



24-16 Populist opposition is threatening progress on climate change

Edoardo Campanella and Robert Z. Lawrence

July 2024

ABSTRACT

Driven by the push to decarbonize the world and achieve net zero emissions by 2050, a new anti-elite revolt is in the making in developed economies: If mainstream parties ignore the losers of the green transition as they did with globalization, climate populism not only will slow the adoption of climate policies but could also shake Western democracies. Climate policies are a perfect target for populist rhetoric: They rely on expert knowledge, entail globalist thinking and action, and the counterfactual nature of their benefits—avoiding disasters that would otherwise happen—gives ample fodder for conspiracy theories. And their costs are unevenly shared, hitting those at the bottom of the income distribution significantly harder than those at the top. Climate populism is particularly a problem on the far right, where doubts about science and opposition to international cooperation are strongest. Policies need to deal with this rising political opposition. Given the depth of their grievances, and as it is often the case with populism, it is unlikely that voters antagonistic to climate policies will be persuaded by rational arguments. What will change their behavior are economic incentives. If green technologies are cheaper than fossil fuel ones, they will be adopted to save money rather than the planet. Thus the costs of the green transition need to be reduced through more open trade in the short run and more innovation in the long run. In addition, those who support climate policies need to be mobilized through more engaging political strategies, more emotional narratives, and more bottom-up policy approaches.

JEL Codes: F6, P5

Keywords: Climate change, populism, green transition

Edoardo Campanella is a research fellow at the Mossavar-Rahmani Center for Business and Government at the Harvard Kennedy School and coauthor of *Anglo Nostalgia: The Politics of Emotion in a Fractured West* (New York: Oxford University Press).

Robert Z. Lawrence is the Albert L. Williams Professor of International Trade and Investment at the Harvard Kennedy School and a nonresident senior fellow at the Peterson Institute for International Economics. He is the author of *Behind the Curve: Can Manufacturing Still Provide Inclusive Growth?* (Washington: Peterson Institute for International Economics, forthcoming 2024).

The authors are grateful to Gordon Hanson, Cullen Hendrix, Gary Hufbauer, Marcus Noland, Robert Stavins, and Dustin Tingley for comments, as well as to Steve Weisman, Madona Devasahayam, and Cameron Fletcher for editorial assistance.

INTRODUCTION

Almost 10 years ago, an unexpected populist earthquake shook the West: In 2015 far-right populist parties were in power in Poland and Hungary, they were part of coalition governments in Switzerland and Finland, they topped the polls in France and the Netherlands, they were on the rise in Germany, and their support was at record highs in Sweden.¹ On the far left, Syriza, Podemos, and the Five Stars Movement were in power in Greece, Spain, and Italy, respectively. The following year, 2016, was truly the *annus horribilis* for the Western liberal order, with the Brexit referendum in the United Kingdom and the election of Donald Trump as president of the United States.²

All these populist movements claimed to represent the silent majority of their countries whose future, in their view, had been compromised by self-interested political and economic elites.³ On the day of the Brexit vote, June 23, 2016, UK Independence Party leader Nigel Farage declared that Brexit was a “victory for real people.”⁴ The following January, Trump, in his inaugural address, described how “a small group in our nation’s Capital has reaped the rewards of government while the people have borne the cost.... [The] politicians prospered—but the jobs left, and the factories closed.”⁵

Globalization, deindustrialization, and the financial crisis were the global forces that fueled the popular discontent at the heart of the populist wave.⁶ Then, during the COVID-19 pandemic, disputes over masks and vaccines and lockdowns reinforced the appeal of anti-establishment parties. But during this first populist wave there were also country-specific concerns about immigrants, fiscal austerity, Chinese competition, Brussels’ regulatory bias in Europe, and political cleavages in the United States, among others. So, although populist movements used similar rhetoric, and sometimes faced similar problems, they did not represent a common front. In Europe, for example, there was a clear divide between the North-South and West-East of the continent because of the eurozone and migration crises.⁷

There are signs that in some places, this populist wave is subsiding. Support for parties such as Syriza, the Five Stars Movement, and Podemos has collapsed. The fall of Boris Johnson and Liz Truss in the United Kingdom paved the way for the moderate Rishi Sunak as prime minister—even if he never enjoyed

1 Cas Mudde (2016), Europe’s Populist Surge: A Long Time in the Making, *Foreign Affairs* 95, no. 6: 25–30.

2 Edoardo Campanella and Marta Dassù (2019), *Anglo Nostalgia: The Politics of Emotion in a Fractured West*, New York: Oxford University Press.

3 For overviews, see Sergei Guriev and Elias Papaioannou (2022), The Political Economy of Populism, *Journal of Economic Literature* 60, no. 3: 753–832; and Roger Eatwell and Matthew Goodwin (2018), *National Populism: The Revolt against Liberal Democracy*, London: Pelican Books.

4 Jan-Werner Müller (2017), The Rise and Rise of Populism?, in *The Age of Perplexity: Rethinking the World We Knew*, Madrid: BBVA, OpenMind, Penguin Random House Grupo Editorial.

5 Donald Trump Inaugural Address, January 20, 2017, <https://trumpwhitehouse.archives.gov/briefings-statements/the-inaugural-address/>.

6 See Helen V. Milner (2019), Globalisation, Populism and the Decline of the Welfare State, International Institute for Strategic Studies blog, February 14, <https://www.iiss.org/blogs/survival-blog/2019/02/globalisation-populism-and-the-decline-of-the-welfare-state>.

7 Ivan Krastev (2017), The Refugee Crisis and the Return of the East-West Divide in Europe, *Slavic Review* 76: 291–96.

strong popularity. And at the last general election in July 2024, the Labour Party recorded a landslide victory under the leadership of the moderate of Keir Starmer.⁸ In Poland—a stronghold of Euroskepticism for many years—a pro-EU coalition won the general elections in October 2023. Also, the European Parliament election in June 2024 did not lead to the populist shock that some feared, although they contributed to politically destabilize France. One reason for the declining support for anti-establishment parties was the incompetence of populist leaders themselves, who failed to turn their unrealistic electoral agendas into concrete policy packages once in power. Another is the fading of some of the forces that made the rise of populism so irresistible: The gradual reversal in the globalization process because of growing tensions between democratic and authoritarian regimes, the adoption across the largest economies of industrial policies for the middle class, and the (temporary) fiscal leeway generated by the pandemic have reduced the appeal of anti-establishment movements.

But claims of the demise of populism would be premature and dangerous. The May 2024 Dutch election was won by the far-right Freedom Party led by Geert Wilders, although he softened the tone of his rhetoric as the vote approached.⁹ In France, the era of the moderate and pro-EU leader Emmanuel Macron is coming to an end under the opposing pressure of the far-right National Rally party and the left-wing Popular Front. And the greatest populist threat in advanced economies is Trump's possible return to the White House in 2025: He remains remarkably popular despite the threats he has posed to US democracy.

Some of the factors that fueled the first populist wave are regaining momentum. Immigration to the European Union and United States is increasingly unpopular, and rising public debt will lead to more stringent fiscal constraints everywhere. The cultural divides that polarize the United States are growing even stronger, as evidenced by new challenges from the right to what are perceived as anti-conservative biases in education and increasingly widespread commitments to environment, social, and governance (ESG) goals by corporations. More generally, the push to decarbonize the world and achieve global net zero emissions by 2050 is likely to provoke the next big anti-elite revolt in Western politics. This green backlash was roughly absent from the populist rhetoric of a decade ago.

Accepting the notion of anthropogenic climate change as well as the implicit policy prescriptions requires faith in science. Given the technical complexity of the science behind global warming, climate change concerns provide an ideal breeding ground for those, especially on the far right, who are prone to believe in conspiracies and to disregard expert knowledge. Moreover, while climate policies may have some short-term benefits in reducing local pollution, the more fundamental payoff will be reaped by all only in the distant future and even then will take the form of crises (mainly in developing economies) that are avoided

8 Luke McGee (2024), Labour's landslide victory is a personal triumph for Keir Starmer that once seemed impossible, July 5, *CNN*, <https://edition.cnn.com/2024/07/04/europe/labours-landslide-victory-is-a-personal-triumph-for-keir-starmer-intl/index.html>.

9 Anthony Deutch and Toby Sterling (2023), Before taking power, Dutch hard-liner Wilders will have to compromise, *Reuters*, November 23, <https://www.reuters.com/world/europe/before-taking-power-dutch-hard-liner-wilders-will-have-compromise-2023-11-23/>.

rather than benefits that are readily perceived.¹⁰ For this reason, the groups that are hit hardest by the adjustment costs of the green transition, in particular those at the bottom and middle of the income distribution, are seeking political representation to halt the decarbonization process. Finally, although green industrial policies will certainly create new employment opportunities in the green sector, many communities tied to the fossil fuel industry will not benefit from these advances because of skill mismatches, locational disadvantages, and limited mobility. As the costs of the green revolution become clear, the popular backlash will be inevitable.

This second anti-elite revolt is already in the making. In the June 2024 European Parliament election, even if the center largely held, far-right parties that are skeptical of climate change gained seats and influence, while green parties lost votes and seats.¹¹ Europe's signature Green Deal, which aims to make the EU climate-neutral by 2050, while not derailed, is likely to be scaled back.¹² In those European countries where far-right movements are on the rise, climate skepticism is spreading. In the United States, Trump's win in the 2024 presidential election will further undermine efforts to fight climate change. And the phenomenon will likely intensify as environmental regulations become tighter to meet the net zero targets—plans call for the world to move away from coal by 2030, from oil by 2045, and from gas by 2050¹³—and as the contained employment gains of the green transition fully materialize. Moreover, as was the case in 2016, climate populism will likely find a more fertile ground in rural areas than in urban ones, as the costs of the green transition in terms of employment losses and environmental impact are expected to be higher in the countryside than in cities. But this new populist wave will also differ in some important ways from the previous one. Given the global nature of climate action, its detractors can easily find common ground and build grand coalitions that could derail the green transition and endanger the future of the younger generations.

Considering the depth of their grievances, it is unlikely that voters antagonistic to climate policies will be persuaded by rational and scientific arguments. What will change their behavior are economic incentives. If green technologies are cheaper than fossil fuel ones, they will be adopted to save money rather than the planet. Thus the costs of the green transition need to be reduced through more open trade in the short run and more innovation in the long run. While there is certainly ferment for the development of green technologies, Western governments are creating perverse economic incentives for convincing climate skeptics that going green is convenient under any respect. Both the United States and the European Union are raising the cost of clean energy options through tariffs on electric vehicles, batteries, and solar panels

10 Organization for Economic Cooperation and Development (2021), *The inequalities-environment nexus: Towards a people-centered green transition*, OECD Green Growth Papers, No. 2021/01, Paris: OECD Publishing, <https://doi.org/10.1787/ca9d8479-en>.

11 Editorial Board (2024), Europe's green backlash, June 11, *Financial Times*, <https://www.ft.com/content/eb9ea439-47e0-417d-a035-9a61109d4c44>.

12 Henry Foy (2024), The political motives behind von der Leyen's green agenda U-turn, February 7, *Financial Times*, <https://www.ft.com/content/42f7238b-5946-4b82-b369-c2887c2d11d0>.

13 Emmanuel Macron (2023), The Pillars of Green Wisdom, *Project Syndicate*, December 27, <https://www.project-syndicate.org/commentary/main-priorities-for-global-climate-policy-by-emmanuel-macron-2023-12>.

from China, while reducing the cost of carbon pollution through subsidies to make fossil fuels cheaper.¹⁴ But to make the green transition succeed, economic incentives will not be enough without the mobilization of ordinary citizens through more engaging political strategies, more emotional narratives, and more bottom-up policy approaches.

To explore these developments the first section of this paper looks at the institutional flaws of democratic systems in dealing with international collective action problems like global warming. The second section explains why climate populism is primarily a problem on the right. The third and fourth sections look at economic factors driving this new populist phenomenon. The fifth section explains how the green transition will widen the rural-urban divide and further create fertile ground for right-wing populist resentments. The sixth section considers policy responses, and the last section concludes.

1. DEMOCRATIC FLAWS

Western liberal democracies are ill equipped to address global collective action problems such as climate change.¹⁵ Electoral cycles tend to lead to short-termism, whereas the gains from climate action will extend over many decades and will only begin materializing in the distant future. In addition, elections focus on national and local issues, whereas the positive cross-border spillover effects generated by climate action are hardly capitalized in national elections: foreigners do not vote in other countries' national ballots and domestic voters tend to care only about their own direct costs and benefits. According to former US vice president Al Gore, global warming is "the greatest failure of democratic governance in history."¹⁶ Pushing the argument to its extreme, the renowned British scientist James Lovelock stated that, to tackle climate change, "democracy must be put on hold."¹⁷

Moreover, the climate crisis is framed as an imminent emergency that requires the adoption of policy responses that are not up for democratic debate.¹⁸ Populist leaders are appealing because they reject "the politics of necessity" in favor of a "politics of volition."¹⁹ As shown in the populist wave that yielded Brexit, current anti-establishment leaders and parties are gaining popularity precisely because they promise agency to their voters. Nigel Farage, who is

14 Simon Black, Antung A. Liu, Ian W.H. Parry and Nate Vernon (2023), *IMF Fossil Fuel Subsidies Data: 2023 Update*, IMF Working Paper No. 2023/169, Washington: International Monetary Fund.

15 David Held and Angus Fane Hervey (2011), Democracy, climate change and global governance: Democratic agency and the policy menu ahead, in *The Governance of Climate Change*, ed. D. Held, M. Theros, and A. Fane Hervey, Hoboken: Wiley, pp. 89-110.

16 Al Gore (2009), *Our Choice: A Plan to Solve the Climate Crisis*, Emmaus, PA: Rodale, p. 303.

17 Leo Hickman (2010), *The Guardian*, March 29, <https://www.theguardian.com/science/2010/mar/29/james-lovelock-climate-change>.

18 Maria Julia Trombetta (2008), Environmental security and climate change: Analysing the discourse, *Cambridge Review of International Affairs* 21, no. 4: 585-602.

19 Jonathan White (2023), *What makes climate a populist issue?*, Centre for Climate Change Economics and Policy Working Paper 426/Grantham Research Institute on Climate Change and the Environment Working Paper 401, London School of Economics and Political Science.

now fighting against decarbonization, argues that, “During the past decade, the people forced the political class to allow us a Brexit vote. The same needs to happen again in relation to Net Zero.”²⁰

As noted above, climate science is a perfect populist target because it depends on expert knowledge, entails globalist thinking, and calls for alternative ways of living. As early as November 2012, for example, Trump tweeted that climate change was a hoax, “created by and for the Chinese in order to make US manufacturing non-competitive.”²¹ More recently he said that on “day one” of his next presidency he would use his presidential powers to expand oil drilling.²² In the context of post-truth politics, climate science—which is complex, abstract, and surrounded by a high degree of uncertainty—can be easily distorted and manipulated by opportunistic politicians who question the legitimacy of the empirical evidence.²³ Spain’s far-right Vox party dismisses the UN climate agenda as “cultural Marxism.”²⁴ Similarly, in Germany, the far-right Alternative für Deutschland (AfD) has regularly accused mainstream parties of “climate dictatorship” (*Klima-Diktatur*).²⁵

One might wonder why, despite the rising number of climate-related shocks across the world such as wildfires, floods, and heat waves that are and should be a source of major concern for citizens, populists manage to downplay the urgency of combating global warming. They do so by leveraging the propensity of human beings to prioritize immediate rewards and avoidance of short-run costs over future benefits. In behavioral economics, this psychological bias is known as *hyperbolic discounting*.²⁶ According to recent empirical evidence from Germany and the United Kingdom, populist voters tend to be less patient than supporters of mainstream parties and thus are more prone to favor myopic policies.²⁷

The way people value the future is key in shaping their response to the environmental challenge as well as democratic debate. To secure election, opportunistic politicians can deny the need for immediate climate action and postpone the adoption of costly policies. Once in power, economic populists

20 Nigel Farage (2022), The Net Zero zealots are the same elitists who sneered at Brexit and don't have to worry about paying their gas bills, *Daily Mail*, March 6, <https://www.dailymail.co.uk/debate/article10581281/NIGEL-FARAGE-Net-Zero-zealots-elitists-sneered-Brexit.htm>.

21 Emily Farnworth (2016), Donald Trump says climate change is a hoax. Here's why that's good news for the environment, *World Economic Forum blog*, November 29, <https://www.weforum.org/agenda/2016/11/climate-change-cop22-donald-trump-usa/>.

22 Trump says he will be a dictator only on 'day one' if elected president, *The Guardian*, December 5, 2023, <https://www.theguardian.com/us-news/2023/dec/06/donald-trump-sean-hannity-dictator-day-one-response-iowa-town-hall>.

23 Joseph E. Uscinski and Santiago Olivella (2017), The Conditional Effect of Conspiracy Thinking on Attitudes toward Climate Change, *Research and Politics* 4, no. 4: 1-9.

24 Max Griera (2023), Meet far-right party VOX's "patriotic" vision for Spain, *Euractiv*, June 23, <https://www.euractiv.com/section/politics/news/meet-far-right-party-voxs-patriotic-vision-for-spain/>.

25 Anne Küppers (2022), 'Climate-Soviets,' 'Alarmism,' and 'Eco-Dictatorship': The Framing of Climate Change Scepticism by the Populist Radical Right Alternative for Germany, *German Politics* 33, no. 4: 1-21.

26 Larry Karp (2005), Global warming and hyperbolic discounting, *Journal of Public Economics* 89, no. 2-3: 261-82.

27 Thomas Aronsson, Clemens Hetschko, and Ronnie Schöb (2023), *Populism and Impatience* (Economic Studies 1019), Umeå University Department of Economics.

typically adopt short-sighted policies that turn out to be detrimental in the medium and long term. In a classic paper, economists Sebastian Edwards and Rudiger Dornbusch argued that “populist policies do ultimately fail; and when they fail it is always at a frightening cost to the very groups that were supposed to be favored.”²⁸ The problem is that “ultimately” can be a very long time and populists tend to remain popular among their voters until an economic crisis breaks out.²⁹ In the case of climate, when the consequences of policies manifest themselves, it might be too late.

2. AN IDEOLOGICAL PROBLEM ON THE RIGHT

Climate populism is not a homogeneous phenomenon across the political spectrum. Left-wing populism is traditionally more cosmopolitan, liberal, and green, while hostility to policies designed to address climate change is especially strong on the right.³⁰ Populists of all types oppose elites and believe policies fail to reflect the needs of common people. But support for climate action tends to be stronger among left-wing citizens and the highly educated, who often ascribe inaction on climate to (i) corporations that seek to preserve their interests in producing fossil fuels and (ii) the indifference of economic elites to both the adverse effects of climate change on common people and the need for climate justice to mitigate these effects.³¹ By contrast, right-wing populists see climate policies as driven by political elites who ignore the policies’ costs for ordinary people.

Western populist movements also frame their opposition to climate action and environmentalism in the context of broader political allegiances. According to a 2023 Pew Research Center survey, for example, 90 percent of Democrats believe that the United States should prioritize the development of alternative energy sources to address the country’s energy supply, while the percentage drops to 42 percent among Republicans.³² Similarly, in Europe, right-wing movements as well as mainstream conservatives are less worried about climate change than their counterparts on the left.³³

28 Rudiger Dornbusch and Sebastian Edwards (1991), *The Macroeconomics of Populism in Latin America*, University of Chicago Press.

29 Andrés Velasco (2017), How economic populism works, *Project Syndicate*, February 7, <https://www.project-syndicate.org/commentary/economic-populism-temporary-success-by-andres-velasco-2017-02>.

30 Matthew Lockwood (2018), Right-wing populism and the climate change agenda: Exploring the linkages, *Environmental Politics* 27, no. 4: 712–32; Aron Buzogány and Christoph Mohamad-Klotzbach (2022), Environmental Populism, in *The Palgrave Handbook of Populism*, ed. M. Oswald, Cham: Palgrave Macmillan, pp. 321–40; and Ben Lockwood and Matthew Lockwood (2022), How Do Right-Wing Populist Parties Influence Climate and Renewable Energy Policies? Evidence from OECD Countries, *Global Environmental Politics* 22, no. 3: 12–37.

31 See Xinxin Wang and Kevin Lo (2021), Just Transition: A Conceptual Review, *Energy Research & Social Science*: 102291, <https://www.sciencedirect.com/science/article/abs/pii/S2214629621003832>; and Matthew J. Hornsey, Emily A. Harris, Paul G. Bain, and Kelly S. Fielding (2016), Meta-Analyses of the Determinants and Outcomes of Belief in Climate Change, *Nature Climate Change* 6, no. 6: 622–26.

32 Alec Tyson, Cary Funk, and Brian Kennedy (2023), What the data says about Americans’ views of climate change, Pew Research Center, August 9, <https://www.pewresearch.org/short-reads/2023/08/09/what-the-data-says-about-americans-views-of-climate-change/>.

33 Stephen D. Fisher, John Kenny, Wouter Poortinga, Gisela Böhm, and Linda Steg (2022), The politicisation of climate change attitudes in Europe, *Electoral Studies* 79: 102499, <https://www.sciencedirect.com/science/article/pii/S0261379422000580>.

Despite similar rhetoric, the intensity of climate skepticism varies substantially across the right.³⁴ In the United States, Tea Party (now MAGA) Republicans are the biggest climate deniers. Back in 2011, around 75 percent of Tea Party supporters believed that the Earth was not warming.³⁵ But that percentage was less than 40 percent among non-Tea Party Republicans and only 10 percent of Democrats. In Europe, only two of the nearly 20 right-wing populist parties—Hungary’s far-right Fidesz and Latvia’s National Alliance—explicitly support the scientific consensus on the climate crisis. Some, including the far-right AfD and Dutch Party for Freedom, reject the idea of anthropogenic global warming.

There is no clear explanation behind the science skepticism that characterizes right-wing populism, but five factors are worth exploring to better understand the phenomenon. First, policy initiatives that aim at mitigating global warming are usually part of multilateral international agreements such as the Kyoto Protocol or the Paris Agreement. Therefore, they can feed the perception of deals imposed by a technocratic elite that is detached from reality and unaccountable to the citizens of a particular nation. Emblematic of this perspective was Trump’s decision in 2017 to withdraw the United States from the Paris climate agreement. Looking at the other side of the Atlantic, official national electoral programs, public statements by party leaders, and press releases from the strongest 21 European right-wing populist parties indicate that they oppose internationally coordinated climate action.³⁶ France’s National Rally and Spain’s Vox have begun to advocate their own brand of nationalist environmentalism—one that supports local policies to tackle climate change but simultaneously rejects international agreements aimed at doing the same.³⁷

Second, conservative voters may be ideologically opposed to climate policies as they consider them forms of market regulation and state activism that limit the freedom of citizens and firms.³⁸ They also oppose policies that entail higher taxes either directly (e.g., through carbon prices) or indirectly (e.g., through auctioned quotas). Related to this, studies have shown that some Republicans

34 Cornelia Fraune and Michèle Knodt (2018), Sustainable Energy Transformations in an Age of Populism, Post-Truth Politics and Local Resistance, *Energy Research & Social Science* 43: 1-7. See also Robert A. Huber (2020), The Role of Populist Attitudes in Explaining Climate Change Skepticism and Support for Environmental Protection, *Environmental Politics* 29, no. 6: 959-82.

35 Juliet Eilperin and Scott Clement (2013), Tea party Republicans are biggest climate change deniers, new Pew poll finds, *Washington Post*, November 1, <https://www.washingtonpost.com/news/the-fix/wp/2013/11/01/only-tea-party-members-believe-climate-change-is-not-happening-new-pew-poll-finds/>.

36 Stella Schaller and Alexander Carius (2019), Convenient Truths: Mapping climate agendas of right-wing populist parties in Europe, *Adelphi*, February 26, <https://adelphi.de/en/publications/convenient-truths>. See also Marcus Gomes and Steffen Böhm (2023), Right-wing Populism vs. Climate Capitalism: Climate Change Governance Under Scrutiny, in *Business and Populism: The Odd Couple?*, ed. Magnus Feldmann and Glenn Morgan, Oxford University Press.

37 Kostas Gemenis, Alexia Katsanidou, and Sofia Vasilopoulou (2012), The politics of anti-environmentalism: Positional issue framing by the European radical right, paper prepared for the MPSA Annual Conference, April 12-15, Chicago, <https://ris.utwente.nl/ws/files/6153509/MPSA.pdf>. See also Erik Voeten (2020), Populism and Backlashes against International Courts, *Perspectives on Politics* 18, no. 2: 407-22.

38 Niklas Harring and Jacob Sohlberg (2017), The Varying Effects of Left-Right Ideology on Support for the Environment: Evidence from a Swedish Survey Experiment, *Environmental Politics* 26, no. 2: 278-300.

are not necessarily against climate science or in denial of global warming³⁹ but rather averse to the solutions proposed, evaluating scientific evidence based on whether they view its policy implications (e.g., increased government regulation) as politically desirable.

Third, industries such as manufacturing, heavy industry, and mining tend to be the most carbon intensive, where many polluting jobs are concentrated and climate policies more threatening. Support for heavy manufacturing helped Trump gain electoral support in the Rust Belt. And a study by the Brookings Institution demonstrates that his presidency was characterized by a variety of measures aimed at weakening environmental constraints on industry⁴⁰ as he turned his inflammatory rhetoric into practice. For example, when Trump announced the end of the Clean Power Plan he crowed, “Did you see what I did to that? Boom, gone!”⁴¹

Fourth, conservative arguments against the green transition are often fomented by the lobbying activity of representatives from fossil fuel industries who “manufacture doubts” about the causes of global warming.⁴²

Finally, climate denialism, especially in the United States, is associated with religious beliefs. According to some studies, the higher the level of religious commitment, the lower the level of environmental concern.⁴³ Some Christian conservatives reject climate science for the same reason they oppose evolutionary theory or COVID vaccinations.⁴⁴ A 2022 Pew survey found that 61 percent of the most devout Americans (defined as those who pray daily, attend religious services at least weekly, and say religion is very important in their life) believe that climate change has nothing to do with human activities. The study found that evangelicals are the strongest climate skeptics of all.⁴⁵ The percentage is less than 30 percent for nonreligious people. This is at odds with the religious notion of humans as custodians of the planet. But politics more than the Bible is probably responsible for this form of climate skepticism as Christian conservatives tend to be Republican voters.⁴⁶

39 Troy H. Campbell and Aaron C. Kay (2014), Solution aversion: On the relation between ideology and motivated disbelief, *Journal of Personality and Social Psychology* 107, no. 5: 809–24.

40 Samantha Gross (2020), What is the Trump administration’s track record on the environment?, Commentary, Brookings Institution, August 4, <https://www.brookings.edu/articles/what-is-the-trump-administrations-track-record-on-the-environment/>.

41 Robin Bravender, Niina Heikkinen, and E&E News (2017), Trump Administration May Soon Ax Obama’s Big Climate Rule, *Scientific American*, September 25, <https://www.scientificamerican.com/article/trump-administration-may-soon-ax-obamas-big-climate-rule/>.

42 Mark Brown (2014), Climate science, populism and the democracy of rejection, in *Culture, Politics and Climate Change: How Information Shapes Our Common Future*, ed. Desera Crow and Maxwell Boykoff, London: Routledge, p. 132.

43 Matthew B. Arbuckle and David M. Konisky (2015), The role of religion in environmental attitudes, *Social Science Quarterly* 96, no. 5: 1244–63.

44 For a discussion, see Brown (2014), op. cit.

45 Becka Alper (2022), How Religion Intersects with Americans’ Views on the Environment, Pew Research Center, November 17, <https://www.pewresearch.org/religion/2022/11/17/how-religion-intersects-with-americans-views-on-the-environment/>.

46 See Tim Alberta (2023), *The Kingdom, the Power, and the Glory: American Evangelicals in an Age of Extremism*, New York: Harper.

3. EXACERBATING THE COST-OF-LIVING CRISIS⁴⁷

The policy shortsightedness that characterizes climate populism is not just a matter of ideology. It is driven by the significant distributional effects associated with the transition toward climate neutrality. Changes in relative prices—including more costly fuel, electricity, and housing—due to the green transition will affect lower-income workers proportionately more than high-income workers as the former spend a larger fraction of their income to pay for essential needs. In addition, households will have to invest large amounts of money to retrofit their homes, replace polluting furnaces with heat pumps, or buy electric vehicles. Again, in relative terms these expenses will weigh more on poorer families, exacerbating the cost-of-living crisis due to the inflation that has followed the pandemic.

These effects have led to political protests against climate policies.⁴⁸ The *gilets jaunes* protests that erupted in France in November 2018 and destabilized the country for several weeks were triggered by an increase in the tax on gasoline and diesel to reduce greenhouse emissions. Eventually, the French government was forced to withdraw its announced tax hike. As is often the case with populist movements, everything about the yellow vests caught the European establishment by surprise: their virulence, scale, provincial origins, and lack of organization.⁴⁹ These protests were the first vivid example of conflict between “detached urban elites” and “ordinary rural citizens.”

After the hiatus of the pandemic, which shifted priorities for almost two years, popular anger against the green transition gradually began mounting in Europe again, with populist leaders blaming the European Union, which is in charge of climate policy for the continental bloc, for the hardships that climate policies impose on regular citizens.⁵⁰ In June 2023 thousands of people took to the streets in Bavaria, Southern Germany, to protest what they called “heating ideology”: They opposed a bill aiming to phase out gas heating systems and replace them with electric ones that draw energy from green sources such as wind and solar.⁵¹ Eventually, the German parliament passed a watered-down version of the proposal in a bid to calm public anger.

Also in summer 2023, hundreds of farmers gathered in front of the European Parliament in Strasbourg to protest new EU rules aimed at restoring natural areas and cutting emissions: To meet climate goals, some European countries

47 For a comprehensive analysis of the economics of climate change policies discussed in the following sections see Jean Pisani-Ferry and Adam S. Posen, eds. (2024), *The Green Frontier: Assessing the Economic Implications of Climate Action*, Washington, DC: Peterson Institute for International Economics, June.

48 Cesar B. Martinez-Alvarez, Chad Hazlett, Paasha Mahdavi, and Michael L. Ross (2023), Reply to van den Bergh and Savin: Fossil fuel taxes are politically hard to change, *Proceedings of the National Academy of Sciences* 120, no. 14: e2302318120, <https://www.pnas.org/doi/full/10.1073/pnas.2302318120>.

49 Arthur Goldman (2018), The Yellow Vest Protests and the Tragedy of Emmanuel Macron, *Foreign Affairs*, December 12, <https://www.foreignaffairs.com/articles/france/2018-12-12/yellow-vest-protests-and-tragedy-emmanuel-macron>.

50 Tom Delreux and Frauke Ohler (2019), Climate Policy in European Union Politics, *Oxford Research Encyclopedia of Politics*, <https://oxfordre.com/politics/display/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-1097>.

51 Deutsche Welle (2023), Germany: Thousands in Bavaria protest Greens' heating law, <https://www.dw.com/en/germany-thousands-in-bavaria-protest-greens-heating-law/a-65879493>.

asked farmers to reduce livestock, relocate, or shut down. Similar protests took place in Belgium, Italy, and Spain, and went on well into the winter.⁵² In August 2023, when the right-wing populist and Law and Justice Party was still in power, Poland filed a lawsuit against the European Union arguing that some of its climate policies would impose an unbearable burden on its citizens.⁵³ Warsaw also railed against national emission reduction targets, as the country is overwhelmingly dependent on coal for power generation. In Sweden, a center-right minority coalition dependent on the hard-right Sweden Democrats cut the climate budget.⁵⁴

A major additional source of discontent in Europe will likely be the EU carbon pricing system that in 2027 will be applied more stringently to transportation and heating—with the result that European households will pay higher energy prices.⁵⁵ On this front, and for the green transition in general, the European Union aspires to become a global standard setter, as evidenced by its willingness to impose special import taxes (the carbon border adjustment mechanism) on products from countries with insufficiently stringent climate policies.⁵⁶ The problem is that, without adequate compensatory measures, carbon pricing is very unpopular. And since climate policies are imposed by Brussels, the European Union will become a common target for right-wing parties opposing these policies.

The rising popular discontent against Brussels is especially relevant for the political stability of the European Union. While the immigration crisis and euro crisis represented asymmetric shocks for European countries and created conflicting national interests, rising energy-related costs of living might create a pan-European coalition of anti-climate populist movements. Together, they might have the political capital to pressure Brussels to adopt laxer environmental regulations, especially if other countries such as the United States and China continue to be major polluters. If mainstream parties ignore those hardest hit by the policies of the green transition, as they did with globalization, climate populism will not only slow the adoption of climate change mitigation policies but also shake the very foundations of Western democracies.

In response to these developments, mainstream parties in Europe are slowing their green efforts for fear of providing support for populist parties. These are dangerous moves in terms of climate mitigation. In May 2023, for example, France, under the moderate and climate-conscious President Macron, cosigned a paper pushing to weaken new EU vehicle emission limits that were

52 Monika Pronczuk and Claire Moses (2023), Labeled Climate Culprits, European Farmers Rebel Over New Standards, *New York Times*, August 28, <https://www.nytimes.com/2023/08/26/world/europe/europe-farmers-climate-change.html>.

53 Kate Abnett (2023), Poland asks EU's top court to cancel three climate policies, *Reuters*, August 28, <https://www.reuters.com/world/europe/poland-asks-eus-top-court-cancel-three-climate-policies-2023-08-28/>.

54 Paul Hockenos (2023), How to Stop the Biggest Threat to Europe's Green Transition, *New York Times*, December 5, <https://www.nytimes.com/2023/12/05/opinion/climate-change-europe-conservatives.html>.

55 European Commission (2023), EU carbon market continues to deliver emission reductions, October 31, https://climate.ec.europa.eu/news-your-voice/news/eu-carbon-market-continues-deliver-emission-reductions-2023-10-31_en.

56 Anu Bradford (2020), *The Brussels Effect: How the European Union Rules the World*, New York: Oxford University Press.

deemed overly ambitious and unrealistic for automakers to meet.⁵⁷ And green pragmatism at a time of heightened geopolitical tensions is forcing Germany, despite being led by a coalition government that includes the Greens, to maintain its dependence on coal—in contrast with Brussels’ plan. The German utility RWE recently began dismantling a wind farm in order to expand a lignite coal mine.⁵⁸

The price impacts of climate policies, and so the discontent associated with them, are less apparent in the United States, thanks to the use of green subsidies that lower the prices of renewables compared to carbon taxes, which raise the costs of fossil fuels.⁵⁹ By not raising gas prices, the subsidies approach made the Biden administration’s climate policies more politically palatable. The Inflation Reduction Act (IRA) provides tax breaks to investors and domestic producers of green energy and to consumers who purchase electric vehicles. It also provides special tax bonuses for investments in disadvantaged communities—regions particularly dependent on fossil fuel production, the use of US content in production, and firms that pay union wages.⁶⁰ These measures reflect efforts to create allies by promising green jobs and rewards for renewable investment and production.

But President Joe Biden’s approach has widened partisan differences. In addition to challenging Republicans’ general skepticism about climate policies, their ire has been provoked by increased government spending, the orientation of the programs to promote unions, and support for disadvantaged communities whose populations are often largely minorities (and more likely to vote Democrats). Thus, although the investments and jobs generated by the programs will disproportionately help red states, Republicans fiercely oppose the policies.⁶¹

The first bill passed by the House of Representatives under the leadership of Mike Johnson, as the new Republican speaker, cut most of the spending for Biden’s climate policies (even though he knew it could not become law because of Senate opposition).⁶² Should Trump win a second term in 2024, he has already promised to eliminate much of the IRA and to end American compliance with the 2015 Paris climate agreement. His energy policy agenda is focused primarily on natural gas and crude oil—despite surging US oil production, he has announced his intention to enhance drilling on day one of his presidency. And beyond Trump, according to the *New York Times*, if elected “Republicans plan on shredding

57 The paper was also signed by Bulgaria, the Czech Republic, France, Italy, Poland, Romania, and Slovakia. Kate Abnett (2023), EU car emission limits face pushback from eight members, *Reuters*, May 22, <https://www.reuters.com/business/autos-transportation/eu-car-emission-limits-face-pushback-eight-members-document-2023-05-22/>.

58 Joshua Hill, In Germany, a wind farm is dismantled to make way for expanded lignite coal mine, *Renew Economy*, November 1, <https://reneweconomy.com.au/in-germany-a-wind-farm-is-dismantled-to-make-way-for-expanded-lignite-coal-mine/>.

59 The IRA did have one exception to the use of subsidies: It raised fines on methane emissions.

60 For a comprehensive economic analysis see John Bistline, Neil Mehrotra, and Catherine Wolfram (2023), Economic Implications of the Climate Provisions of the Inflation Reduction Act, presented at the spring 2023 conference of the Brookings Papers on Economic Activity, <https://www.brookings.edu/events/bpea-spring-2023-conference/>.

61 Kelsey Tamborrino and Josh Siegel (2023), Big winners from Biden’s climate law: Republicans who voted against it, *Politico*, January 23, <https://www.politico.com/news/2023/01/23/red-states-are-winning-big-from-dems-climate-law-00078420>.

62 Ari Natter (2023), Speaker Mike Johnson’s First Big Bill Cuts Climate Change Funding, *Bloomberg*, October 26, <https://www.bloomberg.com/news/articles/2023-10-26/speaker-mike-johnson-s-first-big-bill-cuts-biden-climate-change-funding>.

regulations to curb greenhouse gas pollution from cars, oil and gas wells and power plants, dismantling almost every clean energy program in the federal government and boosting the production of fossil fuels.”⁶³

The climate battle between Democrats and Republicans is also taking place at the local level. For example, Democratic-led cities and counties around the country have enacted ambitious climate regulations and policies, particularly concerning the use of gas.⁶⁴ In contrast, Republican legislatures in Montana, Idaho, and North and South Dakota have passed laws to prohibit cities from banning natural gas hookups in new buildings. In Texas, a new law will effectively block cities from adopting climate policies in their charters.

Public finances are also a factor. In areas that are rich in oil and gas, rising production of these energy commodities has increased local government revenues through property taxes, sales taxes, severance taxes, and more.⁶⁵ Local governments may be unwilling to forgo these revenues and compromise the political support of the community.

4. A DISRUPTIVE GREEN TRANSITION

Many people are concerned about the effects of climate policies on their livelihood, notwithstanding the rosy picture painted by leaders who implement them. “When I think climate, I think jobs—good-paying, union jobs,” President Biden said in November 2023.⁶⁶ Similarly, Ursula von der Leyen, head of the European Commission, argues that its Green Deal offers a “healthy planet” for future generations as well as “decent jobs and a solemn promise to leave no one behind.” Some citizens do seem to be persuaded: According to a Climate Survey conducted by the European Investment Bank in September 2021, 56 percent of Europeans think climate policies create more jobs than they destroy.⁶⁷ However, while several studies do support the idea that on balance more jobs could be created, this net number overlooks the fact that even if outweighed by those who obtain new jobs there will also be many who lose them.⁶⁸

63 Lisa Friedman (2023), A Republican 2024 Climate Strategy: More Drilling, Less Clean Energy, *New York Times*, August 4, <https://www.nytimes.com/2023/08/04/climate/republicans-climate-project2025.html>.

64 Maxine Joselow (2023), Red states are blocking blue cities from setting climate policies, *Washington Post*, January 13, <https://www.washingtonpost.com/politics/2023/06/13/red-states-are-blocking-blue-cities-setting-climate-policies/>.

65 Richard G. Newell and Daniel Raimi (2018), The fiscal impacts of increased US oil and gas development on local governments, *Energy Policy* 117: 14–24.

66 The false promise of green jobs, *The Economist*, November 14, 2023, <https://www.economist.com/finance-and-economics/2023/11/14/the-false-promise-of-green-jobs>.

67 European Investment Bank (2022), Majority of Europeans confident that climate policies will improve their quality of life and create jobs, <https://www.eib.org/en/press/all/2022-140-majority-of-europeans-confident-that-climate-policies-will-improve-their-quality-of-life-and-create-jobs>.

68 A Princeton study of the US path to net zero shows a *net* job increase of 0.3–0.6 percent of the labor force by 2030 and 0.5–2.5 percent by 2050; see Eric Larson, Chris Greig, Jesse Jenkins, Erin Mayfield, Andrew Pascale, and 13 others (2021), *Net-Zero America: Potential Pathways, Infrastructure, and Impacts*, Andlinger Center for Energy and the Environment, Princeton University. For the EU transition simulations with several macroeconomic models predict increases of 0.3–0.5 percent by 2030; see Anneleen Vandeplass, Istvan Vanyolos, Mauro Vigani, and Lukas Vogel (2022), *The Possible Implications of the Green Transition for the EU Labor Market*, Discussion Paper No. 176, European Commission Directorate for Economic and Financial Affairs.

Politically, the net balance may be less important than the gross losses and gains. US jobs that depend on the production of fossil fuels and on manufacturing that emits greenhouse gases and that are jeopardized by a transition to net zero are estimated between one and two million—about the same order of magnitude as estimates of job losses due to the China shock, which proved so politically disruptive.⁶⁹ Because the European Union is less reliant on fossil fuels for energy, estimates of job losses in this sector are less than in the United States—around 400,000.⁷⁰ But broader definitions that encompass not only fossil fuel but also electricity producers point to more jobs at risk; 5.7 percent of all EU workers were employed in such fossil fuel sectors in 2021.⁷¹

Moreover, the transition will be further exacerbated by skills mismatches. Workers in declining fossil fuel industries often lack the appropriate skills for emerging green jobs.⁷² Or the new jobs may emerge in other regions that have the right features for the rising industries; optimal geographic conditions for wind and solar power, for example, may differ from those where coal is located. And if employment losses deriving from the green transition appear large, populist leaders will have another rhetorical weapon in their arsenal. The auto strikes during auto wage negotiations in the United States, for instance, were partly motivated by fears that the transition from cars with an internal combustion engine (ICE) to electric vehicles (EVs) will involve considerable layoffs and that the new jobs may not pay as well as the old ones and/or may be located elsewhere.⁷³

Indeed, the automotive sector provides an interesting and telling case study of the transition associated with changes in products that use energy versus those that produce it. ICE automobiles have complex engines whose parts are produced in multiple plants in highly specialized processes; EVs have simpler motors with fewer parts, although they require more complicated battery

69 One study provides an upper-bound estimate of 2.076 million workers or 1.55 percent of overall US industry employment when jobs in both fossil fuel energy and manufacturing of fossil fuel technologies and products are included; see Daniel Raimi and Sophie Pesek (2022), *What Is an "Energy Community"?* *Alternative Approaches for Geographically Targeted Energy Policy*, Issue Brief 22-12, Washington: Resources for the Future.

70 Veronika Czako (2020), *Employment in the Energy Sector: Status Report 2020*, Luxembourg: Publications Office of the European Union.

71 Vandeplas et al. (2022), op. cit.

72 For the United States, see Jacob Greenspon and Daniel Raimi (2022), *Matching Geographies and Job Skills in the Energy Transition*, Working Paper 22-25, Washington: Resources for the Future. For the EU see Giovanni Marin and Francesco Vona (2019), Climate policies and skills-biased employment dynamics: Evidence from EU countries, *Journal of Environmental Economics and Management* 98: 102253, <https://doi.org/10.1016/j.jeem.2019.102253>.

73 Gordon Hanson, a coauthor of the classic paper on the China shock (Autor, David H., David Dorn, and Gordon H. Hanson (2013), "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review*, 103 (6): 2121-68) highlights similarities in the likely shocks to the oil, gas, coal, and energy-intensive manufacturing industries and warns about the adverse effects of not improving local economies' responses to job loss. See Gordon Hanson (2023), *Local Labor Market Impacts of the Energy Transition: Prospects and Policies*, in *Economic Policy in a More Uncertain World*, Washington: Aspen Economic Strategy Group. See also Gideon Rachman (2023), Populism could derail the green transition, *Financial Times*, September 22, <https://www.ft.com/content/b9912ffe-08dd-4653-863c-21885d727d20>.

assembly. Some argue that the transition to EVs could reduce labor hours by 30 percent⁷⁴ and shift jobs from engineering and assembling traditional parts to battery pack and electric motor assembly.

In 2022, among roughly 1 million US auto industry employees,⁷⁵ 460,000 worked in assembly and 553,000 in manufacturing, of which 55,400 produced motor vehicles, gasoline engines, and parts, and 74,900 produced powertrain components.⁷⁶ If these ICE specific parts jobs were eliminated and only 70 percent of the assembly workers were retained because of higher productivity due to easier assembly, the switch to EVs could reduce demand for existing workers in the industry by 268,000 or 26.5 percent.⁷⁷ Since some workers could be retrained for battery work this would be an upper bound of the number of production workers displaced.⁷⁸

The European auto industry shares similarities with its American counterpart but faces heightened vulnerabilities due to its specialization in engineering and design skills relevant to auto parts such as combustion engines and transmission mechanisms. A comprehensive German study reports that, in 2019, more than 613,000 workers were engaged in the production of products directly or indirectly related to combustion engines, including diesel engines, emission control systems, and transmissions.⁷⁹

5. WIDENING REGIONAL INEQUITIES

Despite differences in the employment shares of specific fossil fuel industries between the United States and Europe, the problems faced on both sides of the Atlantic are quite similar. Vulnerable jobs are concentrated in a few communities, and generally the skills and education levels of workers in fossil fuel industries do not align with those required for green jobs that would pay similar wages. Without considerable investment in assistance for job search and training, worker displacement could be very costly.

Consider Wyoming, a state that could switch quite easily from coal to wind since, although it is the largest producer of coal in the United States, its weather is suitable for producing wind energy. Indeed, as noted by the *New York Times*, “Despite its historic ties to coal, as well as local denialism about climate change,

74 Associated Press (2021), Autoworkers face uncertain future in an era of electric cars, *Autoblog*, February 13, <https://www.autoblog.com/2021/02/13/uaw-uncertain-future-evs/>.

75 US Bureau of Labor Statistics (2024), Automotive Industry: Employment, Earnings, and Hours, June 18, <https://www.bls.gov/iag/tgs/iagauto.htm>.

76 In 2021, 54,000 workers produced motor vehicle gasoline engines and parts (NAICS 33631), out of total employment in motor vehicle parts of 539,000 (NAICS 3363); an additional 73,000 workers produced motor vehicle powertrain components (NAICS 33635). Using similar shares would mean 300,000 industry jobs.

77 Associated Press (2021), op. cit.

78 The United Auto Workers expects that employment in auto production could fall by 30 percent, costing 300,000 industry jobs. For a different view see Peter Valdes-Dapena (2023), Auto workers worry it takes less labor to build electric cars. Maybe not, some researchers say, *CNN Business*, October 6, <https://www.cnn.com/2023/10/06/business/electric-car-manufacturing-cost-jobs/index.html>.

79 Oliver Falck, Nina Czernich, and Johannes Koenen (2021), *Effects of increased production of electrically powered passenger cars on employment in Germany*, Munich: Ifo Institute for Economic Research, <https://www.ifo.de/en/project/2020-12-01/effects-increased-production-electric-vehicles-employment-germany>.

[Carbon County, Wyoming] is soon to be home to one of the biggest wind farms in the nation.”⁸⁰ But former coal workers have had difficulty finding jobs in the wind energy sector. “The thousands of coal workers who will probably lose their jobs do not necessarily have the technical skills to operate wind farms. In any case, new wind jobs will number in the hundreds, not the thousands.”⁸¹

Wind is therefore being embraced with considerable hesitancy. As wind producers began to move into Wyoming in 2010, the state’s response was not to welcome them but to impose an excise tax on wind output. As of 2021, the state was still clinging to coal: “Despite the stark economic reality of the coal industry’s decline, state officials are still trying to preserve Wyoming’s fossil fuel resources, particularly coal. The state has dedicated \$15 million to creating the Wyoming Integrated Test Center to study the capture of carbon emissions from coal-burning power plants. And Gov. Mark Gordon talks about pitching Boeing on ideas to use Wyoming coal for carbon fiber airplane wings or persuading auto manufacturers to use its coal for carbon fiber vehicle bodies.”⁸²

Broadly, unlike large cities, rural communities, which have more potential for renewable energy investments, often lack the human capital, financial means, infrastructure, or resources to address environmental challenges.⁸³ Even when lagging regions do attract investment to expand production capacity for wind, solar, or hydropower energy, the related green jobs are likely to be created elsewhere: Engineers, lawyers, and consultants who work on these projects are usually based in large cities, and construction workers are present only for the time needed.

Moreover, fossil fuel-based communities are often in isolated locations and their weakened financial positions limit their ability to provide decent amenities that might attract and keep workers and to subsidize new investments. There is thus a much greater danger that dislocated workers are likely to withdraw from the workforce. And as with the decline in manufacturing jobs more generally, their displacement could also be associated with social problems that will make populist leaders increasingly more appealing.

An OECD study confirms that green jobs are concentrated in and around cities⁸⁴: Up to 35 percent of such jobs are in the regions home to Paris, London, Stockholm, Helsinki, and Vilnius. In contrast, in remote areas of Greece, Italy, and Spain, the share of green jobs drops to less than 7 percent. Looking at Europe, a study by the think tank Bertelsmann Stiftung has found that agricultural regions in Romania and Poland and carbon-intensive industry and mining regions in France, Czechia, Slovakia, and Sweden are some of the places likely to be hit

80 Dionne Searcey (2021), Wyoming Coal Country Pivots, Reluctantly, to Wind Farms, *New York Times*, March 3, <https://www.nytimes.com/2021/03/03/climate/wyoming-coal-country-wind-farm.html?searchResultPosition=7>.

81 Coral Davenport (2016), As Wind Power Lifts Wyoming’s Fortunes, Coal Miners Are Left in the Dust, *New York Times*, June 19, <https://www.nytimes.com/2016/06/20/us/as-wind-power-lifts-wyomings-fortunes-coal-miners-are-left-in-the-dust.html?searchResultPosition=4>.

82 Searcey (2021), op. cit.

83 Greg Halseth (2019), Peripheries at the core: Notes from rural places and regions on environmental and energy transition, Background report for an OECD/EC workshop series on Managing Environmental and Energy Transitions for Cities and Regions, September 5.

84 OECD (2023), *Job Creation and Local Economic Development 2023: Bridging the Great Green Divide*, Paris: OECD Publishing, <https://www.oecd.org/publications/job-creation-and-local-economic-development-26174979.htm>.

harder by the green transition than metropolitan areas with jobs that specialize in knowledge-intensive and high-technology sectors.⁸⁵ And this green divide is not only a matter of the number of jobs created in one place rather than in another: By one definition, green jobs tend to offer 20 percent higher pay than other jobs.⁸⁶

In addition, rural communities object to the costs of hosting renewable facilities that disrupt the landscape, reducing local property values while providing a global public good in the form of lower carbon emissions that benefit communities well beyond their own. Not surprisingly, 24 percent of US counties have adopted measures to restrict the use of land for renewable energy facilities.⁸⁷ Opposition to wind turbines is especially strong, probably because they are very tall and look out of place in a rural setting (in Germany, critics call them *Verspargelung der Landschaft*—the “asparagus-ization of the landscape”).⁸⁸

The bottom line is that the winners of the green transition will likely consist of already prosperous urban regions that will experience significant increases in capital investments and inflows of skilled workers from other regions.⁸⁹ The losers will be the already weaker regional economies and development-trapped communities, which will suffer from outflows of capital and talent. These factors suggest that populist movements will thrive again in rural regions as the socioeconomic divide continues to widen. People living “in places that do not matter,” to use the jargon of economist Andrés Rodríguez-Pose, are the staunchest supporters of right-wing leaders.⁹⁰ For all the main right-wing populist leaders, from Donald Trump to Marine Le Pen and Nigel Farage, their electoral stronghold is in rural areas.⁹¹

Since complaints against climate change policies will be very similar across countries, it is possible that populist movements will coalesce into a united international populist front that could derail the green transition. As mentioned earlier, this is something that can happen in continental Europe, given Brussels’ prerogative on climate issues. But the discomfort of climate populists with the green transition could be amplified and become more destabilizing if they found a receptive US president. Even in the absence of a such a Western movement,

85 Ambre Maucorps, Roman Römisch, Thomas Schwab, and Nina Vujanovic (2022), *The Future of EU Cohesion: Effects of the Twin Transition on Disparities across European Regions*, Berlin: Bertelsmann Stiftung, <https://www.bertelsmann-stiftung.de/de/publikationen/publikation/did/the-future-of-eu-cohesion>.

86 OECD (2023), op. cit.

87 Inhwan Ko, Nives Dolšak, and Aseem Prakash (2024), Rural Backlash Could Impede Climate Ambition, *Regulatory Review*, January 22, <https://www.theregreview.org/2024/01/22/ko-dolsak-prakash-rural-backlash-could-impede-climate-ambition/>.

88 Ibidem.

89 See Jan-Philipp Sasse and Evelina Trutnevyte (2023), A low-carbon electricity sector in Europe risks sustaining regional inequalities in benefits and vulnerabilities, *Nature Communications* 14: 2205, <https://doi.org/10.1038/s41467-023-37946-3>.

90 Andrés Rodríguez-Pose (2018), The revenge of the places that don’t matter (and what to do about it), *Cambridge Journal of Regions, Economy and Society* 11, no. 1: 189–209.

91 See also Zhen Jie Im (2024), Paying the piper for the Green Transition? Perceptions of unfairness from regional employment declines in carbon-polluting industrial sectors, *Journal of European Public Policy* 31, no. 6: 1620–46.

more forms of diplomatic collaborations among anti-climate policy parties could block or delay the adoption of measures that they see as threatening for the well-being of their constituencies.

6. RETHINKING CLIMATE CHANGE ADJUSTMENT PROGRAMS

Climate change policies are a hard political sell. The costs of some policies, such as higher carbon taxes, restrictive environmental regulations, and subsidies, limits on production of ICE vehicles are immediately apparent to disaffected voters, while the benefits to the world from avoiding a climate crisis will be apparent only in the future. It is not surprising, therefore, that policymakers often try to convince their voters to implement climate policies not because of their climate benefits but rather by pointing to collateral benefits—such as jobs, lower local pollution, enhanced competitiveness, and energy independence—that are more readily perceived. But these promises can lead to more costly and less effective mitigation policies and insufficient attention to dealing with the politics of adjustment.

Both the United States and the European Union acknowledge the importance of achieving “climate justice” and “leaving no one behind” in their decarbonization efforts.⁹² Political considerations have led to adaptation programs in the United States that define eligibility very broadly, with much of the country in areas that qualify for special tax breaks as “energy communities.”⁹³ US policies also encourage these communities to adjust by producing green energy rather than moving into industries more suited to their comparative advantages. The US programs, instead, should have been more narrowly targeted to provide sufficient aid to compensate the most vulnerable areas, through a climate adjustment program for workers and tailored transition plans developed and implemented by each community through partnerships between the government and representatives of community workers, businesses, and nongovernmental organizations.⁹⁴ The risk of the current approach is to further widen the gap between the winners and losers of the green transition.

Europe’s transition program, in contrast, is targeted on regions that are heavily dependent on fossil fuels, and its Just Transition Fund not only finances investments in clean technologies but also retrains workers and provides other assistance for the diversification of communities into other economic activities. The EU Just Transition Mechanism aims to raise €55 billion for these purposes, although studies show that this is probably not enough to achieve ambitious redistributive goals.⁹⁵ And historically the effectiveness of European funds in reducing regional disparities has not always been effective.

92 Robert Z. Lawrence (2023), *Climate Action: Implications for Factor Market Reallocation*, Working Paper 24-1, Washington: Peterson Institute for International Economics.

93 Raimi and Pesek (2022), op. cit.

94 Coal communities appear to prefer compensation rather than adjustment assistance See Nikhar Gaikwad, Federica Genovese, and Dustin Tingley (2022), Creating Climate Coalitions: Mass Preferences for Compensating Vulnerability in the World’s Two Largest Democracies, *American Political Science Review* 116, no. 4: 1165–83.

95 Karen Moesker and Udo Pesch (2022), The Just Transition Fund: Did the European Union learn from Europe’s past transition experiences?, *Energy Research & Social Science* 91: 102750.

In addition to better-targeted and better-funded programs to revitalize displaced industries, taxes on fossil fuel goods and services are equally necessary. This requires a radical change of mindset in the United States compared with Europe. So far, the United States has found the approach of raising the costs of emissions through taxes or quotas politically unviable. Accordingly, the IRA subsidizes the domestic production and consumption of green energy renewables and provides additional financial incentives for conservation and carbon capture. But the emphasis on domestic production, even when imports from allies may be cheaper, increases the need for subsidies. While subsidies reduce the immediate costs of renewable energy, thus lessening political resistance in the short run, over time they saddle the economy with a growing fiscal burden that will require a mix of spending cuts and additional taxes that are likely to generate political friction. Moreover, reducing the costs of green energy and carbon capture are priorities, and thus the mix of spending should also be shifted towards more spending on R&D to achieve these objectives rather than the current emphasis on investments in plants and equipment to produce renewable energy that could later turn out to be surpassed by the availability of more efficient low cost methods.

However, although the old continent might be ahead in the implementation process of carbon pricing, popular opposition is likely to mount in the future there, as more activities will be subject to it, raising the cost of living of ordinary citizens. As it has been done in Switzerland, to promote public acceptance of climate policies such as the sales of carbon emission permits, governments should rebate the money raised with “green dividends” that would make the average citizen whole, while retaining their incentive to decarbonize.⁹⁶

7. RESTORING TRUST

Winning the battle for the climate is not only about designing better green policies; it is about winning hearts and minds. Opposition to climate policies is fostered by several factors. The policies are imposed by a distant government as a necessity presented in cold technical language instead of being the conscious decisions of local communities. Furthermore, the costs of these policies are difficult to accept because they occur in the present to achieve goals that lie in the distant future.

Defeating climate populism and reinvigorating the green transition requires facing these challenges head on. It also requires that climate policy advocates engage their electorate by developing a compelling and credible narrative about climate action⁹⁷ rather than framing it as a technical problem with solutions that

96 Anders Fremstad, Matto Mildenberger, Mark Paul, and Isabelle Stadelmann-Steffen (2022), The role of rebates in public support for carbon taxes, *Environmental Research Letters* 17, no. 8: 084040. See also Matto Mildenberger, Erick Lachapelle, Kathryn Harrison, and Isabelle Stadelmann-Steffen (2022), Limited impacts of carbon tax rebate programs on public support for carbon pricing, *Nature Climate Change* 12: 141-47.

97 Alexander F. Gazmararian and Dustin Tingley (2023), *Uncertain Futures: How to Unlock the Climate Impasse (The Politics of Climate Change)*, Cambridge University Press. The authors examine public attitudes to climate policies to compensate losers and build support for winners, and find that generally people don't believe the government will follow through. They argue that the key to success in policies that build support for climate policies is enhancing policy credibility.

are democratically unquestionable. As explained by Nobel laureate Robert Shiller, stories help propel economic events and affect the final outcome—in either a good or bad way.⁹⁸ The rhetoric of the “Remain” camp in the Brexit debate, for example, failed because it was too rational at a time when the electorate was highly emotional, partly because of the financial crisis and partly because of globalization more broadly.⁹⁹ Looking at the current debate, most Americans are unaware that the IRA, despite more than \$370 billion to reduce carbon pollution, is designed to combat global warming!¹⁰⁰ These efforts are hidden behind transitory political expedients to reduce inflation, while the adoption of the whole bill failed to mobilize Americans against climate change, with the attention being squarely focused on normative technicalities.

After all, voters, even the most informed and politically aware, often think and act with their hearts.¹⁰¹ Leveraging emotions should not be left to the anti-climate policy populists alone. Populists are as concerned as anyone about the future prospects for their children—and a major driver of populism has been a sense of hopelessness about the future. Green transition advocates should highlight the health and quality-of-life benefits associated with successful climate adaptation and speak directly to the responsibilities of the current generation to meet the needs of their children and grandchildren, emphasizing intrafamily altruism to project a rosier future for them.¹⁰² They should also highlight the beneficial impacts on outdoor activities that all can identify with. After all, the consequences of climate change are already evident to everyone in the form of record heat waves, floods and hurricanes, melting glaciers, and droughts, all of which are demonstrably getting worse—more frequent, more severe, and more widespread.

Mainstream parties should also stress that without appropriate climate action, mass migration prompted by global warming will intensify. This way, right-wing voters, who are concerned with overwhelming inflows of migrants, might better ponder the consequences of their climate inaction. Similarly, moderate politicians should counter the far-right narrative that the green transition will reinvigorate the role of the state by emphasizing that the road to net-zero requires creating new markets, new technologies, and visionary entrepreneurs—in the purest capitalist form. And they should also be honest about the costs of the green transition and the uncertainty about its economic impact, in order to mitigate future discontent and disillusionment that will only reinforce populists’ appeal in the future.

Short-termism, which is the result of hyperbolic discounting, should be mitigated by setting intermediate targets to be achieved along the path to net zero. 2050 is too distant to sound alarming. Even 2030 is too far off to induce today’s governments to adopt—and voters to support—bold and politically costly

98 Robert J. Shiller (2019), *Narrative Economics: How Stories Go Viral and Drive Major Economic Events*, Princeton University Press.

99 Campanella and Dassù (2019), op. cit.

100 Lisa Friedman (2024), Democrats say Biden hasn’t “made the case” on climate despite achievements, *New York Times*, January 27, <https://www.nytimes.com/2024/01/27/climate/biden-climate-campaign.html>.

101 Campanella and Dassù (2019), op. cit.

102 Edoardo Campanella (2021), It’s the family, stupid!, *VoxEU*, February 24, <https://cepr.org/voxeu/columns/its-family-stupid>.

climate policies. It is politically expedient to set climate goals beyond the natural duration of a legislature, so as not to be held accountable if the goal is missed. Climate policy milestones, built on a broad popular consensus, should thus be timed with each electoral cycle, thereby mitigating incentives to procrastinate. At the same time, a more closely monitored short-term focus would lead to more realistic policies rather than excessively burdensome measures that lose their credibility when the government is forced to backtrack in the face of opposition—as has happened in Europe several times over the last few years.

In addition, given the wide spectrum of possible policy responses, local communities should be empowered with enough leeway in the adoption of measures that are more appropriate for them, thus moving away from a politics of necessity towards one of volition. Top-down, technocratic approaches are the perfect recipe for a populist backlash. Citizens need to feel heard and engaged in the decision-making process. A bottom-up approach that increases the policy and political participation of the common people, who must have a say on how their community should evolve in the future, can make democratic systems better at dealing with climate change than a regime that imposes the will of those in power, disregarding the needs of ordinary citizens.

Of course, persuasion, bottom-up participation, and visible targets are not enough. Responsible politicians should alter the cost-benefit analysis of their voters in ways that are consistent with their green rhetoric. Even the most skeptical populists will respond to the right economic incentives. And that requires making climate-friendly technologies in energy, transportation, industry, and agriculture cheaper than their carbon-intensive alternatives. Current policies use subsidies and taxes to incentivize the adoption of new technologies, but protectionism is slowing the transition. For example, despite subsidies for solar panel production in the United States, American producers are unable to compete with their Chinese counterparts.

While some technologies may have serious national security implications, solar panels, for example, are not one of them. If Beijing subsidizes their production, Western governments should take advantage of them. Similarly, tariffs on steel and aluminum make domestic production of wind turbines more costly. At a minimum, special exemptions from these tariffs should be granted for renewables production. In addition, the mix of green subsidies should be shifted towards more spending on R&D to accelerate the pace at which the price of decarbonizing falls. Over time, access to cheap green technologies will likely activate a virtuous process of domestic innovation in areas where the country has a true comparative advantage. In short, more open trade in the short run and more innovation in the long run are needed to reduce the costs of the green transition.

In summary, combating climate populism does not mean appealing to voters with policies that will damage the planet. It is essential to follow scientific guidance. But instead of just rattling off statistics on the catastrophic consequences of climate inaction, politicians should engage and activate their voters with compelling stories about the need for the green transition and adopt cost-reducing policies that will give climate skeptics solid economic reasons to decarbonize.



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