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Industrial Policy, Populism, and the Political Economy of Climate Action

David M. Driesen[1], Michael A. Mehling[2,3]✉ & David C. Popp[4,5]

[1] School of Law, Syracuse University, Syracuse, NY, USA

[2] Center for Energy and Environmental Policy Research, Massachusetts Institute of Technology, Cambridge, MA, USA

[3] School of Law, University of Strathclyde, Glasgow, UK

[4] Department of Public Administration and International Affairs, Center for Policy Research, Maxwell School of Citizenship and Public Affairs, Syracuse University, Syracuse, NY, USA

[5] National Bureau of Economic Research (NBER)

✉ e-mail: mmehling@mit.edu

Recent policy progress in the U.S. shows how populism can help advance climate goals, but at a steep cost. Avoiding setbacks will require curbing protectionist reflexes and harnessing opportunities for global cooperation.

After decades of failing to enact meaningful curbs on greenhouse gas emissions at the federal level, the United States recently embraced a combination of subsidies and industrial policy as an alternative. Together, the Infrastructure Investment and Jobs Act (IIJA), Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act, and Inflation Reduction Act (IRA) constitute the largest public investment in climate change mitigation and adaptation in history. Tax expenditures under the IRA alone are estimated to range between $392 billion and 1.2 trillion through 2031[1]. Included among the subsidies in these bills are aspects of industrial policy directing the benefits of climate policy towards U.S. businesses.

These advances occurred at a time when progress towards actual emission reductions remains stalled around the world, despite an international commitment to deep cuts under the Paris Agreement. Climate experts concur that governments have not adopted sufficiently ambitious policies to meet the goal of avoiding dangerous climate disruption[2]. The success in passing legislation that significantly increases the pace and scale of U.S. climate action raises the question of whether the political economy advantages offered by industrial policy might help overcome the ambition deficit afflicting climate policy around the world[3].

Industrial policy that relies heavily on subsidies to advance climate action poses a paradox. Because it marries populism with concerns about international competitiveness, it may have great potential to overcome limits to climate ambition[4]. At the same time, the very considerations that make industrial policy attractive may entail a protectionist dynamic that hinders global climate cooperation and interferes with the diffusion of technological innovations that will be needed to drive deep emission reductions around the world.

A Populist Political Economy of Climate Change

As an approach to politics that seeks mass appeal by leveraging popular sentiment against technocratic elites, scientific authority, and the political establishment, populism has posed

challenges for climate policy in the past. In France, for example, a scheduled increase in the national carbon tax incited protests by citizens – the 'gilets jaunes', named after the yellow vests they donned – that forced the government to back down[5]. Politicians on both sides of the Atlantic have sought to increase their appeal by opposing climate action, emphasizing the costs of climate action while ignoring potential benefits. Such a populist strategy will again be in evidence in upcoming elections this year and threatens the drastic emission reductions called for by climate science and existing climate targets.

But populism also played a starring role in securing the passage of the IRA and other legislation in the U.S. aimed at promoting climate action. Supporters of 2016 presidential candidate Bernie Sanders – whose political positions and rhetoric have been widely described as populist[6] – first proposed turning to subsidies in a congressional resolution calling for a 'Green New Deal.' Proponents of that resolution advocated marrying greenhouse gas reduction goals to the aims of enhanced economic equality and social justice, calling for a program to create high-paying jobs and retooling the economy to address the climate crisis. Reflective of its populist approach, this strategy shifts the emphasis from the cost of the climate transition to the potential benefits communities can receive by embracing the green energy transition[4].

To win support from these left-leaning populists, presidential candidate Joe Biden incorporated central elements of the 'Green New Deal' in the 2020 Democratic presidential platform. Guided by the recommendations of a 'Unity Task Force' that had been appointed to this end by Bernie Sanders and Joe Biden[7], the latter embraced industrial policy and ambitious climate goals as part of his signature 'Build Back Better' Plan. While moving his agenda through Congress required compromises, the IRA, the IIJA, and the CHIPS and Science Act all reflect their populist origins. To fund its climate and other investments, for instance, the IRA raises taxes on the wealthy and on corporations[8].

The apparent success of marrying industrial policy with a populist approach to climate policy raises the question of whether other countries might find this populist model useful in securing support for ambitious climate action in upcoming elections. In this comment, we only focus on the implications for climate action, and do not consider broader impacts of populism and industrial policy, such as their effect on fiscal health or democratic institutions. Net outcomes can also be difficult to predict. Support from labor and environmentalists for his industrial policy may help Biden in upcoming presidential elections, for instance, but accusations that this policy contributes to inflation could also hurt him.

The Economic Dynamics of International Competition

Once one country embarks on a climate policy strategy combining subsidies with industrial policy, it creates an economic dynamic that encourages other countries to follow suit. Trading partners of a country relying on subsidies only available to domestic industries to achieve climate goals fear that they will find themselves at a competitive disadvantage unless they match such public support for their own industries. Following adoption of the IRA, for instance, the European Union faced pressure to respond, which it did with its proposed Net-Zero Industry Act (NZIA)[9].

Importantly, the incentive structure changes not only for trade partners, but also for the country deploying industrial policy: as it invests in low-carbon technology innovation and manufacturing, it has a growing interest in bolstering international climate ambition to strengthen global demand and create export markets for its products. Leaders in the production of low-

carbon technologies and requisite components or materials, including China, will thus find it beneficial to adopt a progressive stance in international climate negotiations. This momentum could ultimately reshape the pace of global climate diplomacy.

This potential for a race to the top contrasts with more traditional forms of climate policy, such as carbon pricing, which allow trade partners to seize a competitive advantage by foregoing a similar burden on their industries and instead benefitting from the climate efforts of others through free-riding. Fear of losing competitiveness with China and other emerging economies has motivated the U.S. failure to adopt ambitious climate policy in the past. In cases where countries have been willing to adopt carbon constraints, such fears have prompted the inclusion of counterproductive loopholes in climate policies, or instead forced recourse to controversial trade restrictions, such as the Carbon Border Adjustment Mechanism (CBAM) adopted last year by the EU aimed at protecting sensitive industries[10].

Aside from unleashing a competitive dynamic that can bolster climate diplomacy and prompt other countries to move faster, the subsidies accompanying industrial policy may also hold promise in overcoming barriers to increased ambition that limit traditional pricing and regulation. Well-targeted subsidies may reduce the cost of low carbon technologies, making them more accessible to consumers everywhere, irrespective of whether their countries have adopted stringent climate policies or not. Ambitious decarbonization requires a portfolio of technologies, including examples such as green hydrogen whose costs remain high. By creating initial market demand for promising technologies not yet competitive in the marketplace, subsidies promote further innovation that, if successful, will lower costs[11]. Such innovation spillovers are typically irreversible and can eventually help replace incumbent technologies with more effective and efficient alternatives in addressing climate change.

The Populist Problem

The populist politics behind the IRA require ensuring that the subsidies benefit domestic workers and strengthen domestic manufacturing. Accordingly, the IRA includes provisions that link many of its subsidies to payment of the 'prevailing wage' in an industry and creating apprenticeship programs. These may address economic inequality and win the political support of affected workers, but can also raise the cost of carbon mitigation.

To secure support from trade unions and industry associations, the IRA includes a number of protectionist elements. Many subsidies, such as the tax credits for electric vehicles, can only be accessed if critical components originate in the U.S. or in countries with which it has a free trade agreement. Such 'local content requirements' are highly contested trade practices, and quickly triggered a trade conflict between the U.S. and several of its trade partners. While reactions to these protectionist policies may lead to a "race to the top", this sort of protectionism may also hinder international cooperation and snarl supply chains, thus impeding achievement of ambitious climate goals.

At a minimum, forcing the relocation of low-carbon manufacturing to the U.S. – a practice known as re- or onshoring – will incur additional costs and delays. Given the current regional concentration of manufacturing and processing capabilities needed to supply critical materials and components at scale, however, it is not even clear whether the energy transition can proceed at the required pace without relying on third countries such as China[12]. Balancing national interests, including the desire to diversify supply chains, with the global interest in rapid

decarbonization will be a growing challenge. This challenge is amplified in a world where ambitious climate action hinges on populist industrial policies.

What is more, the history of renewable energy technologies suggests that achieving cost parity – and thus viability at scale – for wind and solar power generation has relied on borders that have been permeable for ideas, products, and investment. Solar photovoltaic technology, identified as a critical mitigation option for the coming decade by the Intergovernmental Panel on Climate Change (IPCC)[13], owes this status to a documented sequence of cross-border spillover effects that spurred innovation and drove down cost[14]. A global economy fragmented by protectionist reflexes in industrial policy might hamper such diffusion processes, delaying or preventing the availability of essential technologies to address the decarbonization challenge.

Conclusion

As the U.S. experience has shown, coupling industrial policy with mitigation goals can overcome political barriers to climate action and spur a race to the top, as governments strive to build competitive advantage by increasing subsidies for low-carbon technologies. But the same populism that helps drive these policies forward and the competitiveness concerns that fuel them globally entail counterproductive protectionism, which can hinder international cooperation and create barriers to technological innovation. As more than 40 countries and nearly half the global population head to the ballot boxes this year[15], the outcome of these elections will be decisive for the future of climate action. Managing the paradox between climate policy ambition and protectionism may prove vital for the future of global decarbonization efforts.

Competing Interests

The authors declare no competing interests.

Author Contributions

D.M.D., M.A.M. and D.C.P. conceptualized the paper. D.M.D. and M.A.M. wrote the first draft. D.M.D., M.A.M. and D.C.P. contributed to revisions.

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