

Author: Riccardo Mastini

A Green New Deal Jeylond growth for beyond the EU



Europe today confronts three overlapping crises.

The first crisis is a crisis of democracy. Across Europe, people report a profound sense of distrust in political institutions—according to Eurobarometer, only 42 per cent of people trust the EU; only 34 trust their national government—and a sense of disenfranchisement in their economic lives. The institutions of the EU continue to prize the wisdom of technical managers over the needs of the communities that comprise its Union. The voices of front-line communities, bearing the brunt of rising inequalities and ecological breakdown, are rarely heard in Brussels.

The second crisis is economic. Inequality in Europe is at an all-time high: the top 10 percent of people own half of the continent's wealth, while the bottom 40 control just 3 percent. The European project unfortunately has not been a story of all boats rising together. Instead, it is the share of workers living in poverty that is on the rise. In 2021, 95.4 million Europeans, more than one out of five, were at risk of poverty or social exclusion, with rates of homelessness increasing across the continent¹. This is a crisis by design. Policies of austerity, which severely constrain the public sector's spending capacity, have been built into European treaties and reinforced in subsequent agreements. And austerity has starved Europe of resources for investment in public services, worker training, and public infrastructure.

The third is a crisis of ecology. Europeans are already experiencing symptoms of ecological breakdown: Summer 2022 was the hottest on record for Europe and, overall, 2022 was the second warmest year on record for the continent². Only 23% of species and 16% of habitats under the EU Nature Directives are in good health³. And large parts of Europe could become uninhabitable due to climate change within our lifetimes. This crisis, too, is a product of political decisions. Decades of subsidized fossil fuel consumption —still amounting to 56 billion euros in 2022—have undermined efforts to reduce carbon emissions.

These crises are bound together. Today the richest 10% of Europeans emit the same amount of carbon as the poorest half of the EU population combined⁴. And this accounts only for the consumption-side of things, and not production, where the wealthy, by virtue of their overconcentration of wealth, control most of fossil-intensive capital. Inequality is hence linked to the climate crisis. This concentration of economic power is also affecting the democratic functioning of the EU. The aggressive lobbying of companies active in carbon-intensive sectors—such as fossil fuels extraction, air transport, and agribusiness—to persuade European legislators to their cause has damaged the credibility of the institutions in the eyes of many citizens. It should not come as a surprise that young Europeans are increasingly resorting to direct actions and civil disobedience to have their voices heard.

New skin for an old deal

— Against the backdrop of these crises, in 2020 the European Commission launched the European Green Deal (EGD) to make Europe the first carbon-neutral continent in the world. Commentators have hailed the EU's Green Deal as a visionary policy, promising to unlock billions of euros in sustainable investments, implement fresh regulations to curb carbon emissions, ramp up Europe's climate targets, and do more to protect biodiversity across the continent. But while the EC has made a clear step forward in its rhetorical commitment to a just transition for all, the limited funds allocated and the overreliance on markets undermines its credibility.

The EC states that the funding allocated to the EGD amounts to 1 trillion euros between now and 2030, i.e. 100 billion euros a year. Of these 100 billion, the EC expects to put 64 billion from the EU budget and let the Member States cover the difference. However, there are two problems with these figures. Firstly, 64 billion euros a year promised by the EC are not additional funds, but rather a reshuffle of already existing funds for environmental programs⁵. Secondly, the Member States will not be able to cover the remaining 36 billion euros due to the limitations on deficit spending enshrined in the Stability and Growth Pact. The wiggle room granted to the Member States is therefore very limited and to contribute to the EGD budget governments may be forced to finance the green transition with cuts on welfare spending. Clearly, a regressive proposal as it presents the green transition and social justice as a zero-sum game.

The EC also expects that public investments will attract private capital. The Sustainable Europe Investment Plan—the financial arm of the EGD—provides for the use of public funds and public guarantees issued by the European Investment Bank to crowd in larger flows of private finance to help fund commercially unprofitable projects like public transportation networks, green jobs retraining centers, or public parks. The EC aims at keeping public spending in check while using partnerships that leverage private money for ostensibly public benefit. The metaphor of leveraging private euros may sound sensible. It seems a tempting strategy to avoid increased public spending or taxing the rich, and hence protracted political fights. But public-private partnerships have a troubled history. In a special report,

the European Court of Auditors affirmed the weaknesses of the public-private financing

model emphasising that it generates outsized profits for private financiers: "The risk allocation between public and private partners was often inappropriate, incoherent and ineffective, while high remuneration rates (up to 14 %) on the private partner's risk capital did not always reflect the risks borne". Time and again private investors were good in ensuring their returns, typically at the cost of the public sector. And now the EC aims at socialising the risks of the green transition while privatising the gains.

The EGD provides, one might argue, a corporate welfare windfall of investment opportunities lubricated with tax breaks and subsidies; public-private partnerships; infrastructure outlays that will stimulate real estate development. Indeed, the EC's choice of words is telling. Rather than associate with the tradition of Franklin D. Roosevelt's New Deal, the EC neatly excised the word 'new' from her 'green deal.' And through this careful omission, a radical vision of economic, social, and environmental justice is transformed into a strategy that sustains the status quo. On the contrary, climate activists calling on their governments to adopt a Green New Deal (GND) were looking at Roosevelt's New Deal, which was a series of social programs, public work projects, financial reforms, and labor regulations enacted in the aftermath of the Great Depression. Key features of the New Deal—such as public ownership of strategic utilities, social and labor reforms, and public employment programs— are central also to the GND narrative.

The GND prescribes the need for an active role of the State in the economy. In doing so, GND proponents intend to heed Keynes' famous advice: "The important thing for government is not to do things which individuals are doing already, and to do them a little better or a little worse; but rather to do those things which at present are not done at all.". If we accept the thesis that the ecological crisis is a colossal failure of the free market, the first step is therefore to recognize the need for public interventions that go beyond the simple modification of prices. What we need is a new political economy, a major transformation such as that of the New Deal era, if not bigger. The State should have an essential role in coordinating and financing the green transition. Most of the infrastructures to be transformed (such as the railway network, the energy grid, waste management, and the water grid) are natural monopolies and a coordinated intervention on the part of public authorities can facilitate their decarbonization. Furthermore, most of the necessary green investments in infrastructures are not profitable in the short term, which makes them unattractive for a financialized private sector devoted to immediate profit.

It's the end of growth as we know it

When presenting the EGD the President of the EC, Ursula von der Leyen, affirmed that this program is "Europe's new growth strategy" 7. As different as the EGD is from a GND, many proponents of the latter would nonetheless agree that economic growth should be both a policy objective and the fiscallyresponsible way of financing any ambitious green program: by boosting domestic manufacturing and working-class wages, a GND would lead countries onto the path of green growth. However, it is our contention here that pursuing GDP growth works against the objective of rapid decarbonization. The key point to grasp is that GDP growth entails increasing total energy demand and, in turn, the more energy we use, the more difficult it is to cover it with renewable sources8. In essence, decarbonization with growth is like trying to run down an escalator that is accelerating upwards.

The scientific evidence on this is increasingly robust to the point that the Sixth Assessment Report published by the IPCC in 2022 describes the strategy of attempting to decouple GDP growth from GHG emissions as "insufficient", with rates that "fall a long way short", which makes green growth a "misleading", and "misguided" strategy which "rests partly on faith". For instance, available data shows that when the transfer of emissions to other countries is added to production-based emissions, the reduction in EU emissions between 1990 and 2022 is not 34% as claimed by the European Environmental Agency, but 20%14. Similarly, while the domestic material consumption of the EU decreased by about 7% between 2000 and 2018, the material footprint (an indicator that incorporates natural resources embedded into imported goods) has been growing faster than GDP15.

The issue of decarbonizing an economy as big as the EU currently presents challenges also with respect to other dimensions of the ecological crisis. For instance, climate change is not the only, or even the principal driver of biodiversity loss. What is de-

stroying species today is habitat fragmentation and loss, overhunting and overexploitation, agricultural expansion, pollution, and industrial development. Solving the climate crisis through green technologies while maintaining high levels of energy consumption will accelerate extinctions due to the demands for space and minerals to drive the technologies. Solar and wind occupy much larger acreage than oil and gas, requiring networks of roads and utility corridors, transportation, and transmission capacity that doesn't exist today. Wind and solar require 10 times more land per unit of power produced than coal- or natural gas-fired power plants, a figure that includes land torn up and habitat destroyed to drill out, pump, and transport fossil fuels¹⁶.

The high-energy lifestyle enjoyed by most Europeans rests on the plundering of natural resources from the Global South and can aptly be described as an "imperial mode of living"¹⁷. It's important to keep in mind that most of the key materials for EU's energy transition are located in the global South. Parts of Latin America, Africa, and Asia will likely become the target of a new scramble for resources, and some countries may become victims of new forms of colonization. It happened in the 17th and 18th centuries with the hunt for gold and silver from South America. In the 19th century, it was land for cotton and sugar plantations in the Caribbean. In the 20th century, it was diamonds from South Africa, cobalt from Congo, and oil from the Middle East. It's not farfetched to imagine that the scramble for the minerals needed for renewable energy might become similarly violent. If we do not take precautions, clean energy firms could become as destructive as fossil fuel companies—buying off politicians, trashing ecosystems, lobbying against environmental regulations, and hopefully not assassinating community leaders who stand in their way like their predecessors did¹⁸.

But even if all environmental considerations were put aside, betting the financing of a grand infrastructural overhaul on continuous GDP growth would most likely be a deceptive strategy. The EU, just like most other OECD countries, faces strong headwinds (e.g. demography, inequality, globalization, private debts, etc.) that are likely to drift it towards a 'secular stagnation', a permanent condition of negligible or no economic growth. Underlying changes in the economy, such as slowing growth in the working-age population, have made episodes like the last 20 years of zero growth in countries like Italy or Japan, likely to happen elsewhere. That is, high-income countries are likely to find themselves facing persistent shortfalls of demand, which cannot be overcome even with near-zero interest rates (rates that by now and due to inflation are far from possible). Building consumer demand at a time when people are less able and motivated to spend becomes impossible.

If secular stagnation is the new normal, then what the EU needs is a GND that does not depend on GDP growth for its financing, nor that it pursues it as an objective. What Europeans need is a GND that puts social justice at its center and that aims at satisfying their basic needs while reducing the oversized ecological footprint of the EU economy. What we need is a 'GND beyond growth'. In the following sections, I will describe two pivotal policy proposals for fostering such a program: a more progressive wealth tax system and a job quarantee.

Wealth taxation for a green welfare state

Europeans are not all equally responsible for the oversized ecological footprint of the EU economy. Given the scale of inequalities in the EU, it is crucial that mitigation policies are targeted accordingly. Wealth is by far the most important determinant of both inequality and environmental impacts. It does not matter how green you think you are; if you have surplus money, you either spend it or invest it for maximum profit - and in both cases there is a high ecological footprint. Today the richest 1% of European citizens have an average per capita carbon (consumption-based) footprint of 55 tons, the richest 10% of 22 tons, while the bottom 50% of the population just 7 tons²⁰. To prevent global heating from exceeding 1.5°C above pre-industrial levels, the IPCC recommends that by 2030 average per capita emissions should not exceed 2.5 tons per year. While it is conceivable that through efficiency improvements, a switch to renewable energy, and sufficiency measures the bottom 50% of Europeans who currently have an average per capita carbon footprint of 7 tons may be

able to reduce it to 2.5, it is virtually impossible that the top 1% and 10% could meet such target starting from their current 55-tons and 22-tons footprints. The only way for shrinking their humongous carbon footprints is by reducing their wealth through higher taxation. Thomas Piketty made a valid proposal in this direction: taxing wealth as high as 90% for individuals owning more than 10,000 times the average individual wealth in the EU²¹.

In evaluating which measures to take to curb emissions, it must be considered that in our society money determines a person's autonomy in how to fulfill their essential needs (such as mobility, housing, nutrition, etc.). Those who find themselves in poverty cannot choose whether to live in the city center or commute from the suburbs, whether to eat organic or junk food, whether to live in a well-insulated house or not. They simply adapt to the cheapest option on the market, which is often not the least impactful. For example, many poor people are forced to live in the suburbs where rents are generally lower, but at the same time they lack essential services (schools, shops, medical facilities) and public transport connections. Consequently, the car becomes indispensable with an inevitable increase in a person's carbon footprint. Striking is the fact that below a certain income threshold, the environmental footprint is not determined by wealth but rather by the level of poverty which leaves no choice. A family that lives in a well-insulated house and uses energy-efficient appliances and vehicles can generate up to three times less emissions than a family forced to use low-efficiency goods²². The protests of the gilets jaunes should be read from this perspective. They wanted to tell us that fiscal measures to reduce the consumption of fuel and electricity turn into measures against the poor if they are not accompanied by more public services and welfare measures.

In the course of the twentieth century, many countries around the world have progressively established a welfare state system at protecting all citizens against 'social risks' such as ignorance, illness, old age. In the twenty-first century, the challenge is to combine the 'social question' with the rising 'environmental question' because social fragility and exposure to extreme weather events reinforce each other. Low-income households are more likely to live in areas with a high risk of hydrogeological instability or in neighborhoods with low water and air quality. The poor are also more exposed to extreme heat and cold as they may not be able to afford air conditioning or heating in their homes or because they work outdoor or in poorly insulated warehouses. And in the event of an environmental disaster, they suffer greater hardships because they are less likely than wealthy people to live in insured houses. This demonstrates that the severity of natural disasters cannot be measured only by physical criteria, but they are directly proportional to the degree of social fragility in which they occur. Therefore, as part of a GND beyond growth welfare measures need to be strengthened to buffer vulnerable social groups from the risks arising from climate change.

A just transition beyond growth

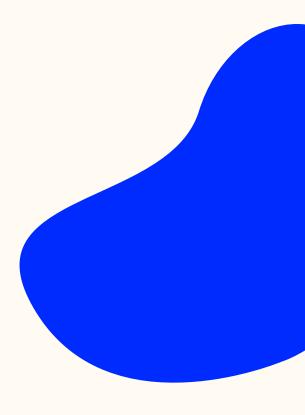
Proposals for a GND aim to overcome the historic disagreement between the protection of work and the environment. The proposed strategy is to promise benefits from ecological conversion to enough workers so as to bring together a winning political coalition. This is particularly important for gaining the consensus of the de-industrialized areas where far-right parties are getting increasing support. In fact, the production and installation of renewable energy plants, the retrofitting of buildings, the repairing of objects and appliances, and small-scale agroecology are activities that can create many jobs, which are difficult to outsource to other countries. But in addition to creating green jobs in the private sector, one of the flagship proposals of a GND beyond growth should be a job guarantee.

The job guarantee is a permanent program that supplies employment opportunities on demand for all who are ready and willing to work at a decent, living wage focusing on community needs not met by public services. The job guarantee gives public authorities the duty to fund the employment of anybody who wants a job but cannot find one in the private labor market. Whereas workfare requires recipients of benefits to accept any job that is offered to them to not lose their aid, the job guarantee is voluntary: people who cannot and/or do not want to work will still be able to apply for traditional benefits. Just like the central bank has the role of 'lender of last resort' to ensure financial stability, a job guarantee makes the government the 'employer of last resort' to ensure employment stability in periods of recession. Such a scheme would create an employment safety net, making sure that no worker remains unemployed for long periods of time.

The guaranteed jobs should focus on activities that are socially (e.g. community services and care work) and/or ecologically (e.g. afforestation and the building of renewable energy infrastructure) desirable but neglected by for-profit companies. It is effectively a subsidy of paid labor time to activities that

the market does not consider to be valuable although the broader community does so. Lastly, the wage and benefits offered in guaranteed jobs serve as a floor throughout the economy. Since private sector workers always have the option of entering the program, private employers will be forced to provide pay, benefits, and conditions at least on a par with those of public jobs (for example in terms of working time). The EU could, therefore, use the job guarantee as a way of shortening the workweek.

The job guarantee would also be a useful strategy for reducing productivity. While low productivity may be a tough sell to economists, a job guarantee is meant to improve people's lives and not to increase output. Since the objective of the program is to provide employment, these jobs should be more labor-intensive than private-sector employment. The goal of reducing productivity stems from the assumption that production output is a good proxy for a society's use of energy and raw materials²³. Obviously, reducing productivity is not desirable in all fields of production. In any field where socially useful goods and services are produced sustainably, high productivity is a good thing. Additionally, high productivity may be desirable in any case where it reduces the time required to complete an onerous task without necessitating an increase in output.



Private sufficiency, public luxury

Since the 1990s repeated waves of privatization of education, healthcare, transportation, housing, even social security has been unleashed in the EU. Social goods are under attack for the sake of growth. This is a purposeful strategy. The idea is that by making public goods artificially scarce, people will have no choice but to purchase private alternativesmeaning they end up paying to acquire goods that they used to access for free. And what happens when you enclose a good that used to be accessed for free by people? GDP grows. GDP grows because money changes hands. GDP growth is, ultimately, an indicator of the collective welfare of capital. But over the past few decades we have all come to see it as a proxy for the welfare of the rest of us, and therefore pursue it with single-minded zeal.

What happens is that when you enclose public goods you create artificial scarcity²⁴. Hence, scarcity and growth create a self-reinforcing loop: to stimulate growth you need to enclose public goods, and for people to have the means to access privatized basic services GDP needs to grow. The artificial scarcity created by enclosures makes everyone live in need, and therefore work harder to stay afloat, which is essential if the economy is to keep growing. So the problem is not that Europeans do not produce enough, but that society does not share the abundance that is already being produced. But if scarcity is created for the sake of growth, then by reversing artificial scarcity we can render growth unnecessary. By expanding public services we can enable people to access the goods that they need to live well without needing high levels of income and therefore additional growth. People would be able to work less without any loss to their quality of life, and so producing less unnecessary stuff and generating less pressure on the biosphere. The economy would be smaller in terms of GDP and yet more abundant in terms of wellbeing.

The truth is that the interventions that matter when it comes to improving human welfare and reducing ecological pressure do not require high levels of GDP. For instance, the EU

has 36% less income than the US and yet it beats it not only on life expectancy but on virtually every indicator of human welfare with also much lower levels of material footprint per capita. But there are even countries that are usually defined as 'developing countries' that manage to achieve high levels of human welfare with low GDP per capita. For example, Costa Rica surpasses several EU countries on many welfare indicators with a GDP per capita and material footprint per capita that is only a fraction of theirs²⁵.

What explains such remarkable results? The fact is that when it comes to delivering long, healthy, flourishing lives for all, what counts is investing in high-quality universal public services which are significantly more cost-efficient to run than their private counterparts. In the light of such considerations, a GND beyond growth should rest on the principle of 'public abundance' to render growth unnecessary and let EU decision-makers focus on pursuing what really matters: a good life for all Europeans within planetary boundaries.

But how can these principles be translated into actionable proposals²⁶ for green, left and other progressive parties?

- Healthcare and education. Most European countries have universal healthcare and education systems, many of which rank as the best health systems in the world. Yet, private providers are increasingly encroaching on the health and education sectors given the budget cuts that public schools and hospitals are facing. This trend must be reversed with public providers being adequately financed. Besides, existing debts accrued for healthcare and education should be cancelled.
- Housing. Housing costs constitute a large portion of household expenses. Europeans often spend 30-50% of their wages on rent and buying a house has in many places become unaffordable to anyone who is not rich. It is important to recognize that large corporate landlords that control dozens or even thousands of homes represent the enclosure of a key resource that is fundamental for survival. One effective intervention would be to simply limit the number of rental units that any individual or firm can own and require the sale of surplus properties. The influx of housing into the market would drive prices down, making it more affordable for people to buy a residence, but also making it more affordable for city governments to buy units, expand the public housing stock and improve the quality of housing, which would be naturally integrated into the fabric of the city. Public rental units can then be available on an affordable basis, and any remaining private rental units would need to have rates low enough to compete with the public option.
- Transit. Public transit should be available for free or very cheap. Nearly 100 cities around the world go further and offer free public transit. In places where existing public transit infrastructure is inadequate, it should be developed to the point where people do not need cars on a regular basis. High-quality public transit is critical to reducing demand for cars and reducing emissions from transport.
- Food. A food justice program could ensure universal access to nutritious, regenerative, vegetarian

food. The EU should fund the development of regenerative farms, as well as food gardens in urban and suburban areas, with produce sold at affordable prices through community hubs in every neighborhood that can double as cafeterias serving plants-based meals. These would be convenient and attractive places for anyone to shop and eat, providing high-quality foods covering all necessary nutritional needs, while facilitating conviviality and community engagement. Such a system would improve health outcomes and also help to dramatically reduce land use and the ecological impact of the food system.

• Energy and water. Energy and water should be run as public utilities, with a two-tier pricing system: a quota of energy and water should be made available for free to all households, adjusted for the number of residents, sufficient to meet basic needs. Additional use of energy and water beyond this quota can be charged at a progressive rate to disincentivize excess use — delivering yet further benefits for the environment. This approach tends to have strong popular support. The public energy system can be used to phase out fossil fuel use on a science-based schedule and prioritize a rapid transition to renewables, while rules governing the public water system can be used to prevent over-extraction by private firms and ensure a stable and equitably allocated supply of water during droughts.

Financing a GND beyond growth

The question on everybody's mind at this point most likely is how to pay for a GND without growth, meaning for expanded public services and welfare measures in a nongrowing economy? The traditional answer is that to pay for public expenditures you need GDP growth: increase economic activity then tax the revenues to fund public services. This assumption is so entrenched in the common imagination that it is completely taken for granted. It is leveraged by the political right to claim that public services are somehow given to us by rich people (those who pay the most taxes in absolute terms), so we should therefore be grateful to them and do whatever it takes to let them make more money. This idea is ecologically dangerous. We urgently need things like public transit and renewable energy to meet our climate goals. If we need more corporate growth to pay for public services, this will increase total energy demand and make decarbonization more difficult to achieve.

There is no reason, however, that public production needs to rely on funding from prior private production. Any government that has sufficient monetary sovereignty can mobilize public production directly, simply by issuing public finance to do it. As Keynes pointed out: "anything we can actually do, in terms of productive capacity, we can pay for." And when it comes to productive capacity, the EU already has far more labour and resources than it needs to push for an energy transition and

satisfy everyone's needs. Deploying public finance simply shifts the use of this capacity from corporations to the public, where it can be used for democratically ratified social and ecological objectives, rather than for capital accumulation²⁷.

Governments are not like households. They do not have to balance their budgets, and, crucially, they do not have to tax or borrow before they can spend. Governments create the money they spend and can create as much of it as they want, the only limit being the labour and resources necessary to realize the activities this money will pay for. This is clear to anyone who has been paying attention since the global financial crisis of 2008. The ECB has created extraordinary amounts of money to prop up the banking system through Quantitative Easing. Something similar happened in response to the COVID-19 crisis: debt monetization became an essential fiscal tool for governments dealing with the economic crisis triggered by the COVID-19 pandemic. As spending surged and tax revenues collapsed, governments around the world issued debt. The OECD estimated that total debt issuance by advanced economies came to \$18 trillion in 2020²⁹. Overall, the central banks of the OECD group made purchases equivalent to more than half the net issuance of new debt in 2020²⁸. Hence, government deficits were financed by having one branch of government—the central bank—buying the debt issued by another branch of government—the treasury. In brief, the notion of budget constraints has been revealed as a myth.

This is not to say that EU countries can create and spend money without limit. There are limits, but they have nothing to do with budgets or deficits. The key limit is inflation: if you spend too much money on the economy, demand gets too high and risks driving excess inflation, especially if there are labour and resource limitations. Governments can use taxation to mitigate this risk. Hence, the purpose of taxation is not to fund government spending, but rather to reduce excess demand. As previously explained, we can do this in a progressive manner by taxing high-wealth individuals drastically more since their ecological footprint is out of scale compared to the rest of the population.

So, in short, the European Central Bank and other central banks in the EU would create money in order to expand the use-value economy (the things that people actually need to live well), and member states then use taxation to regulate the exchange-value economy, and to reduce excess private consumption (in order to keep the economy in balance with the living world). With this approach, the question of "Will the EU have enough GDP in a post-growth scenario to provide for thriving lives?" becomes less relevant. The EU can generate funding for public services and the job guarantee without thinking about GDP. GDP becomes an irrelevant indicator. Indeed, parts of the economy that are presently measured by GDP might shrink, but that is not a problem because in a post-growth economy GDP is not the primary arbiter of provisioning.





REFERENCES

- 1. https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220915-1
- 2. https://climate.copernicus.eu/2022-saw-record-temperatures-europe-and-across-world
- 3. https://www.wwf.eu/what_we_do/biodiversity/
- 4. https://www.oxfam.org/en/research/confronting-carbon-inequality-european-union
- 5. https://counter-balance.org/uploads/files/Reports/Flagship-Reports-Files/2021-EGD-Report-Counter-Balance-Online.pdf
- 6. O. Herics et al, 'Public Private Partnerships in the EU: Widespread shortcomings and limited benefits', European Court of Auditors Special Report, No. 09, 2018, https://www.eca.europa.eu/Lists/ECADocuments/SR18_09/SR_PPP_EN.pdf https://ec.europa.eu/commission/presscorner/detail/en/AC_19_6778
- 7. Hickel, J., & Kallis, G. (2020). Is green growth possible?. New political economy, 25(4), 469-486.
- 8. Hubacek et al., 2021
- 9. Le Quéré et al., 2019
- 10. Ward et al., 2016
- 11. Hickel and Kallis, 2020
- 12. Vadén et al., 2020
- 13. https://ourworldindata.org/grapher/co2-emissions-and-gdp?country=~European+Union+%2828%29
- 14. https://ec.europa.eu/eurostat/web/products-datasets/product?code=t2020_rl100
- 15. Gross, S. (2020). Renewables, Land Use, and Local Opposition in the United States. Brookings Institute. Accessible at: https://www.brookings.edu/wp-content/uploads/2020/01/FP_20200113_renewables_land_use_local_opposition_ gross.pdf
- 16. Brand, U., & Wissen, M. (2021). The imperial mode of living: Everyday life and the ecological crisis of capitalism. Verso Books.
- 17. Hickel, J. (2019). The Limits of Clean Energy. Foreign Policy. Accessible at: https://foreignpolicy.com/2019/09/06/the-path-to-clean-energy-will-be-very-dirty-climate-change-renewables/
- 18. Krugman, P. (2014). "Secular Stagnation: The Book". The New York Times. Accessible at: https://archive.nytimes.com/krugman.blogs.nytimes.com/2014/08/15/secular-stagnation-the-book/
- 19. https://www.oxfam.org/en/research/confronting-carbon-inequality-european-union
- 20. https://www.wired.co.uk/article/thomas-piketty-capital-ideology
- 21. Anderson, K., Broderick, J. F., & Stoddard, I. (2020). A factor of two: how the mitigation plans of 'climate progressive'nations fall far short of Paris-compliant pathways. Climate Policy, 20(10), 1290-1304.
- 22. https://autonomy.work/wp-content/uploads/2019/05/The-Ecological-Limits-of-Work-final.pdf
- 23. Hickel, J. (2019). Degrowth: a theory of radical abundance. Real-World Economics Review, 87(19), 54-68.
- 24. https://www.sustainabledevelopmentindex.org/
- 25. https://www.jasonhickel.org/blog/2023/3/18/universal-public-services
- 26. Olk, C., Schneider, C., & Hickel, J. (2022). How to Pay for Saving the World: Modern Monetary Theory for a Degrowth Transition. Available at SSRN 4172005.
- 27. OECD (2020). Sovereign Borrowing Outlook. Paris, France.
- 28. IMF (2021). Fiscal Monitor: Strengthening the Credibility of Public Finances. Washington, USA.

