# 2AC---DRR---Round 5

## Science ADV

### Science---2AC ! OV

#### Only scientific expertise and the ability to share it globally can solve environmental, ag, and public health crises that converge and escalate to extinction, that’s Pedersen

#### Specifically, fungal pathogens require CDC surveillance and response because the brink is now, that’s Casadevall

### AT: CBR Irrelevant [Fowler]

#### People being re-hired was never our impact---it’s about workers having the policy autonomy and enforcement resources to combat Trump’s interference

#### DOGE and RIFs do NOT compare to the magnitude of natsec and rescheduling

Beschel 25 [Robert P. Beschel Jr., Senior Nonresident Fellow with the Middle East Council on Global Affairs, formerly led the Center of Government Practice at the World Bank, MPA, PhD/MA Political Science, Harvard University’s John F. Kennedy School of Government, “DOGE Was Bad. Schedule F Will Be Worse.” The Atlantic, 4-28-2025, https://www.theatlantic.com/ideas/archive/2025/04/trump-civil-service-schedule-f/682609/]

In the waning days of the first Trump administration, the White House announced a plan to convert an estimated 50,000 government employees to a status similar to political appointees—meaning that they would become “at will” hires who serve purely at the president’s pleasure. Schedule F, as this plan was known, was never implemented then and was revoked immediately under Joe Biden’s presidency. But now the policy is back, formally resurrected by executive order on April 18. If this new-look Schedule F survives the inevitable court challenges, it will mark a major step forward in a MAGA quest laid out by J. D. Vance in 2021 to “fire every single mid-level bureaucrat, every civil servant in the administrative state,” and “replace them with our people.”

President Donald Trump hyped the new order on Truth Social. “If these government workers refuse to advance the policy interests of the President, or are engaging in corrupt behavior,” he wrote, “they should no longer have a job.” In the interregnum before Trump’s second term, the original Schedule F proposal was kept alive in Republican policy circles, notably by the Heritage Foundation’s influential Project 2025 document. Now rebranded as “Restoring Accountability to Policy-Influencing Positions Within the Federal Workforce,” the order focuses on the president’s authority to remove traditional civil-service protections from about 2 percent of the federal workforce and terminate them at his discretion. (The policy allows exemption for certain classes of government employees, such as Border Patrol agents.)

Civil servants swear an oath to the Constitution, and are required to apply the laws of the United States as enacted by Congress. Their salaries are paid by all U.S. taxpayers. These obligations are every bit as important as loyalty to the president: Part of their job involves speaking truth to power, even when the facts they convey may be inconvenient and the policy choices difficult. The new order’s priority on personal fealty is clear in its grant of power to federal agencies to fire an employee for “subversion of Presidential directives.” If far more civil servants can be summarily dismissed, they’re less likely to risk frank conversations with senior administration officials. The quality of their advice will suffer, and their chief interest will be in preserving their jobs by pleasing their political masters. To an extent, the Trump administration is responding to legitimate concerns about performance and accountability within the federal bureaucracy, but replacing tens of thousands of people with political hires is highly unlikely to fix what ails the government.

### AT: Union Density

#### Denisty is irrelevant for our impacts---unions still have the resources and historic win rate to solve, that’s Handler and Carati

### AT: Can’t Negotiate over Pay / Benefits [AFGE]

1NC 3 – workers have never been able to negotiate over pay or benefits – all of the aff assumes that

### AT: Can’t Strike [D’Agostino]

1nc 4

#### Striking isn’t their leverage---it’s controlling policy

#### BUT, Handler says that despite “hostile presidents” the FLRA is empirically effective

### AT: Retirements + Buyouts [Kornfield]

1nc 5

#### It’s not too late---workers haven’t left but are cowering and can’t implement policy properly---they’re waiting on union lawsuits to solve, that’s Schumaker

#### Deferred resignation was nothing

Herb et al. 25 [Jeremy Herb, Rene Marsh, Tami Luhby and Marshall Cohen, CNN, “How Trump and Musk have shaken the federal workforce,” CNN, 2-7-2025, https://www.cnn.com/2025/02/07/politics/trump-musk-federal-workforce]

CNN reported this week that employees at all federal agencies were being offered this program, known as Voluntary Early Retirement Authority, or VERA, to incentivize longtime federal workers to depart. This is one part of Trump’s multi-pronged strategy to reduce the federal workforce by perhaps as much as 10%.

It’s unclear how many of the roughly 116,000 Justice Department employees will take these offers, which also came with a Thursday deadline.

One Justice Department official told CNN that the offers appear to be having a limited impact, mostly among people already close to retirement age, or staffers in the “probationary” period that are much easier to be fired outright and have already been targeted by the Trump administration.

Some who were thinking of leaving have decided to stay as a “show of solidarity,” the official said.

“The emails from the beginning have been insulting and demeaning… it’s stupid to think that people who aren’t in it for the money could be bought out with money,” the official told CNN.

### AT: Past Firing [Alms]

1nc 6

#### It’s not too late---rescheduling and natsec exemption are the brink for our impacts---far worse than the squo

< FOR REFERENCE---1AC Bednar ---\*\*\*CAUTION: ACTUAL 1AC HIGHLIGHTING MAY NOT PERFECTLY MATCH, THIS IS JUST AN AID TO FIND THE RIGHT SECTIONS >

Of course, the Trump administration has not simply misunderstood the administrative consequences of implementing Schedule Policy/Career. (I am not naïve.) The Trump administration actively wants to dismantle the civil service, which it perceives as hostile to conservative policies and a waste of taxpayer dollars. Director of Office of Management and Budget Russell Vought—the architect of Trump’s management agenda—has said of federal employees, “When they wake up in the morning, we want them to not want to go to work, because they are increasingly viewed as the villains. We want their funding to be shut down …. We want to put them in trauma.” The administration has already removed thousands of federal employees using unlawful resignation programs and poorly orchestrated reductions in force. Schedule Policy/Career furthers the administration’s objective of deconstructing the administrative state. From the perspective of the Trump administration, many of my concerns are features rather than bugs. Yet it is worth challenging the pretextual reasoning offered by OPM and raising awareness among the public about these concerns.

These changes to the civil service will have a drastic impact on the services that make daily life livable. Staffing shortages at the National Weather Service have made it difficult for the agency to cover forecasting for severe weather. Reports suggest that these staffing shortages delayed tornado warnings last week, leaving 27 dead in Missouri and Kentucky. A lack of air traffic controllers has left Newark Liberty International Airport in disarray for weeks. One may think that reclassifying policy-influencing positions will have no impact on basic government services, like weather prediction and air traffic control. Yet my conversations with civil servants reveal that the administration is wielding Schedule Policy/Career as a stick to induce compliance from federal employees in all positions—not just those we might commonly think of as policy-influencing. Schedule Policy/Career—along with the Trump administration’s other personnel actions—poses a significant threat to the government services that provide safety and protection to the American people.

### AT: Reg + Funding Thump [Pozen+Chertoff]

1nc 7

#### This is aff uniqueness---says Trump is firing workers and destroying regulations---the entire 1AC assumed it

### AT: Courts Thump [Trujillo + Dichio]

1nc 8

#### Fiat solves---no resolutional basis for excluding any federal courts

---2AC Jha on T: CBRs explicitly included it in our C/I of “strengthen CBRs”

#### BUT plan’s likely Constitutional grounds---which all courts will follow---that’s Bednar…

#### …AND

Sohoni 17 [Mila Sohoni, Professor of Law at the University of San Diego School of Law, “A Bureaucracy — If You Can Keep It,” Harvard Law Review, 131(1), November 2017, https://harvardlawreview.org/forum/vol-131/bureaucracy-if-you-can-keep-it/]

If, however, Metzger carries the day with her most intriguing claim — that the administrative state is constitutionally obligatory — then all these quickening crosscurrents of judicial anti-administrativist sentiment, whether rhetorical or sincere, won’t matter much; the Constitution, if it is understood as Metzger argues it ought to be, will curb and contain what anti-administrativists can accomplish.

### AT: Unions = Pro-Trump [Kagan]

1nc 9

#### Unions aren’t pro-Trump – they’re resisting and suing him on behalf of fed workers---their ev isn’t about federal unions so ignore it

### AT: Science Dead

1nc 10

Doesn’t assume that workers are waiting on CBR lawsuits to see if they should stay or leave

### AT: Terminated Contracts

1nc 11

Terminated contracts is our uniqueness – the plan restores them

### AT: CDC Doomed

#### Funding’s NOT the problem---it’s that the key personnel fear they’ll be fired or coerced without labor protections---that’s Pugh

< FOR REFERENCE---1AC Pugh >

But after Health and Humans Services Secretary Robert F. Kennedy Jr. announced plans to eliminate 2,400 CDC employees, Weber and others working to prevent infections fear the safety network’s staff and infrastructure could be on the CDC’s organizational chopping block—even though no funding cuts have been reported at this time.

### AT: RFK Thumps Pandemics

Not fungal pathogends

### Fungi !---AT: !/D---2AC

#### Fungal neopathogens risk extinction:

#### Indirectly:

#### ---even if they can’t kill humans, still kill crops

#### ---AND make infrastructure unusable and habitats uninhabitable

#### But also directly:

#### ---they don’t need hosts---burnout, coevolution, immunity, and other viral selection pressures don’t apply

#### ---spores can survive and circulate in air currents indefinitely

#### ---warming has already increased thermotolerance ---Candida Auris proves new species can overcome immune systems

#### ---there are no treatments, can’t vaccinate, and quarantines are useless

#### -that’s Casadevall

### Science---SciDip ! OV

#### Independently, scientific diplomacy creates global interlinkages that de-escalate conflict and generate off-ramps from military action

#### Their defense is wrong---doesn’t assume that scientific expertise also underpins proliferation and nuclear modernization, AND personal connections between scientists, that’s Wolfe

## Geoeconomics ADV

### Geoecon---2AC ! O/V

#### State capitalism wrecks market checks on economic nationalism, escalating geoeconomics into nuclear wars, collapsing value chains and resilience to x-risks, and intensifying carbon competition and warming---all existential---that’s Ozturk, Yusuf, and Babish

1nc 1

Courts siding with trump is irrelevant – the plan is sufficient

1nc 2 – yes warming – cross-border restrictions are things like tariffs and nationalization

### GVCs !---AT: Resilience Solves---2AC

#### Supply chain resilience is our argument---markets will self-correct to economic shocks, disruptions, and natural disasters---BUT there’s no such thing as resilience to political risk---because the state can just criminalize products or revoke licenses on a whim---even extra-territorially---that’s Ozturk, Yusuf…

#### …AND

Gonçalves 25 [Maria Gonçalves, Deputy Editor at Global Trade Review, former International Trade Editor at The Grocer, and reporter at Thompson Reuters, BA journalism, Kingston University, “Political risk in sharp focus amid shifting global fault lines,” Global Trade Review, 12-4-2025, https://www.gtreview.com/supplements/gtr-risk-2025/political-risk-in-sharp-focus-amid-shifting-global-fault-lines/]

Reflecting this volatility, Coface’s 2025 social and political risk index reached a historic high of 41.1%, surpassing its pandemic-era peak and cementing political risk as a “key structural parameter of the global economy”.

Companies are increasingly concerned. WTW’s annual political risk survey in May found that political instability ranked among the top five risks on the enterprise risk management register for 74% of multinational companies. For 11% of respondents, it was the number one concern.

“Geopolitics is no longer an area of just academic or passing interest,” says Nick Marro, lead analyst for global trade at the Economist Intelligence Unit (EIU).

“We’re very much in unprecedented times – 10 years ago, you could do business largely without worrying about international security hot spots, or volatility posed by electoral cycles or government shifts. That’s no longer the case.”

## T Pre-existing

### T: Preexisting / Not Scope---2AC

#### We factually meet---CSRA explicitly grants CBRs to civil service---that’s Fisk---Trump has simply attempted to strip them via asserting they’re at his discretion---completely different from groups statutorily excluded from the NLRA

#### Their definitions are merely agreeing with our counter-interp---“CBR” “strength” is a scale-based measure of discretion

---statutory / Constitutional levels = Trump’s Executive Orders explicitly in the text interpret CSRA/FSLMRS to delegate discretion via rescheduling and national security exemption, and Article 2 to prohibit any binding CBRs

---pre-Trump CSRA/FSLMRS interp is a level 8, minus the level 7 right to strike (arbitration + FLRA / FSIP is the dispute mechanism, and is empowered to implement a settlement)

---\_\_ = read if going to cross-apply to T: Subs %

Jha et al. 20 [Nandan K. Jha, Department of Political Science, Valdosta State University; Neena **Banerjee**, Department of Political Science, Valdosta State University; and Stephanie **Moller**, Department of Sociology, University of North Carolina at Charlotte; “Assessing the Role of Teachers’ Unions in the Adoption of Accountability Policies in Public Education,” The Urban Review, 52, June 2020, pp.299-330, DOI 10.1007/s11256-019-00529-y]

Our main independent variable is the strength of teachers’ unions, measured with an index of the strength of collective bargaining rights for local school teachers in states. Freeman and Valletta (1988) originally developed this index and Farber (2006) has extended it until 2004. We have carried forward this index for each state up to 2009. There is very little time-series variation in the collective bargaining rights index (Farber 2006). States account for 74.9% of this variation, followed by year (0.05%) and the remainder by the type of public employee group (Farber 2006, pp. 42–43).

This scale-based measure captures the legal environment of the strength of collective bargaining in each state more comprehensively than other alternatives including the percentage of unionized public school teachers or percentage of school teachers covered by collective bargaining agreements. Hoxby (1996) argued that a simple count of unionized members does not give a full picture of their power. This is because in many instances existing teachers’ professional associations were transformed into teachers’ unions and often retained their original professional orientation rather than identifying with the larger labor movements (Hoxby 1996). Consequently, the large membership base of teachers’ unions may overstate their political influence. Using data on collective bargaining provisions in large school districts of California, several recent studies have also emphasized the effect of the strength of collective bargaining contracts between teachers’ unions and school districts on student performance, educational productivity, and resource allocation rather than relying on the percentage of teachers as members of teachers’ unions for the purpose (Moe 2009; Strunk and Grissom 2010; Strunk and McEachin 2011). Given the focus of this paper on the broader issue of state policy adoption, measuring the legal environment with regard to collective bargaining is a better strategy than simply using union membership rates or the percentage of teachers covered by collective bargaining. The recent legislative fight over curtailment of collective bargaining rights in Wisconsin also supports the importance of legal environment of collective bargaining. Moreover, union coverage is significantly higher in states that have more favorable collective bargaining rights for all types of workers (Farber 2006). Union coverage is the “fraction of workers who report either being a union member or being a nonmember covered by a collective bargaining agreement” (Farber 2006, p. 43). We also noted high correlations (not shown here) between the collective bargaining rights index, the percentage of teachers covered by collective bargaining, and the percentage of unionized teachers. However, consistent with the practice in the empirical literature, we included the percentage of teachers covered by collective bargaining as an alternate measure for the collective bargaining power of teachers’ unions.

The index of the strength of collective bargaining rights captures eight different groups of states (Farber 2006; Freeman and Valletta 1988) in which bargaining:

1. Is legally prohibited;

2. Is not legally prohibited but with absence of provisions;

3. Is permitted but do not require employers to negotiate with unionized workers;

4. Is permitted; unions are allowed to meet and present offers to their employers, but employers retain the discretion to take unilateral decision;

5. Is considered a duty but without specific dispute resolution mechanism;

6. Is considered a duty and dispute resolution occurs through fact finding mechanisms that entail the intervention of a neutral third party that is not empowered to implement a settlement;

7. Is considered a duty, and unions are allowed to strike to make their case;

8. Is considered a duty with compulsory interest arbitration, which empowers the neutral third party to determine the terms of the agreement and guarantee closure of the process.

These eight categories are ranked in order of increasing favorableness for union activities (Farber 2006, p. 42). Although the index of collective bargaining power of teachers’ unions is an ordinal measure with eight distinct values, the general practice in the literature that examines the influence of teachers’ unions in education policy is to treat this index as a continuous measure (Frandsen 2011; Hartney and Flavin 2011; Hirsch et al. 2011). Sociological and psychometric methodologists state that when there are five or more categories, there is relatively little harm in treating ordinal scales as continuous variables (Johnson and Creech 1983; Zumbo and Zimmerman 1993).

#### Prefer it:

#### 1---Precision---CSRA is the law---and Jha’s taxonomy is the “general practice”---key to access predictability and avoid mixing burdens---turns their offense AND avoids a race to the bottom

#### 2---Aff ground---anything else overlimits---all of the AFFs on their caselist can’t beat the States CP

#### 3---No offense---combos of small increases to particular groups have no link uniqueness and still explode limits---PLUS, functional limits like states, Trump, and the Cap K check

#### Reasonability’s best – competing interps cause a race to the bottom and substance crowd-out

## CBR PIC

### CBR PIC---2AC

#### Perm: do counterplan

#### Perm: plan and every combo

#### Schedule P/C’s targeted at labor managers and union members and strips them of BOTH CBRs AND for-cause merit protections---restoring the latter requires striking down the XO which is the plan

#### CBRs are key:

#### 1---Enforcement---empirics prove workers only trust unions, that’s Handler

#### AND…

Morse 23 [Asher Morse, JD candidate at Stanford Law School, MA English Language and Literature/Letters, University of Virginia, “How to Protect Federal Agencies through Collaborative Bargaining,” The Law and Political Economy (LPE) Project Blog, 9-25-2023, https://lpeproject.org/blog/how-to-protect-federal-agencies-through-collaborative-bargaining/]

The BLM and USDA debacles were just two of the many instances in which the Trump administration pursued a strategy of what Jody Freeman and Sharon Jacobs have called “structural deregulation,” the undermining of agencies’ ability to execute their statutory mandates by means other than the repeal of agency rules or policies. As they explain, structural deregulation includes “such practices as leaving agencies understaffed and without permanent leadership; marginalizing agency expertise; reallocating agency resources; occupying an agency with busywork; and damaging an agency’s reputation.” Perhaps the most prominent of these initiatives during Trump’s tenure came in the administration’s final months, when officials attempted to strip civil service protections from broad swathes of the federal workforce by creating a new employment classification category, Schedule F.

Challenging structural deregulation in the courts can prove difficult. Under federal law, before individual federal employees can appeal a decision to the U.S. Court of Appeals for the Federal Circuit, they must typically channel complaints through the Merit Systems Protection Board. But that agency lacked a quorum for the entire Trump presidency, creating a tremendous backlog of complaints—and no feasible means of judicial review as a result. Meanwhile, outside organizations typically struggle to establish standing to challenge actions that, at least as a first order matter, most directly impact employees.

There is, however, one defense mechanism against future structural assaults that is lying in plain sight of agency management: federal sector unions. Federal collective bargaining agreements are meaningfully enforceable — by third-party arbitrators, whose decisions are appealable to the Federal Labor Relations Authority (“FLRA”) — and forthcoming scholarship by Nicholas Handler demonstrates the profound extent to which litigation to enforce these contractual rights can shape federal policy. Federal collective bargaining agreements thus offer the chance to proactively build in protections that will be vital if dangerously anti-administrative candidates such as Trump or DeSantis take office. But that’s only true if agency leadership is willing to shed knee-jerk anti-union attitudes.

#### 2---Resistance---only unions have the resources, publicity, and standing---win rates prove, that’s Handler and Dorning

#### 3---Substance---policy autonomy is key to leverage expertise against Trump, that’s Bednar and Carati

#### Perception alone is sufficient, otherwise workers cower or quit, that’s Moynihan, Fisk

< FOR REFERENCE---1AC Moynihan >

Because with unitary executive theory, there is no actor that can make credible long-term commitments to public servants.

With unitary executive theory, Congress cannot write robust new legislation that modernizes the civil service and stops politicization. A President could just ignore it. Even if Trump leaves office, and a new President looks to restore nonpartisan competence, their promises are only good for four or eight years before another President can come in and rip up the terms of their employment. And over time, why would even a good government President invest effort in restoring capacity if their successor can undermine it?

With unitary executive theory, the public sector becomes permanently viewed as an unstable and chaotic workplace that we are seeing now. The most capable potential employees decide its not worth the bother, and the workforce becomes a mix of people who cannot get a job elsewhere, and short term political appointees. (The irony here is that advocates of unitary executive theory say it is not just constitutional, but will improve the performance of the public sector, notwithstanding the omnishambles we are witnessing now).

So it matters, a lot, how courts decide on questions of presidential power over personnel issues right now. We do not have many tea leaves to read, but this SCOTUS is certainly more on board with any unitary executive theory than any prior version. Decisions like the one on presidential immunity last year suggests a court willing to imbue the President with unprecedented powers.

#### AND…

Perez 24 [Alejandro Perez, JD candidate, Boston University School of Law, “The Return of Schedule F and the Perils of Mandating Loyalty in the Civil Service,” Boston University Law Review, 104, 2024, 104 B.U.L. Rev. 2233, NexisUni]

B. The Most Effective Response: The Judicial Response

For the reasons outlined above, the executive and legislative responses are ineffective to prevent the reimplementation of Schedule F. Both approaches seem to assume that Trump's actions are legal, and they aim to block the order from going into effect by changing the law or writing new regulations. However,

I do not believe that the legality point should be so readily conceded. Here, I explore whether the presidency actually possesses the power to strip civil service employees of due process protections. I present three reasons why Schedule F may in fact be invalid, concluding that the judicial branch is the appropriate avenue to strike down Schedule F and protect the rights of civil service employees.

There has been very little scholarship devoted to examining the legality of Schedule F. The United States District Court for the District of Columbia briefly considered the issue when the National Treasury Employees Union ("NTEU") sued the Trump administration in October 2020, seeking to enjoin Schedule F's implementation.114 However, the NTEU voluntarily dismissed the suit once Biden rescinded the order.115 Therefore, the judicial response to the reimplementation of Schedule F by a future administration is a live issue. The remainder of this Note suggests three frameworks that uniquely empower courts to invalidate Schedule F.

### CBR PIC---Rescind Schedule P/C---2AC

#### Rescinding Schedule P/C is the plan---since rescheduling explicitly weakens CBRs---that’s Fisk---they’d need to ban CBRs to be competitive

### CBR PIC---Work from Home + Automation

#### No aff impacts are about telework OR automating the workforce

### CBR PIC---Whistleblower Plank---2AC

#### Fails absent the plan

Roberts 25 [Robert Roberts, Professor of Political Science at James Madison University, MPA, JD, PhD Public Administration, Syracuse University, “Policy/Career Schedule Employment and Federal Service: Dismantling Neutral Competence,” Public Personnel Management, 54(3), June 2025, DOI 10.1177/00910260251340103]

Whistleblower protection laws, in theory, provide federal employees some protection from being fired for refusing to carry out orders or disclosing official misconduct (Muto, 2025). Section & 2302 (b)(9)(D) of the Whistleblower Protection Act, for instance, prohibits the punishment of federal employees for “refusing to obey an order that would require the individual to violate a law” (Tully, 2015). In Rainey v. MSPB (2016), the U.S. Court of Appeals for the Federal Circuit, held that this Whistleblower Protection Act provision did not extend to a refusal of a federal employee to violate a rule (Katz, 2016). The U.S. Supreme Court refused to hear an appeal from the decision. In Bivens v. Six Unknown Named Agents of Federal Bureau of Narcotics (1971), the U.S. Supreme Court stripped federal employees of absolute immunity from money damage lawsuits brought against federal employee for alleged violations of constitutional rights (Bivens v. Six Unknown Fed. Narcotics Agents, 403 U.S. 388, 1971). Current so-called constitutional tort jurisprudence permits money damage lawsuits against federal employees for alleged violations of “clearly established” constitutional or statutory rights (Novack, 2023, p. 2). However, in Egbert v. Boule (2022), the U.S. Supreme Court sharply limited Bivens’s actions against federal employees for alleged unconstitutional conduct. In the case, “[a] federal Border Patrol agent drove onto the property of a person who runs an inn near the Canadian border in Whatcom County, without a warrant or consent to enter. The agent then tried to question a guest at the inn and the innkeeper tried to stop the agent from harassing the guest. The agent shoved the innkeeper to the ground and injured him, plus when the innkeeper complained about the agent’s conduct, the agent tried to get various agencies to investigate the innkeeper” (ACLU of Washington, 2022). The U.S. Supreme Court held that the innkeeper could not use a Bivens action to seek damages against the federal agent for violating his Fourth and First Amendment rights (Pfander & Alley, 2025, p. 986). Congress, not federal courts, had the responsibility to pass legislation to make federal law enforcement officials liable for such conduct (Rose, 2022, p. 230). Garcetti v. Ceballos (2006), stripped all public employees of First Amendment freedom of speech protection for all types of communications made during a public employee’s official duties (Hudson, 2021, p. 376). Because of Garcetti, all federal executive branch employees face the possibility of retaliation for criticizing the actions of their agencies’ actions while performing their official duties. Research supports the argument that a growing number of federal executive branch employees find themselves in profoundly demanding situations. The establishment of Schedule Policy/Career will make it much worse. One survey of federal employees conducted during President Trump’s first term found that “under conditions of increasingly autocratic authoritarian leadership, the line marking what was deferential and appropriate career civil servant behavior and what constituted disloyalty to the presidency, shifted over time, narrowing the space within which career civil servants could reconcile the professional and institutional imperatives to express loyalty to mission, office, and government” (Kucinskas & Zylan, 2023, p. 1801).

#### AND absent resources only unions provide

Gertz 7 [Sally C. Gertz, Florida State University College of Law, “At-Will Employment: Origins, Applications, Exceptions, and Expansions in Public Service,” Chapter 3 in American Public Service, Taylor & Francis Group, p. 47-70]

EXPANDING EMPLOYMENT AT WILL TO CLASSIFIED CIVIL SERVANTS: REDUCING THE TRANSPARENCY OF GOVERNMENT BY ELIMINATING DUE PROCESS

Courts are unlikely to stop government employers from removing classified employees’ job security. This battle will be fought in the policy arena. One issue that should be part of the conversation is the impact that removing job security will have on the transparency and, as a result, the accountability of government. At-will employment will significantly reduce the amount of information available to members of society about the operation of their government. Based on experience in the private sector, it should be expected that at-will public employees will be less likely to question workplace decisions, to disclose workplace conduct that appears to violate the public trust, or even to talk to outsiders. Although at-will public employees enjoy some protections for their speech that at-will private employees do not, for example the First Amendment and public employee whistle-blower statutes, these protections suffer from the same infirmities as the antiretaliation provisions that purport to safeguard at will employees’ speech in the private sector. The doctrines are quite narrow (the First Amendment protects speech of “public concern” that is not “disruptive”; Florida’s public employee whistle-blower statue protects signed, written reports of misfeasance or malfeasance sent to the inspector general). And they require employees to access attorneys, file court actions, endure long delays, and meet difficult proof requirements while they are out of work. The doctrines of sovereign immunity, qualified immunity, and exhaustion of administrative remedies may further limit government employees’ remedies. In sum, these inaccessible and unreliable remedies will not make at-will government employees confident they can speak out about questionable agency conduct and keep their jobs.

Removing job security will diminish the information available about the performance of governmental agencies in another way—by eliminating due process hearings. Hearings provide occasional opportunities for law makers, agency heads, and citizens (usually via newspapers) to peek inside agency workplaces and see how the government’s work is being accomplished. For example, in Declet v. Department of Children and Family Services (2000), a child abuse investigator appealed his discharge for lying (he was dismissed, along with others, after an abused child receiving protective services died). His discharge was upheld, but evidence adduced at the hearing revealed these “facts”: Declet’s caseload was unmanageably high, he never received essential training, he did not have a computer that functioned, and he frequently had to babysit abused children in his office while he worked because there were no facilities for them.(82) Declet did not alert the Miami Herald or the inspector general to these serious problems, but he did disclose them to the administrative law judge at his due process hearing. And judicial facts enjoy high credibility, so when they reveal operational problems like these, they are often relied upon—by agency heads seeking to hold managers and super visors accountable, and by citizens seeking to hold government leaders accountable.

Already in Florida there are fewer Career Service “due process” hear ings. From 1999 to 2004, the number of Career Service appeals adjudicated (not including withdrawals, dismissals, and settlements) declined as fol lows: 226, 142, 145, 98, 107, 106.(83) This downward slope likely reflects, at least in part, the diminished population of Career Service employees due to the governor’s initiatives to downsize, privatize, outsource, and reclassify. In December 1999 there were 110,952 Career Service employees; in December 2004 there were 85,809.(84, 85)

Finally, removing just cause protection from public employees reduces access to information about government’s managerial behavior in ways Kafka readers would admire. On January 6, 2005, the Tallahassee Democrat reported that the governor fired the secretary of the Department of Elder Affairs, an at-will employee, after a “quick, secretive investigation into allegations of sexual harassment.” Without warning, the secretary was ordered not to return to his office, to turn in his keys, and not to talk to anyone. He was informed that others would pack up his personal belong ings. He was not told what the allegations were or who made them. No investigative report or witness statements were furnished to him (or to the reporter who requested them) because “nothing in the investigation was written down.”(87) Career service employees receive notice of the allegations against them and an opportunity to refute them, but at-will employees receive only a one- or two-sentence letter stating, “Your services are no longer needed.” Undoubtedly, many employees are guilty and know exactly what they did, but some are innocent (experience proves that mistakes happen) and some are not as guilty as it seems (e.g., supervisors allowed other employees to do the same thing without pun ishing them). These unfortunate employees have nothing but smoke and fog to challenge. And in the public eye, as stories like these become more common, state government is gaining a reputation for being a secretive, unfair, and unkind employer.

### CBR PIC---Restore CBAs

#### Restoring CBAs links to every disad---they include the right to form a union, which causes lobbying

### CBR PIC---Worker Councils

#### Worker councils ALSO links to the disad---just a new name for unions, but they can lobby too

#### AND doesn’t solve---workers only trust unions because they know they have the win rates and resources historically, not NEW councils

## Lobbying DA

### Lobbying DA---2AC

#### Perm: do both---the counterplan passes AI regs, which overwhelms any effect unions have

#### No uniqueness---unions can lobby now, even without CBRs---even successfully got the House to pass the plan

#### Even without collective bargaining, meet-and-confer unions trigger all of their impacts

Freeman & Han 12 [Richard B. Freeman, Department of Economics, Harvard University & NBER; Eunice S. **Han** Department of Economics, Harvard University, “Public Sector Unionism without Collective Bargaining” December 2012, AEA Meetings, https://dash.harvard.edu/server/api/core/bitstreams/7312037d-2a9d-6bd4-e053-0100007fdf3b/content]

There are several mechanisms through which unions exert pressure on employers. They lobby legislators or other elected bodies. They contribute money and volunteer in campaigns to elect the candidates favorable to their members. They also provide education, legal assistance to members facing job-related problems, and advice independent of employers. The SASS data set for teachers contains information on one of these channels. The survey asks school districts whether they have collective bargaining or “meet-and-confer” agreements with teachers unions. Before states enacted laws mandating or permitting collective bargaining in the public sector in the 1970s, meet-and-confer was the primary way for public sector unions to represent their members’ interests to employers. During meet-and-confer, the union and management exchange views and discuss proposals, which can lead to an agreement that is likely to affect outcomes even absent a legally binding collective bargaining contract. In the states that prohibit public sector bargaining, meet-and-confer is the only agreement option available to employers and employees. In other states, employers and employees can choose a meet-and-confer agreement instead of a bargaining contract.

#### Congress will never regulate but states do it inevitably---assumes Trump’s XO. Plus, regulatory uncertainty thumps

Pattison-Gordon 25 [Jule Pattison-Gordon, senior staff writer for Governing. Jule previously was a writer for Government Technology, PYMNTS and The Bay State Banner and holds a B.A. in creative writing from Carnegie Mellon, “States Plan to Continue Regulating AI, Despite Trump’s Order,” 12-16-2025, https://www.governing.com/artificial-intelligence/states-plan-to-continue-regulating-ai-despite-trumps-order]

After President Donald Trump last week signed an executive order targeting state AI laws, officials in several states have said they plan to stay the course and regulate the new technology as they see fit.

Last week’s executive order promises legal and financial repercussions for states with “onerous and excessive” regulations, and calls for Congress to create a light-touch federal AI policy that pre-empts stronger state laws. Much remains uncertain — including which laws will be targeted and whether Congress will actually take up Trump’s call to pass a law.

AI regulations have been a hot area for states, as the technology evolves and spreads quickly. In 2025 alone 46 states passed 159 AI laws. These laws run the gamut; they’re aimed at everything from regulating AI chatbots to requiring disclosure of AI use in political ads, and more.

The federal government, in turn, has repeatedly considered halting state laws. Congress considered then rejected adding a 10-year moratorium on state AI laws to the One Big Beautiful Bill Act, and recently opted against adding an AI pre-emption provision to the National Defense Authorization Act (NDAA). The White House’s July AI Action Plan called for finding ways to withhold funding from states with burdensome AI regulations.

Last week’s executive order says today’s state-by-state approach to regulation leads to a difficult regulatory landscape for companies. It also asserts that some state AI laws are infringing on interstate commerce or “requiring entities to embed ideological bias within models.”

“We remain in the earliest days of this technological revolution and are in a race with adversaries for supremacy within it,” the order says. “To win, United States AI companies must be free to innovate without cumbersome regulation.”

Unlike earlier attempts to simply stop states from enforcing AI laws, this executive order intends to come up with some sort of federal policy to replace them.

Questions of Authority

Some experts believe state AI laws have indeed gone too far.

Regulations that affect how companies train, evaluate and deploy their AI models essentially set the bar for the entire country, because companies don’t have the resources to tailor their products to each and every state, says Kevin Frazier, AI Innovation and Law Fellow at the University of Texas at Austin School of Law. The executive order reminds states that they can pass AI laws, so long as they stay within the appropriate bounds, Frazier says.

“While it may be frustrating for many Americans that Congress has yet to dictate a clear national framework for governing AI, the fact of the matter is that no state has the authority to regulate as if they’re stepping into the shoes of Congress,” Frazier says.

But Colorado state Rep. Brianna Titone says it’s the executive order that violates the separation of powers. Only Congress, not the president, has the right to pre-empt state laws.

“States have rights to put policies in place that we feel are in the best interest of our constituents. The Constitution allows that … no executive order can legally stop us from doing that, and it will be challenged in court,” Titone says.

The National Conference of State Legislatures lodged its own stance against federal pre-emption in November, stating that it “strongly opposes any effort to override state-level artificial intelligence laws whether through executive action or legislation.” Thirty-six attorneys general previously sent a letter to Congress protesting against including a pre-emption measure in the NDAA, as did 280 state lawmakers.

States Keep Regulating

California Gov. Gavin Newsom, a Democrat, called the executive order a “con” run by Trump and his federal AI adviser, saying on X that the order “does little to protect innovation or the interests of Americans. California will continue building a nation-leading innovation economy while implementing common sense safeguards.”

New York state Assemblymember Alex Bores responded to announcements that Trump planned to sign the executive order by saying that this shows that “Big Tech billionaires are the ones who are really in charge,” and that “states like New York must fight back to create a future that works for everyone.”

Bores co-sponsored a state policy that requires creators of powerful AI models to make safety plans and report major security incidents. An AI company-backed super PAC is working to unseat Bores in next year’s midterms.

Florida Gov. Ron DeSantis, a Republican, has introduced his own slate of AI safety regulations and said he believes these aren’t the kind of laws targeted by the executive order. Even if the federal government brought a legal challenge, he believes the laws would survive.

“Even reading it very broadly, I think the stuff we’re doing is going to be very consistent [with the executive order],” DeSantis said. “But irrespective, clearly, we have a right to do this.”

Spotlight on Colorado

The executive order explicitly takes aim at the to-be-implemented Colorado AI Act. This policy aims to protect consumers from discrimination when AI systems are used to make decisions about their access to health care, employment and other important areas.

Trump’s order highlights the law as an example of something that could “embed ideological bias” in AI models, in this case by potentially causing AI systems “to produce false results in order to avoid a ‘differential treatment or impact’ on protected groups.” In a July executive order, Trump claimed that AI designed with diversity, equity and inclusion principles in mind skew outcomes and engage in “the suppression or distortion of factual information about race or sex,” such as showing an image of a historical figure where the race or sex is inaccurate. But bill sponsor Titone says AI systems have long been known to hallucinate regardless of developers’ efforts to prevent discrimination.

“You already have a lot of hallucinations happening, and that’s the whole reason why that discrimination is likely occurring to begin with,” Titone says.

Could the Order Help or Hurt Innovation?

Some industry voices like the Security Industry Association — a global trade group for cybersecurity companies and other security solutions providers — praised the order.

“It is important to ensure that we don’t stifle innovation by forcing businesses small and large to navigate a hodgepodge of inconsistent state measures like we have seen proposed,” said Jake Parker, senior director of government relations, in an emailed statement. “When it comes to potentially harmful uses of AI, any new laws should be narrowly tailored to address specific use cases; however, overly broad state measures could alter the consistency and predictability of the U.S. regulatory environment.”

Some, however, say the executive order could backfire. Existing research suggests that “what really harms innovation is regulatory uncertainty, rather than more complicated compliance regimes,” says Scott Babwah Brennen, director of New York University’s Center on Technology Policy. The order creates plenty of uncertainty, including around which state laws will face and withstand legal challenge and whether the executive order itself will withstand legal challenge.

It also remains to be seen what the recommended federal framework will be, and how Congress will respond.

The executive order gives a few guideposts about what Trump would like to see. For one, the order suggest that Congress’ eventual federal AI policy should not pre-empt certain kinds of state laws: those regarding child safety protections, data center infrastructure, and state government use and procurement of AI. Secondly, the framework should “ensure that children are protected, censorship is prevented, copyrights are respected and communities are safeguarded.”

Reaching unified, federal laws on AI would make a lot of sense, Babwah Brennen says, but “pre-empting state laws and saying, we’re going to do something at some point, that we don’t know when that is or what it will look like — that is more concerning.”

#### AI lobbying is being done by tech companies and lobbying firms---unions are a drop in the bucket

\*Miller 25 [Gabby Miller, tech reporter at POLITICO, “Data centers have a political problem — and Big Tech wants to fix it,” 12-17-2025, https://www.politico.com/news/2025/12/17/data-centers-have-a-political-problem-and-big-tech-wants-to-fix-it-00693695]

Tech companies and lobbyists are investing millions of dollars to tackle a new political problem for the industry: Data centers, the lifeblood of the growing artificial intelligence economy, are becoming toxic with voters.

Alarmed by elections that candidates won by campaigning against new data centers, the industry is taking out ads and funding campaigns to flip the narrative and put data centers in a positive light — spinning them as job creators and economic drivers rather than resource-hungry land hogs.

The new campaigns mark a sharp change for an industry that has long relied on tech’s image as an engine of growth and development. They signal how concerned the tech sector is becoming about data centers in the 2026 midterm elections.

A new AI trade group is distributing talking points to members of Congress and organizing local data center field trips to better pitch voters on their value. Another trade association, the Data Center Coalition (DCC), nearly tripled its lobbying spend in the third quarter of this year from the previous quarter, according to U.S. lobbying disclosures.

The social media giant Meta, with billions invested in its own fleet of data centers from Stanton Springs, Georgia, to Richland Parish, Louisiana, has been running a multimillion-dollar ad campaign depicting data centers as a boon to agricultural towns in Iowa and New Mexico. It has spent at least $5 million nationally in the past month on TV ads plugging Meta’s $600 billion pledged investment in tech infrastructure and jobs.

“There’s a very bad connotation around data centers. And this is something that, frankly, the data center industry needs to figure out,” said Caleb Max, president and CEO of the National Artificial Intelligence Association (NAIA), a new trade group established in January to accelerate AI infrastructure development.

November’s election results were bleak for the companies that need data centers to thrive. Abigail Spanberger in Virginia and Mikie Sherrill in New Jersey both won governor’s races in part by campaigning to force data center operators in their states to make upfront payments to upgrade the aging electrical grid.

The issue is likely to grow more acute: The number of data centers is expected to grow by more than a third within the next five years, and will account for as much as 21 percent of global energy demand by 2030 — far higher than the 1 to 2 percent of energy demand in 2024.

Since this summer, NAIA has been making the rounds to offices of House members from critical states such as Georgia, Ohio and Texas to craft talking points on the benefits of data centers, Max told POLITICO. “What’s the positive pro-data center campaign message for elected officials, for businesses, for current lawmakers who are going to be up for reelection in 2026?”

The issue is turning local voters against the national figures trying to lobby for the industry: Last week, the city council of Chandler, Arizona, rejected a plan for a massive new data center backed by Meta, Microsoft and former Sen. Kyrsten Sinema (I-Ariz.), who had portrayed it as a Trump goal.

The industry is hitting back on multiple fronts. Meta’s 30-second TV spots, featuring small-town imagery of farming equipment and mom-and-pop diners, have been aired in D.C. and nine state capitals — suggesting that policymakers might be Meta’s real target audience, rather than the rural Americans impacted by these energy-hungry server hubs. Meta did not respond to POLITICO’s request for comment.

NAIA is planning to expand its congressional campaign next year into a tour series open to Capitol Hill staff and policymakers, taking them to see the inner workings of massive server farms humming along in their districts.

#### Schedule F chills AI innovation---government controls the internal link to modernization efforts.

Nihil 25 [Caroline Nihill; BA in Media Arts from UNC, reporter for FedScoop, 1-27-2025, "Government won’t ‘get the same quality of folks’ for tech work under Trump policy, experts say", FedScoop, https://fedscoop.com/opm-guidance-schedule-policy-career-schedule-f-trump-order/]

The Trump administration’s move to resurrect the federal worker classification formerly known as Schedule F is raising alarm bells among sources familiar with the inner workings of the Office of Personnel Management, particularly with regard to the chilling effect it could have on the recruitment of tech talent.

In an executive order issued last week and guidance from OPM released Monday, the Trump administration outlined a revitalization of Schedule F, now referred to as Schedule Policy/Career, which turns civil servants who are in policy-influencing decisions into “at-will” employees. Monday’s guidance echoes President Donald Trump’s executive order by establishing that OPM will provide additional categories of positions that executive departments and agencies should “consider recommending for Schedule Policy/Career.”

An OPM final rule in April that looked to reinforce protections and merit system principles for career civil servants was partially nullified in the new guidance. Additionally, the guidance made clear that the executive order “broadly directs OPM to rescind these regulatory amendments.”

One source familiar with the inner workings of OPM said in an interview with FedScoop that it’s possible that the “stability” of government work and “the mission” drive that comes with it all “could be impacted.”

“It’d be a position that pays less without all these benefits,” the source continued. “I think there’s a clear potential connection between this policy and a reduction in appeal for a job like that.”

For workers with IT, cybersecurity, artificial intelligence, or other technology-related backgrounds, the impact could be especially pronounced.

“As we’ve seen, the tech world has been quite interested in the federal government over the past few weeks and months,” the source said. “Unclear how these jobs will develop, whether they’re going to be retained or whether they’re going to be contracted out.”

Recruitment

Without a mission drive or the stability of a federal job, the source said it’s likely that it will be more challenging for the federal government to recruit the best talent into agency work.

“The types of people who will be coming in may not be the best of the pool, because you’re going to have to compromise by saying … ‘jump into this for lower pay,’” the source said. “You’re not going to get the same quality of folks if you don’t have … the mission drive or the sense of a nonpartisan, stable workplace.”

A different source familiar with the inner workings of OPM stated clearly that the Schedule Policy/Career directive is another avenue where the Trump administration could take the broadest view of flexibilities and authorities.

The source directed attention to the federal government’s recent efforts to hire chief artificial intelligence officers under the Biden administration’s AI executive order. That could fit into the new schedule determination for civil servants.

Jenny Mattingley, Partnership for Public Service’s vice president of government affairs, said the language in Trump’s executive order makes it unclear to whom the classification directly applies. But the creation of Schedule Policy/Career, she said, is clearly a way to create more politically appointed workers.

“We pointed out a number of times that when you start removing protections, you’re basically creating another category of political appointees who come and go at the pleasure of the president,” Mattingley said.

She continued: “It makes it really hard to focus on long term. When you think about modernization efforts, when you think about trying to scale and use AI, those are long term, [and] they need longer-term investments. … Creating more of a swirl with people turning over does impact, I think, technologists in the work they’re trying to do, because it’s not a one-year project, necessarily.”

### Lobbying DA---N/L---AT: Paslaski

#### Paslaski is aff:

#### 1---It’s about tech unions bargaining over AI in private CBAs---the aff doesn’t empower them.

MSU is yellow for that argument.

#### 2---Unions outside of the tech industry and in the EU have already started regulating AI---that thumps the internal link.

MSU is blue for that argument.

#### 3---SQ solves---companies will refuse to negotiate over AI.

MSU is pink for that argument.

1NC Paslaski 24 – M.A. in Comparative and International Social Policy from the University of York.

Sophia Paslaski, “Organized Labor Is Key to Governing Big Tech,” Lawfare, 11-18-2024, https://www.lawfaremedia.org/article/organized-labor-is-key-to-governing-big-tech

Organized tech workers can be a powerful force for social good if empowered to advocate on the public’s behalf. Tech unions’ power can extend beyond the confines of the workplace and the collective bargaining agreement and effect much-needed digital social change in an era rife with misinformation and political upheaval. In fact, unionized workers at Big Tech companies may have the best shot at shaping the directions these companies take for the social and technological good.

Unions outside of the tech industry have already succeeded in establishing best practices with AI in other industries. Last year, after a historic months-long strike, the Writers Guild of America voted to approve a new MBA (minimum basic agreement, the entertainment-industry equivalent of the CBA) that included unprecedented terms governing the use of genAI by both employers and employees in written works. The agreement addressed writers’ concerns that employers may try to usurp their jobs with genAI or otherwise undervalue work created with genAI’s help, laying out terms to prevent either of these fates. It also took up the issue of copyright infringement in the development of genAI, reserving for the guild the right to assert that the use of writers’ works to train genAI systems is copyright infringement. Lawmakers, meanwhile, have largely left the regulation of genAI in creative industries untouched; the U.S. Copyright Office released the first part of a multipart report on genAI and copyright in July of this year, roughly 9 months after the WGA already settled terms on the issue.

Within the tech ecosystem, we have already seen what organized tech workers can do. Sam Altman and OpenAI aside, workers at Google parent company Alphabet have organized several times to influence their employer’s large-scale business decisions. Before unionizing as the Alphabet Workers Union (AWU) in 2021, workers at Google organized on several occasions to influence the company’s decision-making on ethical grounds, most notably in 2018 when they successfully petitioned the company not to renew a contract with the Department of Defense that would have forced workers to develop AI for use in warfare. Now organized with more than 1,400 members, AWU seeks more than pay raises and better benefits. A banner on the union’s website notes that “Google’s motto used to be ‘Don’t Be Evil,’” and AWU is “working to make sure they live up to that and more.”

AWU’s mission statement focuses on holding Alphabet accountable to its workforce not only in providing a safe and egalitarian workplace for all but also in respecting its workers’ human rights values and concerns as Alphabet navigates its role in a digital world. AWU workers are seeking a seat at the table not just when the discussion surrounds their own salaries and working conditions but also when it considers what projects Alphabet will take on, what governments Alphabet will work with, what products Alphabet will produce, and more.

Regulating Big Tech Through Big Tech Unions

In the age of deepfakes, generative AI, and large-scale data breaches and privacy violations, we need this kind of political power more than ever. While genAI offers exciting new tools for augmenting human work and creativity, its ability to mimic reality poses yet another threat to truth in American democracy. Recall the “liar’s dividend” and Trump’s fluid relationship with genAI, crowd sizes, and the truth. We also saw this play out with the fake Biden robocall incident during the New Hampshire primaries earlier this year, in which AI was used to impersonate Biden and discourage Democrats from voting.

While the EU has made swift strides to confront such political misinformation in the genAI age with its Regulation on the Transparency and Targeting of Political Advertising and its AI Act, the U.S. lacks such guardrails. In America, unlike the EU, there is no requirement that users be informed when content they encounter online is a political advertisement or when AI has been used for targeted advertising. Nor are American users protected from AI systems that use “subliminal techniques,” such as deepfakes or personalized advertising, to deceive them or to manipulate their behavior and decision-making—explicitly prohibited under the AI Act Article 5(1)(a). Without these guardrails, and with figures like Trump increasingly treating truth as relative, it hardly seemed a stretch to conclude that Big Tech’s unchecked development could leave American democracy vulnerable this election.

AWU and other tech worker unions could be the check on Big Tech’s AI avalanche that American lawmakers and regulators have struggled to create. In addition to influencing Big Tech to make changes like those outlined in the regulation on political advertising and the AI Act from the inside, tech workers can go a step further by influencing the technology itself. One approach to curtailing AI-driven misinformation is to add “watermarks” to the metadata of all AI-generated content so that users who encounter that content online will know off the bat that it’s not real or human-made. Metadata watermarks would have made it clear from the start that those “Swifties for Trump” images were AI generated; on the flip side, the lack of a metadata watermark on the photo of the Harris crowds would have proved its authenticity before Trump could even begin to cast doubt. In other words, metadata watermarks can thwart the liar’s dividend phenomenon.

For this approach to be successful, however, companies across Silicon Valley would have to work together to agree on common practices for implementing these watermarks across all genAI platforms. Tech unions are ideally positioned to lead this effort: Communicating and coordinating with workers across companies to establish industry best practices is precisely what unions are designed to do. In fact, it is what unions have excelled at doing for a century—the proof, again, is in OSHA, the FLSA, the FMLA, the NLRA, and beyond. We need the voices of tech workers if we’re going to address these dangers properly, and organized labor excels at getting workers’ voices at the table to effect large-scale change.

This tech is the bread and butter of the tech workers who make it. You’d be hard pressed to find a tech worker in the U.S. who hasn’t heard of the General Data Protection Regulation in some measure; all the major, and many of the minor, players in the industry must navigate the EU’s privacy laws if they want to stay in business. And while us common folk might have a general idea of what genAI is, it takes a techie to explain in even the simplest terms how it works and what threats it poses.

If users want comprehensive federal data privacy law, regulations on genAI, and accountability in Big Tech, then unionized tech workers are key. The NLRA gives workers a unique iota of influence over their employers. And when your employer is a Silicon Valley behemoth like Meta, Alphabet, or X, a little bit of influence can go a long way.

Working Within (and Without) the NLRA

There are challenges to achieving these goals through unionization, of course, but they are surmountable. Under the NLRA, employers have the right to refuse to bargain over most “permissive” subjects of bargaining—that is, topics that do not concern wages, hours, or terms and conditions of employment. Likely, Big Tech will decline attempts to bargain over data privacy, responsible genAI, and other controversial elements of tech as not mandatory subjects of bargaining under NLRA § 8(d). But the phrase “terms and conditions of employment” in that section can do a lot of work. Broadly, the Supreme Court says mandatory subjects of bargaining are those subjects that “settle an aspect of the relationship between the employer and employees” (Allied Chemical & Alkali Workers of America v. Pittsburgh Plate Glass). While the Act does not compel bargaining over decisions at the “core of entrepreneurial control,” as put by the court in Fibreboard v. NLRB in 1964, courts have enforced mandatory bargaining over issues as far afield as relocating jobs (Dubuque, a.k.a. United Food and Commercial Workers v. NLRB), pulling out of a contract with a particular client (First Nat’l Maintenance Corp v. NLRB), and even prices for cafeteria and vending machine food in the workplace (Ford Motor Co. v. NLRB).

So Meta workers, for example, may not be able to demand a complete data privacy revolution for all Facebook users establishing clear prohibitions on Facebook’s ability to mine and sell personal data to third parties; but likely, they can at least demand data privacy for themselves in the workplace. And if the Meta union has data privacy at work, then the Microsoft union will want data privacy at work. And if the Meta union and the Microsoft union have data privacy at work, then the Apple union will want data privacy at work, and so on—until data privacy for workers becomes a standard issue in tech union collective bargaining agreements, in other industry CBAs, in political and legislative discourse, and finally, one day, in data privacy laws.

Even if Big Tech refuses to talk about issues like data privacy and AI best practices at the bargaining table, unions can harness the knowledge (and the CBA terms) of their tech worker members to lobby Congress for change directly. Unions do this all the time, in fact; lobbying for policies that benefit both their members and the public is a key component of the vast portfolio of internal and external advocacy that unions do. A prime example from the tech world is the Communications Workers of America’s (CWA’s) nearly 20-year efforts to promote high-speed internet access for all through its Speed Matters campaign. CWA leaders have repeatedly testified before Congress on the need for widespread high-speed internet access in every home in the U.S., the poorest and most rural included. In February 2021, amid the coronavirus pandemic, then-CWA President Christopher Shelton testified before the House Subcommittee on Communications and Technology asking Congress to pass legislation investing $80 billion in infrastructure for high-speed internet access so that kids wouldn’t have to attend remote schooling from a Wi-Fi connection in a McDonald’s parking lot. In November 2021, Congress passed the Bipartisan Infrastructure Deal (aka the Infrastructure Investment and Jobs Act), which allocated $65 billion for high-speed internet infrastructure, creating jobs for CWA members and expanding broadband to communities in need.

Besides which, not all tech unions have to follow traditional NLRA rules; it’s high time those rules were updated for the modern workplace anyway. Recognizing this, the Alphabet Workers Union formed explicitly as a nontraditional union that has not sought, and does not intend to seek, official certification as a union under the NLRA. The downside of this is that AWU does not have a legal right to collective bargaining and, thus, will not be negotiating an enforceable CBA with Alphabet. The upside, however, is that AWU is free to organize and bargain on its own terms—beyond the confines of the NLRA and its mandatory and permissive subjects of bargaining—and effect much-needed change not just at Alphabet and Google, but on the internet writ large. AWU, unconstrained by the traditional scope of bargaining, could use its organizing power to influence its employer in ways lawmakers, regulators, and traditional unions cannot.

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Once the workers have included data privacy and responsible AI in agreements, the seed is planted. CBAs are public documents—anyone can find out what these hypothetical unionized tech workers manage to extract from their employers. Both formal and informal tech unions could use their victories to drive lobbying and policymaking at the national level—just as other unions have done for workers’ comp, OSHA, FLSA, FMLA, and the NLRA before.

### Lobbying DA---N/IL---AT: Huddleston

#### No internal link---Huddleston is not about AI (?!)---it’s about social media companies facing liability if Section 230 is overturned. The “lost generation” of innovation they cite is about a reduction in apps added to smartphone app stores.

< FOR REFERENCE, MSU is YELLOW >

1NC Huddleston 24 – Senior Fellow in Technology Policy at the CATO Institute, J.D. from the University of Alabama School of Law.

Jennifer Huddleston, “AI and Privacy Rules Meant for Big Tech Could Hurt Small Businesses Most,” CATO Institute, 05-20-2024, https://www.cato.org/commentary/ai-privacy-rules-meant-big-tech-could-hurt-small-businesses-most

As lawmakers and regulators in the U.S. consider policy born of their Big Tech concerns such as data privacy and artificial intelligence, they should carefully consider how such changes could end up trampling the small and midsize businesses that drive innovation and competition.

While policymakers may have Google and Facebook in mind, the actual policies could unintentionally create new regulatory burdens that could deter investment in smaller businesses and prevent new companies from emerging. For example, calls to end Section 230 — part of a 1996 law that protects internet companies from some lawsuits — portray it as a handout to Big Tech, when in practice it would mean new social media companies would face liability early on, making it more difficult to compete and discouraging them from carrying user-generated content that provides new opportunities or ways of connecting.

In this way, regulations that policymakers may think target Big Tech could ultimately serve the biggest companies by placing increasing burdens on potential competitors.

In the U.S., the government has generally taken a hands-off approach to the technology industry, keeping barriers to entry low and fostering entrepreneurship. Today’s leading companies were once small startups, and regulators’ light touch allowed them to flourish, creating benefits for consumers that could not have been predicted. The economy and consumers need this approach to continue so today’s startups have a chance as well.

We can see this theory play out in the real world. Europe has taken a significantly different approach to technology policy, which has stifled small businesses. For example, after a European privacy law, the General Data Protection Regulation, went into effect in 2018, investment in small and startup businesses decreased, largely out of concerns that small companies would struggle to comply with the new rules.

In the short run, such investment decreased by 36%, and large players gained market share in the advertising sector. One effect of the regulation, according to a National Bureau of Economic Research study, is a “lost generation” of innovation; smartphone app stores have added nearly one-third fewer applications.

To protect consumers from exploitation by Big Tech, some policymakers in the U.S. have been flirting with a more European approach. However, many proposed policy changes would increase compliance costs or liability burdens on newer and smaller players that might not be able to afford them. This includes state-level data privacy policy that risks creating a burdensome and costly patchwork as well as calls by senators to impose AI licensing.

Beyond issues that have compliance costs such as data privacy and AI, some critics of Big Tech have called for antitrust enforcement to protect small businesses from the “kill zone” — the window of time in which a growing startup is bought by a big company before it can become a rival to that company. These critics also call for changes that would potentially limit mergers or acquisitions.

But this approach creates a false dichotomy between “big” and “small” business that misunderstands the way the startup ecosystem works. This strategy could hurt small businesses in many ways. Some may want to grow into challengers, but others were created with the hope of being sold; investors in startups are often looking for the right moment for the company to be acquired so they can recoup their money. That’s valid too; this cycle leads to more investment and more innovation.

Blocking mergers and acquisitions could force small businesses to stay small, or, worse yet, it could push them out of business. Antitrust rules that are preoccupied with curbing Big Tech would end up hurting the industry, the economy and consumers.

We saw this play out recently when regulators blocked Amazon’s acquisition of IRobot. The result is most likely not renewed competition but that consumers will have fewer options as IRobot faces a dire financial situation and lays off workers. If further burdens to mergers and acquisitions and a shift away from the focus on consumers continue, this could become a more frequent phenomenon, to the detriment of both small businesses and consumers.

Small businesses and startups play an important role in the tech ecosystem and have flourished under the light touch of U.S. regulators. After decades of experience, allowing policy to be shaped by today’s enmity toward Big Tech would be a dangerous swerve and could have unintended consequences for startups and consumers.

#### It’s talking about data privacy regs being bad for small businesses---which is what the uniqueness counterplan does.

### Lobbying DA---!---AT: US-China AI Race

#### AI race is a myth and “winning” is impossible---the US is far ahead in some areas (computing power) and far behind in others (embodied AI), and the gap is ever-changing

Kahl 26 [Colin H. Kahl, Director and Steven C. Hazy Senior Fellow at Stanford University’s Freeman Spogli Institute for International Studies, “The Myth of the AI Race,” 1-12-2026, https://www.foreignaffairs.com/united-states/myth-ai-race?utm\_medium=newsletters&utm\_source=fatoday&utm\_campaign=How%20Greenland%20Falls&utm\_content=20260112&utm\_term=L]

In July, the Trump administration released an artificial intelligence action plan titled “Winning the AI Race,” which framed global competition over AI in stark terms: whichever country achieves dominance in the technology will reap overwhelming economic, military, and geopolitical advantages. As it did during the Cold War with the space race or the nuclear buildup, the U.S. government is now treating AI as a contest with a single finish line and a single victor.

But that premise is misleading. The United States and China, the world’s two AI superpowers, are not converging on the same path to AI leadership, nor are they competing across a single dimension. Instead, the AI competition is fragmenting across many domains, including the development of the most advanced large language and multimodal models; control over computing infrastructure such as data centers and top-of-the-line chips used to train and run models; influence over which technologies and standards are used throughout the world; and integration of AI into physical systems such as robots, factories, vehicles, and military platforms. Having an edge in one area does not automatically translate into an advantage in the others. As a result, it is plausible that Washington and Beijing could each emerge as leaders in different parts of the AI ecosystem rather than one side decisively outpacing the other across the board.

This outcome is even more likely in the wake of the Trump administration’s decision to lift some export controls on advanced AI chips to China. In December, President Donald Trump announced that the U.S. government would permit the sale of Nvidia’s H200—the company’s second most powerful AI chip—to approved customers in China. The decision reflects a belief that allowing China access to “good enough” computing power can generate revenue for U.S. companies and reinforce American technological standards without risking the United States’ edge in AI innovation. But the danger of selling high-end U.S. chips to China is that it could lead to a more divided AI landscape—one in which U.S. firms maintain a lead in providing advanced AI-based services, but Chinese companies gain ground in disseminating their slightly less advanced but cheaper technology around the world and applying AI to machines, factories, and infrastructure.

The most plausible outcome of the AI race, then, may not be decisive American or Chinese victory, but something more complex and more consequential: an asymmetric form of AI bipolarity. In a world without a clear winner, the United States will need to adapt to a longer-term competition while engaging China to manage the shared risks that advanced AI is likely to produce.

PLAYING CATCH-UP

The United States still enjoys a clear advantage at the cutting edge of AI. The world’s most capable large language models and multimodal systems are produced by U.S. firms such as OpenAI, Google, and Anthropic. These models demonstrate superior reasoning and tool-use capabilities—such as autonomously writing and debugging code, querying live databases, and analyzing spreadsheets—and anchor the most commercially valuable AI services, including AI assistants that help manage cloud platforms, productivity software, and customer service.

But the United States’ lead at the frontier is narrower than it once appeared. Chinese firms including DeepSeek, Alibaba (through its Qwen models), and Moonshot AI (with its Kimi series) are catching up. For many practical applications, such as drafting text, summarizing and translating documents, writing routine code, or powering customer service chatbots, the difference between the best U.S. models and the best Chinese ones is already marginal.

For now, the United States’ most significant advantage lies not in models but in compute—the quality and quantity of computing resources to train and run AI models. U.S. companies design the world’s most advanced AI chips, primarily through Nvidia, and the United States is far ahead of China in the scale of AI data centers. U.S. firms control roughly 70 percent of global AI compute, whereas Chinese companies control around ten percent. This capacity allows U.S. companies to train larger and more capable models and absorb the enormous computational costs of customers making requests of models in ways that Chinese competitors cannot easily match. U.S. companies, such as Amazon, Google, Meta, and Microsoft, plan to spend trillions of dollars on specialized chips, AI-focused data centers, and the energy infrastructure to power them over the next few years, likely widening the computing power gap between the United States and China, at least in the near term.

Export controls that were enacted during Trump’s first term and dramatically strengthened under the Biden administration reinforced this advantage. Restrictions on advanced AI chips and on semiconductor manufacturing equipment have made it difficult for Chinese firms to acquire or produce sufficient quantities of leading-edge chips for AI, which has slowed China’s ability to create the computing power required to train and deploy the most advanced models.

China has still managed to make some decent chips. Huawei’s Ascend 910 series—the best Chinese semiconductors—perform about 60 to 70 percent as well as Nvidia’s H100 or H200 on some AI workloads. But Huawei can make only hundreds of thousands of them, whereas Nvidia currently produces and exports millions of far more capable AI chips each year.

HANDS OFF

China has access to vast quantities of data and deep pools of AI talent. It can also easily and quickly build AI-related infrastructure and generate the energy to power it. Access to computing power, then, remains the single most binding constraint on China’s global AI ambitions—a constraint that the Trump administration just eased with its decision to allow some Chinese firms to buy Nvidia’s H200 chips. Although Chinese companies still won’t have access to Nvidia’s newest Blackwell generation or its forthcoming Rubin line, the H200 remains highly capable. It was released in 2024, is still used in major AI data centers run by U.S. companies, and is about ten times more powerful than the chips that could be sold to China under U.S. President Joe Biden’s export regulations. The Trump administration has hinted that other U.S. chipmakers, including AMD and Intel, might also be permitted to sell advanced chips.

The White House seems to believe that allowing the sale of powerful but not leading-edge chips will generate revenue for U.S. firms that can be put toward research and development while preserving U.S. leadership at the frontier of AI research. The Trump administration also reasons that continued Chinese reliance on U.S.-designed hardware and software—particularly Nvidia’s CUDA platform—will enable the United States to influence programming frameworks, development tools, and data-center architectures used by Chinese AI firms. Another motivation seems to be the conviction that selling chips that outperform China’s domestic alternatives could reduce Beijing’s incentives to speed up indigenous development of advanced AI chips.

The risks of selling H200 chips to China, however, outweigh the benefits. Depending on the number of H200 chips that ultimately reach China and how efficiently they are used, the United States could lose its massive advantage in compute capacity. According to analysis by the Institute for Progress, if the United States exported no advanced chips to China, its compute capacity in 2026 would be more than ten times that of China’s. With aggressive H200 exports, however, the U.S. advantage could dwindle to the single digits—or, under some scenarios, disappear. In other words, with unrestricted H200 exports, Chinese AI labs could build supercomputers approaching the performance of top U.S. systems, albeit at a higher cost.

Just as important, exporting H200s is unlikely to slow China’s efforts at making its own advanced chips in the long run. China’s domestic chip production is constrained by manufacturing bottlenecks, not by lack of demand. Since Trump’s December announcement, Chinese firms have already placed orders for more than two million H200s—far exceeding what Huawei or other Chinese companies can currently produce. As a result, U.S. chip sales are likely to add to, rather than substitute for, China’s total available compute. Moreover, there are some signs that Beijing may require potential buyers of the H200 chips to justify why domestic alternatives will not suffice, suggesting that Chinese authorities are prepared to maintain artificial demand for homegrown chips through procurement mandates and restrictions on foreign hardware in sensitive sectors.

The decision to export H200 chips to China also risks eroding the broader export controls that the United States has negotiated with its allies. In 2019, the Netherlands—home to ASML, the world’s leading manufacturer of advanced lithography equipment—agreed to restrict exports of its most sophisticated tools to China, recognizing that these machines are essential for producing leading-edge semiconductors. Dutch officials are now asking why they should continue to limit exports of critical manufacturing equipment when U.S. firms are allowed to sell the finished chips produced using the same equipment. If the Netherlands or other key allies, such as Japan and South Korea, were to loosen their export controls, China’s ability to domestically produce high-end chips could improve sharply—eventually undercutting not only Nvidia but also U.S. data center companies that rely on sustained hardware advantages.

The implications of the Trump administration’s export reversal, however, extend beyond China’s domestic market. Chinese firms such as Alibaba, ByteDance, and Tencent are increasingly building and operating—or partnering to expand—data center infrastructure in Africa, Latin America, the Middle East, and Southeast Asia. Even if Beijing restricts H200 imports for domestic use, these companies could deploy U.S.-designed chips overseas, offering subsidized, vertically integrated AI infrastructure bundled with power, connectivity, and talent programs.

China is already skilled at disseminating its technology to other countries. U.S. labs typically rely on proprietary, closed-weight models that are accessed through cloud services. They are powerful and easy to use but tightly controlled by their developers and difficult for customers to modify. Chinese firms, by contrast, have embraced open-weight models, which are appealing because they are cheaper, can be more easily tailored to specific industries or languages, and can be run through local rather than U.S.-based cloud providers—which, in turn, reduces concerns about data localization and foreign dependence. Although these open-weight models are generally less reliable than leading U.S. systems, China’s approach embeds its AI in global AI ecosystems.

The Trump administration is keen to promote the global diffusion of an American AI technology stack in which U.S. data centers, chips, and models are bundled together and the world remains dependent on U.S. hardware, software, and services. But in the wake of the H200 decision, Chinese firms are likely to build data centers in foreign countries using advanced U.S. chips running attractive Chinese open-weight models. This is not an American AI stack; it is a U.S.-enabled Chinese one.

AI, ROBOT

Even if the United States continues to lead at the AI frontier—and even if U.S. cloud providers remain the backbone of global AI services—it may not be sufficient to beat China in the AI race. This is because beyond models, compute, and diffusion lies another dimension of the race that may prove decisive: embodied AI. Unlike models that generate text or images, embodied AI systems integrate sensing, perception, control, and decision-making to operate in physical environments. They underpin industrial robots, autonomous vehicles, and intelligent machines that learn by interacting with the world.

Here, China may be particularly well positioned. Beijing has explicitly elevated embodied AI as a national priority. Central government plans have identified intelligent manufacturing and humanoid robotics as critical emerging industries, while local governments have offered grants, tax incentives, subsidized land, and preferential procurement to firms deploying AI-enabled automation. Beijing, Guangdong, Hubei, Shanghai, and Zhejiang are piloting large-scale programs focused on humanoid robotics and industrial automation, often pairing research institutes with manufacturing partners to accelerate real-world testing and deployment.

These efforts are already translating into productivity gains. AI-enabled automation has helped Chinese factories reduce defect rates, shorten production cycles, and operate continuously with fewer workers. According to the International Federation of Robotics, China’s stock of industrial robots exceeded two million in 2024. That year, Chinese factories installed roughly 300,000 new robots—more than the rest of the world combined—whereas U.S. factories put in place just 34,000. Some Chinese factories for electronics and electric cars are already operating with minimal human supervision.

In the years to come, the benefits of AI will not only depend on making smarter models but also on turning bits into atoms—that is, translating the gains from greater intelligence into economic productivity, industrial competitiveness, and novel military capabilities. All of this hinges on the ability to embed intelligence into machines that act in the real world and shape the real economy—areas in which China is well positioned to dominate.

### Lobbying DA---!---AT: Aschenbrenner

#### Aschenbrenner is wrong. Upsides are wildly overstated. Also answers AGI

Satoh 24 [Sharaku Satoh, Prompt Engineer in AI Research. "AGI: A logical rebuttal for Mr. Leopold Aschenbrenner." https://medium.com/@sharakusatoh/a-logical-rebuttal-for-leopold-aschenbrenner-094340a1bcc3]

Leopold Aschenbrenner’s vision outlines one possible future of technological progress, providing a stimulating and challenging forecast. However, from a realistic perspective, the likelihood of all these predictions coming true is low, given the many uncertainties and challenges involved. From a scientific standpoint, many technological breakthroughs are required, and there is no guarantee that they will all proceed smoothly. Therefore, these predictions should be approached cautiously, and flexible, realistic responses are necessary.

1. Excessive Future Predictions: The article overestimates the pace of technological advancement, suggesting that AGI will be realized by 2027. This prediction lacks solid evidence. Assuming that current AI development rates will continue linearly into the future is unrealistic. Technological progress often faces unforeseen obstacles and setbacks, making such a linear growth model unreliable.
2. Unrealistic Investment Scale: The article assumes that multi-trillion-dollar investments will easily materialize. In reality, achieving such investment levels is highly complex, influenced by overall economic trends, investor willingness, and political stability. There is no guarantee that all these factors will align smoothly, and there are numerous constraints to consider.
3. Energy Supply Challenges: The prediction that American electricity production will increase by tens of percent is technically and environmentally challenging. The widespread adoption of renewable energy takes time, and existing infrastructure upgrades are necessary. These elements may not progress as smoothly as the article suggests.
4. Overestimation of International Competition: The article predicts that the AGI race will inevitably lead to military conflict between nations, which is overly pessimistic. In reality, there is potential for international cooperation and regulatory frameworks. Technological competition does not necessarily lead to military confrontation, and diplomatic solutions are overlooked.
5. Overconfidence in AI Capabilities: The article holds an overly optimistic view of the capabilities of AGI and superintelligence. Current AI technology is specialized in specific tasks, and achieving general intelligence involves numerous unresolved challenges. Scenarios like “intelligence explosion” are theoretically possible but face significant technical hurdles in practice.

In conclusion, the article is overly optimistic about future technological advancements and their impacts, overlooking many realistic constraints. Therefore, its predictions contain numerous uncertainties, making it unreliable for comprehensive foresight.

## Restrictions K

### Cap K---FW---2AC

#### Framework – the ballot is a referendum on the plan's desirability – links must be causal and unique with a solvent and competitive alternative – anything else unpredictably moots the 1AC, decimating procedural fairness and in-depth clash

#### We DON’T need to win Cap’s sustainable nor desirable---ethics requires assessing causal solvency since all futures, including the alt, risk collapse---only centering flexibility and agency can solve---which only our framework does

---ethics = meliorism, virtue signaling becomes counter-productive when it’s combined with an argument to ignore questions of feasibility and process (which isn’t the same thing as saying all advocacy is virtue signaling nor that all virtue signaling is bad, nor is this the same idea as “capitalist realism”)

---less “must have blueprint” and more “people making don’t need a blueprint args in fact assume an unacknowledged blueprint, and compelling those people to make those assumptions explicit and evaluable is key”

---the bit around “avoid attaching to the hoped-for results of our actions” = not only a conventional “drop in the bucket of subjectivity formation” claim of link defense, but also an impact turn to the portion of their framework that asserts a 1:1 relationship between advocacy in debate and ethical judgment --- the actual argument being made by the author is importantly that even if we lose the “link turn” components of our strategy, the act of advocating it while not actually believing it to be a good idea is what’s actually key to effective praxis for anti-capitalist transition, the ethical flexibility to identify constraints (like political feasibility) on agency (and justice) and take advantage of opportunities as they arise during the process of transition --- inverts you-link-you-lose logic to functionally become you-link-you-win-provided-you-still-win-framework

Albert 24 [Michael J. Albert, Lecturer in Global Environmental Politics in the School of Social and Political Science at the University of Edinburgh, former Lecturer in International Relations at SOAS University of London, PhD Johns Hopkins University, “Conclusion,” Chapter 6, *Navigating the Polycrisis: Mapping the Futures of Capitalism and the Earth*, MIT Press, 2024, ISBN 9780262378260, p.225-241]

Ultimately, we do not know what the future will bring, and there will undoubtedly be numerous surprises. But we cannot proceed headlong into the turbulence of our planetary future without a rough map of where we are headed, the crises we will likely encounter, the forms of problem-shifting that would result from different present and future responses, the opportunities for progressive transformation that will emerge for social justice movements, and the obstacles and dangers these movements would need to overcome. Whether we realize it or not, we all operate with some map of the future, in the sense that we assume particular consequences will flow from our present-day actions.1 Thus, the question is not whether or not we develop a map of possible futures, but whether or not this is done consciously, systematically, and synthetically, taking account of all the most relevant parameters. I do not claim to have accounted for every possible parameter in this book, or exhaustively integrated the ones I do include. My goal has been more modest: to go further than existing approaches toward a synthetic transdisciplinary analysis of the future possibility space. Planetary systems thinking can be considered a meta-theoretical framework that facilitates transdisciplinary synthesis, in this way helping us construct qualitative models of the planetary problematic and its possible futures. In the years to come, as events in the world unfold and our knowledge of the planetary polycrisis advances, many of the specific scenario trajectories I discuss in chapters 4 and 5 will become increasingly dated or obsolete. But the theoretical framework and futures “methodology” presented in this book will remain as relevant as ever. I therefore hope that others will continue to build on, enrich, and refine this book’s map of the future by deepening its theoretical and methodological foundations, updating its scenarios and developing new ones, integrating new parameters, highlighting other feedbacks or more deeply exploring some of the feedbacks I do address (but insufficiently), bringing in other theoretical perspectives, and developing more fine-grained analyses of the possibility space in different states and regions across the world-system.

It is not easy to encapsulate the trajectories we have explored over the past two chapters into a succinct set of scenarios. Collapse, techno-leviathan, and ecosocialism may be the three main attractors that the planetary problematic is pushing the world-system toward, but numerous variations can be imagined for all three—involving many different timelines, parametric tweaks, and geographically uneven combinations. The future possibility space is indeed a messy multiplicity of overwhelming complexity, and to highlight representative scenarios is inherently selective and liable to occlude other potentials. Still, I suggest that we can identify seven main scenarios based on the trajectories explored in the previous chapters. Call them the uneven and combined world-system pathways, since each world-system trajectory will be the outcome of geographically uneven and combined struggles, though I will subsequently refer to them as the WSPs (which is a less-monstrous acronym). Like the SSPs, I call these world-system (rather than world-earth system) pathways to signify that each WSP could in principle be paired with different climate and earth system trajectories (e.g., because of variable assumptions about solar geoengineering, CDR deployment, and earth system feedbacks). But, like the IPCC, I will assume that each one would most likely follow a particular planetary pathway.2 Furthermore, I should emphasize that the WSPs should not be understood as “ends of history” (with the possible exception of breakdown, if it leads to human extinction). Rather, they are more like provisional attractor states for the world-system that would be subject to further evolution over time, and critical transitions between them are possible. For instance, volatile techno-leviathan may eventually shift into neofeudalism, neofeudalism into breakdown, abolitionist ecosocialism into ecomodernist socialism, ecomodernist socialism into one or other variant of techno-leviathan, and so forth. Together these scenarios give us a provisional navigational map of the world-system’s possibility space—one that will need to be updated and modified as we proceed ever-deeper into the future.

A diagram of a diagram

Description automatically generated

THE UNEVEN AND COMBINED WORLD-SYSTEM PATHWAYS

WSP1 (breakdown). Starting with the worst-case collapse scenario, WSP1 tracks closely with what Raskin calls “breakdown.”3 In this scenario, a global collapse trajectory, whether triggered by a near-term fossil stagflation crisis or longer-term convergence of magnifying socioecological crises, inflames ethnonationalist reaction, fuels geopolitical tensions, and intensifies polarization and conflict within and between states. A vicious spiral between socioecological crises, state and nonstate violence, and war, leading to further socioecological breakdown, ensues. This is more likely to occur in a trajectory of slow and incremental technological innovation. But it could also happen in a context of exponential technological breakthroughs—which could be the result of destabilizing innovations in the cyber-nuclear- AI nexus, or the relentless advance and democratization of WMD capabilities (or, perhaps, the emergence of malevolent artificial superintelligence). Existential crises and hardened self/other relations are key to this scenario, since socioecological crises and technological risks would not by themselves lead to breakdown. But by inflaming existential anxieties that get exploited by opportunistic elites to sow division and drum up nationalist passions, and which motivate WMD terrorism by nonstate actors, socioecological crises can indeed trigger vicious spirals that lead to worsening violence, war, and planetary breakdown. If this happens in the course of a neoliberal drift trajectory, then a 3.5°C+ hothouse earth trajectory would likely be in the cards. Eventually, we would witness a world composed of pockets of surviving communities in the upper latitudes, with the human population perhaps numbering in the millions—as James Lovelock imagines in one of his eco-dystopian warnings4—though human extinction is possible over the course of the twenty-second and subsequent centuries. This is not the most likely scenario, but one that cannot be ignored.

WSP2 (neofeudalism). This collapse scenario is similar to Raskin’s “fortress worlds” archetype, though the term neofeudalism gives us a more precise articulation of its geopolitical and economic structure. In this scenario, world-system breakdown—whether resulting from near-term fossil stagflation or longer-term polycrisis amplification—leads to cooperation among global capitalist elites to manage geopolitical tensions and contain the “real and potential rebellion” of surplus humanity.5 But the relentless intensification of cascading polycrises over time, in conjunction with worsening WMD terrorism, leads to a softer breakdown of the capitalist world-system into a multiplicity of regional, national, and local political economies and security assemblages. Some nation-states may retain effective governance capacities, but most would eventually fragment and give way to a complex neofeudal geography composed of political-economic and security assemblages cooperating and competing over territory and resources—including corporate quasi-states, city-states, feudalized rentier capitalists and warlords that offer livelihood protection in exchange for tribute, and numerous communities of surplus populations left to develop their own survival strategies. No doubt there are neofeudal tendencies already operative in the contemporary world, just as there were capitalist tendencies at work in the thirteenth and fourteenth centuries in Europe. 6 But this would be a future in which a collapsing world economy leads to the steady demise of capitalist social relations and their historical “laws of motion,” while neofeudal structures become ecologically dominant across the planet. This future could bifurcate into a deeper collapse trajectory over time if 2.5°C+ warming triggers tipping-point cascades. Alternatively, a combination of successful imperial projects and technological breakthroughs could potentially lead to world-system reintegration and regeneration over the course of the twenty-second century and beyond (e.g., if carbon-cycle feedbacks remain muted and planetary rewilding helps stabilize global temperatures), perhaps giving rise to a twenty-second- century variant of sixteenth-century mercantile capitalism.7 Or, more optimistically, rebellion from below—at least in certain regions—may eventually overwhelm and defeat these neofeudal bunkers, creating more egalitarian ecosocialist worlds.

WSP3 (volatile techno-leviathan). We can imagine numerous variants of techno-leviathan that combine different hegemonic configurations (e.g., a China-led world order, a US-or G7-led order, or a bipolar world of “competitive coexistence”), varying degrees of success in managing the climate and biodiversity crises, varying degrees of success in containing the threats posed by democratized WMDs, different levels of domestic and global inequality, and different degrees of capitalist or statist control of the economy. But I focus here on two ideal types. The first I call volatile techno-leviathan, which is a particularly dark and unstable variant that would be quite vulnerable to neofeudalist regression and breakdown over time. This scenario could be considered an answer to the following “what if” question: What if the world-system undergoes continuous neoliberal drift plus dramatic technological breakthroughs? In this scenario, technological breakthroughs allow states in the world-system core and semi-periphery to “muddle through” worsening polycrises over time while avoiding collapse. But the result is a volatile cocktail of stressors: geopolitical tensions between the United States, China, and Russia remain elevated; 2.5°C+ warming forces governments to rely on SRM and CDR expansion to ward of tipping-point cascades; breakthroughs in AI and robotics lead to 15%–25% technological unemployment in the second half of the century, meaning unprecedented inequality and populist anger; the same innovations lead to destabilizing advances in both democratized WMD technologies and the military AI-nuclear- robotic arsenals of states; and global governance of dangerous new technologies remains weak to nonexistent. As a result, the ranks of racialized surplus populations swell; a new wave of WMD nonstate terrorism ensues, fueling a spiral of insecurity and techno-authoritarian securitization; worsening geopolitical rivalries and destabilizing AI-nuclear- cyber technologies create a near-continuous threat of ruinous hot wars; SRM interventions are ungovernable and unstable; and global economic growth stagnates and plateaus from the combination of weakening consumer demand, climate chaos, and rentier strangulation. The world-system slowly mutates from capitalism into a bipolar or multipolar configuration of competing techno-leviathans that prioritize security, power, and geopolitical competition more than economic growth. This scenario forms a sort of middle way between neofeudalism and stable techno-leviathan— with more rapid technological innovation compared to the former and more intense inequality, geopolitical rivalry, and climate chaos relative to the latter. It may not form a stable attractor for the world-system. On one hand, an out-of- control technological arms race, rampant WMD terrorism, an increasingly unstable nuclear balance of terror, and climate tipping points may push it toward breakdown. On the other, if global elites cooperate over time to reduce geopolitical tensions and successfully deploy SRM and CDR to ward off climate tipping points, then this scenario would become more like stable techno-leviathan— but a particularly brutal and unequal version of it, with only a small elite reaping the fruits of continuous technological advance. The film Elysium—which envisions a world of poverty and techno-authoritarian oppression for most of the global population, combined with techno-luxury, transhumanist experimentation, and outer space expansion for global elites—may be an apt (if slightly extreme) depiction of this future.

WSP4 (stable techno-leviathan). This scenario can be considered a more politically and ecologically stable form of techno-leviathan, one in which green Keynesian transitions combined with FIR-driven innovations power a long wave of exponential growth and stabilize global temperature increases around 2°C. Geopolitical tensions are contained—most likely following a “competitive coexistence” scenario between the US and China-led blocs, though a “renaissance of democracies” leading to a renewed G7-led order is also plausible.8 Efforts to regulate synthetic biology and other dangerous emerging technologies have more success but remain limited due to concerns about hindering innovation. Within-country inequality is initially moderated by redistributive reforms, but over time relentless automation intensifies polarization by increasing technological unemployment, suppressing wages, and heightening precarity for most workers. Extractivist sacrifice zones proliferate across peripheral regions of the world-system, and the mass extinction crisis continues unabated as material-energy throughput continues to rise. But ultra-dense megacities, abundant solar and nuclear (and possibly fusion) energy, vertical farming, alternative proteins made from precision fermentation, and the plundering of mineral reserves from the Arctic and deep sea support lifestyles of unprecedented comfort and convenience— as well as ennui and digital enclosure—for perhaps between 20%–50% of the world’s population (though such percentages are impossible to determine in advance, which will be contingent on political struggles over wages, UBI access, income distribution, and adaptation plus loss and damage finance for the global south). The rest of the population, on the other hand, would form a racialized underclass suspected of WMD terrorism, and would thus be subject to particularly intensive surveillance and mobility constraints. Genetic modification and transhumanist experimentation among privileged classes—to enhance longevity, health, cognitive faculties, and physical capabilities—would over time reinforce these racialized divisions.9 In short, this would be a far more powerful, panoptic, and (over time) transhumanist version of today’s militarized global apartheid. Would “growth” go on forever? In a sense yes, though GDP would become an increasingly irrelevant indicator as automated abundance, technological unemployment, UBI, and rising concerns with security from democratized WMD terrorism alter the priorities of ruling classes. With the opening of the outer space frontier, there may be no fundamental limit to how far this technological civilizational assemblage could expand in terms of its geographic extensity and material-energy throughput, but the earth and its less fortunate inhabitants would undoubtedly be devastated.

WSP5 (ecomodernist socialism). The last three WSPs represent different ecosocialist scenarios. WSP5 can be understood as an ecomodernist and nonabolitionist socialist trajectory. To some extent this scenario overlaps with WSP4—particularly in the Chinese context, where techno-leviathan would most likely take an authoritarian socialist form. But at least within the democratic sphere of the world-system, ecomodernist socialisms would be more egalitarian political economies that harness a mix of democratic and algorithmic planning to redistribute the fruits of capitalist abundance, accelerate technological innovation in “green” industries, and prioritize the expansion of social welfare (rather than security and power). Transitions to ecomodernist socialism could emerge from a greenflation or carbon bubble crisis of green Keynesianism in an incremental innovation trajectory, a longer-term crisis of technological unemployment in an exponential innovation trajectory, or even a mid-to late-century crisis of neoliberal drift. More or less technologically revolutionary versions of this scenario are possible, from “fully automated” to more sober varieties. They can also be more or less globally egalitarian—including scenarios in which rich countries eventually stabilize their material throughputs while emerging economies “catch up,” or varieties in which large inequalities in material and energy consumption are sustained. Either way, all of these scenarios would entail expansive extractive demands that reproduce a core-periphery structure—not necessarily between the global north and south as traditionally understood, but between wealthy urbanized regions and their extractive frontiers or “green sacrifice zones.”10 And the pressures that ecomodernist socialist regimes face as a result of core-periphery exploitation, biosphere degradation even if warming is stabilized around 2°C, worsening violence-interdependence, and technological advance in the forces of military-police repression may eventually push them in more techno-authoritarian directions. In this way, over time, they might become indistinguishable from techno-leviathan, which would especially be the case with “fully automated” variants of ecomodernist socialism.11 Alternatively, we could envision a scenario in which core countries shift to a steady-state material throughput by mid-century, relations of ecologically unequal exchange between the north and south are brought to an end, all or most countries eventually reach European-esque consumption levels, and material-energy demands are to some extent moderated through massive expansions of recycling infrastructure.12 This would probably still be a world of biospheric depletion and modernist monoculture,13 but a much better future than most of the others on offer.

WSP6 (fortress degrowth). This scenario represents a nonabolitionist ecosocialist degrowth trajectory in core regions of the world-system. It would most likely emerge in the context of a world in the throes of collapse from a neoliberal drift trajectory (likely between 2050 and 2080 as the polycrisis storm reaches epic proportions), but could also emerge in the context of a particularly severe stagflation crisis of green Keynesianism. Strengthening ecosocialist movements would catalyze egalitarian degrowth transitions in the core, but compromise formations with conservative blocs—who would be fueled by fears of ecological scarcity and excessive migration—would force them to sustain militarized borders and racialized counterterrorism toward the periphery. Given that ecosocialist degrowth trajectories would almost certainly emerge in a context of deep crisis that intensifies material and existential insecurities, it would indeed be challenging to prevent these regimes from devolving into fortress or lifeboat-style ecosocialisms. Ecofascist variants led by far-right blocs—some of whom, at least in Europe, support certain aspects of degrowth platforms—can be imagined. 14 Most ecosocialist degrowthers would (understandably) refuse to call this a variant of degrowth. But regardless of what we choose to call it, ecosocialists must proactively strategize on how to prevent degrowth transitions—which would almost certainly, if at all, occur in the context of an epic and unparalleled polycrisis storm—from devolving into lifeboats for the privileged.

WSP7 (abolitionist ecosocialism). Finally, as extensively discussed in chapters 4 and 5, WSP7 represents the ideal resolution of the planetary problematic: an ecosocialist world-system that combines degrowth in the global north, abolitionist security assemblages, and a new “New International Economic Order” that purses contraction and convergence between north and south. I assume that abolitionist ecosocialism would most likely emerge from a deep and protracted stagflation crisis of green Keynesianism that emerges in the 2030s. But it is also plausibly compatible with longer-term transition scenarios that lead to 2.5°C+ warming. This climate trajectory would severely constrict adaptation capacities across much of the global south. But if northern ecosocialist states abolish militarized global apartheid, welcome migrants, develop resettlement programs in collaboration with the governments and peoples of the global south, and build new cities in the increasingly habitable far north, then a more just and livable world for the earth’s 9–10 billion human inhabitants may still be possible even as we near 3°C.15 Alternatively, or in conjunction with cooperative resettlement programs, ecosocialist regimes in a 2.5°C+ world may cooperate to bring down temperatures with solar geoengineering—while simultaneously scaling up programs of planetary rewilding, carbon-sequestering agroecology, and DAC in order to ward off hothouse earth and restore atmospheric carbon to safe levels over time.16 No doubt both of these longer-term scenarios would require “an orchestration so elaborate and requiring so much luck that people may find it a fantastic, utopian dream,” as Holly Jean Buck describes the prospect of ecosocialist geoengineering futures. 17 Yet neither should they be completely discounted, which would close our imagination to possible (if less desirable) ecosocialist futures.

IMPLICATIONS FOR COUNTER-HEGEMONIC NAVIGATIONAL PRAXIS

We should now consider how this provisional map of the planetary future might inform counter-hegemonic navigational praxis. Starting with the concrete utopian aspiration for ecosocialism, I have suggested that the best hope for such transformation would emerge in the context of a greenflation or green-stagflation crisis of green Keynesianism that undermines the ideological hegemony of green growth and enables a tipping point tsunami of support for radical post-growth policy interventions. This suggests two things. First, it is necessary to struggle for green Keynesianism (or a global Green New Deal) as soon as possible, enacting at least the minimum objectives of phasing out fossil fuel subsidies; raising and coordinating carbon pricing across the major economies; ramping up spending on green technology R&D, electricity grid modernization, and electrified public transportation; providing as close to $1.3 trillion as possible in climate finance for the global south by 2030; and ensuring domestic redistributive mechanisms are in place and fighting to include as many other social justice objectives as possible. 18 Second, climate justice movements should then anticipate and prepare for a crisis of green Keynesianism emerging from the convergence of greenflation, stagnation, job losses, transition risks, and populist backlash. In this context, how could ecosocialists and climate justice movements successfully prevent fossil fueled backlash while pushing governments in more egalitarian post-capitalist directions? Our best hope is to proactively forge a broad alliance of movements for post-growth social democracy, as described in chapter 4, in order to create the conditions for a very different kind of response to a greenflation or green-stagflation crisis—one based on price controls, reducing energy demand, replacing GDP with alternative indicators of wellbeing, ensuring economic security for all in the absence of GDP growth, and shrinking military budgets. In conjunction with anti-imperialist struggles in the global south, the conditions might then be in place for metamorphosis in the direction of abolitionist ecosocialism and contraction and convergence over time. But this would be a long-term struggle, involving numerous “temporary stations on a continuous, yet rocky journey” toward the hoped-for utopian destination.19

On the other hand, if green Keynesian regimes succeed in catalyzing a long wave of accumulation with the aid of FIR-driven breakthroughs, then social justice movements will need to strategize on how to preempt the emergence of increasingly techno-authoritarian regimes over time. Some of the key struggles that could help prevent or at least moderate an incipient techno-leviathan include proactively fighting for a livable and unconditional UBI; ensuring adequate climate finance for the global south; pushing governments to revamp the Biological Weapons Convention or develop new global initiatives to regulate the dangers of synthetic biology, even if this means slower innovation; and fighting to institutionalize restraints on the deployment of facial and emotion recognition, predictive policing, drone swarms, and neurotechnologies by security agencies and police forces. The goal must be to moderate the inequalities and forms of imperialist violence that would fuel terrorism from nonstate actors, force governments to cooperatively restrain the dangers of unchecked FIR innovation, and institutionalize constraints on the efforts of security agencies and police forces to exercise untrammeled techno-authoritarian power.20

However, if insecurity-securitization spirals end up pushing liberal democratic states down the techno-authoritarian road, then this is not the end of the story. Rather than simply bowing down to techno-leviathan, counter-hegemonic movements must then struggle to ensure as much democratic oversight, accountability, inclusion, and justice as possible— ideally by pushing governments in more ecomodernist socialist directions (but, as noted previously, this would be quite challenging to pull off in this context). Alternatively, if a decisive green Keynesianism transition never materializes or undergoes backlash and bifurcation back to neoliberal drift—setting us up for a 2.5°C+ world—then this is also not the end of the story. There is a tendency in some sectors of the climate movement to say “we have ten years” to solve the problem— otherwise collapse is imminent and there is nothing more we can do.21 There is a logic to this way of thinking, but it is also misguided. Warming of 2.5°C could plausibly trigger tipping-point cascades, but this is not inevitable; earth system feedbacks would likely remain moderate and reversible before we reach 3°C, but no doubt this would be a highly uncertain and alarming situation. Ecosocialist transitions later this century are possible, which would be much less ideal given that they would emerge in a context of intensifying socioecological scarcities and existential crises—making it more challenging to avoid the path of fortress degrowth. But ecosocialist geoengineering futures that advance the ends of climate justice, or ecosocialist migration futures that redraw the political map (or a combination of both), can be imagined in a 2.5°C or 3°C world.

Finally, we should not shy away from the navigational dilemmas that would arise in a collapse future. Many analysts across the political spectrum resist talking about the prospect of collapse. Ben Hayes, for instance, calls collapse anticipation “the very worst of foundations for thinking about just and proportionate responses to current insecurities, let alone trying to organize radical politics.”22 Others like Jem Bendell, on the other hand, have come to the conclusion that some form of global collapse is now inevitable.23 As I have shown in this book, while I do not view global collapse as inevitable, it is nonetheless a very real potential, and a time may come when a path-dependent collapse process is set in motion that would be very challenging to escape. Thus, rather than solely adopting a “revolution or bust” strategy, more careful thinking about the threats, constraints, and opportunities that diverse communities and regions would confront during a world-system collapse is needed. Far-right movements are currently doing the same,24 and it would be unwise to allow them to monopolize the space of collapse anticipation. We must recognize that, for all the suffering that would emerge during a collapse trajectory, it would continue to pose geographically uneven socioecological, violence, and existential problematics that can be “solved” in better and worse ways. It is even plausible that a world-system collapse could lead to the emergence of more egalitarian ecosocialisms—for example, from transformations of consciousness in the wake of nuclear war,25 or through ecosocialist insurgencies against neofeudal fortresses. In this sense, the “breakdown of the prevailing system,” as Nafeez Ahmed writes, “heralds the potential for long-term post-breakdown systemic transformation.”26

Even if we fail to avoid the dystopian regions of the possibility space—whether collapse or techno-leviathan— it is still necessary to imagine how social justice movements and communities might sustain spaces of care, compassion, and solidarity in a grim future. Speculation on dystopian futures can aid us in this regard. As Kathryn Yusoff and Jennifer Gabrys describe, dystopian futures force us to imagine “the full range of emotional challenges and difficult choices that have to be made once all the usual landscape markers and reference points have shifted or disappeared . . . to think about what it might be like to endure and survive.”27 Social justice movements in the global north can also learn from what Audra Mitchell and Aadita Chaudhury call “BIPOC futurisms”—written by Black, African, Caribbean, Indigenous, and other authors who have already experienced the end of their ancestral worlds under the yoke of white supremacy—which dramatize the “always-already active labor of world-building and flourishing” in the wake of apocalypse.28 Following these authors, the point of dystopian futurism is not simply to galvanize preventative action (though this is the ideal outcome), but also to help us prepare cognitively and emotionally to not just survive but also discover new sources of meaning, community, resilience, and perhaps even flourishing within such futures. This is the strength of the Deep Adaptation movement, for instance, which pushes us to explore challenging questions about how we might navigate collapse futures in a way that centers compassion and solidarity.29 Likewise, we must do the same for techno-leviathan futures— which could be even worse than collapse, at least depending on one’s geographic and intersectional positionality. This does not mean we accept such futures as inevitable, simply that we do not remain stubbornly attached to a “revolution or bust” framework. Instead, we need both the intellectual work of analyzing how these futures might unfold and the geographically uneven challenges and opportunities they would present, as well as the more existential work of cognitive-emotional preparation.

BETWEEN PESSIMISM AND HOPE

Antonio Gramsci once remarked that we should maintain an optimism of the will alongside a pessimism of the intellect. Indeed, this stance is as relevant as ever, though we should reflect on what an “optimism of the will” should mean in the context of our twenty-first-century planetary predicament. For centrist liberals and ecomodernists, this takes the form of a “can-do” spirit of apolitical innovation that reminds us of the technological wonders of the modern world and the promise of breakthroughs yet to come. Ecosocialists and degrowthers rightly critique these faith-based analyses while countering with a faith of their own: that mass social movements can save us. But whether hope is placed in technological innovation or social movements (or both), these optimistic narratives always require a leap of faith.

Others, on the other hand, are rejecting these faiths and forging new intellectual, practical, emotional, and (sometimes) spiritual responses to the planetary predicament. These thinkers aim to go beyond these “green positivity” narratives and their diverse brands of “hopium,” which they critique for constricting our capacities to grieve for the losses we confront and find new meaning in life beyond the search for “solutions.”30 For example, Roy Scranton skewers what he calls “fictions” of ecosocial transformation and technological miracles as “farcical daydreams against the coming chaos, popsicle-stick castles in a hurricane wind.” Instead, he counsels us to confront our fears of death and cultivate a more humble understanding of our cosmic insignificance.31 In the context of IR, Jairus Grove calls for a form of “negative thinking as an alternative to the endless rehearsing of moralizing insights and strategic foresight,” which “celebrates useless thinking, useless scholarship, and useless forms of life at the very moment we are told to throw them all under the bus in the name of survival at all costs.”32 Coming from a more literary angle, the Dark Mountain Project summons a new practice of “uncivilized” literature that breaks from the stories of endless progress that capitalist civilization has spoon-fed many of us from childhood. They ask, “What would happen if we looked down? Would it be as bad as we imagine? . . . We believe it is time to look down.”33

It is in some respects easy, and in others challenging, to go the route of the “new pessimists” (as we might call them). In short, there is a reasonable argument to be made that, as the saying goes, “we’re doomed,” though what that means must be nuanced by appreciating the geographically and intersectionally uneven vulnerabilities that constitute the “we.” At the same time, any proclamation that “we’re doomed” must bear the weight of the incalculable losses in lives, ways of life, species, and ecosystems that would be implicitly accepted as inevitable. I am thus uncomfortable with at least certain forms of the new pessimist perspective, which can become a form of escapism that avoids the grief, pain, terror, and rage that a genuine reckoning with our predicament must provoke.34 Just as importantly, as Scranton himself recognizes, the stance of fatalistic pessimism can often be read as an attempt to remain “above the fray,” or to avoid the “embarrassment” of committing oneself to an erroneous or hopelessly unrealistic future. 35 In other words, rather than risking the fight for a better future, risking the pain and disappointment of failure, the new pessimists can lapse into an apolitical quietism that brings them the cold comfort of likely being proven right in the end. “An enviable position, so high above the fray!”36

In contrast, we can navigate a more fruitful path between hope and pessimism. As Elisabeth Grosz suggests, a Deleuzian ethics—inspired by the stoics, a Spinozist love of nature, and Nietzschean amor fati—can aid us in these times. The “question of ethics,” from this perspective, is “How can I be worthy of the events that await me, how can I enter into events that sweep me up, preexist me, or that I cannot control? . . . What am I capable of doing, what is my degree of power and how can I act to enhance and maintain an active use of it?”37 These are valuable questions that those of us struggling for more just and sustainable futures should ask ourselves. Taking our bearings from Grosz and Deleuze, the aim is to rigorously determine (as far as possible) what is within our power as movements that could become more than the sum of their parts, how we can take that power to the limit to create the best possible or least bad future, and how we can live well and in solidarity no matter what future ultimately unfolds. On one hand, as noted earlier, this means that we should avoid a revolution-or- bust approach, which is not only likely to end in disappointment and burnout but may also disable the flexibility needed to maximize our collective power to act and flourish within the constraints that limit us. Sadly, if the world’s most powerful corporations, capital managers, and governments are hell-bent on protecting their wealth and power at the cost of the earth, and large sections of the global working class remain too constrained by ideologies of capitalism, race, nationalism, and misguided masculinities, then there is only so much that the rest of us can do. Yet, on the other hand, to say that collapse or techno-leviathan is inevitable also limits our praxis and ignores the potentials for transformative agency that will emerge in the coming upheavals. The future is open, and—to paraphrase Deleuze and Guattari—we do not yet know what a planetary polycrisis can do.38 Nonetheless, as Joanna Macy advises, while we remain open to the uncertainty of the future, we should also avoid attaching to the hoped-for results of our actions. “Active hope,” in this sense, means we remain steadfast in the struggle for a more just world, not because we think we will succeed but because serving life and reducing suffering is an end in itself.39 Every iota of harm that our collective efforts are able to reduce, even if only temporarily, is significant. It is not all or nothing.

Perhaps an optimism of the will, understood along these lines, can provide a compass to help us navigate through the unfolding polycrisis. On one hand, democratic ecosocialist transformation during this century of upheaval is possible, and this is a goal worth believing in and fighting for. On the other hand, our optimism should not reside in the belief that we can and will create a more sustainable and just world, but that we can collectively discover new ways of life and new sources of meaning, purpose, community—and even joy—no matter what the future brings.

### Cap K---Perm---2AC

#### Perm: do both --- if that’s severance, do the plan and non-mutually exclusive parts of the ALT

#### The aff was always already a critique of capitalism---stripping CBRs from civil servants is the capitalist-state empowering itself by exploiting power for private gain, that’s Cohen

#### It’s offense:

#### Presuming the state is immutably captured diverts attention from the how and why of oligarchs turning to economic nationalism

< FOR REFERENCE, RELEVANT PARTS OF 1AC Cohen >

That capitalist class interests and the oligarchic power of the very rich at the founding was secured by the Constitution and prevailed again after the upheavals of the civil war has been a charge asserted not only during the founding but repeatedly ever since Charles Beard’s Economic Interpretation of the Constitution, written at a time (1913) when corporate capital had gained enormous economic power, political influence, and constitutional rights (of legal personhood).23 This enabled them to use private law and Supreme Court rulings to overturn state level regulations of the economy (wages, hours, rules for workers and restrictions on the power and mobility of corporate capital generally). They were able to generate such extremes of concentrated wealth and monopoly power at one end and poverty at the other that the epoch was dubbed the gilded age.24 In short, what is now happening is not entirely new, and I fully agree that democracy and capitalism have always been in tension in the U.S. as elsewhere, and the oligarchic dynamics within capitalism is one of the main culprits. By this I mean the tendency of capital to accumulate in ever fewer hands, (what Marx called the centralization and concentration of capital), generating monopolistic market positions, and inequality of wealth and (economic) power. This tension and the frequent failure to control for the rise of oligarchic power not only in the economic system but also its influence in the political system, is antithetical to the egalitarian principles undergirding democracy and thereby perforce restricts democratic quality. But to jump to the conclusion that the essence of the political form of a representative liberal constitutional republic is essentially oligarchic, or that liberal constitutional democracy despite severing the link between citizenship and property only ends the formal and overt but not the real rule of oligarchic power is triply misleading.25 First, because it underestimates the successes of anti-oligarchic and democratizing struggles not only in the U.S. but elsewhere; second because it diverts us from examining how (through which mechanisms) capitalist oligarchs manage to influence or gain real political power, how this changes, and why capitalist oligarchs periodically turn away from liberal constitutional democracy to endorse authoritarian rule. Third, by depriving democrats and anti-oligarchs of key concepts such as ruling in the public good, or in the common interest, concepts denounced as rhetorical smokescreens deployed by oligarchs to conceal the occupation of Lefort’s famous ‘empty place of power’ by wealth, this approach loses the tools needed to denounce political corruption which I define here as the use of public power for private particular class purposes. 26 Supposedly such ‘depoliticized’ concepts are deployed by oligarchs to distract from the class nature of their de facto rule in liberal constitutional democracies (republics). But concepts like the use of public power for public purposes, tied to accountability mechanisms, are indispensable for countering rule in the interest of a particular class or group.

#### Reclaiming the state to expand the toolbox against capitalism is key---for example the whole 1AC!

< FOR REFERENCE, RELEVANT PARTS OF 1AC Cohen >

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### Cap K---Sustainability

#### The plan’s key to sustainability

Handoyo 24 [Sofik Handoyo, Professor of Strategic Management Accounting and Faculty of Economics and Business at Universitas Padjadjaran, “Public governance and national environmental performance nexus: Evidence from cross-country studies,” Heliyon, 10(23), 11-22-2024, p.e40637, DOI 10.1016/j.heliyon.2024.e40637]

3.2. Political stability and national environmental performance

Political stability is commonly understood as the absence of systemic threats to the current political system, encompassing both the peaceful transfer of power and the government's capacity to manage public affairs effectively. Theoretical discussions often start with the premise that stable governance structures are better positioned to formulate and implement long-term environmental strategies [[71](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib71)]. The argument is that political stability allows for the continuity of policies, accumulation of institutional knowledge, and consistent enforcement of regulations [[72](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib72)]. Conversely, political instability can lead to short-termism in policy orientation, corruption, and a lack of enforcement [[73](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib73)]. Political stability and the absence of violence are signs of a society's freedom from conflict, political turmoil, and violence, which can significantly affect environmental sustainability. A stable political environment often provides the necessary institutional support to establish and enforce robust environmental policies. The ground-breaking study by Li and Reuveny [[74](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib74)] demonstrates that political stability considerably enhances environmental performance, mainly by reducing [deforestation](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/deforestation) and carbon emissions. Stable political conditions enable long-term planning and the allocation of resources to environmental projects. However, the effect of such conditions may not yield immediate results [[71](https://www.sciencedirect.com/science/article/pii/S2405844024166686#bib71)].

H2

political stability is positively associated with national environmental performance

3.3. Government effectiveness and national environmental performance

Government effectiveness reflects the quality of public services, the [civil service](https://www.sciencedirect.com/topics/social-sciences/civil-service) and its independence from political pressures, the quality of policy formulation, and the credibility of the government's commitment to its stated policies [[75](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib75)]. The underlying premise is that effective governments are better equipped to design, implement, and enforce environmental regulations, manage natural resources sustainably, and respond to environmental challenges. Effective governments can mobilize resources for environmental protection, enact and enforce comprehensive environmental legislation, and foster cooperation among various stakeholders. Furthermore, effective governments are also seen as more capable of long-term planning, necessary for addressing [environmental issues](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-issue) that often extend beyond electoral cycles. Research findings suggest that well-functioning governments tend to achieve better environmental outcomes [[76](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib76)]. Congleton [[77](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib77)] argues that governance effectiveness is essential for successfully implementing policies aimed at public goods such as environmental sustainability. Similarly, Bättig and Bernauer [[78](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib78)] suggests that effective governance structures can successfully implement strict environmental regulations that are adhered to, leading to better national environmental performance. Governance effectiveness is not only evident in policy formulation but also in enforcement capabilities. Fredriksson and Wollscheid [[79](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib79)] emphasize that an effective governance system can implement and maintain surveillance over environmental regulations.

H3

government effectiveness is positively associated with national environmental performance

3.4. Regulatory quality and national environmental performance

Regulatory quality refers to the government's ability to create and enforce sound policies that facilitate [private sector](https://www.sciencedirect.com/topics/social-sciences/private-sector) growth [[23](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib23)]. High-quality regulation is characterized by clarity, coherence, and transparency, as well as the ability to adapt to new environmental challenges such as emissions standards, [waste management](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/waste-management) protocols, and conservation efforts. Theoretically, the link between regulatory quality and environmental performance is anchored in the belief that well-designed regulations can effectively [control pollution](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/pollution-control), protect natural resources, and incentivize the private sector to innovate toward sustainability [[80](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib80)]. The regulatory quality also influences the behavior of economic actors and the public's participation in environmental stewardship [[81](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib81)]. Studies have shown a positive correlation between regulatory quality and environmental performance, suggesting that countries with better regulatory frameworks have higher environmental performance. Several empirical studies, including those conducted by Neumayer [[31](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib31)], Fredriksson, Vollebergh [[82](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib82)], highlight the connection between strong environmental regulations and positive environmental outcomes. For instance, countries with well-established regulatory agencies tend to perform better in metrics assessing water quality, air pollution, and biodiversity conservation [[83](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib83)]. Regulatory quality also promotes the uptake of environmental technologies and encourages corporate environmental responsibility [[84](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib84)].

H4

regulatory quality is positively associated with national environmental performance

3.5. Rule of law and national environmental performance

The rule of law, defined as the principle that law should govern a nation, as opposed to being governed by arbitrary decisions of individual government officials, plays a crucial role in shaping environmental outcomes at the national level. The rule of law assesses the level of trust in and adherence to societal rules, which includes the quality of contract enforcement, property rights, and the judiciary [[23](https://www.sciencedirect.com/science/article/pii/S2405844024166686#bib23)]. In environmental governance, the rule of law ensures that environmental policies are consistently applied and enforced and that legal frameworks support sustainable practices. A well-functioning rule of law typically fosters better environmental outcomes by consistently applying and enforcing environmental laws and policies. The rule of law is posited to influence environmental performance by providing the legal structures necessary for effective environmental governance. It is theorized that robust legal frameworks underpin the creation and enforcement of environmental regulations, protect property rights, and facilitate the resolution of environmental disputes. The rule of law also strengthens transparency and accountability, providing legal avenues for civil society and environmental organizations to challenge environmentally harmful practices [[85](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib85)]. Studies have found positive correlations between strong rule of law and high environmental performance scores, indicating that countries with well-established legal systems tend to manage their environments better [[86](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib86)].

H5

the rule of law is positively associated with national environmental performance

3.6. Control of corruption and national environmental performance

Corruption control refers to the extent to which public power is exercised for private gain, including petty and grand forms of corruption and "capture" of the state by elites and private interests [[23](https://www.sciencedirect.com/science/article/pii/S2405844024166686#bib23)]. Corruption is often cited as a major barrier to effective environmental management, as it can distort policy-making processes, reduce compliance with regulations, and limit the capacity of states to protect natural resources. Theoretically, corruption is seen as a detriment to environmental performance because it undermines regulatory frameworks, decreases the efficiency of public expenditures in environmental projects, and reduces the effectiveness of environmental agencies [[87](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib87)]. Research generally indicates a negative correlation between corruption levels and environmental performance, with higher corruption associated with poorer environmental outcomes [[88](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib88)]. Corruption significantly damages a country's environmental performance by eroding the enforcement of environmental laws and facilitating the illegal exploitation of natural resources [[89](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib89)]. Corruption can adversely affect biodiversity, increasing deforestation rates and species extinction [[90](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib90)]. However, it is essential to note that the relationship between corruption and environmental performance is complex and depends on various contextual factors. This complex relationship can vary based on factors such as the strength of institutions, the level [of economic development](https://www.sciencedirect.com/topics/economics-econometrics-and-finance/development-of-economics), and public awareness of environmental issues.

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control of corruption is positively associated with national environmental performance

3.7. The moderating role of country economic prosperity

The relationship between the quality of governance and environmental performance has been well documented in the literature. However, the impact of economic prosperity as a moderator on this relationship is not yet fully explored. Gross national income (GNI) per capita is frequently used to measure economic prosperity. It could play a significant role in determining the success of governance in achieving environmental objectives. Economic prosperity can provide the financial resources and technological capabilities necessary for implementing and sustaining environmental policies, potentially enhancing the effect of good governance on environmental performance. Conversely, it is hypothesized that in less prosperous countries, even well-structured governance may struggle to achieve desired environmental outcomes due to resource constraints [[30](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib30)]. Empirical research has demonstrated a positive relationship between governance indicators (such as those provided by the worldwide governance indicators) and environmental performance indices (like the epi). These studies indicate that better governance is associated with better environmental outcomes [[24](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib24)].

The correlation between public governance and national environmental performance has long been a topic of academic interest. As measured using GNI, the country's economic prosperity is a crucial moderating variable in this relationship. According to the environmental Kuznets curve (EKC) theory, a higher GNI per capita is often linked to a shift from industrialization to a service-based economy, generally accompanied by more sustainable practices and increased environmental regulations. This, in turn, can positively impact the environment [[91](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib91)]. Strong public governance can enhance favorable environmental outcomes in such economic contexts by providing the necessary resources and political will to enforce and sustain environmentally beneficial policies [[92](https://www.sciencedirect.com/science/article/pii/S2405844024166686" \l "bib92)]. However, in countries with lower GNI per capita, the correlation between governance and environmental performance may be less pronounced or negative. In these situations, even well-designed governance structures may struggle to make a significant impact due to resource constraints and other pressing social needs [[30](https://www.sciencedirect.com/science/article/pii/S2405844024166686#bib30)]. Hence, a country's economic prosperity plays a crucial role as a moderating factor, potentially amplifying the positive effects of effective governance in wealthier countries while attenuating or neutralizing them in less affluent nations.

#### Studies of 208 countries over the last 30 years prove decoupling is possible---and EKC is true

-EKC being true means alt causes their impacts

-Condensed portion are explaining methodology and intent of the study

Tariq et al. 24 [Muhammad Tariq, PhD researcher at Southeast University, PhD Applied Economics, Southeast University; Yingzhi **Xu**, Professor in the School of Economics and Management at Southeast University; Kifayat **Ullah**, Professor in the Department of Economics at Karakoram International University; and Biying **Dong**, Professor in the School of Economics and Management at Southeast University; “Toward low‐carbon emissions and green growth for sustainable development in emerging economies: Do green trade openness, eco‐innovation, and carbon price matter?” Sustainable Development, 32(1), February 2024, pp.959-978, DOI 10.1002/sd.2711]

[Tables Omitted]

Due to substantial development in emerging economies over the last three decades, climate complexities are increasing which have posed serious threats to environmental quality and sustainability. To this end, eco-innovation, green trade openness (GTO), and carbon price have been recognized as effective tools for environmental mitigation and promotion of green growth (GG) in the core of COP 26, Sustainable Development Goals 2030, and Carbon Neutrality by 2060. Considering this, the aim of this study is to investigate the influence of eco-innovation, GTO, and carbon price on GG [Green Growth] and low-carbon emissions in emerging economies over the period 1996–2021. The current study provides a standard green Solow growth model by introducing a new GG index using the entropy weight method. This index incorporates 30 indicators across five dimensions which emphasizes the essential roles of the investigated factor. Additionally, the current study provides a new index for GTO utilizing an extensive green trading basket of 255 commodities. Due to the cross-sectional dependency, and slope heterogeneity in the models, this study used dynamic heterogeneous panel data estimation techniques that is, cross-sectional based augmented nonlinear autoregressive distributed lag, and nonlinear augmented mean group to probe the asymmetric effects. The outcomes from the empirical analysis reveal that positive shocks in environmental innovation, GTO, carbon price, and green energy mitigate carbon emissions and promote green economic growth while the negative shocks in these variables cause environmental degradation and reduce GG in emerging economies. Finally, from policy insight, this study suggests that policy makers in emerging economies should invigorate GTO, stimulate environmental innovation and green energy, implement carbon price mechanisms, and establish a balance between environmental protection and economic growth.

[CONDENSED FOR READABILITY]

1 INTRODUCTION Considering the Paris COP26 Conference, environmental sustainability in major economies has remained a contentious topic in policy discussions. Undoubtedly, economic growth is a necessary condition for every nation's social and economic development since it increases income levels, improves health and educational outcomes, and raises its population's living standards. Similarly, brown economic growth poses serious threats to ecological sustainability as economies compromise their natural resource deposits during the growing phase. Brown growth produces significant solid and manufacturing waste and other soil, water, and air issues, ultimately leading to environmental deterioration which has recently witnessed in emerging economies (Danish Ulucak & Khan, [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0022)). Emerging market economies (EMEs) have enjoyed remarkable growth in recent decades however, this over growth in population and output in most of these economies have raised strains within environment and natural resources (Balsalobre-Lorente, Driha, et al., [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0010)). Due to the decreasing quality and quantity of natural ecosystems, the world has started to recognize the need to switch from the conventional economic growth perspective to a sustainable development glimpse (Fatai Adedoyin et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0029)). Green growth (GG) is a concept which is intimately associated to sustainable development in which economies delve and encourage economic progress without vitiate the environment, yet rather by preserving it OCED. Considering the consequences of climate change and the deterioration of the environment, there has been a significant emphasis on environment friendly growth. Several organizations and institutions, namely, the Organization for Economic Cooperation and Development (OECD), the World Bank (WB), the United Nations Department of Economics and Social Affairs for Sustainable Development, and the United Nations Economic and Social Commission for Asia and the Pacific, are concerned about the green economic growth. Current study appraises influences by eco-innovations, green trade openness (GTO), carbon price, and green energy on GG and low-carbon emissions in emerging countries. One of the decisive factors affecting greenhouse gas emissions is international trade, which is a substantial economic action, because it increases economic growth and the exchange of goods and services. In contrast, increase in trade leads to significant increase in energy consumption and other resources utilization, which put tremendous strain on the ecosystem resilience. Considering the injurious impacts of trade, it might be claimed that creating a green economy could support reducing environmental deterioration and achieving carbon neutrality (Can et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0016)). Though, green trade is an essential factor for rapid green economic growth by boosting the country's economic progress, reducing greenhouse gas emissions, expanding industrial production processes, improving the effectiveness of energy sources, and increasing trade volume via trade liberalization and global integration (Ahmed et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0001); Alam & Sumon, [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0006)). Nonetheless, the global proliferation of a green economy is difficult to achieve without the world trade of eco-friendly goods. It is expected that the usage of these goods would significantly improve environmental trait. On the other hand, green technological innovations may also play a supportive role in green development. Without green technological improvements, the faster GG is impervious (Umar et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0072)). These advancements not only instigate cheaper and eco-friendly technology besides lower the cost of ecological sustainability. It also increases production efficiency and encourages the preservation of natural resources by reducing CO2 emissions. The main forces behind green economic growth, the green energy sources also maintain ecological sustainability and macroeconomic efficiency (Li et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0049)). Along with advancements in green energy, and wastewater treatment, eco-innovation processes also include clean and sustainable food production and other areas that are thought to be major drivers of economic growth and environmental sustainability (Chen et al., [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0017)). In similar lines, technological investment and acceleration of research and development of energy saving technologies promote sustainable development (Li, Dong, & Dong, [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0047)). Moreover, green innovations reduce the strain on the country's balance of payments and minimize dependency on imported fossil resources (Sohag et al., [2019](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0064); Usman & Hammar, [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0074)). Besides, this research also evaluates the importance of carbon price/tax for green economic growth and low-carbon emissions in EMEs. There is widespread agreement among major nations, environmentalists, and policymakers on the need to establish new policy guidelines to address the ecological challenges posed by environmental degradation. A rising amount of the present literature has centered empirical study on carbon pricing in order to create the most recent environmental policy recommendations (Doğan et al., [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0024)). Based on the percentage of emissions in a polluting fuel, governments across the globe levy carbon taxes (one of the most effective prices to decrease carbon dioxide emissions) on those fuels (Ojha et al., [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0055)). Researchers advocated recycling carbon price income (i.e., transferring the cash earned from carbon price/tax on fossil fuel-based energy to renewable projects as subsidized) to encourage green economic growth and environmental sustainability (Hao et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0033); Ojha et al., [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0055)). Thus, we can conclude from the above debates that the concerns about the environment and sustainable development are receiving a lot of attention worldwide (Jiang et al., [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0043)). Global efforts are being made to change economic and industrial structures to promote green economic growth that is ecologically adjusted and green in nature. For a while, studies on the major forces behind GG have captivated the attention of academics and policymakers. GG strategies can achieve economic development and environmental sustainability rather than mutually exclusive therefore, it is need of the day to adopt certain approaches that ensure and safeguard environmental sustainability during the long-term growth process in emerging economies. The current research concentrates on EMEs because, during the past few decades, these economies have witnessed exceptional growth. However, present economic and population growth trends in most of these economies have raised strains on the environment and natural resources. The present study has focused on the need to move towards a development path that avoids enslaving ecologically destructive infrastructure and leaving a legacy of costly environmental damage and resource depletion. The current study has fundamental objectives in terms of practical relevance to the literature, theory, and policy implications for EMEs e.g., (1) To examine the nonlinear impacts of GTO, eco-innovation, and carbon price on GG in EMEs. (2) To examine the nonlinear impacts of these factors on CEs in EMEs. (3) To test the validation of the EKC hypothesis in EMEs. The main contributions of the current study in the literature are as follows: i. This study attempts to discover the dynamic 4G (GG, trade, energy, and innovation) nexus for emerging countries since the 4G nexus is essential for emerging economies to attain socioeconomic and environmental sustainability. ii. This study provides a systematic framework of a classical Green Solow growth model that highlights the essential role of green innovation, green energy, and green trade in driving GG. Even though the concept of GG has been widely discussed for some time, the development of a GG index is still in its initial stages. The current study contributes to the construction of a new GG index with the combination of 30 indicators from five dimensions (i.e., environmental and resources based, natural asset base, environmental quality of life, economic opportunities and policy responses, and the socioeconomic context and characteristics of growth) proposed by OCED and (GGGI, [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0031)). These are the best possible and most reliable indicators that are capable of monitoring key features of GG while also being representative of a wider set of GG challenges. iii. To the greatest of the authors' knowledge, this research will be the first to use an indicator to measure the influence of GTO on GG and low-carbon emissions in a holistic approach across a group of emerging economies. Most of the previous studies used conventional environmental goods for the green trade index. While some studies used individual green traded products to capture green trade indicator, but the GTO index generated in this study is based on both traditional environmental goods and eco-friendly products. This research expands the on study of Can et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0016)) to construct a new green openness index using 255 green goods of EMEs. As a result, policymakers in emerging economies may take advantage of developing policies to boost local GG and rationally adjust the international trade structure. iv. The current study fills the gap in the current body of knowledge by incorporating asymmetric short and long run links of the selected explanatory variables to capture their positive and negative effects on the achievements of GG and low-carbon emissions for the sample countries. To this end, we employed newly developed cross-sectional augmented nonlinear ARDL (CS-NARDL) and nonlinear augmented mean group (NAMG) techniques to supplement the literature on GG and low-carbon emissions. The remaining sections of the paper are carried out as follows. Part 2 provides some useful insights from the existing research. In part 3, we address the analytical and theoretical framework, data, and methods. In Section [4](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-sec-0013), we analyze and explain the empirical findings of the study. Finally, the study's conclusion and policy consequences are presented in Section [5](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-sec-0014). 2 LITERATURE REVIEW To provide an in-depth assessment of the current study, we divided this review into subsections that examine GG, environmental quality, GTO, eco-innovation, and carbon price. 2.1 Research on GTO, GG, and CEs In the recent past, nations and economies have become increasingly interested in expanding their international interactions. consequently, human activities linked to the consumption of energy and extraction of natural assets have become more prevalent and detrimental to environmental quality (Rafei et al., [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0060)). Several studies have examined the association among trade, economic growth, and ecological sustainability. In light of this, Ahmed et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0001)) investigated the connotation between green energy generation, technical advancements, trade, and economic growth for South Asian economies (SAE). Based on the research results, the researchers concluded that green trade had made significant contributions to SAE's green economic growth. Likewise, Li et al., ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0048)) found a positive long-run association between green trade and green economic growth for China and proposed long-term global integration of the nations to strengthen the production of green goods. Similarly, Liu et al. ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0051)) utilizes a Chinese city-level panel dataset to investigate how green good exports affect the green total factor productivity (GTFP). The results suggest that green products export hamper China's sustainable growth. Conventional green goods for resolving environmental problems considerably reduce GTFP. Furthermore, Alam and Sumon ([2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0006)), and Keho ([2017](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0044)) discovered that international trade had a favorable impact on economic growth. Similarly, Li et al., ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0050)) concluded that substitution of renewable energy sources in the production process and trade openness contribute to the reduction of global CEs and promote economic growth. The authors also investigated how GTO influences CEs. To this backdrop, Ali et al. ([2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0007)) studied how different types of trade impact greenhouse gas emissions for OIC countries. The study discovered that green trade substantially cuts greenhouse gas emissions. For the top 10 green future economies Wei et al. ([2023](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0084)) considered the impact of green trade on environmental quality and findings showed that green trade boost quality of the environment. Research related to the impact of international trade on CEs yielded contradictory findings. Some scholars, for example, Rehman et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0062)) and Ullah et al. ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0071)) using ARDL findings in the Pakistan economy context, found positive and fruitful relationships exist between globalization, energy consumption, and international trade, and ecological footprint. Concerning South African economies, Udeagha and Ngepah ([2019](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0070)) explored the link between trade openness and discovered a positive short-run relationship but a negative correlation in the long run. Mensah et al. ([2018](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0052)) showed that international trade, urbanization, and energy use are the primary contributors to environmental deterioration in China. Duan and Jiang ([2017](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0026)) discovered similar sorts of findings in their analysis for the Chinese economy. Another study analyzed the impact of international trade on CEs. It was concluded that international trade boosts economic activity by accelerating the movement of goods and services. But, as a consequence of globalization, nations now require greater resources. Also, trade openness encourages nations to relocate industries with high-pollution levels, which has a significant negative impact on the environment (Wang et al., [2023](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0080)). 2.2 Eco-innovation, GG, and CEs Several empirical research Ahmed et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0001)); Hao et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0033)) and Sohag et al. ([2019](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0064)), demonstrated a positive and substantial relationship among eco-innovations and green economic growth. Sohag et al. ([2019](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0064)) highlighted financial sector reforms to support green technologies and sustainable development. Eco-innovations are the most appropriate mechanism for boosting living standards and ensuring social sustainability. They achieve this by effectively and efficiently using limited resources (Klewitz & Hansen, [2014](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0046)). Ahmed et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0001)) examined the connection between advancements in technology and green economic growth from the perspective of South Asian countries and found that green technological advances contribute to green economic growth by acknowledging several environmental issues like the reduction of carbon dioxide emissions. Similar findings were made by Padilla-Pérez and Gaudin ([2014](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0056)), who found a significant and positive correlation among technology, science inventions and the rate of green economic growth in Central American nations. Green technological advancements improve the energy sector and reduce CEs, which promote long-term growth (Chen et al., [2016](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0018); Guo et al., [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0032)). Contradictory findings were found in the literature on how technological innovation affects CEs. In the case of the Middle East and West Asian economies, Kihombo et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0045)) investigated that how technological advancements decrease environmental impact and accelerate economic growth? The authors concluded that green innovations reduce CEs. Similarly, Ahmed et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0001)) proposed that although the expansion of energy resources and economic growth increase the ecological footprint, technological advancement is crucial in the long run to maintain environmental sustainability. Their research findings in emerging economies supported this assertion. Usman and Hammar ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0074)), on the other hand, for Asia Pacific Economic Cooperation (APEC) countries discovered that technological innovations enhance the ecological footprints. Furthermore, Destek and Manga ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0023)) found that technological advancements have greatly reduced CEs but were ineffectual in falling ecological footprint for the large emerging market economies. Bekun ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0012)) suggested for Indian policymakers that they must provide incentives for reducing CEs, tax breaks, and other forms of financial support to companies that produce appropriate green energy technologies. 2.3 Research on the carbon price, GG, and CEs In recent decades, most of the world's economies have adopted a low carbon inclusive growth policy, with carbon taxes serving as the most direct mean of reducing CEs. Although a carbon price is an efficient instrument for reducing CEs, it also slows economic growth. Hence, a trade-off exists between the carbon price and GDP growth (Ojha et al., [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0055)). Bi et al. ([2019](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0013)) discovered that, in the short term, carbon taxes significantly impacted China's economic growth while reducing carbon mitigation; however, both impacts were mitigated in the long run. A plethora of empirical studies Pal et al. ([2015](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0057)) and Ojha ([2009](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0054)) suggested that while carbon pricing is an effective mechanism for reducing CEs, it also decreases the country's economic progress. Researchers proposed carbon price revenue recycling (transferring income generated by carbon price/tax on fossil energy fuels such as coal, gas, and crude oil to green energy projects such as hydro, solar, wind, geothermal, and biomass, among others, as a subsidy) to enhance inclusive green economic growth (Gerlagh & Van der Zwaan, [2006](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0030)). The main purpose of levying a carbon tax/price on fossil fuels based on their carbon level is to assure ecological safety and sustainability. Tariq and Xu ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0068)), and Hao et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0033)) examined the crucial role of carbon pricing on CO2 emissions in G-7 countries and discovered that carbon price is significantly reduced CO2 emissions; thus, these economies must concentrate on ecological pricing policies through taxation as well as green economic growth at the same time. Although most of the research reviewed in the literature showed the negative impact of carbon prices on pollutant emissions and the positive impact on environmental quality. Few studies, such as Wier et al. ([2005](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0086)) discovered evidence suggesting carbon prices slightly stimulate CO2 emissions. 2.4 Literature gaps Summarizing the current research literature, the results related to the GG and environmental impacts of green openness, eco-innovation, carbon price, and green energy were found to be sensitive to different research approaches, and there are still several shortcomings in the previous research studies. As we know from the literature, few studies focused on the relationship between green energy and GG. Although, few scholars have investigated the relationship between sustainable economic development and green innovations for the sample countries under investigation. To the best of our knowledge, no research has looked at the 4G (GG, trade, energy, and innovation) nexus for emerging countries since the 4G nexus is essential for emerging economies to attain socioeconomic and environmental sustainability. Although “GG” has been debated for some decades, an actual “GG index” has yet to be developed for emerging economies. In the academic literature, there is no generally agreed-upon single aggregate index of GG. However, in the present study, we have tried to develop a GG index that included the best and most reliable indicators from the five dimensions of GG. Furthermore, the majority of earlier studies relied on proxies to measure the worth of eco-friendly goods in a certain region, including applications for patents, and technical advancements, while some studies used individual green traded products to capture green trade indicators. However, the current study is relied on both traditional environmental goods and eco-friendly products, using 255 products in total from OECD combined list of environmental goods (CLEG) list, which is the largest basket of green products. Additionally, the results of the available studies are inconsistent and contradictory for a number of reasons, one of which could be the analytical methods. The studies mostly ignore the asymmetrical dynamic long and short-term links among the selected variables and assume symmetric relationships between green openness, eco-innovations, carbon price, GG, and CEs. Whereas, asymmetric empirical findings solve the shortcomings of responsiveness and interpretations of linear estimated approaches and can offset spurious impacts of independently targeted determinants on outcome indicators. 3 THEORETICAL FRAMEWORK, DATA, AND METHODOLOGY 3.1 Theoretical framework In literature, few studies have tried to appraise the connections between low-carbon emissions, GG, carbon price, and GTO. This section describes how “eco-innovations, green openness, carbon price, and green energy contribute to green economic growth”. From the limited literature we conclude that, in order to promote economic growth while addressing environmental issues, green economic growth is recognized as an effective strategy. To study the basic analytical pathway of the influence of green openness, green technological innovations, carbon price, and green energy consumption on green economic growth and low-carbon emissions, the present study designed neoclassical Green Solow growth model in accordance with (Brock & Taylor, [2010](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0015)). Though our emissions function has differed from the formulation of Brock and Taylor, we believe that our approach is conceptually much more straightforward and esthetically better. The cobb–Douglas production function is supposed to provide the functional form followed by (Huang & Quibria, [2013](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0037)): 𝑄=AK𝛼⁢𝐿1−𝛼,(1) where in the above equation, Q is output, K is capital, L is labor, and A represents the total factor productivity that represents the percentage change in output due to changes other than labor and capital. Equation ([1](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0001)) can also be written in an intense form as: 𝑞=Ak𝛼,(2) here q = Q/L represents gross productivity per worker and 𝑘 = K/L represents capital per worker. Since it is commonly recognized, (0<𝛼<1), suggests that the production per worker has diminishing returns. Given by, the (net) output is: γ𝑦=𝑞⁢(1−γ),(3) where y = Y/L is denoted by per worker net output; and γαγ=α symbolized a set fraction of the domestic (gross) product that is committed to emission control. We may write down the equation for capital accumulation as: γ𝜕𝑘𝜕𝑡=sAk𝛼⁢(1−γ)−(𝜎+𝑛).(4) Capital per worker productivity change is 𝜕𝑘𝜕𝑡. An amount of the net product is expected to be set aside for future investment. On the independent side, γsAk𝛼⁢(1−γ) stands for gross investment, whereas (𝜎+𝑛) is the combination of the depreciation rate of capital and the population size of the labor force. Assuming the following emission function regarding pollution, we have followed (Eriksson, [2013](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0028); Huang & Quibria, [2013](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0037)); ℇ𝓅ℇℇ𝑖,𝑡=pℇ𝑖,𝑡⁢𝑞𝑖,𝑡𝐴⁢𝐹,(5) on the left-hand side of the above equations, it is presumed that cumulative pollution from all economic sectors indicated by, ℇℇ𝑖,𝑡, with the share of emissions attributed to economic activity denoted by, 𝓅ℇpℇ𝑖,𝑡, whereas, 𝑞𝑖,𝑡, represents the output of that economy. In addition, we presume that emission reduction correlates negatively with technological progress. As suggested by (Huang & Quibria, [2013](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0037)), the greater amount of technology, 𝐴, denotes green technologies. Moreover, we presume that technology advances at a rate of 𝜗 due to exogenous factors, alternatively expressed by 𝐴̂=𝜗. Lastly, it is expected that emissions will be reduced when resources are dedicated to mitigation. We have presumed that a constant fraction of economic output, 𝐹, is allocated to abatement. Following is the abatement mechanism: γ𝐹=(γ⁢𝑞)𝜇,𝜇>0<1.(6) Equation ([6](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0006)) indicates that spending on environmental protection measures has a positive but declining influence on abatement. The previous studies are compatible with this reasonable assumption. The capital accumulation Equation ([4](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0004)) suggests equaling zero.[1](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-note-0001_note_0) As a result, the steady-state equation 𝑘\* is as follows: γ𝑘\*=sA⁢(1−γ)(𝜎+𝑛)1/(1−𝑎),(7) the above Equation [7](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0007) shows that the steady-state 𝑘\* decreases as the fraction of output allocated to mitigation increases. The steady-state per capita income (y) declines as 𝑘\* declines. This does not affect the growth rate of the steady-state. Afterward, we will establish a relationship between the Solow steady-state and the EKC. But to perform so, take into consideration Equation ([5](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0005)). The following is derived by substituting γ𝐹=(γ⁢𝑞)𝜇 from Equation ([6](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0006)) into Equation ([5](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0005)) and simplifying: ℇ𝓅ℇγℇ𝑖,𝑡=pℇ𝑖,𝑡⁢𝑘(1−𝜇)/𝑎𝐴𝑖,𝑡𝜇⁢γ𝜇,(8) by differentiating and simplifying Equation ([8](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0008)) with respect to time, we obtain the equation given below. ℇ𝓅ℇγℇ~𝑖,𝑡=pℇ~𝑖,𝑡+(1−𝜇)⁢𝛼⁢𝑘~𝑖,𝑡−𝜇⁢𝐴~𝑖,𝑡−𝜇⁢γ~𝑖,𝑡.(9) This could also be modified as follows: ℇ𝓅ℇγℇ~𝑖,𝑡=pℇ~𝑖,𝑡+(1−𝜇)⁢𝛼⁢𝑘~𝑖,𝑡−𝜇⁢𝜗𝑖,𝑡−𝜇⁢γ~𝑖,𝑡.(10) Equation [10](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0010) shows that the emission growth (ℇℇ~𝑖,𝑡) is inversely connected to technical advancement (𝜇⁢𝜗𝑖,𝑡) in addition to a rise in the abatement expenditures rate. Meaning that if improve in environmentally friendly technological progress and increase expenditures on abetment (γ𝜇⁢γ~𝑖,𝑡) will lead to decrease in the growth rate of total emissions (Hao et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0033)). Ceteris paribus, the emission curve precisely replicates the basic equation of the Solow growth model and provides the Environmental Kuznets Curve. According to the Equation [10](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0010), the economy can only experience to long run GG in the situation that the following conditions occurred: First: ℇ𝓅ℇγℇ~𝑖,𝑡=−𝜇⁢𝜗𝑖,𝑡<0,if and only if𝑘~𝑖,𝑡=pℇ~𝑖,𝑡=γ~𝑖,𝑡=0.(11) This proposes that if eco-innovation occurs, the EKC will attain its negatively sloped section even before the model obtains the Solow steady-state equilibrium, Ceteris paribus. Therefore, when there is an increase in the expenditure on abatement, γγ~𝑖,𝑡, or if Eco-innovation improves, 𝜇⁢𝜗𝑖,𝑡, the turning point of the EKC will come quicker; Second: ℇℇ~𝑖,𝑡=(1−𝜇)⁢𝛼⁢𝑘~𝑖,𝑡−𝜇⁢𝜗𝑖,𝑡=0,if and only if𝑘~𝑖,𝑡=𝜇⁢𝜗𝑖,𝑡(1−𝜇)⁢𝛼>0.(12) This suggests that if the capital per worker growth rate or level of income falls below the appropriate Solow steady-state growth thresholds, the emissions growth rate becomes zero. It is evident from the theoretical background that green economic growth is possible if more resources are allocated to research and development initiatives to improve eco-innovation and in order to meet carbon neutrality goals, authorities should announce a long-term comprehensive approach for boosting the trading of environmentally friendly goods and also increase the environmental taxes it will encourage to that work to guarantee a healthy environment while also increasing economic growth. Based on the theoretical concept, this study provides the following appropriate functional forms, which will be empirically examined. CEit=𝑓⁡(EIit,GTOit,CPit,GEit,GDPit,GDPit2),(13) GGit=𝑓⁡(EIit,GTOit,CPit,GEit,GDPit,GDPit2),(14) where from Equations ([13](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0013)) and ([14](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0014)), (CE) denotes “carbon emissions,” “GG,” “GTO,” “carbon price (CP),” “eco-innovation (EI),” “green energy consumption (GE),” “per capita gross domestic product (GDP),” “per capita GDP square (GDP2).” We extend Equations [13](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0013) and [14](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0014) to the subsequent empirical equations. CEit=𝜆𝑖+𝜆1⁢EI𝑖⁢t+𝜆2⁢GTOit+𝜆3⁢CPit+𝜆4⁢GEit+𝜆5⁢GDPit+𝜆6⁢GDPit2+𝜀it,(15) GGit=𝜆𝑖+𝜆1⁢EIit+𝜆2⁢GTOit+𝜆3⁢CPit+𝜆4⁢GEit+𝜆5⁢GDPit+𝜆6⁢GDPit2+𝜀it,(16) where “⁢𝑖” represent a cross-section (e.g., emerging economies) and 𝜆 represents constant, “⁢𝜆1, 𝜆2, 𝜆3, 𝜆4,and𝜆5” denotes the slope coefficients of all independent variables, while “⁢𝑡” represents the timeframe of the study. 3.2 Variables and data The present study examines the role of green openness, eco-innovations, carbon price, and green energy for the low-carbon emissions and GG in top 12 EMEs, where BRIICS economies are also included.[2](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-note-0002_note_1) Based on the availability of data for all indicators, this study covers the period from 1996 to 2021. Following are the operational definitions of key variables. 3.2.1 GG index GG is the primary explained variable in our study. It is hard to measure GG using a single composite index. Given the availability of data at the country level, we decided to create a new GG index using 5 dimensions and 30 indicators. For this purpose, the authors combined the list of GG dimensions and indicators proposed by OCED and (GGGI, [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0031)) to offer the best feasible and most reliable indicators capable of monitoring important aspects of GG as well as reflective of a larger set of GG subjects. These suggested dimensions are divided into the following five categories: (i) natural asset basis, (ii) environmental and resource productivity, (iii) economic opportunities, (iv) socio-economic context and features of growth, and (v) the environmental quality of life. Detailed explanations of each indicator and dimensions for GG index are presented in Table [B1](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0007) in the Appendix [B](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-app-0002). To construct an index, we must figure out the weights of the variables using a certain approach. Consistent techniques are required to measure the comprehensive performance of GG, and the weighting for indicators is a challenge that every approach must solve. Thus, the current study opted for the entropy weight technique to allocate emphasis across several indicators. The entropy weight technique is a useful tool for describing both certainties and unknowns. In addition, entropy weight can increase the neutrality of the decision-making process and reduce the chance of errors (Du et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0025); Wang et al., [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0081)). The composite index we developed may represent GG levels from the perspective of all 30 indicators. Detailed methodology of the entropy weight method is presented in Appendix [A](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-app-0001). 3.2.2 GTO index Literature has no consensus on a typical green goods basket. Various organizations categorize several products as environment-friendly goods. Since some product lists include certain items, other product baskets may not contain the same items. However, all other green product baskets are covered under the OECD's CLEG. The “Friends List” issued by the World Trade Organization (WTO, [2009](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0088)) as well as the “plurilateral agreement on environmental goods and services” list made public by the OECD and APEC are both included in the CLEG basket (APEC, [2012](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0009)). The current study used 255 trading goods on the OECD CLEG list, the largest basket of green products. To construct a new GTO index for the top 12 emerging market economies the study used following formula, followed by (Can et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0016)). GTO𝑖,𝑡=(GIMP𝑖,𝑡+GEXP𝑖,𝑡GDP𝑖,𝑡)×100,(17) where GTO𝑖,𝑡, GIMP𝑖,𝑡, GEXP𝑖,𝑡, and GDP𝑖,𝑡 denote GTO, total environmentally friendly products imported, total environmentally friendly goods exported, and gross domestic product in the country respectively. The index is calculated from 1996 to 2021 based on the data availability from OECD database and the UN comtrade database. Appendix [C](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-app-0003), Table [C1](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0008) provided the detailed list of Hs number of each environment friendly good. Table [1](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0001) shows the data sources, acronyms, and measurement units. Except for indices of GG and GTO, all variables are converted into log form prior to performing the empirical analysis. TABLE 1. Variables, measurement, and sources [TABLE OMITTED] Figure [1](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-fig-0001) illustrates the average rates of GG and CEs for the countries under consideration from 1996 to 2021. China has the highest GG and CEs followed by other EMEs. India, on the other hand, ranks second in terms of CEs but has the lowest green economic growth, while Hungary, Greece, and the Czech Republic are the lowest polluters. This suggests that these two nations have made progress in decreasing the adverse impacts on the environment, as their CEs are lower than the other economies. It also indicates that environmental sustainability still remains an issue in most of EMEs. With the exception of Hungary, Greece, and the Czech Republic, these nations are experiencing deeply alarming situations that pose high consequences to the lives and health of their inhabitants. [GRAPH OMITTED] FIGURE 1 In-country Average green growth and, carbon emissions, 1996–2021. The right panel of the Figure [2](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-fig-0002) shows average GTO and eco-innovation, while the left panel shows carbon price and green energy for EMEs. Hungary is leading in terms of GTO followed by other economies. In contrast, economies including India, Brazil, Greece, South Africa, and Turkey have relatively lower GTO. Interestingly, the illustration shows that all the economies have higher eco-innovation capacity compared to GTO, indicating that they have progressed further in adopting innovative techniques and innovations for environmental sustainability. Besides, the majority of EMEs in the left panel have offered strong support for the transition to green energy, which can be attributed to both eco-innovation and the declining cost of green sources. The carbon price is relatively low (Figure [2](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-fig-0002)), which is important for sustainable development. Increase in carbon price may motivate industries to invest in developing low-carbon technology, which would boost productivity and promote environmental quality. [GRAPH OMITTED] FIGURE 2 In-country Average green trade openness, eco-innovation, carbon price, and green energy, 1996–2021. Summary of the box plot for the variables under consideration from 1996 to 2021 is illustrated in Figure [3](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-fig-0003). [GRAPH OMITTED] FIGURE 3 Summarize of the box plot for the variables under consideration: GG𝑖,𝑡,CE𝑖,𝑡,GTO𝑖,𝑡,EI𝑖,𝑡,CP𝑖,𝑡,andGEC𝑖,𝑡. 3.3 Empirical methodology While doing empirical estimations using panel data, it is crucial to determine cross-sectional dependency. Traditional panel data estimation methods are inconsistent due to cross-section dependency, caused by the growing interconnectivity of social and economic structures and by unexpected common shocks (Hao et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0033)). Thus, depending on methods that presume cross-sectional independence might lead to misguided results. The study under investigation employed LM test to check cross-sectional dependence (CD) with biased adjustment developed by (Breitung & Pesaran, [2008](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0014)) and the (Pesaran, [2015](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0059)) CSD test to confirm whether to apply first generation unit root or second-generation unit root tests for stationarity of the variables. In this context, we utilized the CADF, CIPS, and IPS unit root tests proposed by (Pesaran, [2007](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0058)). Prior to move further with empirical estimations, the present study also employed cross-country slope homogeneity test developed by (Swamy, [1970](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0066)) and (Hashem Pesaran & Yamagata, [2008](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0034)) to prevent the errors associated with erroneously assuming slope homogeneity. The long-run relationship between variables in both GG and CE models are investigated in this study using the (Westerlund, [2007](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0085)) co-integration test. Since it is effective with models exhibiting slope heterogeneity, this test is most relevant. In addition, this test also accounts for cross-sectional dependencies. 3.3.1 CS-NARDL model In this study, we developed an ingenious econometric technique called the CS-NARDL model based on CS-ARDL developed by (Chudik & Pesaran, [2015](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0020)) which is an improved variant of the pooled mean group-NARDL model. There are several advantages of using the CS-NARDL method instead of alternative approaches. To begin, this technique allows us to obtain both short-run and long-run estimates simultaneously. Second, we may include the variables that are integrated at different orders, in the analysis without having to do a preunit root test initially. Third, the cross-sectional dependency and slope heterogeneous issues are solved by using this technique. Furthermore, asymmetric empirical methodology resolves the shortcomings of responsiveness and interpretations of linear estimated approaches and can offset spurious impacts of independently targeted determinants on outcome indicators. Additionally, since the dynamic relationships between the specified series are impacted by a variety of factors, including political, social, and economic contexts, depending just on the symmetric correlation may result in poor policy decisions. Therefore, it is still crucial to separate the effects of negative and positive shocks in the dynamic series to identify their various effects on the performance of GG and CEs in EMEs. Finally, this estimation technique provides both long and short-run positive and negative shock coefficients. The assumption behind the CS-ARDL model is that the independent variables have symmetric influences on dependent variable. However, our prime objective is to modify the equation of CS-ARDL, so that we may examine the asymmetric impacts of independent variables on dependent variables. Accordingly, we need to generate new variables, as given below: GTO𝑖,𝑡+=∑𝑛=1𝑡∆GTO𝑖,𝑡+=∑𝑛=1𝑡max⁡(∆GTO𝑖,𝑡+,0)GTO𝑖,𝑡−=∑𝑛=1𝑡∆GTO𝑖,𝑡−=∑𝑛=1𝑡min⁡(∆GTO𝑖,𝑡−,0),(18) CP𝑖,𝑡+=∑𝑛=1𝑡∆CP𝑖,𝑡+=∑𝑛=1𝑡max⁡(∆CP𝑖,𝑡+,0)CP𝑖,𝑡−=∑𝑛=1𝑡∆CP𝑖,𝑡−=∑𝑛=1𝑡min⁡(∆CP𝑖,𝑡−,0),(19) EI𝑖,𝑡+=∑𝑛=1𝑡∆EI𝑖,𝑡+=∑𝑛=1𝑡max⁡(∆EI𝑖,𝑡+,0)EI𝑖,𝑡−=∑𝑛=1𝑡∆EI𝑖,𝑡−=∑𝑛=1𝑡min⁡(∆EI𝑖,𝑡−,0),(20) where GTO𝑖,𝑡+, GTO𝑖,𝑡−, CP𝑖,𝑡+, CP𝑖,𝑡−, EI𝑖,𝑡+, and EI𝑖,𝑡− are represents the positive and negative shocks of the variables. Following Sohail et al. ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0065)); Tariq et al. ([2019](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0069)) and Wang, Huang, et al. ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0078)), we Substitute the positive as well as negative variables in the Equations [21](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0021) and [22](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0022) CS-ARDL model yields the following revised equation. ∆CE𝑖,𝑡=𝛼it+𝜆𝑖⁢(CEit−1−𝜇𝑖⁢𝑋+it−1−𝜇𝑖⁢𝑋−it−1−𝜗𝑖⁢ln⁡CE¯𝑡−1−𝜗2⁢𝑖⁢𝑋¯𝑡−1)+∑𝑗=1𝜌−1𝜆ij∆CE𝑖,𝑡−𝑗+∑𝑗=0𝑞−1𝜃ij⁢𝑋+it−𝑗+∑𝑗=0𝑞−1𝜃ij⁢𝑋−it−𝑗+𝜂1⁢𝑖∆CE¯𝑡+𝜂2⁢𝑖∆𝑋¯+¯𝑡+∆𝑋¯−¯𝑡+𝜀it,(21) θ∆GG𝑖,𝑡=𝛼it+𝜆𝑖⁢(GGit−1−𝜇𝑖⁢𝑋+it−1−𝜇𝑖⁢𝑋−it−1−𝜗𝑖⁢ln⁡GG¯𝑡−1−𝜗2⁢𝑖⁢𝑋¯𝑡−1)+∑𝑗=1𝜌−1𝜆ij∆GG𝑖,𝑡−𝑗+∑𝑗=0𝑞−1𝜃ij⁢𝑋+it−𝑗+∑𝑗=0𝑞−1θij⁢𝑋−it−𝑗+𝜂1⁢𝑖∆CE¯𝑡+𝜂2⁢𝑖∆𝑋¯+¯𝑡+∆𝑋¯−¯𝑡+𝜀it,(22) After conducting a direct estimation of both models, the long-run coefficients can be calculated as follows: 𝜃̂CS−NARDL,𝑖=∑𝑗=0𝑞−1𝜃ij1−∑𝑗=1𝜌−1𝛾ij.(23) While CS-NARDL serves as the foundation for our investigation, we have also employed the AMG and NAMG regression models to verify the stability of our findings. The AMG estimator was first proposed by (Eberhardt & Bond, [2009](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0027)) to estimate the symmetric long-run parameters in heterogeneous panel data. Similar to the CS-ARDL estimator, the AMG estimator is resistant to both parameter heterogeneity and cross-sectional dependency. While NAMG estimator developed by authors with substituting the positive and negative variables based on Equations [18](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0018), [19](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0019), and [20](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-disp-0020) for nonlinear robustness estimation. 4 RESULTS AND DISCUSSION Results from testing the dependency in cross-sections are presented in Table [2](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0002). The outcomes of the CDpesaran and LMBiased adjusted tests indicate that all the variables under consideration are reliant on the outcome variables CE and GG. Not only this, CD also exists among these variables. Furthermore, the results of CD test in residuals also confirm the presence of CD problem. These results suggest that, during the study time period, EMEs are interdependent on each other in terms of GG, CEs, green trade, eco-innovations, and green energy. TABLE 2. Cross-sectional dependency and slope homogeneity test results [TABLE OMITTED] Source: Author's estimations. Additionally, Table [2](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0002) also provides the results of the slope homogeneity test. The findings supported alternative hypothesis and rejected null hypothesis of homogeneous slope coefficients for both the models at 1% level of significance. Thus we conclude that, the dataset has the problem of slope heterogeneity for emerging nations, where socioeconomic and demographic variables may predominantly cause this problem. The CD and slope homogeneity tests results confirmed that the null hypotheses are invalid; hence further empirical investigation can be carried out by employing second-generation panel data econometric methods. Given the presence of CD and slope heterogeneity, this study has been constrained to apply second-generation CIPS and CADF unit root tests, considering the possible challenges with panel data. The results of the CIPS and CADF unit root tests are shown in Table [3](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0003). On the basis of these results, it can be inferred that certain variables, such as GG, CE, GTO, CP, GDP, and GE, exhibit nonstationary at the level while EI is stationary at the level. However, CADF and CIPS indicate stationary at the first difference for most of the variables. Therefore, we conclude from the unit root tests results that our model has mixed order of integration. As there is a combination of the I(0) and I(1) stationary series, we may use the Westerlund co-integration technique to analyze the long-run associations among the study variables. TABLE 3. First and second-generation unit root test results [TABLE OMITTED] Note: \*\*\*, \*\*, \* denotes significant at 1%, 5%, and 10% respectively. Table [4](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0004) summarizes the results of Westerlund cointegration test and supports the presence of long-term co-integration connections among the variables. It implies that all variables move in tandem throughout time, leading to a long-term equilibrium. After confirming the co-integration among the study variables, we applied CS-NARDL technique to measure nonlinear coefficients for the variables under consideration. TABLE 4. Cointegration test results [TABLE OMITTED] Source: Author's estimations.

[CONDENSED FOR READABILITY]

Table [5](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0005) provided the long-run and short-run results for both GG and CE models. Results indicate that any positive shock in GTO leads to an increase in GG and decrease in CEs. According to the coefficient, it is evident that 1% increase in positive shock of GTO leads to 0.153% improvement in GG, for example, 𝜕GG𝑖,𝑡𝜕GTO𝑖,𝑡+>0 and it is associated with a 0.0453 percentage decrease in CE, as shown by the coefficient, for example, 𝜕CE𝑖,𝑡𝜕GTO𝑖,𝑡+<0. The estimated coefficient for the negative shock in GTO has negative effect on GG and statistically insignificant, while it has a positive and significant effect on CE for example, 𝜕GG𝑖,𝑡𝜕GTO𝑖,𝑡−=0, and 𝜕CE𝑖,𝑡𝜕GTO𝑖,𝑡−>0. This particular result of any negative shock in GTO suggests that any reduction in GTO has no significant long-term impact on GG in EMEs. This result is consistent with various international trade theories including comparative advantage, the Porter hypothesis, and ecological modernization. GTO in emerging nations can reduce CEs, improve energy efficiency, enlarge eco-friendly industries, and contribute to sustainable development. This evidence also supports earlier researches conducted by (Can et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0016); Huang & Zhao, [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0036)), which showed that Green trade encourages sustainable development and lowers greenhouse gas emissions, especially in developing nations. Similarly, these results are also consistent with Ahmed et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0001)), and Can et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0016)), who demonstrated that green trade could promote the adoption of environment friendly industrial techniques and benefits countries in achieving their climate targets. Likewise, Li, Wang, and Wang ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0050)), and Wei et al. ([2023](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0084)) also found similar results for positive long-run association between green trade and green economic growth for China and proposed long-term global integration of the nations to strengthen the production of green goods. International trade has made it possible for EMEs to produce and export green goods around the globe and import a wide range of green goods from other countries. Furthermore, positive shocks in carbon price (CP) have a considerable and favorable impact on GG and significant negative effect on CEs [Carbon Emissions], for example, 𝜕GG𝑖,𝑡𝜕CP𝑖,𝑡+>0, and 𝜕CE𝑖,𝑡𝜕CP𝑖,𝑡+<0. Specifically, it suggests that a 1% change in positive shocks of CP [Carbon Pricing] ultimately results in a 0.130% increase in GG and 0.163% decrease in CEs [Carbon Emissions]. However, any negative shock in carbon price has no significant effect on both GG and CE in EMEs. This finding is consistent with the economic theory that higher prices incentivize individuals and firms to adopt cleaner technologies and reduce emissions. These results are also consistent with the results of Chien et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0019)), and Hao et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0033)) who argued that environmental taxes could play a vital role in sustainable development via reduction in CEs. Similar types of results that is, increase in carbon prices or environmental taxes can reduce the amount of CO2 emissions in the environment and improve environmental sustainability were found by (Chien et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0019); Tao et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0067)). Carbon price as a policy instrument has been designed to discourage greenhouse gas emissions. Moreover, the carbon price mechanisms can encourage firms to invest in advancing low-carbon technologies, resulting in an increased productivity and environment friendly economic growth in EMEs.

TABLE 5. Long and short run results of cross-sectional augmented nonlinear autoregressive distributed lag

| Variables | Long run coefficients | | | | Short run coefficients | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Green growth model dependent variable (GG) | | Carbon emissions model dependent variable (CE) | | Green growth model dependent variable (GG) | | Carbon emissions model dependent variable (CE) | |
| Coefficients | 𝓏𝑧stats | Coefficients | 𝓏𝑧stats | Coefficients | 𝓏𝑧stats | Coefficients | 𝓏𝑧stats |
| GTO𝑖,𝑡+ | 0.1537\*\*\* | 4.7600 | −0.0453\*\*\* | −3.117 | 0.0193 | 1.260 | −0.0354\* | −1.8348 |
| GTO𝑖,𝑡− | −0.0827 | −1.0972 | 1.0272\*\* | 5.818 | .02210\*\* | −2.130 | 0.7694\*\* | 1.9769 |
| CP𝑖,𝑡+ | 0.1302\*\* | 1.9994 | −0.1635\*\* | −1.952 | 0.1502\*\*\* | 3.635 | −0.6839 | −1.3700 |
| CP𝑖,𝑡− | −0.0846 | −1.2991 | 0.0942 | 1.277 | −0.12931 | −1.06 | 0.0473 | 1.3806 |
| EI𝑖,𝑡+ | 0.0318\*\*\* | 2.885 | −0.0348\*\*\* | −2.636 | 0.0344\*\* | 2.157 | −0.3865\*\* | −1.9893 |
| EI𝑖,𝑡− | −0.0926\*\*\* | −8.4029 | 0.1528\* | 1.8498 | −0.0625\*\*\* | −2.932 | 0.0847 | 1.6198 |
| GE𝑖,𝑡 | 0.7561\*\*\* | 4.9868 | −1.6361\*\*\* | −4.269 | 1.0453\*\* | 2.100 | −0.7862\*\*\* | 5.1625 |
| Gdp𝑖,𝑡 | 0.352\*\* | 1.9498 | 0.758\*\*\* | 3.1167 | 0.327\* | 1.942 | 1.2851\*\* | 8.4385 |
| Gdp2𝑖,𝑡 | −0.361\*\*\* | −2.890 | −0.4952\*\*\* | −2.727 | −0.643\*\* | −2.107 | −0.8512\*\*\* | −3.9660 |
| GG−1 |  |  |  |  | −0.6985\*\*\* | −6.774 | −0.7125\*\*\* | −6.864 |

Abbreviations: CE, carbon emissions; GG, green growth.

Note: \*\*\*, \*\*, \* denotes significant at 1%, 5%, and 10% respectively.

Source: Author's estimations.

Further, the study results also demonstrate that positive shocks in eco-innovations have a growing impact on GG and reduce CEs in EMEs. According to the result, a 1% increase in positive shock in EI leads to a 0.031% increase in GG while the same increase in positive shock of EI reduces CEs by 0.026% in the long-run, for example, 𝜕GG𝑖,𝑡𝜕EI𝑖,𝑡+>0, and 𝜕CE𝑖,𝑡𝜕EI𝑖,𝑡+<0. Besides, the negative shock of EI has negative and significant impact on GG and positive effect on CEs [Carbon Emissions] with the coefficients respectively −0.092 and 0.1528 in the long-run for EMEs, for example, 𝜕GG𝑖,𝑡𝜕EI𝑖,𝑡−<0, and 𝜕CE𝑖,𝑡𝜕EI𝑖,𝑡−>0. Our findings about the favorable correlation between eco-innovations and GG are supported by earlier studies, such as Hussain et al. ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0038)), Wang, Umar, et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0077)), and Urbaniec et al. ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0073)) who claimed that eco-innovations assist in maintaining a sustainable environment by limiting the use of scarce resources and strengthening circular economy policies. Prior studies have shown that in order to transform the country from brown to green, ambitious green energy regulations and eco-innovation improvements are required (Akhtar et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0005); Wang, Umar, et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0077)). This result suggests that the usage of environment friendly technologies in the growth process may cause a direct reduction in the pollution. These outcomes also show that eco-innovations may have a remarkable influence while maintaining environmental sustainability and achieving the global objective of GG that is, they can reduce negative environmental consequences, increase agro-industrial production, protect natural resources, and promote capital accumulation in EMEs. Moreover, Green energy consumption has significant positive impact on GG while negative effect on CEs for example, 𝜕GG𝑖,𝑡𝜕GE𝑖,𝑡>0, and for example, 𝜕CE𝑖,𝑡𝜕GE𝑖,𝑡<0, 𝜕GG𝑖,𝑡𝜕GDP𝑖,𝑡>0. These results are in line with the findings of (Chien et al., [2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0019)), who concluded that green energy contributes to the environmental sustainability by reducing CEs. Li, Wang, and Wang ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0050)) also claimed that the green energy consumption improves environmental quality while promoting economic growth for 120 sample economies. Similarly, these results were also supported by a recent study conducted by Balsalobre-Lorente, Ibáñez-Luzón, et al. ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0011)), who claimed that environmental deterioration can be slowed down since renewable energy has a negative influence on CO2 emissions. Thus, we conclude that consumption of renewable energy sources like solar, hydro, wind, and geothermal etc. in the production process can reduce CEs and promote GG leading towards the accomplishment of global objective of sustainable development. GDP per capita have positive effects both on CEs for example, 𝜕CE𝑖,𝑡𝜕GDP𝑖,𝑡>0, and GG that is, 𝜕GE𝑖,𝑡𝜕GDP𝑖,𝑡>0. This result in line with the findings of Wang, Wang, and Li ([2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0079)) who concluded that economic development and environmental quality are nonlinear. As urbanization grows, the impact of economic growth on CEs is amplified.

Finally, any change from positive to negative in the coefficients of GDP to GDP-square denotes an inverted U-shaped link between economic growth and CEs in EMEs which is consistent with the EKC hypothesis. The coefficient of Gdp2𝑖,𝑡 for GG is also negative for example, 𝜕GG𝑖,𝑡𝜕Gdp2𝑖,𝑡<0, which shows the inverted U-shaped relationship between GG [Green Growth] and GDP for these economies. This outcome is consistent with the result of (Hussain et al., [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0038); Jahanger et al., [2022](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0042)) that the square of GDP negatively influences GG. In addition to this, this result was also supported by the outcome of (Wang et al., [2023](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0080)) for 208 world economies. In contrast, these results are inconsistent with the findings of Ahmed and Le ([2021](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0003)) and (Zafar et al., [2020](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-bib-0090)), who found U-shaped relationship between GDP per capita and CEs. These results suggest that emerging economies urgently need huge amounts of natural capital to flourish economically. If it happens, natural resources abundance is likely to contribute GG positively. But, when a certain threshold was reached, GG began to drop alongside rising GDP due to the increase in aggregate demand, which in return would reduce the availability of nature-based resources.

The robustness of the CS-NARDL results of both GG and CEs models for this study were re-examined by employing the AMG and NAMG methods in Table [6](https://onlinelibrary-wiley-com.proxy2.cl.msu.edu/doi/full/10.1002/sd.2711#sd2711-tbl-0006). It is noticeable that the results of long-run estimations produced by AMG, as well as NAMG and CS-NARDL estimators are quite similar. Although the magnitudes of the coefficients differ slightly in different estimators. If we compare the magnitudes of the coefficients of CS-NARDL with that of NAMG estimator, CS-NARDL estimator produces higher magnitudes of the coefficients than NAMG estimator. The results of both robustness estimators indicate that GDP, GTO, CP, EI, and GE have significant influences on GG and CEs in EMEs.

### Cap K---Offense T/L---2AC

#### Every advantage scenario is an internal link turn and DA to the ALT:

### Cap K---Science DA---2AC

#### 1---science---direct democratic worker control wrecks expert bureaucracy and causes extinction through agricultural, environmental and public health crises---anti-intellectual janitors outnumber liberal PhDs, even in federal agencies---that’s Pedersen…

#### …AND

Hanson & Kopstein 24 [Stephen E. Hanson, Professor in the Department of Government at William & Mary, PhD Political Science, University of California, Berkeley; and Jeffrey S. **Kopstein**, Professor of Political Science at the University of California, Irvine, PhD Political Science, University of California, Berkeley; “At the Precipice,” Chapter 1, *The Assault on the State: How the Global Attack on Modern Government Endangers Our Future*, Polity Press, 2024, Kindle Edition, ISBN 978-1-5095-6315-9, p.9-22] \*[language modifications in brackets]

Americans love to hate the state. It’s difficult now to find anyone in American politics who defends the positive contributions of “state bureaucrats” to our way of life. On the left, democratic socialists see the state as an instrument of wealthy corporate interests, while anarchists continue their quest to smash the state entirely. On the right, Christian nationalists and supporters of enhanced presidential executive power have allied to undermine the power of the secular “administrative state.” Meanwhile, influential billionaires promote the staunchly anti-statist philosophy of libertarianism at think-tanks, universities, and chambers of commerce across the country.

Sometimes, hatred of the state can take fanciful forms. Silicon Valley tech mogul Peter Thiel, for example, has allied with Patri Friedman – grandson of famed libertarian economist Milton Friedman – to promote the concept of “seasteading,” that is, the creation of voluntary cities on the ocean outside of any state’s jurisdiction, made up of individual floating homes that can re-dock elsewhere whenever the local seasteading rules get too oppressive. And extremist groups promoting the “sovereign citizen movement,” which claims that states have no legal authority over individuals whatsoever, have grown significantly since the COVID-19 pandemic. Given all of these diverse movements depicting central government as their mortal enemy, it’s no wonder that belief in the existence of a global “deep state” conspiracy to stamp out human liberty is at an all-time high.1

But as annoying as state bureaucracies and government experts sometimes are, all of us depend on them to live what we now consider normal lives. Like the air we breathe, government agencies are mostly invisible, but without them we would be in grave danger. Without them, our food, water, and air would be poisonous, our money worthless, our children taught by incompetents or worse, our votes uncounted, and our national security violated. What if we no longer had legally constituted states, qualified experts, and well-organized bureaucracies to keep us secure, healthy, and democratic? What if we were to revert in the twenty-first century to premodern forms of personalistic rule? Not so long ago, kings, queens, royal children, grand viziers, and various hangers-on responded to public health crises, natural disasters, and questions of national security with quack remedies, consultation with oracles and soothsayers, or casting blame on “impure” outsiders. This was considered normal, and the results were horrifying: millions of needless deaths in plagues, floods, and genocides. In the modern world, a return to this sort of rule would threaten the very survival of our species. And as unlikely as it sounds, we are far closer to that precipice than most people imagine.

This is not another book about democracy’s demise. It is about something far graver: the assault on the modern state itself, by both elected and unelected leaders. Some of its enemies call for the elimination of the “administrative state,” the dense web of government agencies, staffed by professionals, with a degree of autonomy in deciding how laws are enacted. Others of a more conspiratorial bent see themselves engaged in a pitched battle with a shadowy “deep state.” In essence, both terms have come to refer simply to the modern state as we know it – that is, central government administered according to the rule of law and staffed by employees recruited for their merit and expertise rather than due to their personal connections. This assault is part of a terrifying global trend toward resurrecting older models of state-building based on personalistic authority, one that started in Vladimir Putin’s Russia but has since spread throughout the world. In countries as diverse as Hungary, Israel, the United Kingdom, and the United States, vituperative attacks on “unelected bureaucrats” have morphed into power grabs by self-aggrandizing politicians who attempt to seize control of the state for themselves and their cronies. Unfortunately, what replaces the administrative state, once it is fatally undermined, is not the free market and the flowering of personal liberty; instead, the death of government agencies organized under the rule of law inevitably brings about its only realistic political alternative: the rule of men. The logical endpoint of this trend would be a global return to a bygone era of rule by traditional sovereigns. And the threat of such an outcome is growing.

Certainly, the destruction of the impersonal state bureaucracy in the United States remains an obsession for many in the Republican Party. Former President Donald J. Trump has depicted his entire presidency as one locked in a mortal struggle with the deep state. Florida Governor Ron DeSantis enthusiastically picked up this theme in his own presidential campaign, proclaiming that “too much power has accumulated in D.C., and the result is a detached administrative state that rules over us and imposes its will on us.” He put it even more bluntly to a New Hampshire audience in summer 2023: “On bureaucracy, you know, we’re going to have all these deep state people, you know, we’re going to start slitting throats on day one and be ready to go.” Not to be outdone by Trump or DeSantis, Arkansas Governor Sarah Huckabee Sanders tried to force all applicants to nonpartisan state board and committee jobs to write up to five hundred words on what they “admire” about her accomplishments – before flipflopping and blaming this on a “design error” in her hiring questionnaire. And Representative Marjorie Taylor Greene has gone as far as to propose a “national divorce” involving the separation of “red states and blue states” – essentially, the disintegration of the United States itself – in order to “shrink the federal government.”2

Lest one think that such criticisms are mere flights of overheated rhetoric, it’s important to emphasize that the assault on the modern state has already done a great deal of damage. Consider a revealing incident midway through the Trump presidency, when his Agriculture Secretary, Sonny Perdue, announced the relocation of the USDA’s Economic Research Services and the National Institute of Food and Agriculture from Washington, DC to Kansas City, Missouri. Rather than move, about half the employees of both agencies chose to quit. This result was intentional: to wipe out the department’s capacity to provide accurate information about the impact of climate change, threats to food security, and tax breaks to farmers. As one USDA official noted: “We’ve lost hundreds, if not thousands of staff years of expertise.” Another summed up the aftermath as follows: “The agencies have been decimated. Their ability to perform the functions they were created to perform – it doesn’t exist anymore.” Trump advisor Steve Bannon, who had promised to “deconstruct the administrative state” (a phrase adapted, sometimes with attribution, from Vladimir Lenin), got exactly what he wanted.3

But this is just a small taste of what might await us in the future. Trump made it clear that one of his first acts, were he to be returned to the presidency, would be to revive “Schedule F,” a drastic reduction in civil service protections for federal employees implemented in the last days of his administration. “We need to make it much easier to fire rogue bureaucrats who are deliberately undermining democracy or, at a minimum, just want to keep their jobs,” Trump declared. “Congress should pass historic reforms empowering the president to ensure that any bureaucrat who is corrupt, incompetent or unnecessary for the job can be told – did you ever hear this – ‘You’re fired, get out, you’re fired.’ Have to do it. Deep state. Washington will be an entirely different place.” Following Trump’s lead, Governor DeSantis proposed “parceling out federal agencies to other parts of the country” as a way to “re-constitutionalize government.” And the devastating implications of Representative Greene’s “national divorce” for the ability of the US administrative state to carry out its essential functions can scarcely be imagined.

Much of the analysis of the Trump phenomenon has depicted the ex-president as a would-be dictator – with the implication that his supporters are implicitly antidemocratic as well. Of course, one can read the unfolding of the Trump presidency, from his dalliances with Vladimir Putin to his efforts to undermine the US legal system and hold onto power, as a story of democratic decline. Yet Trumpism is much more than this and will certainly outlast Trump himself. Whether by publicly attacking his own foreign policy and intelligence apparatus, contradicting and upstaging his leading medical specialists, or denigrating the leadership of US law enforcement agencies, Trump promoted his personal power – and that of his cronies – at the direct expense of the experts we used to trust to manage the complex challenges of the modern era. And he’s not alone. When Trump and others like him promise to destroy the deep state, they are really threatening to undermine legally constituted state bureaucracies altogether.

But let’s put Trump aside for a moment to think about the broader question: how, exactly, did we reach this point? To answer this question, we need to look beyond the United States. In fact, the Trump presidency was part of a larger phenomenon: a global wave of rebellion against the modern state. In countries around the world, libertarians, religious nationalists, and supporters of strong executive power have aligned against what they see as the threat to human freedom stemming from overweening state regulation. The specific nature of this coalition varies from place to place – libertarianism tends to be stronger in the more developed countries than in post-communist regions – but in every case these groups are united in their hatred of the professionals and experts who staff government agencies and international organizations. Unfortunately, politics, like nature, abhors a vacuum: the breakdown of modern state institutions brings in its wake not “liberty” or “free markets,” but rather an alternative type of political rule built on personal loyalties and connections to the ruler.

The great German sociologist Max Weber had a word for this type of rule: patrimonialism, based on the arbitrary rule of leaders who view themselves as traditional “fathers” of their nations and who run the state as a family business of sorts. Historically, patrimonial states such as the Netherlands of the sixteenth and seventeenth centuries and the tsarist Russian Empire of the eighteenth century possessed important capabilities. They extracted revenue from their people, violently put down rivals at home, sometimes permitted favored clients to get rich, and frequently invaded their neighbors. But patrimonial states had “strong thumbs” and “no fingers”: they were capable of coercion and intermittent support for merchants and intellectuals, but they were simply awful at providing the predictable enforcement of laws characteristic of modern capitalism.4

In all these respects, patrimonialism is a very old type of government – one that most of us thought had been relegated to history. And for good reason: patrimonial regimes couldn’t compete militarily or economically with states led by expert bureaucracies. Yet a series of global crises in the twenty-first century has unexpectedly made the rule of the supposedly benevolent father and his extended family newly attractive to angry, marginalized publics in countries on every continent. A slew of self-aggrandizing leaders has taken full advantage of this historical moment by seizing state assets for themselves and their loyalists, while labeling anyone who opposes them as part of the deep state. In every case, the result has been a steep decline in the state’s ability to provide essential services such as health care, education, and safety.

This book will diagnose and explain the full-scale global assault on the modern state that now threatens all our futures. It shifts our focus from the decline of democracy to the rise of personalistic rule as an unexpected and dangerously attractive alternative to modern forms of civic governance. Words like autocracy, dictatorship, authoritarianism, and populism don’t fully describe what the modern enemies of the state do when they come to power. We are accustomed to assuming that the advance of modernity would lead to increasingly global compliance with the rule of law. But the practice of the new “rule of men” is to ignore, sideline, or dismantle their expert agencies. These leaders staff the state with family members, friends, and sycophants, regardless of their level of incompetence. The eventual reckoning is inevitable. The bungled response to the COVID-19 pandemic, crumbling infrastructure, financial crises from unregulated banking, the erosion of safety standards for food and water, and an overheated planet all show what lies ahead. More than ever, we need to reclaim the state, defending it against those who would denigrate all government agencies as nests of self-serving bureaucrats or imagined deep state conspiracies. The alternative is unthinkable: a return to the premodern condition of most human societies, in which most people faced lives that were indeed as Thomas Hobbes once described – nasty, brutish, and short.5

In what follows, we focus first on the United States. How did the notion of a “deep state conspiracy,” previously a fringe viewpoint held mostly on the left, become a common belief among leaders and supporters of the US Republican Party? Distrust of the central government is a longstanding American cultural trait, and a healthy skepticism about federal government overreach is of course perfectly understandable. Yet in the twenty-first century, this older form of anti-state sentiment has now morphed into something very different, namely, an explicit attempt to eviscerate the civil service and to dismantle most US central government agencies. Behind this effort, we show, is an unholy alliance of three quite different political movements: extreme libertarians, Christian nationalists, and unabashed supporters of enhanced executive power. These groups disagree about many fundamental issues. Yet they are entirely of one mind on the need to disrupt the normal functioning of the secular administrative state. Indeed, they may ultimately succeed in doing so, with disastrous future consequences for America and the world.

Paradoxically, however, this threat has mostly gone unnoticed. Instead, public debate has been overwhelmingly focused on a related, but quite different issue – namely, the uncertain future of global democracy. We criticize the nearly universal assumption that political regimes can be neatly divided into two types: democracy and authoritarianism. As important as this distinction is, it overlooks an equally important dimension of political organization: whether the state and economy are governed primarily according to laws and procedures applied without regard to personal backgrounds, or instead by personal connections and loyalty to particular leaders. This second dimension does not always coincide with the first. In addition to rule-of-law democracies and personalistic autocracies, there are also many electoral democracies in which power and wealth are primarily distributed through personal networks, such as the Philippines, as well as authoritarian regimes which have historically ruled primarily through the firm application of laws and procedures, like the German Empire in the nineteenth century or Singapore in the twentieth century.

We argue that the “democracy versus authoritarianism” debate has blinded us to [obscured] an even more important contemporary political threat: the global spread of patrimonial regimes – that is, regimes in which leaders posing as the “father” of the nation demand unquestioned personal loyalty and treat the state like a family business. Around the world, the hard-won professional expertise of state agencies – the very core of modern governance – is being replaced by nepotism, cronyism, and partisan conformity as the basis for political appointments. It is no exaggeration to say that the outcome of this struggle will determine the fate of the modern state itself.

This unexpected global assault on the modern state and the return of a premodern rule of men cries out for explanation. Why now? Where did it come from? While the intellectual antecedents of libertarianism, religious nationalism, and so-called unitary executive theory date back several decades, the global assault on the modern state fully crystallized only after Vladimir Putin succeeded in building a powerful patrimonial regime in post-Soviet Russia. Donald Trump’s consistently obsequious behavior toward Putin has long puzzled political observers. But the exact nature of the link between the two men is difficult to investigate without triggering a chorus of criticisms about resurrecting what Trump liked to call the “Russia hoax.” Clearly, Putin did not call Trump on a regular basis to give him orders. We can, however, document a different sort of bond between them: namely, that they represent different manifestations of the contemporary assault on the modern state. In fact, Putin’s resurrection of tsarist imperialism in Russia after the collapse of the Soviet Union served as the original model for other would-be patrimonial leaders around the world over the past two decades. Social conditions in post-Soviet Russia – characterized by accelerating socioeconomic inequality, inefficient rust-belt industries employing millions of blue-collar workers, and traditional rural communities unprepared for globalization – appear in retrospect to be quite similar to those facing developing countries and advanced capitalist powers alike after the 2008 financial crisis. Putin’s successful mobilization in Russia of mass anger at “corrupt elites” who “betrayed the nation,” his portrayal of Western global institutions as bent on the destruction of Russia’s traditional cultural values, and his promotion of strong personalistic rule as an alternative, unexpectedly turned out to resonate far beyond the post-Soviet context.

The “out of Russia” part of our story, we realize, may be met with skepticism. Is Putin’s establishment of a new tsarist state in Russia really connected to anti-state movements in the developed West? To this objection we can offer two rejoinders, one historical and the other political. Historically, political innovations, both the “good” and “bad,” have emerged in the most unlikely places, on the peripheries of the global order. Who would have ever thought that liberal democracy would emerge in England, an island on the edge of the Roman empire with bad weather, bland food, and a nobility that liked nothing better than hunting with dogs? And yet it happened. Our second rejoinder is related to the first. We wonder whether hesitancy to accept Russia as a source of political innovation – even innovation we may find distasteful – reflects a degree of political parochialism and perhaps even ethnocentrism. It is worth recalling that a different alternative order that changed the world – Leninism – also emerged from Russia just over a century ago. Of course, once the modern version of the rule of the good father established a foothold in other locations, the process of its spread became more complex and multifaceted; it jumped from country to country, back and forth, as would-be patrimonial rulers learned from each other. But the global assault on the modern state started, we maintain, in Russia.6

Putin’s model of patrimonial rule spread throughout the world in part because of the Kremlin’s direct promotion of pro-Russian parties and leaders – little Putins or at least Putin admirers – on a global scale. But an equally important driver of this return to the rule of men has been domestic conditions that made personalistic rule appealing in a broad range of countries. The diffusion of patrimonial rule began in the former Soviet Union, in countries like Kazakhstan, Belarus, and Ukraine before the Euromaidan revolution, where modern state institutions had always been weak. In these cases, Putin’s foreign policy served to reinforce preexisting political realities. But the patrimonial wave later spread to Hungary and Poland, where the European Union had spent fifteen years closely monitoring budding Western-style civil services and judiciaries. From there it moved further afield, to unexpected countries such as Israel, where Prime Minister Benjamin Netanyahu pivoted from a previous strict adherence to the rule of law to attacking his own judiciary and police. Most shockingly, however, the assault on modern government took root in Boris Johnson’s United Kingdom and the United States under Donald Trump, where both leaders went about building their personal rule and attacking their own states’ integrity and capacity. Ultimately, the global patrimonial wave generated strange new geopolitical alliances, not only among leaders like Putin, Orbán, Netanyahu, and Trump, but also between these men and like-minded strongmen in the less-developed countries such as Recep Tayyip Erdoğan in Turkey, Narendra Modi in India, and Jair Bolsonaro in Brazil. The assault on the state appeared in divergent forms from country to country, as leaders drew on different grievances and traditions. But in each case, the result was the same: a stark challenge to modern governance based on the rule of law.

What can be done to reverse the assault on the modern state that now threatens all our futures? We propose a four-part strategy. The first task is to raise awareness of the problem, which has thus far been misunderstood as a struggle to defend democracy against authoritarianism – a framing that blinds us to [obscures] the ways in which the attack on modern state agencies can unfold in democratic and autocratic countries alike. The politically active public needs to be fully cognizant of the key warning signs that indicate the erosion of modern state governance: the promotion of the ruler’s family and cronies to politically powerful positions, direct attacks on the staff of state agencies and the independence of judiciaries, and the denigration of professional expertise as a criterion for political promotion in favor of loyalty tests. Second, we should fortify and honor the modern state rather than attack it. Although much of our book describes the assault on the state from the right, saving the state will also require resisting siren calls of the left. These include recommendations ranging from the radical democratic inclusion of ordinary citizens into everyday state administration to the rejection of meritocracy as a principle for recruitment into educational, cultural, and bureaucratic institutions. Such well-intentioned cures will be ineffective and quite possibly worse than the disease itself. Third, there needs to be an urgent drive to recruit the next generation of young people to commit themselves to lives of government service, lest the worsening attrition of professional expertise in our state agencies pass the tipping point. Fourth, our foreign policy must also meet the challenge. We need to recognize that the assault on the modern state is being explicitly encouraged by patrimonial rulers who would love nothing more than to dismantle the global liberal order.

### Cap K---Geoeconomics DA---2AC

#### 2---geoeconomics---state capitalism and the ALT are two faces of the same coin: the state picking economic winners---and they have the same Achilles heel: cooption by populist economic nationalism---that:

#### A---only escalates trade wars and xenophobic security dilemmas, triggering deterrence failures and nuclear conflict---that’s Ozturk…

< FOR REFERENCE, 1AC Ozturk >

Both scholars differentiate between market economies based on local trade and reciprocity and capitalism, which operates on a larger scale and inherently tends toward monopolization. Braudel views capitalism as an upper layer of economic activity that never functions under pure free-market conditions, exploiting markets rather than being synonymous with them. Capitalism always seeks privileged access to resources, political power, and monopolies. Thus, Braudel and Polanyi converge in their critiques, exposing capitalism’s reliance on state power and monopolistic control and its disruptive effects on society. Braudel emphasizes capitalism’s exploitative nature, whereas Polanyi underscores the commodification of key economic factors, particularly labor.

…

Besides such domestic political-economy implications of the evolving forms of capitalism, their various configurations are also catalysts for conflict when they attempt to externalize emerging problems and challenges. The main dimensions of problem externalization might take several forms:

…

In conclusion, by replacing domestic policy reform agendas, such as corporate taxation and labor protections, with blame-driven economic nationalism, governments avoid addressing the root causes of economic discontent and fuel long-term geopolitical instability. If this ongoing trend persists, the world may experience an era of intensified trade wars, economic decoupling, and heightened geopolitical tensions, reminiscent of the 1930s, increasing the risk of large-scale conflicts.

#### …AND

---“more desirable forms” and “The above sketch” are references to “The world-system pathways (WSPs)” diagram in Albert 24 on FW

Albert 24 [Michael J. Albert, Lecturer in Global Environmental Politics in the School of Social and Political Science at the University of Edinburgh, former Lecturer in International Relations at SOAS University of London, PhD Johns Hopkins University, “Futures of Geopolitics, Security, and the Planetary Problematic,” Chapter 5, *Navigating the Polycrisis: Mapping the Futures of Capitalism and the Earth*, MIT Press, 2024, ISBN 9780262378260, p.177-223]

The above sketch provides a sense of how ecosocialist degrowth in the overdeveloped world and abolitionist strategies can mutually complement and reinforce each other. But we must also consider how ecosocialist regimes might respond to lingering and emerging threats from other states and nonstate actors. Even in a best-case scenario in which the US, China, the EU, and others collaboratively embark on ecosocialist trajectories, other powerful states would likely resist. Russia, as we’ve seen, would likely pose a threat to ecosocialisms-in-transition because of its reliance on plummeting oil and gas rents, simmering vengefulness, and powerful nuclear, cyber, and info-war capabilities. Thus nascent ecosocialist regimes in Europe and North America may need to sustain military and nuclear force structures while reducing them to the minimum needed to deter aggression, while also committing to clear no-first- use policies, taking nuclear missiles off hair-trigger alert, ending nuclear modernization and hypersonic missile programs, and working with other states to move toward deeper nuclear disarmament and institutionalized mutual constraints over time.155 Things would of course be far more challenging if the US undergoes Trumpian backlash and remains a resistant outlier to a China-EU- centered ecosocialist bloc. In this case, a global ecosocialist transition may still be possible, but only if US military and geopolitical power declines precipitously. This is possible, since a mass sell-off of US treasuries by China and other states—along with declining demand for US dollars as the global economy transitions beyond oil (thereby undermining the “petro-dollar” nexus, historically foundational to US financial hegemony)—could erode its capacity to sustain its bloated military budget. 156 But the obvious danger is that a US dollar crisis would inflame nationalist passions and bring a Trump-like figure to power promising a return to “greatness” on the back of US military might. Thus it is plausible that great-power war could break out during the course of ecosocialist transitions—particularly if the world splits into competing fossil nationalist and ecosocialist blocs—and it is unlikely that ecosocialisms could survive such a conflagration (at least in their more desirable forms).

#### B---it fragments supply chains, and deglobalizes the planet---reversing decades of gains in life expectancy, poverty, cultural exchange, and global resilience to existential risks through things like tech diffusion, vaccine sharing, and food aid---that’s Yusuf

### Cap K---Carbon Nationalism DA---2AC

#### 3---carbon nationalism---preserving the profit motive means regulating markets causes divestment even if it’s NOT in our geopolitical interests---BUT deleting markets deletes the only reason states don’t normally try to capture and extract ALL the fossil fuel so their ideological enemies can’t access it (see: Venezuela)---only accelerates warming---that’s Babić…

#### …AND

Bernstein 24 [Alyssa R. Bernstein, Department of Philosophy, Ohio University, “Global Climate Change: Political Realism and the Case for a World Climate Bank,” *The Palgrave Handbook of International Political Theory*, vol.2, Palgrave Macmillan, 2024, ISBN 978-3-031-52242-0, pp.71-93]

Broome asserts that governments will have to nationalize many of the fossil fuel resources (Broome et al. 2022). This raises political, moral, and legal questions. For example, should a WCB provide funds to each and every government for the purpose of nationalizing resources in its own territory? Should a WCB buy and own fossil fuel resources? How might it be possible to prevent or control later use of them, regardless of who owns them (during at least several upcoming centuries)? A further concern is neoliberal nationalization, which aims, according to a recent study, “to protect corporate actors from the effects of their own irresponsible business practices, maintaining ‘business as usual’ by pre-emptively socializing the foreseeable risks of rapid capital asset devaluation” (Tienhaara and Walker 2021, 120). Should this be facilitated by a WCB?

Nationalization was once anathema to neoliberals and the hydrocarbon-based corporations long closely integrated with the neoliberal project. Indeed, the origins of neoliberal advocacy for global economic liberalisation can be traced, at least in part, to the resistance of oil multinationals to nationalist governments attempting to assert ownership and control over natural resources. It is therefore striking that calls are now mounting from this quarter for the nationalization of fossil fuel infrastructures, to keep them operating as climate policy, loss of public legitimacy and changing market conditions increasingly make investments in them unprofitable, uninsurable, or uncompetitive. (Tienhaara and Walker 2021, 120)

Any proposal for nationalizing fossil fuel assets must be scrutinized in this light.