and the large transfer of public wealth to private capital that has been occurring over the past forty years has led to a rise in wealth inequality: at the global level the top 1% share of wealth increased from 28% in 1980 to 33%, while the bottom 75% share oscillated at around 10% (see Alvaredo et al. 2018: 286, for the above figures).

The global sustainable development goals (SDGs) of the 2030 Agenda (UN General Assembly Resolution 2015), as well as various green economy and green growth agendas that have been introduced by the UNEP (2011), OECD (2011, 2017), World Bank (2012), and the European Union (European Commission 2019), are aimed at tackling these challenges. As the OECD (2011: 4) puts it, "green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this, it must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities. We need green growth because risks to development are rising as growth continues to erode natural capital. If left unchecked, this would mean increased water scarcity, worsening resource bottlenecks, greater pollution, climate change, and unrecoverable biodiversity loss."

Although the green growth approach recognizes the pressing environmental and social challenges that exist, it presumes that the economy can continue to grow as long as it is geared toward finding new investment opportunities in innovations and technological developments that will lead to the greening of the economy. Economic growth will then address the problems of unemployment and poverty, bringing back prosperity for all. In this article, I will be supporting the claim that green growth is based on false premises and unrealistic expectations. I will then refer very briefly to an alternative perception of sustainability (degrowth) and present an indicative list of concrete alternative-to-growth policy proposals that can contribute to the sustainability cause. A recent "self-critical" OECD publication, making the case for the need for a paradigm change is offered at the conclusion.

2. Green growth's flaws

Green growth is based on the premise that the economy can continue to grow as long as it is gradually decoupled from resource use and environmental impacts. In the mainstream policy contexts of national states and international organizations, this decoupling is expected to be achieved primarily through the advancement of science, technology and some new regulatory initiatives. Investing in environmentally-friendly technologies and supporting industry to innovate are some of the main policy initiatives, and, of course, the goal is to boost the efficient use of resources by moving to a clean, circular economy. While green growth should be considered not as a replacement but as a subset of sustainable development (OECD 2011: 5), it is noted that the global 2030 Agenda includes as policy goals both decoupling (SDG 8.4) and sustainable consumption (SDG 12). The same decoupling goals are shared by the European Union's ambitious green growth policy framework in the case of the European Green Deal (EGD), which is defined as "a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use" (European Commission 2019: 2). As stated in the same Communication, the EGD is a roadmap for making the EU's economy sustainable, and this will happen by turning climate and environmental challenges into opportunities across all policy areas and making the transition just and inclusive for all.

There are many important goals and policy areas that the EGD covers: climate-neutrality commitments for 2050, improved emission reduction targets for 2030, a new Just Transition Fund for supporting the most affected people, such as those in industrial, coal and energy intensive regions, a Biodiversity Strategy for 2030, zero pollution policies, reducing the carbon footprint of the transportation sector, ensuring that the blue economy contributes to decarbonization, a new circular economy action plan, as well as a new "Farm to Fork" strategy for sustainable food, Carbon Border Tax, and review of the Energy Taxation Directive.

There can be no objection to these goals, and the strong political commitment and will that have been expressed by all the EU institutions to make Europe the world's first climate-neutral continent is noteworthy. It seems, however, that scientific evidence coming from many reliable sources seriously questions one of the basic premises of the green growth paradigm; that of decoupling economic growth from environmental degradation, resource and energy use. Not only is decoupling not taking place, but is not likely to do so successfully in the future either; at least if the sustainability policy mix does not take into consideration alternative measures that are not currently part of the green growth agenda. As Jackson's (2009) comprehensive discussion of the "myth of decoupling" has concluded, "it is entirely fanciful to suppose that 'deep' emission and resource cuts can be achieved without confronting the structure of market economies" (p. 57).

Parrique et al's (2019) review of the empirical decoupling literature demonstrates that absolute,[1] global, permanent, and sufficiently fast and large decoupling of environmental pressures (both resources and impacts) from economic growth simply is not happening. Furthermore, Parrique et al. (2019) list seven reasons why decoupling is not likely to occur in the future, at least to the extent that the green growth proponents anticipate: (1) rising energy expenditures (extraction of the remaining stocks of resources is more energy-intensive and hence less environmentally friendly); (2) rebound effects (efficiency improvements are counterbalanced by increases in consumption); (3) problem shifting (technological solutions to one problem can create new ones or exacerbate others); (4) underestimated impact of the service sector (services have a significant

footprint as they exist more in a complementary rather than a substitutional fashion to the material economy); (5) limited potential of recycling (recycling processes still require energy and raw materials, and the ability to provide resources remains limited); (6) insufficient and inappropriate technological change (technological progress is not targeted to ecological sustainability and it fails to displace undesirable technologies fast enough); and (7) cost shifting (apparent decoupling results mostly from an externalization of environmental impact from high-consumption to low-consumption countries).

Another literature review by Hickel and Kallis (2020) on the two primary dimensions of decoupling – resource use and carbon emissions – concludes that: "(1) there is no empirical evidence that absolute decoupling from resource use can be achieved on a global scale against a background of continued economic growth, and (2) absolute decoupling from carbon emissions is highly unlikely to be achieved at a rate rapid enough to prevent global warming over 1.5°C or 2°C, even after optimistic policy conditions".

Ward et al. (2016) respond to the use of some national or regional OECD data showing an apparent decoupling of GDP from specific resources by arguing that the illusion of decoupling may be presented as reality by mechanisms such as: a) the substitution of one resource for another; b) the financialization of one or more components of GDP that involves increasing monetary flows without a concomitant rise in material and/or energy throughput; c) the exporting of environmental impact to another nation or region of the world, through the spatial separation of production and consumption (raising in this way the political issue of environmental justice and the relationship between the countries of the Global North and Global South); and d) a rise in GDP that, due to growing income inequality, is not followed by a rise in material and energy throughput, as the income generated goes primarily to the wealthy few, whereas the broad majority of the population have limited opportunities to enjoy rising levels of consumption.

The same study (Ward et al. 2016: 10) points out that "decoupling of GDP growth from resource use, whether relative or absolute, is at best only temporary, as permanent decoupling (absolute or relative) is impossible for essential, non-substitutable resources because the efficiency gains are ultimately governed by physical limits". The study concludes that "growth in GDP ultimately cannot plausibly be decoupled from growth in material and energy use, demonstrating categorically that GDP growth cannot be sustained indefinitely. It is therefore misleading to develop growth-oriented policy around the expectation that decoupling is possible" (p.10).

While economic growth cannot be decoupled from resource use, the proposed solution of extending the use of existing resources within the economy – by recycling – is not working either. Not so much because the figures still remain low: global economy in 2020 was only 8.6 percent circular (De Vit et al. 2020) and nearly 12 percent of material inputs were recycled in the EU-27 in 2019 (Mayer et al. 2019; Eurostat 2020; Strand et al. 2021). But because full circularity is impossible, due to biophysical processes and thermodynamic constraints, and, even though waste management technologies and increasing recycling rates of materials should be overwhelmingly supported, it is a fact that overall "recyclable material remains a meagre portion of material throughput" (Strand et al. 2021; Kovacic et al. 2019). There exists an enormous "circularity gap", as the industrial economy is not circular but entropic (Haas et al. 2015, 2020; Giampietro & Funtowicz 2020; Martinez-Alier 2021), constantly requiring new supplies of energy and materials, and producing waste that pollutes the environment.

Green growth's false premises stem from the unwillingness of its proponents to seriously tackle the main cause of environmental degradation and climate crisis, due to the way the capi-

talist, profit-driven economy and society is run, and the consequent lack of interest of pursuing an alternative, yet more sustainable, course to progress and well-being; inasmuch as this would require a halt in economic growth and market expansion. Wiedmann et al's. (2020) study summarizes the evidence that "for over half a century, worldwide growth in affluence has continuously increased resource use and pollutant emissions far more rapidly than these have been reduced through better technology. The affluent citizens of the world are responsible for most environmental impacts and are central to any future prospect of retreating to safer environmental conditions", and holds that "any transition towards sustainability can only be effective if far-reaching lifestyle changes complement technological advancements. However, existing societies, economies and cultures incite consumption expansion and the structural imperative for growth in competitive market economies inhibits necessary societal change".

The empirical findings (and theoretical postulations) that disprove green growth's premises should not be a reason for abandoning policies at a national, regional and international level that aim at a more sustainable growth path, but they do suggest that alternative strategies for sustainability should be pursued as well. However, this is not an easy and value-neutral task of merely freely complementing policy options from other agendas that are based on different – if not opposing – perspectives to sustainability.

3. Alternative to growth approaches and policy proposals

If the efficiency-oriented policies of green growth seem to fall short of expectations, an alternative or complementary approach that would promote sufficiency-oriented policies is deemed necessary, and that may require a direct downscaling of economic production and consumption in the wealthiest countries (Parrique et al. 2019: 5). There's a burgeoning literature of alternative sustainability research and theory that has been developed in the tradition of steady-state economy, post-growth and degrowth frameworks (see, among many others, D'Alisa et al. 2015 for an overview of the concepts). Criticism against the relentless pursuit of economic growth that benefits the few and demands enormous social and ecological sacrifice brings forth the case for degrowth (Kallis et al. 2020); in other words, "living with less, but living differently, prioritizing wellbeing, equity and sustainability".

Jackson's (2009: 94) classic report on "prosperity without growth" argues that the achievement of a lasting prosperity relies on providing capabilities for people to flourish within certain limits that are established by the ecology and resources of a finite planet. This requires change on two fronts: a) a new macro-economics for sustainability that will have to be ecologically literate and will reduce the structural reliance on consumption growth; and b) the provision of real, credible alternatives through which people can flourish and participate fully in the life of society, without recourse to unsustainable material accumulation and unproductive status competition.

Daly's (1991) call for a transition of affluent societies to a "steady-state economy" condition – that is, a "non-growing" economy, where material throughput (extraction of "low entropy" raw materials from nature and their return to nature as "high entropy" waste) is retained within the regenerative and assimilative capacities of the ecosystem – is supported by the degrowthers, who advance their alternative-to-growth vision. Degrowth can be achieved through transformative strategies and policies that allow societies to slow down by design and certainly not disaster, as in the case of the Covid-19 pandemic or other periods of economic crisis and contraction.

It is important to emphasize that degrowth's arguments against the growth-oriented economy are not meant in a techno-managerial and utilitarian fashion so as to find more efficient ways of "preserving life on the planet", but rather are explicit attempts to bring the political dimension back to the forefront of public discourse on sustainability, equity and well-being. As Serge Latouche (2009), one of degrowth's pioneers, stresses, "the de-growth movement is revolutionary and anticapitalist (and even anti-utilitarian) and its programme is basically political" (p. 92); "I am not recommending de-growth for the sake of de-growth. That would be absurd, but, all things considered, no more absurd than preaching the gospel of growth for the sake of growth. The slogan of 'de-growth' is primarily designed to make it perfectly clear that we must abandon the goal of exponential growth, as that goal is promoted by nothing other than a quest for profits on the part of the owners of capital and has disastrous implications for the environment, and therefore for humanity" (p. 7).

A wealth of policies towards a more equitable and sustainable future has been proposed by various authors and institutions that are critical of the mainstream green growth approach. Parrique's (2019: 492) extensive analysis of 27 degrowth policy agendas, resulted in 232 proposals, which are decomposed into 60 goals, 32 objectives, and 140 policies. Lists of policies can be found, among others, in Latouche 2009; Daly 2013; Jackson 2009; Kallis 2011, 2015; Kallis et al. 2012; Cattaneo and Vansintjan 2016; Cosme et al. 2017. It is true that a policy intervention in one area may have unintended or expected impacts in other policy areas, and more research or pilot implementation will be needed in order to better calibrate potential trade-offs and synergies across different policy fields. In any case, it should be clear that public policies are not "value-free", as they affect specific interests of the social actors involved and the mode of operation of the economy and society. Thus, choosing a policy option is not a technical issue that will be determined by technocrats, but a political issue that ideally has to be democratically discussed and decided by well-informed citizens and their representatives. Advocacy coalitions and resistance to these policies are expected to take place, as well as an overall rearrangement of power relations in case a new set of public policies along these lines will successfully be introduced (admittedly, not a realistic scenario today).

It should be noted that versions of these proposals are already part of national or regional (EU) policy frameworks, such as basic income schemes, job/youth guarantee programs or environmental taxes. And non-commodified labor practices (social and solidarity economy, unpaid domestic labor) not only co-exist with the dominant capitalist relations, but are vital for the reproduction of the labor force. Hence, a coherent paradigm change would require a strong comprehensive package of manifold policy measures combined and aimed at a sustainable path that will prioritize societal equity and well-being over economic growth. Full employment and a good standard of living, for example, are not to be sought by conventional economic growth approaches that increase material and energy throughput, socioeconomic metabolism and inequalities. Of course, any degrowth-oriented measures should be fair and socially sustainable, and so the tax or resource cap burdens must be accompanied by affordability safeguards and start from the top income brackets of the population.

A very limited, indicative selection of a few policy proposals follows, so as to offer a glimpse of some of the options available for alternative-to-green growth approaches.

a) Policies that limit inequalities and enhance socio-economic sustainability.

1. Basic and maximum income.

Unconditional basic income (van Parijs 2004; Raventós 2007) is based on the idea that everyone in society has a right to a minimum income. No means testing or work requirement is needed, hence unemployment and other benefits will be replaced, and the funding will come from taxation. This measure can tackle poverty and unemployment in a more profound way, as it places limits to the power of employers in the labor market and forces them to offer better jobs. On the negative side, this measure, if not accompanied by other interventions, is likely to have adverse effects on the environment. On the other end, maximum income is not only a reform designed to limit inequality, but can have positive effects on environmental pressures. Maximum income is also justified by sociological research indicating that once basic material needs are met, further increases in income contribute little if anything to subjective wellbeing or happiness (Alexander 2012). This policy can be achieved either by setting an income ceiling in proportion to the existing minimum wage or proposed basic income (e.g. maximum income should not exceed a fivefold difference from the established minimum wage or basic income), or it can take the form of a progressive income tax that could reach a 90% or 100% rate above a certain level of income coming from capital (Cattaneo and Vansintjan 2016: 16).

2. Job guarantee.

In this case, the government acts as "an employer of last resort", addressing the problem of unemployment. As in basic income, a decommodification of labor power is taking place, and a type of Keynesian or socialist full-employment agenda inhibits profit-driven economic growth. Concerning the trade-off between environment and the economy, Unti (2017) argues that "job guarantee decouples employment from economic growth and establishes a path for the reconciliation of economic and environmental goals". Cattaneo and Vansintjan (2016: 15) very briefly compare the pros and cons of basic income vs job guarantee and conclude that as both proposals have uncertain environmental effects, it makes sense for ecologists to only debate policies with explicit aims toward a green basic income or green job guarantee. They further suggest that the two policies, rather than being viewed as alternatives, should be considered as complementary.

3. Reduction of working hours and work-sharing.

According to Jackson (2009: 105), in a declining or non-increasing economy, work time policies are essential for two main reasons: to achieve macro-economic stability and to protect people's jobs and livelihoods. For this reason, he suggests that one out of the twelve steps to a sustainable economy is sharing work and improving the work-life balance. The reduction of working hours is beneficial to the environment (lower carbon emissions and ecological footprint), while work-sharing not only avoids the problem of unemployment, but also promotes the value of free time. As Schor (2015) points out, "in the work-centric societies of the Global North, family, community, and political life suffer as people do not have sufficient leisure for social activities. Social relations are time-intensive; long working hours reduce investment in social connections and produce higher television viewing and exhaustion. Similarly, short working hours are essential for robust participation in democratic governance." It is important to note that "the degrowth proposal calls for a reduction of working hours in the paid sector substituted by more useful and if possible gratifying work in the self-employed or unpaid sector. It is not a universal call for reduction of work…" (Kallis 2013: 95).

b) Policies directed toward environmental sustainability.

4. Ecological tax reform.

Daly (2013) calls for a "shift in the tax base from value added (labor and capital) to 'that to which value is added,' namely the entropic throughput of resources extracted from nature (depletion) and returned to nature (pollution)." In other words, don't tax what you want to encourage (value-added to natural resources by capital and labor), and tax what you want to discourage (resource depletion and pollution). This tax shift will price the scarce but previously un-priced contribution of nature. Jackson (2009: 106) also advances the argument of shifting the burden of taxation from economic goods (e.g. income) to ecological bads (e.g. pollution).

5. Resource and emission caps.

There should be a limit to the amount and rate of depletion and pollution that the economy can be allowed to impose on the ecosystem (Daly 2013), hence, identifying and imposing strict resource and emissions caps is vital for a sustainable economy. Jackson (2009: 106) suggests that declining caps on throughput should be established for all non-renewable resources, sustainable yields should be identified for renewable resources and limits should be established for per capita emissions and waste. Effective mechanisms for imposing caps on these material flows should be set.

c) Policies initiating institutional reforms that promote a paradigm shift toward non-relying-to-growth prosperity.

6. Reliance on other indicators instead of GDP to measure prosperity and formulate economic policies.

The shortfalls of conventional GDP measurement are well-established, and according to Jackson (2009: 104), new measures of economic well-being will need "to account more systematically for changes in the asset base; to incorporate welfare losses from inequality in the distribution of incomes; to adjust for the depletion of material resources and other forms of natural capital, to account for the social costs of carbon emissions and other external environmental and social costs; and to correct for positional consumption and defensive expenditures." Daly (2013) claims that natural capital consumption and defensive expenditures belong in the cost account, therefore, after comparing the costs and benefits, the growing throughput should be halted when marginal costs equal marginal benefits. In addition, the subjective studies showing that after a threshold further GDP growth does not deliver more happiness should be taken into consideration. Furthermore, Kallis (2015) suggests that a debate needs to take place regarding the nature of well-being, focusing more on what to measure rather on how to measure it.

7. Support of the social and solidarity economy and other forms of non-commodified practices.

Legislation that will introduce tax exemptions and subsidies to the not-for-profit enterprises, co-operatives and networks that are "doing business with social value", and other policies that facilitate the de-commodification of spaces and activities of care and creativity should be promoted (Kallis 2015). The "third-sector" economy not only contributes to combating unemployment and social exclusion, but it also institutes democracy in production and work. Furthermore, cooperatives tend to use natural resource inputs more efficiently than corporations and are less growth oriented (Booth 1995).

The list can go on and on. Latouche (2009), in his "quasi-electoral" program for a transition to a degrowth society, proposes, among other things: a) massive cuts in "intermediate consumption" (transport, energy, packaging, advertising), so as to get us back to an ecological footprint equal to or smaller than the planet (today humanity uses the equivalent of 1.6 Earths to provide the resources we use and absorb our waste) ; b) relocalization of activities, so that the need to transport large numbers of people and quantities of commodities around the world is kept in check; c) revitalization of local agriculture; d) transformation of productivity gains into reduced working hours and increased job creation; e) encouraging the "production" of relational goods, such as friendship and neighborliness; f) imposition of stiff penalties for spending on advertising. Also, Rigon (2017) has a list of 19 policy proposals that could contribute to degrowth, and, in a more systematic exposition, Cosme et al. (2017) have reviewed and analyzed a big number of articles on degrowth that include policy proposals, categorized in three broad goals: (1) reduce the environmental impact of human activities; (2) redistribute income and wealth both within and between countries; and (3) promote the transition from a materialistic to a convivial and participatory society.

Alternative communities of conscious withdrawal from capitalist culture and economy are also to be supported (Kallis et al. 2012). From collective food consumer–producer cooperatives and urban gardens, non-money markets of exchange, local currencies or time-banks, to collective living and co-housing, such "post-capitalist" spaces invert the logic of commodification, build on conviviality and tend to be less resource-intense than their market equivalents. Integration and empowerment of local and bottom-up action is considered one of the means through which a more "reflexive" form of capitalism that recomposes existing consumption patterns could be achieved (Gough 2017). Examples of local community ethics, economy and politics that develop non-capitalist and democratic relations form the basis of post-capitalist politics (Gibson-Graham 2006). Emergent convivial communities form "an elaborate, decentralized, uncoordinated collective research and development effort exploring a potentially post-capitalist, post-petroleum future" (Carlsson and Manning 2010).

4. Concluding remarks: time for a paradigm shift?

The above policy proposals and innovative models of local living pave the way toward an equitable, democratic and sustainable non-growth-oriented future, but they also face a constant threat of co-optation. Elements of alternative policy proposals and modes of living can be re-interpreted and integrated into mainstream policy settings, but most of the time in a non-transformative manner, as the more radical features have been weeded out. This usually occurs when dominant policies fail to address major challenges (Trantas 2021).

It seems that we are experiencing such a condition at the moment. It is no accident that one of the institutional bastions of green growth, the OECD, just published a report with the title Beyond Growth: Towards a New Economic Approach (OECD 2020). The authors of the report acknowledge that the conventional economic theories and policies have been found wanting (p.3), and consider four objectives of economic policy making that should be paramount today: environmental sustainability, rising wellbeing, falling inequality, system resilience (p. 18). As they argue, "going 'beyond growth' means neither abandoning growth as an objective nor relying upon it: it means changing the composition and structure of economic activity to achieve the

multiple goals of a more rounded vision of economic and social progress" (p. 19). Likewise, the authors' Kuhnian claim that after the two previous paradigm shifts of Keynesianism in the 1940s and neoliberalism in the 1980s,[2] "the time is ripe for another such paradigm shift. The frameworks and prescriptions which have dominated policy making in recent decades are no longer able to generate the solutions to the problems and challenges we face today. We need a less incremental, more profound form of change" (p. 31).

This reflective report demonstrates that well-argued and evidence-based critical theories may take some time to be recognized, but can eventually be heard and succeed in winning over a skeptical audience. Of course, in the political-discursive terrain, good and rational arguments do not circulate alone, but compete with material practices, vested interests, established ideologies, powerful institutions, passions and habits. Nevertheless, and regardless of the reservations that may exist concerning the eclectic tone of the last sentence, as a social scientist, I find it worth quoting the following extended excerpt from the report as a concluding remark for this article: "Across a whole range of issues, economists working in both mainstream and non-orthodox traditions – in many cases informed by other social sciences – have developed new theories and analytical frameworks which can better explain the way in which modern economies work, and why they don't. Many of these frameworks, some of them reformulations of older theories, have good claims to provide a better fit with the evidence, and in turn greater explanatory power, than those which continue to dominate mainstream policy making and public discourse. As the empirical validity and theoretical value of these alternative approaches is increasingly recognized, the boundaries between 'mainstream' and 'heterodox' forms of economics are breaking down" (OECD 2020: 21, 22).

Notes

1. There is relative decoupling (resource use and environmental impact grows less than GDP), which is achievable through more efficient, cleaner and less wasteful use of energy and resources, although it is well documented that any gains in efficiency and lower resource use in a product or service, if left alone, without proper policy interventions (such as green taxes, cap and trade, higher emission standards), are usually offset by rebound effects that present an increase in demand, consumption and production of that product or service (the so-called 'Jevons paradox'; see Polimeni et al. 2008). And there is absolute decoupling (economy grows but resource use remains at least stable or decreases), which does not appear to be achievable. What matters for sustainability is absolute decoupling, because we all live in a finite world –one planet with limited resources.
2. "Social scientists describe these moments of economic change as 'paradigm shifts' – periods when old orthodoxies are unable either to explain or to provide policy solutions to conditions of crisis, and new approaches take their place" (OECD 2020: 31).

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