12. Green growth and competitiveness in EU climate policy: paradigm shift or 'plus de la même chose'?

Oscar Fitch-Roy and Ian Bailey

1. INTRODUCTION

Green growth and competitiveness have formed core themes of the European Union's approach to climate policy since (and even before) the Kyoto Protocol negotiations in the 1990s (Geden et al. 2018). The EU's adherence to green growth climate narratives and policies has arisen in response to a range of legal and political forces, not least the EU's treaty commitments to promote sustainable and balanced economic growth within a competitive market economy and pressures to demonstrate to international audiences that bold climate action need not be at the expense of a vibrant economy (de Sadeleer 2014; Wurzel and Connelly 2011). The rise of green growth framings within EU climate policy also reflects internal pressures to ease concerns by some Member States that increasing the EU's climate policy ambition in the wake of the 2008–2010 economic crisis would be detrimental to their growth prospects (Skovgaard 2014).

The EU's efforts to foster synergies between effective climate policy and economic growth have found various expressions over the years, including: the EU emissions trading system (ETS); the renewable energy directives; and the adoption of the circular economy package to stimulate a climate-neutral and resource-efficient economy (European Commission 2015; 2020a; 2020b; 2020c; 2020d). The European Green Deal, adopted in 2019, draws these and other initiatives together into a consolidated vision and roadmap for achieving climate neutrality by 2050. In announcing the package, the European Commission (2019b: 2) described the Green Deal 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'.

The Green Deal's main measures give further indications of its leanings towards green growth and competitiveness: investment in environmentally friendly technologies; support for industry innovation; the promotion of cleaner, cheaper and healthier forms of private and public transport; decarbonization of the energy sector; energy-efficient buildings; and collaborative working at the international level to improve global environmental standards. In contrast, the original European Green Deal announcement made only passing mention of consumption under general remarks on 'redirect[ing] public investment, consumption and taxation to green priorities' (European Commission 2019b: 17). Although a *New Consumer Agenda* and *Green Consumption Pledge* were launched in November 2020 and January 2021 to promote greener consumerism, both stressed the need to increase the availability of climate-neutral goods and services in EU markets and to empower consumers in making informed purchasing choices

without 'without imposing a specific lifestyle and without social discrimination' (European Commission 2020e: 5; 2021a).

This positioning of the EU's climate policies can be traced at a more general level to its longstanding allegiance to ideas of ecological modernization from which many strands of green economy thinking derive (Gouldson and Murphy 1996; Leipold 2021; Machin 2019). The central idea underpinning both concepts is that 'environmental problems [are] politically, economically and technologically solvable within the context of existing institutions and power structures, and continued economic growth' (Bailey et al. 2011: 683). Although one essential appeal of ecological modernization is its emphasis on creating political spaces for institutional learning and policy reform to address tensions in the economy–environment relationship, criticisms are also levelled at the constraints this can place on how far and fast policy change can be enacted. Such is the potency of green economy narratives within the EU, according to Fitch-Roy et al. (2020b) and Machin (2019), that conceptions of environmental policy which lie outside a narrow range compatible with ecological modernization remain largely marginalized in the EU climate policy discourse.

This chapter explores some of the main ways 'win-win' narratives of ecological modernization and green economy thinking have shaped EU climate policy and examines both the potency and limitations of green economic thinking as a catalyst for transformative action on climate change. We argue that this policy orientation carries significant risks if green innovation and supply-side solutions fail to deliver climate neutrality because they do not address the social values of overconsumption, but equally shows the EU's creativity in the face of political and fiscal constraints on its agency. It also creates important opportunities for international leadership in developing and showcasing climate compatible technologies and modes of governance. We begin with an overview of the green economy concept, then examine how high-profile initiatives on the circular economy, renewable energy, and New Consumer Agenda have embodied a growth-centric tendency within the EU's climate strategy. The chapter concludes with reflections on the implications of green economy thinking for the EU's ambitions of achieving emissions neutrality and international leadership on climate change.

2. THE GREEN ECONOMY CONCEPT

The roots of green economy thinking can arguably be traced to European enlightenment concerns about the social and environmental effects of the Industrial Revolution and resulting calls to re-evaluate the relationship between economic growth, social well-being and environmental protection (Benson et al. 2021). Its main precepts crystallized further during the twentieth century as economists such as Arthur Cecil Pigou established the notion of environmental externalities and advocated government intervention to price the negative effects of economic activities, challenging neoclassical economic assumptions that markets would 'naturally' self-correct as they detected losses in efficiency (Adaman and Özkaynak 2002). Green economy ideas continued to develop from the 1960s onwards and began to gain greater political attention with the publication of reports such as 'Blueprint for a Green Economy' (Pearce et al. 1989), which provided a detailed template for connecting economy and environment through the construction of taxation systems for valuing and maintaining natural and human capital (also Jacobs 1991).

By this point, Benson et al. (2021) argue, green economy thinking was cleaving into two main strands. Proponents of 'strong' green economics argued that natural capital could not be substituted by other forms of capital, while supporters of 'weaker' forms saw capital substitution as potentially desirable if it resulted in improved overall human welfare. The greater political palatability of 'weaker' interpretations of the economy-environment relationship can be partly credited for the ascendancy within mainstream political thinking of ecological modernization views that environmental problems are politically, economically and technologically solvable within the context of existing institutions and continued economic growth (Bailey et al. 2011). This, combined with a growing sentiment that many environmental problems can be tackled more effectively and efficiently through 'governance' approaches, where decision-making is distributed between private and public actors rather than being the sole preserve of governments, has reinforced framings of a mutually supportive, rather than an antagonistic, relationship between growth and environmental protection.

Green economy thinking has continued to evolve, most notably at the United Nations Rio +20 Conference on Sustainable Development in 2012. Whereas earlier incarnations of the concept, epitomized by *Blueprint for a Green Economy*, promoted the use of price mechanisms to control environmental externalities, the Rio +20 version envisaged a whole new economic growth paradigm that moved from an economic system 'that allowed, and at times generated crises towards a system that proactively addresses and prevents them' (Ocampo 2011: 3). Instead of simply constraining the environmental excesses of production and consumption by imposing financial deterrents on environmentally harmful activities, the Rio +20 vision sought to make environmental protection, sustainable development and poverty eradication primary *raisons d'être* of, and orientations for, economic activity. The EU was a strong advocate of the green economy agenda at Rio +20 (Mazza and ten Brink 2012) and the idea arguably underpins large elements of the European Green Deal.

Alongside considering how different threads of green economy thinking have influenced the EU's climate policies, it is helpful to consider the mechanisms the EU has used to pursue its green economy ambitions. These have taken two main forms since the 2008–2010 financial crisis. The first has involved the adoption of 'circular economy' policy packages as an underpinning for many aspects of EU environmental policy (Fitch-Roy et al. 2020a; 2021). The second has involved the use of Keynesian-style fiscal stimuli to spur growth and steer economic activities towards environmentally sustainable pathways. Such 'Green New Deals' echo the objectives and language of Roosevelt's New Deal in the 1930s (rekindled in the US by the Biden administration since 2021) in which fiscal expansion and investment are used to stimulate economic activity and tackle social challenges through the creation of green industries and 'green collar jobs'.

Despite the influence of green economy thinking in mainstream political discourse and policy, its assertions about reciprocities between economic growth, social development and environmental protection remain contested. Benson et al. (2021: 28) argue that political difficulties arise with policies that have a contradictory 'focus on moderating downstream demand through government steering of economic objectives without radically altering the upstream structures of supply [that are] increasingly determined by the demands of global capital'. Another criticism is that green economic thinking may not deliver policies that are sufficiently 'bold' to tackle environmental contradictions within the economic status quo, even if the underlying idea of decoupling growth from environmental degradation is manifestly radical. Put another way, the tendency towards 'weaker' interpretations of the green economy suggests

that '... the envelope of political and administrative possibility may not extend far enough to encompass a fully realised [green] economy' (Fitch-Roy et al. 2021: 9). The following sections now analyse the EU's approach to economic greening, beginning with the circular economy package.

3. THE EU CIRCULAR ECONOMY

One of the most explicit expressions of the green economy in EU policy is the 'Circular Economy' (CE), a 'new' economic system that allows for 'natural resource use while reducing pollution or avoiding resource constraints and sustaining economic growth' (Winans et al. 2017: 825). While there are multiple definitions of the concept (Korhonen et al. 2018), its fundamental objective is to replace 'the "end-of-life" concept with reducing, ... reusing, recycling and recovering materials in production/distribution and consumption processes' (Kirchherr et al. 2017: 229). Over the last decade, the EU has developed a programme of initiatives to catalyse a CE that 'make[s] a decisive contribution to achieving climate neutrality by 2050 and decoupling economic growth from resource use, while ensuring the long-term competitiveness of the EU and leaving no one behind' (European Commission 2020b: 2).

EU waste management policy has drawn from ideas associated with economic circularity in successive waves since the 1970s (Fitch-Roy et al. 2020a), but 'circularisation' of the European economy only became an explicit strategic goal in 2014 (European Commission 2014b). Although early plans for a CE Directive were abandoned (Fitch-Roy et al. 2020a), an action plan was instead produced in 2015 (European Commission 2015) that included a package of four legislative proposals, passed in 2018 to amend existing Directives for waste (2008/98/EC), landfill (1999/31/EC), end-of-life vehicles (2000/53/EC), WEEE (2012/19/EU), and batteries and accumulators (2006/66/EC). While strategic documents emphasize ideas of sustainable economic growth recognizably aligned to the green economy, the Commission's New Industrial Strategy (European Commission 2020c) precipitated an updated CE action plan in 2020. The new plan more explicitly aligns the CE with job creation, framing it as a 'progressive, yet irreversible transition to a sustainable economic system is an indispensable part of the new EU industrial strategy' and citing analysis that 'applying circular economy principles across the EU economy has the potential to increase EU GDP by an additional 0.5 per cent by 2030 creating around 700,000 new jobs' (European Commission 2020b: 2).

The CE concept undoubtedly has far-reaching ramifications for EU environmental policy. However, not all of its articulations are equivalent (Kirchherr et al. 2017). Important distinctions exist between conceptions that make reducing material consumption a principal aim, and more pliable interpretations that are more susceptible to being 'subverted to the cause of continuing an unsustainable business-as-usual model' (ibid., p. 227). Previous analyses of the EU's approach to the CE suggest a tendency towards incremental, rather than radical, action. Despite the shift from monitoring waste to seeking to reshape production and consumption patterns, EU legislative action on the CE has so far consisted mainly of revisions to existing Directives with few bold and indisputably new actions (Fitch-Roy et al. 2020a). At the same time, much of the EU CE policy discourse has been characterized by 'weaker' and more politically digestible interpretations of ecological modernization (Leipold 2021). In common with much CE policy implementation at the national level (Fitch-Roy et al. 2021), the EU's CE policy appears to draw on politically and practically pragmatic, but less challenging, interpretations of the CE concept.

4. RENEWABLE AND SUSTAINABLE ENERGY POLICY

The EU has played a role in the energy systems of its Member States since the instigation of the European Coal and Steel Community in 1951. More recently, governance of the energy system has become intimately connected to EU climate policy and the Single Market (see Knodt, Chapter 14 in this volume). In this section, we explore how the evolution of EU policies on sustainable energy from the 1990s has shown a tendency towards 'market-based' approaches, in many cases shaped directly or indirectly by the requirements of the Single Market. We then describe a potential shift in this strategy towards a more 'middle-out' approach that emphasizes creating broader frameworks for realigning societal relations through, for example, a focus on nurturing new industries for offshore renewable energy and hydrogen production.

4.1 Top-down Markets and Bottom-up Technologies

The EU lacks the core fiscal resources to become involved directly in redistributive investment in technologies and sectors often associated with the green economy, and the Commission's competence is constrained by the Treaties (Knodt, Chapter 14 in this volume). Nevertheless, competence in other areas, notably trade harmonization, enabled the Commission to establish a *de facto* role in energy policy from the 1960s (Benson and Russel 2015; Cameron 2011: 125). Since the 1990s, EU action on energy has been primarily focused on energy market harmonization and liberalization, enacted through legislative 'packages' designed to remove barriers to the functioning of European gas and electricity markets that have also established the institutional basis of a quasi-European regulatory framework for cooperation between national transmission operators and regulators (Ciambra and Solorio 2015; Eikeland 2011; European Parliament 2020).

Until the mid-1990s, EU renewable energy policy was limited to modest coordination of funding for emerging energy supply technologies (Solorio and Bocquillon 2017). However, strategic policy white papers in 1995 and 1997 marked the beginning of a more identifiable EU renewable energy policy (Knodt, Chapter 14 in this volume; Nilsson et al. 2009). During this time, the challenges facing energy policymaking began to be framed in terms of the so-called 'energy trilemma' of reconciling energy security, energy equity and environmental sustainability (Falkner 2014). The European Commission also refers to three core objectives including security of supply and sustainability but, in the EU rendition, the 'equity' objective is replaced by 'competitiveness' (European Commission 2006).

By 2001, aspirations to legislate on renewable energy bore fruit in the Electricity Production from Renewable Energy Sources (RES-E) Directive (2001/77/EC) and companion legislation, the 2003 Biofuels for Transport Directive (2003/30/EC). While these Directives did not incorporate binding RES targets for Member States, indicative targets and means to monitor compliance were established. The Commission also made efforts to use 'guarantees of origin' to verify RES-E production as the basis for an EU-wide system of tradable certificates designed to replace disparate national financial support systems that were proliferating at this time (Rowlands 2005).

The Commission's attempt to create a harmonized EU-wide support mechanism for renewable electricity occurred in the context of a long-running debate among analysts and practitioners over different revenue models used by Member States to support RES expansion. States such as the UK and Ireland had introduced ostensibly 'market-based' instruments, first competitive tenders then tradable green certificate (TGC) schemes (Kitzing et al. 2012). Other Member States, most prominently Germany, were promoting and refining feed-in tariff (FiT) schemes that offer fixed price premiums and operate largely outside the purview of markets (Haas et al. 2011). The Commission has long expressed reservations about the German FiT system's compatibility with the Single Market, and challenged 2012 reforms to the German system at the Court of Justice of the European Union (CJEU) (Vasbeck 2019). In 2001, however, the CJEU resolved a dispute over the legality of German feed-in tariffs under EU competition law involving the utility company Preussen Elektra, ruling that FiTs did not constitute state aid since revenues were not drawn from state resources, (Kuhn 2001). The Preussen Elektra case effectively muted the Commission's aspirations for a pan-European TGC, at least temporarily (Hildingsson et al. 2012; Lauber 2004; Rowlands 2005).

In 2009 a more substantive renewable energy target was adopted under European Directive 2009/28/EC, which legally bound each Member State to produce a specified proportion of its energy consumption from renewables. This period also saw the Commission launch a Strategic Energy Technologies (SET) Plan in 2008 (see Skjærseth and Eikeland, Chapter 18 in this volume) to coordinate energy R&D more assertively in support of its goals (European Commission 2006; 2017). As Skjærseth and Eikeland discuss (Chapter 18 in this volume), the original objectives of the SET Plan only covered energy supply technology innovation, despite widespread acknowledgment of the need for more research on demand-side management (Eikeland and Skjærseth 2021). Eikeland and Skjærseth (2020: 122) argue that one reason for this may be that: 'the Plan's priorities were motivated mainly by the need to develop the internal energy market and to forge political agreement on the new EU climate and energy policy package, in order to achieve the goals adopted for 2020'. Also absent from the 2008 plan was the pan-European TGC system that the Commission, particularly DG Competition, favoured (Jacobsson et al. 2009; Nilsson et al. 2009).

Knodt (Chapter 14 in this volume) notes that the EU's major renewable energy policy tool, the Renewable Energy Directive (RED), has since been recast and amended several times to accommodate changing deadlines and ambition levels. In addition to new targets for 2030, notable shifts can be observed in the substance of the Directives. While the 2009 Renewable Energy Directive incorporated legally enforceable renewable energy production targets for 2020 for each Member State, the 2018 recast Directive (2018/2001/EU) established an overarching European goal with a system of planning and reporting by Member States. This occurs through Regulation (EU) 2018/1999 'on the Governance of the Energy Union and Climate Action', generally referred to as the Governance Regulation. However, unlike the 2009 Directive, the 2018 recast specified the types of financial support schemes Member States can offer to renewable energy generators. Here, the Directive invokes the 2014–2020 state aid guidelines on environmental protection and energy (EEAG), which set strict criteria for exempting renewable energy support schemes from state-aid prohibition (European Commission 2014a; Fitch-Roy et al. 2019). Exemptions are assessed against Article 107(3) of the TFEU, and exclusive competence to assess compliance lies with the Commission (European Commission 2018b). The primary criterion for exemption is that Member States employ 'market instruments, such as auctioning or competitive bidding process open to all generators producing electricity from renewable energy sources competing on equal footing' (European Commission 2014a). Here, the EEAG marks a clear shift towards state aid as 'a regulatory and policymaking tool rather than a mere monitoring and law enforcement tool' (Jansen 2016: 597). Not only are legal principles for state aid compliance for RES support specified, so too are the economic rationale and policy design in the form of auctions¹ (Kahles and Pause 2019).

Summing up, a strong preference for market-oriented approached can be seen throughout the history of EU RES policy, reflecting the continuing necessities and constraints of Single Market compatibility. Third time around, the Commission appears to have achieved significant progress towards harmonizing RES support instruments,² first pursuing a TGC and later an auctions model (Solorio and Bocquillon 2017). The persistence with which harmonization has been pursued offers credibility to Hildingsson et al's (2012: 28) observation that the 'key driver of [EU energy policy] has been the concern for the internal market, and not the concern about an impending climate catastrophe'.

4.2 Middle-out: from Markets and Technologies ... to Industries

Although 'green jobs' or 'economic growth' are common refrains in EU policy documents, EU renewable energy policy in the early twenty-first century was characterized by policies that addressed one or other half of a dichotomy between top-down 'demand pull' policy, such as the creation of European markets and target setting, and bottom-up 'technology push' policies like the SET Plan.³ More recently, the policy direction indicates a turn towards an orientation which, rather than promoting markets and technologies, seeks to establish the broader social and economic relationships through which markets and technologies can 'meet in the middle'. This tendency is also evident in the energy and climate components of the US Biden administration's \$2 trillion infrastructure spending programme launched in 2021.

Two examples of how the European Green Deal is developing a more 'mission-oriented' (Mazzucato 2019) approach to managing innovation and its role in the wider economy are the Hydrogen Strategy and the Offshore Renewable Energy (ORE) Strategy, both published in 2020 as part of a broader 'New Industrial Strategy' for Europe (European Commission 2020a; 2020c; 2020d). The EU aims to reach 300GW of offshore wind capacity alongside 40GW from other marine sources such as wave and tidal energy by 2050. The Commission estimates that the resulting 30-fold increase in ORE capacity will require approximately €800 billion investment. Framed as part of the European Green Deal, the ORE Strategy acknowledges that such transformations cannot rely on policies that depend solely on spurring technological innovation and creating markets. Offshore renewable energy impacts on numerous policy areas (Fitch-Roy 2016), and a suite of interventions are proposed spanning maritime planning, nature protection, electricity network regulation, electricity market design, the application of state-aid rules, financial innovation, assertive trade policy, research and innovation, and supporting the creation of a European supply chain to fulfil the ambition of the strategy.

The Hydrogen Strategy, meanwhile, aims to utilize hydrogen as an energy vector to help decarbonize a range of activities, including industrial processes, transportation systems, and heating for residential and commercial buildings (European Commission 2020a). The strategy proposes that the EU can play an important role in creating a supportive policy framework, coordinating R&D, and using its own financial resources to unlock private investment. From the perspective of the green economy, however, one striking element of the hydrogen strat-

egy are the actions designed to 'boost demand' for hydrogen and create the conditions for investment in capacity. Common to both strategies is tacit acknowledgment that the EU's ability to direct funding from the EU budget or EU-ETS revenues is very modest compared with the fiscal resources available to the US Federal Government and can only be 'catalytic' in encouraging the private investment needed by these industries. While the EU's rhetoric is transformational, its practical action remains targeted largely towards market making, R&D, and regulatory enabling. Adler and Wargan (2021) describe this approach as 'tennis ball' politics: green on the outside but hollow on the inside.

5. CLIMATE-NEUTRAL CONSUMERISM? THE NEW CONSUMER AGENDA

The New Consumer Agenda adopted in November 2020 forms the main arm of the EU's strategy for empowering citizens to contribute to achieving climate neutrality and other environmental objectives through their consumption choices (European Commission 2020e). The Agenda's broader vision, within which climate change nestles, articulates what the Commission describes as 'a holistic approach' (ibid., p. 1) to boosting consumer trust in the Single Market and strengthening consumer resilience as part of a sustainable recovery from the COVID-19 pandemic. Five priority areas established for 2020–2025 (Box 12.1) flesh out the Agenda's ambition to stimulate green, digitally led and equitable growth.

BOX 12.1 NEW CONSUMER AGENDA PRIORITY AREAS

- 1. Green transition.
- 2. Digital transformation.
- 3. Redress and enforcement of consumer rights.
- 4. Specific needs of certain consumer groups.
- 5. International cooperation.

Key to the New Consumer Agenda's approach to green transition is the idea that providing consumers with reliable information on the climate and sustainability impacts of products sold on EU markets will enable consumers to make informed choices about their purchases and exert consumer sovereignty. Research commissioned by the European Commission prior to the Agenda's launch indicated that although price, quality and convenience remained the main determinants of purchasing choices for many electronic and textile products, consumers claimed to be much more likely to buy durable and repairable products when provided with reliable information (European Commission 2018a). The Agenda similarly trails new measures to protect consumers from corporate greenwashing by requiring companies to substantiate their environmental claims using recognized product or organizational environmental foot-printing standards (European Commission 2020e).

The Agenda also discusses initiatives to strengthen information and consumer rights on the availability of replacement parts and repair services to support product durability, including proposals under its Sustainable Product Policy Initiative to give consumers an effective right to repair, and a review of the Sale of Goods Directive to explore the promotion of repair and more sustainable and circular products by extending minimum liability periods for new or second-hand goods and restarting new liability periods following repairs (Directive (EU) 2019/771).

The other major vehicle for empowering consumers and committing businesses to climate neutrality and sustainability is the New Consumption Pledge, a non-regulatory initiative launched in January 2021 to encourage businesses to make voluntary commitments to calculate and reduce the carbon footprint of their companies and flagship products while providing accurate, accessible and up-to-date information to consumers about their carbon footprints (European Commission 2021b). The Pledge's pilot phase ran between March 2021 and January 2022 before being opened up to all companies that wish to participate.

Summing up, the tone of the New Consumer Agenda appears simultaneously clear in its orientation and dextrous in its approach. Its environmental component involves new initiatives but leans heavily on patching onto existing legislation and other components of the European Green Deal that involve a consumer component, including the Farm to Fork Strategy and the Circular Economy Action Plan (Fitch-Roy et al. 2020a). On the other hand, the Agenda rebuts the idea that achieving climate neutrality might require deeper questioning of the social values of consumption. Rather:

Consumers across Europe are showing a growing interest in contributing personally to achieving climate neutrality ... The challenge is to unlock this potential through measures that empower, support and enable every consumer, regardless of their financial situation, to play an active role in the green transition *without imposing a specific lifestyle* and without social discrimination. (European Commission 2020e: 5; emphasis added).

Although the Agenda notes that improving environmental information about goods could be complemented by support for new consumption concepts, such as the sharing economy, business models that allow consumers to buy servicing rather than new goods, and community and social-economy organizations like repair cafés and second-hand markets, the overriding message remains – to paraphrase George H. W. Bush's infamous declaration before the Rio Earth Summit in 1992 – that 'The European way of life is not up for negotiations'.

As Elkerbout et al. (2020) note, the pandemic created an involuntary and painful experiment in de-growth as a climate strategy. It is understandable in this context that the consumer dimension of the Green Deal offered consumers and businesses an empathetic vision of post-COVID consumerism. To talk during the crisis about maintained or further economic contraction or the more radical shifts in consumption indicated by deeper-green interpretations of green economy thinking would have been both politically and ethically problematic. Equally, some commentators argue that climate neutrality may be achievable through a contraction in carbon-intensive activities only, and may be aided by stimulating demand for more climate-friendly alternatives (Elkerbout et al. 2020). The EU's commitment to green economy thinking nevertheless runs deeper than the exigencies of the pandemic and a consumption strategy based on product standards, information provision and enlightened consumerism arguably represents a gamble that climate change can be confronted without more fundamental reappraisal of the EU's economic goals. In launching the European Green Deal in 2019, Commission President, Ursula von der Leyen, described it as 'Europe's "man on the moon" moment' (European Commission 2019a: 1). But whether its approach to consumption represents a giant leap or a small step remains open to debate.

6. CONCLUSION

Despite language declaring old growth models 'out of date and out of touch with the planet' (European Commission 2019a: 1) and commitments to transform the EU's economic *modus operandi*, the package of measures introduced under the auspices of the European Green Deal gives strong hints that the EU's approach to climate policy intermixes transformative messages with large chunks of continuity. Tracing EU policy activity across the circular economy, renewable energy strategy and New Consumer Agenda demonstrates the EU's determination to address climate change within the context of the Single Market's commitments to economic growth, competitiveness, and improving the quality, availability and price of goods and services. In contrast, measures that challenge growth-centred interpretations of the green economy appear muted within the European Green Deal's package of measures. Ursula von der Leyen encapsulated this sentiment in a speech on the Green Deal in December 2019, arguing that: 'the Green Deal is not just about cutting emissions, it is also a new European growth strategy' (Sánchez Nicolás 2019).

Critics of the European Green Deal and its green economic underpinnings might argue that the EU is attempting to solve the climate crisis while ignoring the maladies of growth-centred economics (Harris 2021). Early evaluations of its environmental outcomes certainly offer a mixed picture (EEB 2020). However, it can also be argued that, if pursued with conviction, the approach responds pragmatically to legal, political and fiscal limits on the EU's capacity to dictate policy to – or the social values of – the Member States. The Commission is obliged to work within its treaty powers and fiscal constraints, and the degree of policy activity outlined in this volume shows considerable ambition and creativity. Brexit equally offers reminders of frailties in some Member States' support for the European project, while the economic repercussions of COVID-19 have intensified pressures to prove that the Single Market meets the needs of its citizens. The present turn towards more active industrial policy presents potential new horizons for the EU green economy, but also creates challenges to a policy system that lacks the fiscal firepower to deliver on its Keynesian rhetoric.

The Green Deal's growth and competitiveness orientation equally offers opportunities for leadership in developing climate-compatible technologies and modes of governance by utilizing its 27 Member State 'policy laboratory' (Börzel and Risse 2009) to demonstrate to international audiences that ambitious climate policy need not involve compromising economic well-being. The EU's approach to climate neutrality – through evolving existing policies and progressively orienting key economic spheres towards climate goals while continuing to make growth and competitiveness primary justifications and benchmarks for interventions – nevertheless constitutes an act of faith that effective climate action can be achieved without rescripting its values. The recent shift from market efficiency towards active industrial policy raises new questions about whether the EU has the tools to achieve its ambitions. Theories of ecological modernization, from which lighter interpretations of green economy thinking derive, present an optimistic view of the capacity of science and technology, existing institutions, and market processes to solve environmental problems (Bailey et al. 2011). Only time will tell whether this optimism is well-founded or how the EU will respond if the current Green Deal package struggles to deliver on its promises.

NOTES

- 1. New guidelines to be published in 2022 are likely to maintain the *de facto* expectation of competitive bidding processes (European Commission 2021).
- Although a 2019 CJEU judgment finding that Germany's FiT system was not state aid (Vasbeck 2019) has created uncertainty over the Commission's discretion, by 2019 auction systems had become *de facto* standard practice across the EU.
- 3. The EU emissions trading system arguably plays both roles as a top-down price signal and a generator of funds for bottom-up technology innovation (Eikeland and Skjærseth 2020).

REFERENCES

- Adaman, F. and B. Özkaynak (2002). The economics-environment relationship: neoclassical, institutional, and Marxist approaches. *Studies in Political Economy*, 69 (1): 109–135.
- Adler, D. R. K. and P. Wargan (2023). Decarbonization without democracy: tennis-ball politics and the EU Green Deal. In K. Tienhaara and J. Robinson (Eds.), *Routledge Handbook on the Green New Deal*. Abingdon and New York: Routledge, pp. 299–315.
- Bailey, I., A. Gouldson and P. Newell (2011). Ecological modernisation and the governance of carbon: a critical analysis. *Antipode*, 43 (3): 682–703.
- Benson, D., J. Fairbrass, I. Lorenzoni, T. O'Riordan and D. Russel (2021). The green economy: changing meanings in a changing world. In J. Fairbrass and N. Vasilakos (Eds). *Emerging Governance of* a Green Economy: Cases of European Implementation. Cambridge: Cambridge University Press, pp. 14–33.
- Benson, D. and D. Russel (2015). Patterns of EU energy policy outputs: incrementalism or punctuated equilibrium? West European Politics, 38 (1): 185–205.
- Börzel, T. and T. Risse (2009). *The Transformative Power of Europe: The European Union and the Diffusion of Ideas*. KFG Working Paper Series.
- Cameron, P. D. (2011). The EU and energy security: a critical review of the legal issues. In A. Antoniadis, R. Schütze, and E. Spaventa (Eds.), *The European Union and Global Emergencies: A Law and Policy Analysis*. Bloomsbury Publishing, pp. 125–166, available at https://books.google.com/books?id= jB3cBAAAQBAJ&pgis=1 (accessed January 2015).
- Ciambra, A. and I. Solorio (2015). The liberalisation of the internal energy market: is the EU dancing at a British tempo? In J. Tosun, S. Biesenbender, and K. Schulze (Eds.), *Energy Policy Making in the EU: Building the Agenda*. London: Springer London, pp. 147–165, doi:10.1007/978-1-4471-6645-0_8.
- de Sadeleer, N. (2014). *EU Environmental Law and the Internal Market*. Oxford: Oxford University Press.
- EEB (2020). The European Green Deal One Year In. European Environment Bureau, available at https:// mk0eeborgicuypctuf7e.kinstacdn.com/wp-content/uploads/2020/11/Briefing-EEB-2020-Annual -Conference-Paper-EGD-One-Year-In.pdf (accessed August 2021).
- Eikeland, P. O. (2011). EU internal energy market policy: achievements and hurdles. In V. L. Birchfield and J. Duffield (Eds.), *Toward a Common European Union Energy Policy*. Cham: Palgrave Macmillan, pp. 13–40.
- Eikeland, P. O. and J. B. Skjærseth (2020). The Politics of Low-Carbon Innovation: The EU Strategic Energy Technology Plan. Cham: Palgrave Macmillan.
- Eikeland, P. O. and J. B. Skjærseth (2021). Energy research & social science the politics of low-carbon innovation: implementing the European Union's strategic energy technology plan, *Energy Research & Social Science* 76 (April): 102043, doi:10.1016/j.erss.2021.102043.
- Elkerbout, M., C. Egenhofer, J. Núñez Ferrer, M. Cătuți, I. Kustova and V. Rizos (2020). *The European Green Deal after Corona*, Brussels: Centre for European Policy Studies, available at www.ceps.eu/ceps-publications/the-european-green-deal-after-corona/. (accessed April 2021).
- European Commission (2006). A European Strategy for Sustainable, Competitive and Secure Energy, available at http://europa.eu/documents/comm/green_papers/pdf/com2006_105_en.pdf (accessed April 2021).

- European Commission (2014a). Guidelines on State Aid for Environmental Protection and Energy 2014–2020. Brussels: European Commission.
- European Commission (2014b). *Towards a Circular Economy: A Zero Waste Programme for Europe*. European Commission, available at https://ec.europa.eu/environment/circular-economy/pdf/circular -economy-communication.pdf (accessed April 2021).
- European Commission (2015). Closing the Loop An EU Action Plan for the Circular Economy Introduction, 2015, available at https://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0 -11e5-b3b7-01aa75ed71a1.0012.02/DOC 1&format=PDF (accessed April 2021).
- European Commission (2017). *The Strategic Energy Technology (SET) Plan*, available at https://op .europa.eu/en/publication-detail/-/publication/064a025d-0703-11e8-b8f5-01aa75ed71a1 (accessed April 2021).
- European Commission (2018a). Behavioural Study on Consumers' Engagement in the Circular Economy, available at https://ec.europa.eu/info/sites/info/files/ec_circular_economy_final_report_0 .pdf (accessed April 2021).
- European Commission (2018b). Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the Promotion of the Use of Energy from Renewable Sources, Brussels, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_2018.328 .01.0082.01.ENG&toc=OJ:L:2018:328:TOC.
- European Commission (2019a). Press Remarks by President von der Leyen on the Occasion of the Adoption of the European Green Deal Communication, 2019, available at https://ec.europa.eu/ commission/presscorner/detail/en/speech 19 6749 (accessed April 2021).
- European Commission (2019b). *The European Green Deal*, available at https://eur-lex.europa.eu/legal -content/EN/TXT/HTML/?uri=CELEX:52019DC0640&from=EN (accessed March 2021).
- European Commission (2020a). A Hydrogen Strategy for a Climate-Neutral Europe, available at https:// ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf (accessed April 2021).
- European Commission (2020b). A New Circular Economy Action Plan for a Cleaner and More Competitive Europe, available at https://eur-lex.europa.eu/resource.html?uri=cellar:9903b325-6388 -11ea-b735-01aa75ed71a1.0017.02/DOC 1&format=PDF (accessed April 2021).
- European Commission (2020c). A New Industrial Strategy for Europe, available at https://ec.europa.eu/ info/sites/info/files/communication-eu-industrial-strategy-march-2020 en.pdf (accessed April 2021).
- European Commission (2020d). An EU Strategy to Harness the Potential of Offshore Renewable Energy for a Climate Neutral Future, available at https://ec.europa.eu/energy/sites/ener/files/offshore renewable energy strategy.pdf (accessed April 2021).
- European Commission (2020e). New Consumer Agenda: Strengthening Consumer Resilience for Sustainable Recovery, 2020, available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri= CELEX:52020DC0696&from=EN (accessed April 2021).
- European Commission (2021a). Green Consumption Pledge Initiative, 2021, available at https://ec .europa.eu/commission/presscorner/detail/en/ip_21_182 (accessed March 2021).
- European Commission (2021b). *Initiative for a Green Consumption Pledge*, 2021, available at https:// ec.europa.eu/info/sites/info/files/working_document_for_the_green_consumption_pledges_0.pdf (accessed April 2021).
- European Commission (2021c). Communication from the Commission. Guidelines on State Aid for Climate, Environmental Protection and Energy 2022. https://ec.europa.eu/competition-policy/ system/files/2021-06/CEEAG_Draft_communication_EN.pdf (accessed April 2021).
- European Parliament (2020). Internal Energy Market Fact Sheet, 2020, available at www.europarl .europa.eu/ftu/pdf/en/FTU_2.1.9.pdf (accessed April 2021).
- Falkner, R. (2014). Global environmental politics and energy: mapping the research agenda, *Energy Research & Social Science* 1: 188–197.
- Fitch-Roy, O. (2016). An offshore wind union? Diversity and convergence in European offshore wind governance., *Climate Policy* 16 (5): 586–605, doi:10.1080/14693062.2015.1117958.
- Fitch-Roy, O., D. Benson and D. Monciardini (2020a). Going around in circles? Conceptual recycling, patching and policy layering in the EU circular economy package, *Environmental Politics* 29 (6): 983–1003, doi:10.1080/09644016.2019.1673996.

- Fitch-Roy, O., D. Benson and D. Monciardini (2021). All around the world: assessing optimality in comparative circular economy policy packages, *Journal of Cleaner Production* 286: 125493, doi:10.1016/j.jclepro.2020.125493.
- Fitch-Roy, O., D. Benson and B. Woodman (2019). Policy instrument supply and demand: how the renewable electricity auction took over the world, *Politics and Governance* 7 (1): 1–11.
- Fitch-Roy, O., J. Fairbrass and D. Benson (2020b). Ideas, coalitions and compromise: reinterpreting EU-ETS lobbying through discursive institutionalism, *Journal of European Public Policy* 27 (1): 82–101.
- Geden, O., V. Scott and J. Palmer (2018). Integrating carbon dioxide removal into EU climate policy: prospects for a paradigm shift, *Wiley Interdisciplinary Reviews: Climate Change* 9 (4): 1–10.
- Gouldson, A. and J. Murphy (1996). Ecological modernization and the European Union, *Geoforum* 27 (1): 11–21.
- Haas, R., G. Resch, C. Panzer, S., Busch, M. Ragwitz and A. Held (2011). Efficiency and effectiveness of promotion systems for electricity generation from renewable energy sources – lessons from EU countries, *Energy* 36 (4): 2186–2193.
- Harris, P. (2021). Pathologies of Climate Governance: International Relations, National Politics and Human Nature, Cambridge: Cambridge University Press.
- Hildingsson, R., J. Stripple and A. Jordan (2012). Governing renewable energy in the EU: confronting a governance dilemma, *European Political Science* 11 (1): 18–30.
- Jacobs, M. (1991). The Green Economy: Environment, Sustainable Development and the Politics of the Future, Pluto Press.
- Jacobsson, S., A. Bergek, D. Finon, V. Lauber, C. Mitchell, D. Toke and A. Verbruggen, A. (2009). EU renewable energy support policy: faith or facts?, *Energy Policy* 37 (6): 2143–2146.
- Jansen, P. (2016). The interplay between industrial policy and state aid: natural combination or strange bedfellows?, *European State Aid Law Quarterly* 15 (4): 575–602.
- Kahles, M. and F. Pause (2019). The influence of European state aid law on the design of support schemes for electricity from renewable energy sources in Germany and other Member States, in E. Gawel, S. Strunz, P. Lehmann, and A. Purkus (Eds)., *The European Dimension of Germany's Energy Transition: Opportunities and Conflicts*. Cham: Springer, pp. 67–82.
- Kirchherr, J., D. Reike and M. Hekkert (2017). Conceptualizing the circular economy: an analysis of 114 definitions, *Resources, Conservation and Recycling* 127 (September): 221–232.
- Kitzing, L., C. Mitchell and P. E. Morthorst (2012). Renewable energy policies in Europe: converging or diverging? *Energy Policy* 51: 192–201, doi:10.1016/j.enpol.2012.08.064.
- Korhonen, J., A. Honkasalo and J. Seppälä (2018). Circular economy: the concept and its limitations, *Ecological Economics* 143: 37–46, doi:10.1016/j.ecolecon.2017.06.041.
- Kuhn, T. (2001). Implications of the 'Preussen Elektra' Judgment of the European Court of Justice on the Community Rules on State Aid and the Free Movement of Goods, *Legal Issues of Economic Integration* 1.
- Lauber, V. (2004). REFIT and RPS: options for a harmonised Community framework, *Energy Policy* 32 (12): 1405–1414.
- Leipold, S. (2021). Transforming ecological modernization 'from within' or perpetuating it? The circular economy as EU environmental policy narrative, *Environmental Politics* 00(00): 1–23, doi:10.1080/0 9644016.2020.1868863.
- Machin, A. (2019). Changing the story? The discourse of ecological modernisation in the European Union, *Environmental Politics* 28 (2): 208–227, doi:10.1080/09644016.2019.1549780.
- Mazza, L. and P. ten Brink (2012). Green Economy: Green Economy in the European Union, Brussels, available at https://ieep.eu/uploads/articles/attachments/071ec7ac-3e08-4d92-8b26-45a2254489c3/ KNOSSOS Green Economy Supporting Briefing.pdf?v=63664509783.
- Mazzucato, M. (2019). Governing Missions in the European Union, Brussels: European Commission, doi:10.2777/014023.
- Nilsson, M., L. J. Nilsson and K. Ericsson (2009). The rise and fall of GO trading in European renewable energy policy: The role of advocacy and policy framing, *Energy Policy* 37 (11): 4454–4462.
- Ocampo, J. A. (2011). The Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective, available at https://policydialogue.org/files/publications/ papers/Transition_to_a_Green_Economy_summary.pdf.

- Pearce, D. W., A. Markandya and E. B. Barbier (1989). *Blueprint for a Green Economy*, Oxford: Earthscan.
- Rowlands, I. H. (2005). The European directive on renewable electricity: conflicts and compromises, *Energy Policy* 33 (8): 965–974, doi:10.1016/j.enpol.2003.10.019.
- Sánchez Nicolás, E. (2019). Von der Leyen: 'Green Deal is our man-on-moon moment', 2019, available at https://euobserver.com/environment/146895 (accessed April 2021).
- Skovgaard, J. (2014). EU climate policy after the crisis. Environmental Politics 23 (1): 1-17.
- Solorio, I. and Bocquillon, P. (2017). EU renewable energy policy: a brief overview of its history and evolution. In I. Solorio and H. Jörgens (Eds.), A Guide to EU Renewable Energy Policy. Cheltenham: Edward Elgar, pp. 23–42.
- Vasbeck, D. (2019). Insight State Aid, the Criterion of State Resources and Renewable Energy Support Mechanisms: Fresh Wind from Luxembourg in EEG 2012, *European Papers* 4 (June): 629–640.
- Winans, K., A. Kendall and H. Deng (2017). The history and current applications of the circular economy concept, *Renewable and Sustainable Energy Reviews* 68: 825–833, doi:10.1016/J.RSER.2016.09.123.
- Wurzel, R. K. W. and J. Connelly (2011). The European Union as a Leader in International Climate Change Politics. In R. K. W. Wurzel and J. Connelly (Eds.), The European Union as a Leader In International Climate Change Politics Oxford: Routledge, pp. 3–20.