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A climate fit for capitalism: ordoliberalism's political ecology and German environmental politics

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ABSTRACT


This article critically examines contemporary German environmental politics through its connections with ordoliberalism. Ordoliberalism is a branch of neoliberalism that prescribes a strong state to structure and optimize competition within a 'social market economy.' The article shows that ordoliberalism was built on a distinct political ecology that frames nature and the environment as potential sites of state intervention. It argues that ordoliberal political ecology can be made compatible with ostensibly opposed programs, including what we call 'fossil ordoliberalism,' 'green ordoliberalism,' and the potential for 'ordoliberal geoeengineering.' Amidst the climate crisis, this ordoliberal malleability is exemplified by parties from the center-left Greens and center-right Liberals (FDP) to the far-right Alternative for Germany (AfD). Yet even in its progressive guise of a 'social-ecological market economy,' ordoliberal approaches will hit the 'glass ceiling' to socio-ecological transformation due to their technocratic orientation, democratic antipathies, and foundational commitment to market competition.

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Introduction

'Markets need rules,' writes Robert Habeck, the current Vice Chancellor of Germany, Minister for Economic Affairs and Climate Action, and co-chair of the Green Party (Bündnis 90/Die Grünen). 'They are not natural givens, they are not a jungle. They are human-made gardens. They need care and work' (Habeck 2022a, p. 168). This idea, he explains, 'corresponds to the spirit of Ludwig Erhard's social market economy' (Habeck 2019). Founding Chairperson of the Green Party's Heinrich Böll Foundation, Ralf Fücks (2013), has even called for a 'Green Ordoliberalism' to address the climate

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crisis. The embrace of ordoliberalism goes well beyond the Greens, however, spanning the entire political spectrum in Germany. Thus, current Finance Minister and Chair of the Free Democratic Party (FDP), Christian Lindner (2019), has repeatedly emphasized that ‘we stand in the tradition of German ordoliberalism’ and employed the influential ordoliberal economist Lars Feld as his personal advisor. From former Chancellor Gerhard Schröder to current Chancellor Olaf Scholz, the Social Democratic Party (SPD) has championed ordoliberal principles while placing greater discursive emphasis on their ‘social’ character. Together, these three parties make up Germany’s current coalition government, also referred to as the ‘traffic light coalition’ (2021–2025). And yet even the opposition – particularly, the CDU and the AfD – has roots in ordoliberalism. The far-right Alternative for Germany (AfD) was founded by ordoliberal economists and lawyers in 2014 and has pledged allegiance to the tradition ever since.

Ordoliberalism is a distinct current of neoliberalism, a contested term referring to the intellectual and institutional project of reinventing liberalism through novel forms of market governance that ‘encase’ capital against democratic threats (Slobodian 2018, Callison 2022). From the beginning, ordoliberalism has specifically emphasized the role of a strong state, a balanced budget, and an independent central bank in structuring a competitive market order. Coined after the journal *ORDO*, this tradition of law and political economy was constructed by members of the Freiburg School, such as Walter Eucken, Franz Böhm, Wilhelm Röpke, and Alexander Rüstow. Based on their theories of the ‘social market economy’ and a ‘Third Way’ between socialist planning and laissez-faire capitalism, ordoliberalism first entered political practice through Ludwig Erhard’s free-market reforms, often dubbed the ‘economic miracle’ of postwar West Germany.

Compared to other traditions within the Mont Pelerin Society (Mirowski and Plehwe 2009, Callison 2022), the ordoliberals defended a more interventionist state with a minimal safety net, with the aim of establishing that all partake in market activity. But it was not until the Eurocrisis of the 2010s – specifically, the austerity measures imposed by the Troika with support of the German government – that ordoliberalism became prominent in academic and political debate (Biebricher and Ptak 2020). Some scholars have interrogated the ordoliberal fixation on austerity and anti-inflation measures, while others have queried its historical relationship with the Maastricht Treaty and the European Union’s ‘economic constitution’ (Biebricher 2018, Roufos 2023). Others still have revealed its complicated and often hostile relationship with democracy within and beyond the nation state (Haselbach 1991, Slobodian 2018) and its uptake by parties and think tanks across the political spectrum (Havertz 2019).

At the same time, ordoliberalism’s role in environmental politics remains largely unexplored by both critics and proponents of the tradition. Between

1999 and 2020, only eight articles in the journal *ORDO* addressed climate-related issues, and only few studies have critically examined climate change politics at the intersection of ordoliberal think tanks and political parties (Plehwe 2022). So far, as Germany is widely understood as a global leader in the fight against climate change, the framing assumptions of its domestic politics and the role of the environment therein have not received sufficient critical scrutiny. The shifting fault lines of international energy politics – including the Russian invasion of Ukraine and the resulting closure of the Nord Stream pipeline between Russia and Germany – have given these debates even higher stakes. The country has one of the most notable youth climate movements and one of the strongest green parties in Europe. Yet, as the largest economy in the EU and the third largest economy in the world by GDP, Germany has higher emission rates than other ‘highly developed economies’ around the globe. While the ‘success story’ of the German export economy is highly reliant on the import of cheap energy and the export of manufactured products, the country is currently failing to meet its climate targets.

Against this backdrop, this analysis of ordoliberal environmental politics proceeds from growing literatures on ‘the environmental state’ (Duit 2016) and the ‘glass ceiling to transformation’ (Hausknost 2020, Douglas 2020, Blühdorn 2020). In clustering twenty-eight countries into a typology of established, emerging, partial, and weak environmental states, Duit (2016, p. 77) defines Germany as an established environmental state for its advanced ‘set of regulatory, redistributive, organizational, and knowledge-generating instruments involved in environmental management.’ Still, an environmental state compatible with neoliberal imperatives – i.e. prioritizing economic growth over environmental well-being – should not be confused with an ideal green state (Hatzisavvidou 2020). Whereas the environmental state has been celebrated for addressing challenges to environmental well-being and human health from the 1970s to the early 2000s, a truly green state would need to restructure existing modes of production and socioeconomic activities to keep within emission targets based on scientific studies like the IPCC (2022) and the ecological limits posed by the nine planetary boundaries.

In response to scholarship on the environmental state, Hausknost (2020) coined the concept of a ‘glass ceiling’ to guide research into the structural barriers that hinder the environmental state from developing into a green state. To this end, Hausknost (2020) discerns different ‘state imperatives’: tasks that legitimate the emergence and continued existence of the modern state. Hausknost’s (2020, p. 19) account of the ‘glass ceiling’ lends itself to an evaluation of state structures which remain broadly invisible and unacknowledged but which ‘emerged in tandem with and as the institutional vessel of the fossil energy system.’ Whilst new tasks of the state were previously

complementing preceding ones, the sustainability imperative stands in conflict with a growth imperative rooted in fossil-fuel-based capital accumulation. Whereas Blühdorn (2020) suggests that democracy itself can form a glass ceiling to transition, Douglas (2020) argues that the glass ceiling has an additional and underexplored basis in a political psychology of (climate change) denial. According to Koch (2020), the capitalist state hits a glass ceiling to transformation not only because of its dependency on fossil-fuel growth, but also because of its narrow focus on nation-state boundaries and the market as the sole spheres of climate action.

Departing from these institutional analyses of the capitalist state, the article examines core features of the ordoliberal political ecology structuring German environmental politics and considers their implications for responses to the climate crisis. Since every political economy implies its own political ecology – i.e. particular economic, social, and political relations to nature – scholarship on the glass ceiling should take account of specific historical and ideological contexts. We argue that the structural barriers or ‘glass ceiling’ to an eco-social transition of the German state can be made intelligible by revealing their entanglements with ordoliberalism’s political ecology. Despite the capaciousness of this particular political ecology – informing climate policies from the center-left Greens to the center-right FDP and the far-right AfD – we contend that it will hit the ‘glass ceiling’ to socio-ecological transformation due to ordoliberalism’s technocratic orientation, democratic antipathies, and foundational commitment to market competition.

We begin by showing that the founding ordoliberals developed a systematic approach to questions of nature and environment, which were at the core of their political economy from the very start. In prescribing a ‘strong state’ that optimizes market competition, the ordoliberals conceptualized nature and environment as sites of potential state intervention in their own right. Key to this theory is what the ordoliberals called ‘organic’ social policy (*Vitalpolitik*), including minimal welfarist measures, forms of individual and familial socialization, and the ideal of privately-owned homes with gardens. To depoliticize and naturalize traditional social formations, ordoliberal policy should ‘cultivate’ the right balance between nature, society, and free-market economy. That which is cultivated is understood as a hierarchically structured ‘natural order.’ We contend that ordoliberalism’s political ecology is tendentially rightwing yet remarkably capacious as a discursive and policy framework.

From here the article explores how ordoliberalism informs the way contemporary academic economists and party politicians conceptualize and respond to the climate crisis. In the context of the climate crisis, we suggest that ordoliberalism is capacious enough to support forms of ‘green capitalism,’ ‘fossil capitalism,’ and what we call ‘ordoliberal geoengineering.’ Much

of the Greens' economic policy embraces the former, whereas the AfD largely embodies the 'fossilized' variety of the latter. And yet all five major parties contain the ordoliberal roots that could make them amenable to geoengineering in the future. We conclude by arguing that, insofar as German (and EU) climate politics remain bound to the ordoliberal framework, they will remain techno-optimistic in orientation, resistant to democratic input and broader socio-economic transformation. Despite its aversion to the complete commodification of nature, even a so-called 'progressive' form of ordoliberalism is premised on market competition as the *ultima ratio* for current and future climate policy – and thus incapable of achieving the IPCC's minimal benchmarks to avert climate catastrophe.

The environment of ordoliberalism

Ordoliberalism first emerged from an environment of crisis in interwar Germany. In response to the concentration of corporate power, the turbulence of inflationary currency, and the weakness of Weimar's parliamentary democracy, the founding members of this tradition called for a 'strong state' to enforce the competitive market order. Though other variants of liberalism also thematize the relationship between the state and the market, ordoliberalism represents a *specific* historical and theoretical approach within the broader tent of economic and political liberalism, with a unique conception of the 'framework conditions' required for a free market to flourish. Through a tendentially authoritarian 'decision,' the strong state would be built on an 'economic constitution' that included an independent central bank, an anti-cartel ministry, and principled 'rules of the game' to structure market activity (Rüstow 2017a, Böhm 1937, Eucken 2004). By protecting capital accumulation and containing class conflict, the ordoliberals sought to reform a crisis-ridden liberalism and to prevent the rise of socialism. They did so through a seemingly reasonable middle position they called the 'Third Way,' branded as a balance between allegedly extreme binaries – unfettered capitalism on the one side, socialism on the other. Following Ludwig Erhard's abolition of price controls in 1948, this framing would be popularized through and often conflated with another capacious concept, coined by Alfred Müller-Armack (1947): the 'social market economy.'

The history of ordoliberalism and the 'social market economy' are distinct and complex (Biebricher and Ptak 2020, Fèvre 2021). Advocates of ordoliberalism differed in some of their views, and the ordoliberal program was never completely implemented, even when its most committed proponents held positions of power. In rejecting the Keynesian proposals of U.S. and U.K. officials during the Allied Occupation, Erhard's 1948 liberalization reforms bucked the Euro-Atlantic trend towards social welfare-oriented 'state planning.' And yet, thereafter,

ordoliberals were consistently forced into policy compromises. Although Adenauer oversaw a large-scale privatization program in the late 1950s and early 1960s, for example, Erhard and the ordoliberals failed in their adamant resistance to the government's expansion of the pension system in 1957. Despite such ordoliberal compromises and losses – at once waning in political influence but growing in academic prevalence into the 1970s – the tradition left its imprint on West German liberalism. Following the SPD's Bad Godesberg conference in 1959, for instance, even the German Social Democrats endorsed key tenets of the 'social market economy' in their party program (Callison 2022).

In effect, this yielded a fusion between free-market and conservative-welfarist liberalism in postwar West Germany. On the one hand, ordoliberalism articulated a unique merger of liberal and conservative strands of thought, representing a current of 'conservative liberalism' in its own right (Dyson 2021). On the other hand, the Freiburg School ordoliberals consistently opposed not only socialism, but the state planning of Keynesian liberalism that dominated most of the Euro-Atlantic and much of the post-colonial world. In this and other senses, ordoliberalism can be seen as one variety of neoliberalism among others – a seemingly natural result of conversations between these thinkers at the annual Mont Pelerin Society meetings ever since 1947. Given the family resemblances between different varieties of liberalism, some argue that it would be misleading to see ordoliberalism as a German tradition alone (Roufos 2023). Not only did parts of this tradition go on to shape the supranational 'economic constitution' of the European Union, most notably in the constitutionalization of the debt break in the Maastricht Treaty of 1992. Ordoliberal legal theory and institutional design would also go global – representing as a form of 'ordoglobalism' – at the moment that its domestic influence waned (Slobodian 2018). If ordoliberalism faded into the background of German politics in the latter quarter of the twentieth century, the Eurocrisis launched it back to the forefront of national and transnational political debate (Biebricher and Ptak 2020, Roufos 2023). Such re-emergences have not been identical to the ordoliberalism of the interwar or immediate postwar eras, but mutations of the tradition that express or address changing circumstances.

A key difference between ordoliberal and other neoliberal traditions concerns the extent to which they criticize *laissez-faire* liberalism for recurrent economic crises and, relatedly, the extent to which they explicitly thematize the negative effects market dynamics can have on society – a question that also bears on the ecological contours of ordoliberal and neoliberal thought. Though anti-socialist to the core, the ordoliberals conceded that classical liberalism was blind to the social and natural limits of the market, which are reached when the latter is 'expanded without restraint to the whole organism' (Rüstow 2017b, 161). If the

state cannot thwart the concentration of corporate as well as proletarian power, the ordoliberalists feared, socio-economic disorder would ensue, and all 'natural hierarchical' relations would dissolve. Processes of atomization, massification, and collectivization would propel the 'revolt of the masses' (Röpke 1948).

As opposed to the laissez-faire currents of neoliberalism, the ordoliberalists sought to optimize competition rather than to maximize profit at all costs. To structure and stabilize markets, they proposed a principled form of liberal interventionism that would avoid the alleged arbitrariness of state planning. At the core of their idea was a technocratic distinction between 'market-conforming' and 'market non-conforming' interventions. This idea is itself premised on a broader understanding of the state-market relationship, or what the ordoliberalists called 'the framework' (*Ordnungsrahmen*), spanning the many arenas within and upon which state policy acts. Although it is well-known that the concept of the framework forms the keystone of ordoliberal theory and practice, scholars have generally overlooked a distinctly ordoliberal conceptualization of nature and environment within the framework. In *Grundsätze der Wirtschaftspolitik*, Eucken (2004, p. 377) outlined six domains that fall under the framework: 'i) the needs of the people, ii) the gifts and conditions of nature, iii) labor power, iv) a stock of goods produced prior to the specific event of planning, v) technological knowledge, and vi) the legal and social order of a people, which is further defined by their spirit and morals and which structures their economic activity.' As interconnected domains of socio-economic order, these are not only potential sites of state intervention, but among the social, moral, and legal 'preconditions' for the competitive market order itself. For this reason, they must be constantly tracked from a technocratic birds-eye-view.

While most currents of neoliberalism see nature as external to and commodifiable by the market, or as a domain of externalities affected by market processes (Vettese 2019), the ordoliberalists approach nature differently. What Eucken calls 'the gifts and conditions of nature' are instead configured as alterable factors within the overall framework. Geographical landscapes, mineral resources, forests, rivers and seas, but also climate and population density are domains on which state policy can and must act to ensure market competition (Tuchtfeld 1994). As Eucken (2004, p. 378) writes, 'economic policy works precisely by changing the data. Of course, there are limits to the influence of macroeconomic data. But none of these data points are completely unalterable.' And further still: 'Even the climate of a country can be changed by human intervention. All the more the other factors, such as the number of people, their knowledge and skills, etc.,' can be influenced. While the end goal is always the maintenance of a 'competitive market order,' different parts of the framework can be balanced to this effect – including nature itself.

In the political ecology of ordoliberalism, then, the environment is a dynamic site of political-economic intervention. On the one hand, nature cannot retain the status of a commons, uncontrolled and accessible to all. At times the Freiburg School suggests that non-commodified nature is an obstacle for market competition, leading Röpke (2009a) to bemoan that unpropertied animals moving across borders represent an obstacle to market productivity. On the other hand, the ordoliberals' goal of optimum competition can also make a case against natural destruction. As Röpke (2009b, p. 432) explains, 'it should be obvious to everyone how tremendously short-sighted it is when we destroy the balance of nature and reap the consequences of the waste and rape of natural forces, soil erosion, deforestation, the transformation of waters into cesspools, water shortages, climate deterioration, air pollution, unbearable noise and other well-known things.' For Eucken (2004, p. 377), too, environmental degradation is a continuous concern even under conditions of 'perfect competition.' If businesses maximize profits by overexploiting timber, for example, the state needs to prohibit clear felling and prevent deforestation, thus maintaining a proper balance between markets and the environment.

To this end, the 'market-conforming' policies of ordoliberalism either optimize competition in relation to a given environment or act directly on the social and natural environment. This conforms to what Foucault called 'governmentality' – the governmental 'conduct of conduct' – in his lectures on *The Birth of Biopolitics*. In his discussion of the ordoliberal relationship with the environment, Foucault (2010, p. 261) even gestured to the idea of 'environmentality' in his lecture notes. After all, as theorists of the legal, political, socio-economic 'whole,' the ordoliberals saw the social and natural environment as interconnected elements that, when balanced, yield a 'natural order' (Böhm 1937, Röpke 1948). When this order falls apart, however, it is individually, culturally, and civilizationally damaging. The result is proletarianization, collectivism and, ultimately, socialism. In this way, ordoliberal political ecology is intimately linked to a conservative tradition of cultural critique (Biebricher 2011). The ordoliberal solution to social and natural destruction thus combines a conservative cultural theory with a dynamic approach to economic governance they call *Vitalpolitik* (organic policy).

Organic policies, natural hierarchies

In the ordoliberal conception of the Third Way, neither laissez-faire capitalism nor state socialism provide a 'healthy' approach to social integration outside the market sphere. To this end, they proposed a *Vitalpolitik*, or 'organic policy' to construct a 'healthy' framework with a positive 'organic

effect' (*Vitaleffekt*) on particular domains of intervention (Rüstow 2018, 166). In our reading of ordoliberalism, the central aim of developing an 'organic policy' was to re-'naturalize' that which socialists sought to 'socialize' (and thus to denaturalize): property, family, community, nation, and even nature itself.

Röpke (1948) saw *Vitalpolitik* as the proper means to address the embeddedness of individuals in a monogamous familial structure, or what they called the 'community of nature, history, and of private property.' This conservative appreciation of hierarchy appears at the center of their social theory and social policy. But it was also justified by elaborate readings of economic history, or what Rüstow (1950) calls 'advanced civilizations' in his three-tome magnum opus, *Ortsbestimmung der Gegenwart*. In his narrative, it was the nomadic era that gave rise to the dictatorial, patriarchal family as its characteristic form of life: 'For the first time a healthy and symbiotic balance in economic and social matters is achieved, smoothing the division and synchronization of labor between the sexes and grounding a stable human equilibrium in monogamous family life' (Rüstow 1950, p. 54). Yet, for all its patriarchy, the nature of nomadic life did not allow women to assume their natural function of cultivating nature. According to Rüstow, only agricultural life assigned natural roles to men (hunting, tending to animals) and women (weaving, tending to plants). The era of the landed peasantry established the foundations for monogamy, the healthiest 'organic situation', and the basis for all cultural and civilizational progress. Rüstow thus posits this as 'the last highpoint in the development of humanity' (Rüstow 1950, p. 54). Even if agricultural life cannot be restored, a modern 'organic policy' can make natural hierarchy great again.

One of the theoretical and policy goals behind organic policy is the privately-owned garden. Though it may appear an idiosyncratic example of organic policy, the private garden is arguably the archetype of ordoliberal political ecology – and perhaps of ordoliberalism in general. The garden is, in miniature, that which ordoliberalism pursues in general: a rule-based frame that allows what is 'natural' to grow in orderly fashion. As a practical domain of life, gardens also constitute a precondition of market order: a form of social integration, a crystallization of the gendered division of labor, and an ideological and material investment in small-scale private property. Rüstow's (1963) essay titled 'Garden and Family' exemplifies this view. Here he argues that the garden is the proper habitat [*Lebensraum*] of the family unit, ensuring a non-alienated or 'organic situation' [*Vitalsituation*] vis-a-vis market and society (Rüstow 1963, p. 296). It is where husband, wife, and children are continuously socialized into rhythms of discipline and recreation – both within the so-called 'natural' family unit and in relation to the 'natural' elements. Since social reproduction precedes economic reproduction, 'Kindergarten' is an appropriate concept. 'It all begins with children,'

Rüstow explains. In school and at home, children are socialized into gender roles of care and cultural values of responsibility – though such conditions are lacking in larger cities (Rüstow 1963, p. 296).

At the same time, the garden presents an organic (if expressly privatized) cure to the maladies of modern life: atomization and massification. To counter such processes, Röpke stressed that it is ‘imperative to retransform socialization into individualization’ – that is, to actively entrepreneurialize potential proletarians (Röpke 1969, p. 162). Organic policy thus aims at maintaining a middle class that is materially and psychically invested in *private* property. In this regard, it must consider and address their vital needs and prevent their long-term dependency on the state: ‘Congestion, regimentation, proletarianisation, collectivisation and the disappearance of the little properties of the masses, who incidentally are being recruited afresh from the crumbling middle classes, all these are discharged like a river into a mass delta, ordered, led and always further financed by the state’ (Röpke 1948, pp. 140–41).

Theoretically and historically, then, gardening has been a central natural and spatial metaphor for ordoliberalism. Theoretically, it articulated an ontology in the background of ordoliberal thought, one which varies between thinkers and falls somewhere between naturalism and constructivism. Historically, it served as an ideological reflection of existing material conditions of postwar Germany. In this vein, the ‘social market economy’ that Erhard famously described as *Wohlstand für Alle* (Prosperity for All) implied the political-ecological idea of *Privatgärten für Alle* (Private Gardens for All). According to Böhm (1980, p. 115) a competitive order is premised on ‘a continuous nursing and gardening, comparable to creating and maintaining a highly cultivated park’ (Vanberg 2004, p. 13). Observing that institutions are not fixed and inflexible but capable of cultivation and reform, Vanberg similarly suggests that ‘the economic order is not a self-generating and self-maintaining gift of nature but something that needs to be actively pursued and cultivated.’ As a scholar sympathetic to the general ordoliberal project, Vanberg explains that its first generation likened this task ‘to the activities of a gardener who does not construct things, like an engineer, but provides for conditions that are conducive to the natural growth of what is considered desirable, while holding back the growth of what is not desired’ (Vanberg 2004, pp. 8, 13). Similar to Vanberg, as the next section will show, contemporary ordoliberals like Lars Feld, Nils Goldschmidt and Stefan Kolev seek to ground their theoretical arguments and policy prescriptions with reference to the first-generation Freiburg School ordoliberals.

The political ecology at the heart of ordoliberal political economy can thus be deciphered from the key debates and primary texts of the tradition’s first generation. In brief, it is one relying on the regulation of nature in the framework, the appeasement of class struggle through dissemination of

private property in the form of the garden, and the hindrance of atomization through familial, cultural, and natural embeddedness. Many continuities between interwar and postwar ordoliberalism, on the one hand, and its contemporary instantiations, on the other hand, can be found at this ecological nexus. Put another way, the tradition's perseverance and change can be identified between historical and contemporary ordoliberal thinkers and think tanks, between their past and present theories of nature, and between the political actors and parties that absorb these discourses and subsequently translate them into policy and legal frameworks. Though such trajectories are subject to constant reinterpretation and reinvention – in both theory and practice, as the next section will show – there is a coherent environmental core to this dynamic tradition.

Varieties of ordoliberal political ecology

In the course of its development, this distinct political ecology has translated into different approaches to environmental policy and, more recently, to the climate crisis, that fall within a continuum ranging from extreme climate change denialism to a form of ecological techno-optimism. Drawing on ordoliberal texts published in academic journals like *ORDO*, party manifestos, and pertinent writings by German political leaders, we distinguish between three ordoliberal approaches to German climate politics: green ordoliberalism, fossil ordoliberalism, and a potential geo-engineering-based ordoliberalism.

Green ordoliberalism

Green ordoliberalism is the most common of the three approaches. Only recently used by scholars examining the ordoliberal approach to climate policy (Gabor 2022, Oakes 2022), green ordoliberalism arguably captures the program of the current traffic light coalition (Social Democrats, Green Party, and Liberals). The coalition's programmatic agreement of 2021 frames the 'man-made' climate crisis as a central challenge to 'living conditions, freedom, economic prosperity and safety' and claims that reaching the Paris target of limiting global warming to 1.5 degrees is its 'highest priority' (Coalition Agreement 2021, p. 4). To this end, the traffic-light coalition makes the case for shifting the ordoliberal tradition of a 'social market economy' toward a 'socio-ecological market economy' (Coalition Agreement 2021, p. 5).

The description of what would characterize such a socio-ecological market economy is suffused with ordoliberal lingo: a 'set of rules' shall 'clear the way for innovations and measures' to meet the target of climate neutrality by 2045 at the latest (Coalition Agreement 2021, p. 5). State money shall fund

research into new climate neutral technologies while different supporting mechanisms and the reduction of bureaucratic hurdles shall ensure that renewable energy can compete with fossil fuels on the market. State subsidies for renewable energy providers will cease once the state-mandated phase-out of coal [*Kohleausstieg*] is concluded – estimated to happen between 2030 and 2038.

To transform Europe's largest industrial and export-based economy into a climate neutral one, the traffic coalition is counting on green hydrogen. The creation of 'necessary framework conditions including efficient support programs' for 'a powerful hydrogen economy' are a prerequisite to ensure Germany's industrial attractiveness, its economic competitiveness, and its 'sustainable prosperity.' The framework conditions for this 'socio-ecological' market economy include CO₂ pricing mechanisms, such as a carbon tax and a cap-and-trade system. Through a regulatory framework setting a price for CO₂ pollution, the market becomes the site of a transition toward climate neutrality: 'That which is good for the climate becomes cheaper – what is bad, more expensive' (Coalition Agreement 2021, p. 49). Although higher prices may burden consumers, the state's gains from the CO₂ tax would be partially paid back to citizens through the provision of 'climate money' [*Klimageld*]. In this way, the market is simultaneously tasked with ensuring climate neutrality and social fairness. The goal is to incentivize consumers to buy and companies to produce more ecologically sustainable and comparatively cheaper products.

Taken together, the framework conditions shall 'activate private capital for projects of the transformation' (Coalition Agreement 2021, p. 22). The final goal of the traffic light coalition, then, is not to ensure the 1.5 degree target is met but to secure the competitiveness of the German industry in a warming world. The ordoliberal political ecology of the traffic light coalition prompts citizens and entrepreneurs to 'think economic development and ecological responsibility together' (Coalition Agreement 2021, p. 20). The 'framework conditions' – a concept that appears 30 times in the Coalition Agreement – become the site of intervention for the state to act on climate change. Following the ordoliberal tradition, nature is put into the framework to strike an optimal balance between economic production and ecological destruction.

The academic discourse around green ordoliberalism reflects this as well. According to Nutzinger (1996), ordoliberal environmental politics can shape, regulate, and even limit economic processes for ecological reasons. But they must avoid 'a situation in which economic processes are more or less strangled by a multitude of small and individually harmless regulatory provisions; the market economy should not suffer such a fate' (Nutzinger 1996, p. 10). First, the state needs to build an ecological framework by assessing 'whether the hazardousness of the respective pollutants or our

insufficient knowledge in the specific case allow for economic considerations and optimization calculations at all.’ Once this question has been answered sufficiently, the ecological framework is set and ‘shall no longer be up for disposition’ (Nutzinger 1996, p. 11). Following the establishment of the framework regulations, prohibition and trade certificates (prioritizing the price mechanism) can ensure the achievement of the environmental targets.

Both Alheim and Lehr (2000) and Wolf and Goldschmidt (2019) follow this line of argumentation. From an ordoliberal perspective, these scholars call on the state to cap emissions according to an ecological standard. Focusing on the centrality of consumer sovereignty to ordoliberal economic policy, emission certificates should be handed out to consumers. Such environmental policies align with the ordoliberal idea that the ‘common good’ can best come about through regulated market competition driven by individual awareness of the emissions that stream from consumption. At a different scale, this approach includes Gabor’s (2022) account of green ordoliberalism: ‘the small green derisking state’ that creates a favorable business environment to mobilize private investment into renewable energy infrastructure and green technology development. Green ordoliberalism thus tends towards greenwashing by placing the consumer and the market at the heart of climate action, and all within the frame of the ‘socio-ecological market economy.’ In this vein Ludwig Erhard Forum director Stefan Kolev argues for updating and modernizing the ordoliberal tradition through a ‘Neue Ordnungsökonomik’ that both retains its basis in Eucken, Böhm and Röpke (Zweynert and Kolev 2016) and responds to contemporary dilemmas – including that of climate change. Kolev specifically conceives of the ‘socio-ecological market economy as the best strategy for the regulated market to take on the task of climate protection while the framework ensures social cohesion and trust into the order’ (Kolev 2022). The political ecology of ‘green ordoliberalism’ can thus be summarized as a distinct way of conceptualizing the severe challenge posed by the climate crisis – not primarily to people’s livelihoods, biodiversity, or conceptions of social justice, however, but to the primacy of market competition.

Fossil ordoliberalism

A second ordoliberal approach to climate policy is taken by the climate-denialist far-right party Alternative für Deutschland (AfD). The party famously questions the existence and causes of climate change and its potential ‘negative’ impact on the German economy (AfD Program 2021, p. 173). Successful energy politics are defined by setting framework conditions that ensure cheap energy for the free market, so as to prevent industries from relocating abroad and to curtail worsening living conditions related to rising prices. Exemplarily, the party rejects an environmentally-friendly

mobility transition but aims at ‘creating a framework for leading companies in the private aerospace sector to remain competitive’ (AfD Program 2021, p. 177). When putting nature into the framework, the AfD’s climate denialism becomes key to its fossil ordoliberalism: alternative scientific facts are manufactured to downplay the need to regulate economic processes for climate mitigation, and the prohibition of fossil fuel combustion is understood as an impermissible non-market-conforming intervention akin to centralized state planning.

But the importance of nature – and ‘the natural’ *qua* hierarchical relations – for economic processes is not fully neglected here: the local (national) environment, not the global climate, is what the AfD seeks to protect to ensure social and economic prosperity. By decoupling ‘the environment’ from ‘the climate,’ the AfD opposes the construction of renewable solar and wind energy infrastructure. Using the ordoliberal shorthand, the party line holds that such non-conforming market interventions are ‘politically and ideologically forced’ and that ‘state-subsidized development of regenerative energies’ are ‘an economic disaster’ (AfD Program 2021, p. 199). But much more than violating the ordoliberal playbook, renewable energy infrastructure presents ‘a considerable burden on our homeland, our way of life and our nature’ (AfD Program 2021, p. 199). Adopting the ordoliberal discourse of a ‘balanced’ relationship between the market and the environment, or a fully destructive and unprofitable relation to nature, the AfD simultaneously calls for the sacrifice of some environments (to build coal mines) and the protection of others (saving forests from windmills).

Premised upon outright denial of the climate crisis, the AfD’s fossil ordoliberalism is no anomaly to ordoliberal thought. Though more mainstream ordoliberals have repeatedly rejected placing the AfD within the tradition of ordoliberalism, the use of climate denialism and climate delay can be found in ordoliberal academic journals. Exemplarily, in the Freiburg School’s journal *ORDO*, Schöler (2013) follows a typical climate denialist argumentation that questions the need for ecological policy through scepticism towards the scientific evidence that the climate is indeed changing drastically in the Anthropocene era. He argues against climate change mitigation and for a policy of climate adaptation, postulating – in line with the neo-Malthusian tradition – that the energy transition would trigger waves of poverty, leading to higher rates of population, and finally a higher demand for energy overall.

Like the traffic light coalition, the AfD sees itself as ‘reviving Ludwig Erhard’s social market economy and creating prosperity for all’ (AfD Program 2021, p. 44). Situated in the conservative tradition, the AfD resurrects what Rüstow and Röpke referred to as ‘the organic situation’ by naturalizing traditional gender roles, the monogamous family, and rural life. In its 2021 election manifesto, the party also reminds politicians what

the state's task should be: 'to preserve competition and prevent monopolies, cartels and other influences that damage the market mechanism' – that is, 'not to exert direct influence on companies and innovations and to steer the economy through specifications and subsidies' (AfD Program 2021, p. 44). In this ordoliberal formulation, the AfD and the traffic light coalition have something foundational in common. In distinguishing between market-conforming and non-conforming interventions, what differentiates green ordoliberalism from fossil ordoliberalism is their respective answers to the question: Does the climate crisis pose such a threat to national and international market competition that adjustments to the framework are necessary to uphold optimal market competition?

Ordoliberal geoengineering

A third approach to ordoliberal climate politics is that of geoengineering. A consistent topic of controversy, proposals for geoengineering – defined as 'the intentional deployment of planetary technologies that act to reduce or reverse the effects of climate change' (McLaren and Corry 2021, p. 20) – are usually grouped into two clusters. Carbon dioxide removal (CDR) techniques aim at removing already-existing carbon in the atmosphere through technologies like direct air capture and storage, bioenergy with carbon capture and storage (BECCS), and afforestation/reforestation. Solar radiation management (SRM) seeks to go a step further. Through stratospheric aerosol injection, marine cloud brightening, or ground-level albedo enhancement, solar energy would be refracted in the atmosphere to stop it from further heating the planet.

Geoengineering through SRM technologies has not yet gained a firm foothold on the German political landscape, and it is not likely to make major advances in the near future. The use of CDR techniques, however, has grown to become an indisputable necessity in the fight against climate change for most parties. In early 2023, the CDU submitted a motion in the Bundestag titled 'CO₂ capture and storage, CO₂ utilization and negative emissions – Opportunities for the climate, the industry and prosperity.' In it, the CDU prompted the government to establish the legal and financial framework within which CDR technologies can be developed: 'We see them as complementary instruments of innovation competition' (CDU/CSU Fraktion 2023). At the same time, the FDP claims that the Carbon Management Strategy governing the terms for CCS and CCU technology is underway. In its coalition agreement, the government already gestured towards this development: 'the natural CO₂ storage capacity of the oceans through a targeted development program of seagrass meadows and algae forests' should be improved, and 'the EU Commission's debate on the "Carbon Removal Certification Guidelines" should be closely monitored'

(Coalition Agreement 2021, p. 37). By converting forests to house more native trees, German forests shall become climate-resilient and ‘indispensable for reaching our climate goals’ (Coalition Agreement 2021, p. 29). Amidst the ‘energy crisis’ following the Russian invasion of Ukraine, even the Green Minister and Vice Chancellor Robert Habeck moved away from his previous scepticism about geoengineering. A study authored by Habeck’s ministry emphasizes that ‘despite the numerous climate protection measures, additional CO₂ capture in the context of CCU [Carbon Capture and Utilization] and CCS [Carbon Capture and Storage] on a megaton scale will be necessary as early as 2030 if the climate targets are to be achieved’ (Niesmann 2022).

Though the development and application of more advanced modes of geoengineering is still in its infancy in Germany, it is important to highlight the tendency for an ordoliberal approach towards the ‘deployment of technologies to reduce and reverse the effects of climate change’ (Coalition Agreement 2021). Recall that, when outlining the ordoliberal approach in *Grundsätze der Wirtschaftspolitik*, Eucken stated this task in no unclear terms. If the framework cannot mediate between the economic background conditions and the principle of market competition, then the environmental background conditions ought to be changed: ‘Even the climate of a country can be changed by human intervention’ (Eucken 2004, p. 378).

Precisely because of the ordoliberal acknowledgement that free-market competition is premised on background conditions, such as natural resources and environmental factors, in times of the climate crisis, the ordoliberal policymaker is prone to opt for geoengineering technologies to alter the climate in such a way that it continues to enable (industrial) economic processes. However, as Malm (2022, p. 3) argues, the more intrusive forms like solar geoengineering will not solve the underlying factors driving the climate crisis but rather ‘encourage business-as-usual to continue, while negative side-effects from geoengineering itself pile up.’

Conclusion: The ordoliberal glass ceiling

In recent writings and speeches, Minister of Economy and Environment Robert Habeck has called for a Third Way that pairs the ‘creative destruction’ of the market with the imperatives of a green transition, taking inspiration from arch-ordoliberal Alfred Müller-Armack (Habeck 2022a, pp. 369–70). In this sense, ordoliberalism serves not only as a cross-party policy framework, but also a malleable political ideology.

In contrast to other traditions of economic liberalism, ordoliberalism does not necessarily or merely reduce nature to factors of production or to market ‘externalities.’ Instead, it places nature within the overall ‘framework’ or *Ordnungsrahmen* – an idiosyncratic concept used by party politicians, such as the call for an ‘*Ordnungsrahmen* for a social-ecological

market economy' in the Greens' recent election program (Party Program 2021, p. 15). What the ordoliberal concept of an 'social-ecological market economy' obscures, however, is the invisible 'glass ceiling' that will be hit as warming exceeds the 1.5 and 2 degree Celsius benchmarks set by climate scientists. The concept of the glass ceiling encompasses the structural barriers that prevent transformation toward an ecologically sustainable state capable of limiting emissions domestically and internationally. An example of such barriers is the commission of new lignite coal mine projects carried out by the multinational energy company RWE and greenlighted by the traffic-light coalition under guise of the 'energy crisis' and endorsed by the majority of German politicians, most prominently, however, by SPD leader and 'climate chancellor' Olaf Scholz, and Economic and Environment Minister Robert Habeck.

As we have shown, ordoliberalism can hypothetically take on many different forms – fossil, green, and geoengineered, among other possibilities. Under any particular form of ordoliberal political ecology, certain key characteristics will manifest. Generally speaking, ordoliberalism will tend to be technocratic and resistant to democratic input, while also relying on market competition as the primary mechanism to determine the distribution of goods and resources. As an approach to economic theory and environmental policy, it will place nature within a general framework – a framework that can, however, be adjusted depending on changing priorities and crisis conditions. Yet since this approach is premised on the ultimate goal of optimizing market competition and maintaining market order 'at all costs,' ordoliberal climate policy could not yield a paradigm shift away from the basic features of the market economy. This, in short, is what we call the 'ordoliberal glass ceiling.'

Having first emerged as an attack on interwar theories of state and market socialism, today ordoliberalism carries this mission forward through opposition to economic planning proposals for a Green New Deal or for ecosocialism. One potential exception is the government's temporary implementation of price controls on energy costs in 2023 – a policy which was implemented in the face of considerable ordoliberal resistance, but which has proven to be remarkably successful in stabilizing prices. And yet the coalition government plans to abandon the price-cap policy in favor of market pricing at the earliest opportunity.

These characteristics of ordoliberal political ecology come with profound and overlooked limitations to the state's ability to enact a transition rapid enough to meet a 1.5 degree emissions target. Such limitations would arguably obtain under any full-throated defense of capitalist environmental policy, given that decentralized markets organized through private investment seeking the highest rate of return on capital are what produced the climate crisis in the first place. Thus the

most recent IPCC report emphasized that ‘explicit transformational system changes are necessary’ to meet climate goals, which would mean tackling factors spanning ‘economic growth, energy access, energy justice, energy security, air pollution, technological progress in low-emissions technologies, [and] local job creation’ (IPCC 2022, pp. 1395, 623).

It is necessary to think and act beyond the conceptual and structural limits set by the ordoliberal glass ceiling. This would require departing from the market-driven consensus that has held sway for decades. Like Friedrich Hayek and other neoliberal theorists, ordoliberal scholars and policymakers lay epistemological emphasis on the limitless complexity of markets, suggesting the inability of states to ‘plan’ economic activity. Both generally and specifically amidst the climate crisis, however, these variants of economic liberalism arguably disavow the fact that nature demonstrates an even higher degree of ‘complexity’ and ‘unknowability’ than the market (Vettese and Pendergrass 2022).

Challenging the ordoliberal glass ceiling would also require alternative visions and arrangements of financing to spur the green transition. This would mean tackling and transforming an emergent global form of asset manager capitalism and transforming the ‘derisking state’ into one based on democratized public ownership and focused on ecologically-oriented public investment projects (Gabor 2022). It would likewise require coupling the re-empowerment of labor unions with centralized planning (Huber 2022). This approach to workplace democracy and green investment would be anchored in job guarantees and forms of ongoing democratic legitimation and input, including on questions about what kinds of jobs are necessary and desirable from socio-ecological perspective. The ordoliberal refusal to pair decarbonization with democratization will only further open the door to authoritarian climate management.

Historically and today, ordoliberalism aims to alter or intervene into nature so as to optimize competition. Yet the green state does not fall within the gambit of ordoliberalism’s competitive market order. Refusing to acknowledge the glass ceiling and to pursue broad-scale and transformative planning beyond the market mechanism will not only yield continuous warming and the ongoing mainstreaming of climate delay. It will also abet the authoritarianism tendencies of an already ascendent rightwing populist wave (Malm and Zetkin Collective 2021), which in the German context is exactly what the far-right AfD party is betting on. The current policies of the ‘green ordoliberal’ traffic-light coalition, in other words, risk triggering an authoritarian ‘fossil ordoliberal’ reaction. In both its ‘green’ and ‘fossil’ variants, or in a possible ‘geoengineered’ form of the future, ordoliberalism seeks to make a climate fit for capitalism.

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