We've seen a lot of regulatory innovations in the past decade. Many are under attack, and that underscores the importance of understanding what makes some innovations more robust than others. I don't have a general theory to offer about what gives some regulations more ability than others to withstand adverse political shifts. But it's instructive to consider a couple of major examples. At least that way we can start thinking about what factors should be included in a theory about what makes some regulations more politically robust than others.

Jodi Freeman and David Spence published an article about how agencies can use old statutes to address new challenges in an era when gridlock prevents Congress from taking action. The article was published in 2014 – only three years ago, but it seems an eternity. Their key examples are EPA's climate change regulations and FERC's (the Federal Energy Regulatory Commission's) electrical grid regulations. Both are being challenged now. The two have some features in common, but some significant differences.

EPA's Climate Regulations. After the Supreme Court ruled the agency had jurisdiction over greenhouse gases, EPA set about issuing regulations of greenhouse gases. Some of those regulation seem to be here to stay. EPA limited tailpipe emissions from cars with a proviso to review further planned reductions mid-course. Trump's EPA is trying to freeze current emissions requirements in place, but it looks doubtful that Scott Pruitt will actually be able to rescind the requirements. EPA also required many new industrial plants to take measures to limit greenhouse gases on a case-by-case basis. Most of the regulation was upheld by the Supreme Court, and so far Pruit has not made a move to rescind that part of it. But EPA's most important regulation, the Clean Power Plan (which addresses emissions from electricity generating power plants) was first put on hold by the Supreme Court, and is now under serious attack by Pruitt. Its chances of survival seem iffy.

FERC's Grid Regulations. FERC regulates wholesale transactions and transmission of electricity under a Depression-era statute. The statute seemed to contemplate close control of prices by FERC. But FERC has completely upended this scheme to foster competitive wholesale electricity markets and establish regional grid authorities to operate the markets and help plan new transmission. This has provided fertile soil for the growth of renewable energy, a development that FERC has happily made room for. FERC has also created a market for demand response, whereby users are paid to reduce electricity consumption during peak periods, limiting the need for expensive, often-high polluting "peaker plants", which often use coal or oil. Rick Perry recently proposed rules to exempt coal plants from competition by less expensive, cleaner electricity generators, and create subsidies to keep them open. It seems very unlikely that this assault on FERC's carefully designed regulatory scheme will succeed.

Lessons about Regulatory Robustness. FERC is an independent regulatory while EPA is under direct Presidential control. But that distinction doesn't seem terribly important, since Trump has so far appointed the majority of the FERC commissioners. Here are a few things that do seem to matter:

1. ***Statutory breadth.*** The Great Depression Era Federal Power Act's language is vague, and FERC has been able to exploit the resulting wiggle room. In contrast, in trying to regulate existing power plants, EPA has been faced with the Clean Power Act's detailed statutory language that made it hard to figure out the best path forward and has given opponents legal leverage. But breadth of language cuts both ways – a broad statute also makes it easier for an agency to justify switching direction.
2. ***Coalition Building.*** When Perry proposed changing market rules to subsidize coal, a broad coalition opposed him — not just environmentalists and the renewable energy generators, but industry, utilities, and even the American Petroleum Institute. Moreover, FERC's approach to regulation also has broad ideological support – many conservatives like it because it's based on the free market and environmentalists like it because it's supportive of new technologies like renewables. As Jonas Meckling has argued, regulations with concentrated benefits and diffuse costs are most easily defensible; FERC's policies have concentrated benefits because, once the policies are in place, there are clear benefits to the most competitive generators in maintaining a free market. Most of the costs have already been incurred, and the coal industry is one of the only concentrated interests on the other side.
3. ***Agency Identity.*** FERC has a low political profile, and various industries have an interest in its remaining effective. Hardly anyone in the general public has ever heard of it. EPA has become an ideological bogeyman for the Right, and is not as well positioned to recruit allies in industry. So it is more vulnerable to a hostile takeover by its opponents, as we're seeing right now. Unlike FERC, its mission is well understood by the public and supported by a majority, but it can be difficult to mobilize that support effectively.
4. ***Ideology.*** Relating to the last point, it's helpful to avoid ideological triggers. Unfortunately, climate change has become such a trigger. Renewable energy has a lower ideology valence, and FERC's policy of market competition has appeal to many non-Trumpian conservatives.
5. **Inertia.** We saw with Obamacare that it gets to be really hard to repeal a regulatory scheme after it's already place and has the advantage of being the status quo. The 5-4 Supreme Court stayed the Clean Power Plan, so it has never gone into a effect. This was a deviation from past practices, and thus not really foreseeable beforehand. And if the case had happened to get to the Supreme Court a few weeks later, there would

have been no stay, because Justice Scalia died not long after the stay was issued.

In retrospect, it might have been wise for the Obama Administration to have pushed harder on climate action from agencies other than EPA, such as FERC, given EPA's visibility as a political target. It might also have been smart to stress the role of the Army Corps of Engineers, not just EPA, in administering the wetlands permitting program that is at issue in the WOTUS (Waters of the United States) litigation. It would also have been better strategy to have started earlier in Obama's presidency and gotten more of EPA's climate measures in place so that they would actually be operational at the end of his presidency. That would have created reliance interests that might have been hard for the next Administration to unravel.

Of course, hindsight is perfect. Even if the Obama Administration had thought more carefully about how to make its regulation robust, robustness might have been outweighed by other considerations. But regulatory robustness is definitely something for policymakers to keep in mind in the future.

For instance, if we ever enact a national carbon tax or emissions trading scheme with auctioned permits, the scheme will be much more robust if funds are earmarked for something really popular. I'd suggest replacing the payroll tax for Social Security (which will also help counter the regressive impact of higher energy costs.)