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A “CONVEYOR BELT”?

ASSESSING THE CATALYTIC IMPACT OF VOLUNTARY CORPORATE CLIMATE ACTION ON REGULATION

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Abstract: *A groundswell of companies have pledged to align to global climate goals, many committing to reach “net zero” emissions by 2050. However, the quality of these commitments varies, with some representing real decarbonization effort and others little more than greenwashing. In response, the UN, ISO, and a number of NGOs have constructed an array of voluntary standards and criteria. More recently, governments are seeking to regulate corporate alignment to climate goals in a variety of spheres (e.g. disclosure, claims, procurement, product standards, etc.), though regulation remains fragmented and itself varies in rigor. How and under what conditions can high quality voluntary standards influence the rigor and coherence of the emerging regulations around corporate climate action? Drawing theoretical insights from previous episodes in which voluntary standards and national regulations have interacted, the memo explores the causal mechanisms that drive the relationship between these two governance forms and explores the conditions under which voluntary standards can act as a “conveyor belt” for regulation.*

Motivation

In 2000, a small NGO called the Carbon Disclosure Project (now just CDP) began asking companies to voluntarily report on their carbon emissions and climate policies. Over time the number of companies doing so increased, eventually attracting the attention of financial regulators concerned about growing climate risks. In 2015, climate disclosure was taken up by the G20 through the Financial Stability Board, resulting in the [Taskforce on Climate-Related Financial Disclosures](#), a voluntary standard for corporate climate disclosures. Several years later, climate disclosure is increasingly becoming law. At present, climate- or sustainability-related disclosure of some kind is mandatory in China and the United Kingdom, and it will become mandatory in the next few years in Canada (2024), the EU (2023), India (2023), New Zealand (2023), South Korea (2025), and Switzerland (2023). Together these jurisdictions already account for nearly half of global GDP (47.9% of 2021 GDP) and global emissions (46.6% of 2019 emissions). Mandatory disclosure is also proposed by regulators in the United States, which, if it were to be adopted, would bring mandatory disclosure to an additional 24% of global GDP and 13% of global emissions. N.b. while these rules are increasingly common, they vary considerably in rigor.

In sum, climate disclosure went from a voluntary NGO-led program, to a state-orchestrated set of international standards, to an emerging rule (albeit quite varied in strictness) across the economy. Substantively, could this process be replicated across other areas of net zero regulation? Theoretically, what do such dynamics teach us about the interaction between private and public authority?

Four stylized facts about governing net zero

Net zero targets have diffused quickly from essentially none before the 2015 Paris Agreement, to, at present, a preponderance of the world economy. Over 90 percent of

global GDP is now covered by a net zero target. Of the 2000 largest publicly listed companies globally, over 40 percent have a net zero target (Lang et al. 2023). Work in progress with Jessica Green is seeking to explain the (interacting) diffusion of both national and corporate net zero targets.

Net zero targets vary enormously in robustness. While some net zero targets reflect serious effort and planning toward decarbonization, others are merely symbolic or aspirational, while others still seem to be “greenwash.” The Net Zero Tracker notes the presence or absence of key ‘robustness’ features in net zero targets (e.g. are they merely aspirational or embedded in laws and strategies, do they have a plan do they allow for the use of offsets to delay or substitute for decarbonization, etc.). According to recent analyses, only 5-10 percent of net zero targets satisfy the full suite of robustness features (Hale et al. 2022, Hans et al. 2022) .

A proliferation of voluntary standards seek to govern net zero. In the past few years a wide range of initiatives from NGOs and the UN have emerged to define what “good” net zero alignment looks like, to mobilize non-state to commit to net zero, and, to varying degrees, to help them progress toward net zero and hold them accountable against these targets. Prominent examples include: the [Science Based Targets Initiative](#), the UN [Race to Zero](#) campaign, the ISO [Net Zero Guidelines](#), the UN Secretary-General’s [High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities](#).¹ In the last few months, these and related efforts have largely converged, at least at a high level, on what “good” net zero alignment looks like, though of course many open questions remain (McGivern et al. 2022).

Countries are increasingly regulating companies around various aspects of net zero alignment. Across a growing range of areas, regulators are imposing requirements on firms to align to net zero and shaping how they do so (see appendix). Regulatory domains include: disclosure, transition plans, claims, procurement, product standards, and other spheres.

Substantive dilemma → social science question

The above stylized facts highlight a substantive dilemma. “Hard” regulation of net zero is likely needed, but faces challenges of rigor and coherence. The possibility and quality of regulation depend on the balance of power between pro- and anti-climate interest groups in a given jurisdiction, and in too many places this ratio still tilts toward the latter. In the United States, for example, efforts by the Securities and Exchange Commission to simply require disclosure of climate-related risks, already becoming law in much of the world, is facing significant pushback.

Put another way, the same political economy that has led to mixed quality net zero targets is likely also to generate mixed quality regulations. Indeed, we might expect mandatory rules to be lower quality, on average, as adversely affected interests can simply opt out of voluntary rules but have an incentive to block or weaken binding restrictions.

¹ Disclosure: I have been personally involved in these efforts.

The question thus arises: *how and under what conditions can voluntary governance increase the rigor and coherence of regulations around net zero?* Existing scholarship has much to say on this point.

Interactions between voluntary standards and state regulation

The rise of voluntary and quasi-official standards and rulemaking has generated a large literature, some of which explores its relationship to state rules. An influential typology from Green distinguishes between “*entrepreneurial*” authority (private actors create rules that are then adopted by others, including public actors) from “*delegated*” authority (public actors set rules but rely on private actors to execute them (Green 2014). A further possible category “*orchestration*,” describes when states or IOs use “soft steering” to direct other actors (e.g. firms or NGOs) toward their goals, including via rulemaking and related governance functions (Abbott et al. 2015).

In net zero governance we see ample evidence of all three types. Some illustrative examples include:

1. Entrepreneurial: Science Based Targets, CDP, GHG Protocol
2. Delegated: US government proposes using CDP/SBTI to implement its net zero procurement rule
3. Orchestration: UN Race to Zero campaign seeks to align voluntary standards to common minimum criteria

The literature documents numerous examples in which private actors have created private rules with the effect of, and sometimes with the intent of, pre-empting or influencing public regulation. For example, Green shows how state rules on carbon trading were strongly influenced by the Greenhouse Gas Protocol, a carbon measurement methodology and rule system created by two NGOs (the World Resources Institute and the World Business Council on Sustainable Development) (Green 2017). However, the literature also shows how public actors have supported soft rule-making in order to advance their regulatory agendas vis-à-vis the private sector. For example, the Extractive Industries Transparency Initiative was created by governments and IOs in order to impose (softly) rules on extractive industries.

The relationship between public and private authority thus depends on the degree of interest alignment between private and public rule-makers (table 1). When both public and private actors share a goal (top left), positive feedback loops can occur. Entrepreneurial rulemaking can develop new approaches that regulators can then adopt and mainstream. Regulators can, in turn, confidently delegate to private actors for efficiency reasons, knowing they will advance public goals. Orchestration can provide a way for public and private actors to coordinate.

When the interests of public and private actors conflict (top right, bottom left), entrepreneurial authority takes on special significance. When private actors oppose public goals, they may seek to develop rules that pre-empt or forestall public rulemaking. For example, the Oil and Gas Initiative is an industry platform for oil majors to make commitments to invest in carbon capture and storage, coordinate on reducing flaring, and take other ameliorative (as opposed to transformational) efforts. The industry has often

cited the initiative as an example of how it is capable of addressing climate transition without regulation.

Alternatively, private actors seeking to advance action on a given topic, may, when faced with recalcitrant public regulators, seek to may develop private rules with the goal of substituting for or strengthening otherwise lacklustre regulations. For example, the Science Based Targets Initiative seeks to commit companies to emission reductions pathways that align to the goals of the Paris Agreement.

In these cases of conflicting interests (top right, bottom left), delegation is unlikely. Indeed, anti-climate actors are actively seeking to block private actors from pursuing climate goals in the name of a war against “woke capitalism.” Alternatively, pro-climate public authorities may use orchestration to attempt to steer recalcitrant private interests toward their goals. For example, the UN Race to Zero campaign seeks to mobilize credible commitments from a wide range of non-state actors. When public authorities have no interest in advancing climate goals, they are of course unlikely to orchestrate to that effect, and when neither public or private actors are interested in climate goals (bottom right), no governance is likely to occur.

Table 1: Relationship between public and private rulemaking varies with interest alignment

		Regulators	
		Pro	Anti
Private actors	Pro	<i>Entrepreneurial:</i> Experimentation <i>Delegation:</i> Efficiency <i>Orchestration:</i> Coordination	<i>Entrepreneurial:</i> Substitute & strengthen <i>Delegation:</i> Blockage <i>Orchestration:</i> Unlikely
	Anti	<i>Entrepreneurial:</i> Substitute & weaken <i>Delegation:</i> Unlikely <i>Orchestration:</i> Steering	No incentive to govern for net zero

From this table, returning to the question posed above, we can infer that voluntary governance can increase the rigor and cohesion of net zero regulations when:

1. The interests of regulators and private actors align around climate goals. In this case experimentation, delegation, and orchestration all strengthen net zero regulation (top left).
2. Pro-climate private actors can use entrepreneurial governance to influence public rules (top right)
3. Pro-climate regulators can use orchestration to steer anti-climate private actors (top right).

Conversely, voluntary governance is unlikely to strengthen public rules when:

1. Anti-climate regulators can resist rules promulgated by pro-climate private actors, or block them from perusing entrepreneurial governance (top right)
2. Anti-climate private actors can substitute for or weaken public rules through entrepreneurial governance, or can resist steering by pro-climate regulators (bottom left).
3. Both private and public actors are anti-climate (bottom right).

From these conditions, one key policy implication is to seek ways to maximize the influence of “good” voluntary rules on public regulation in the top right quadrant, and to maximize the influence of orchestration on recalcitrant private actors in the bottom left quadrant.

Entrepreneurial authority is most effective when private actors can establish legitimacy via their technical expertise, impartiality, normative esteem, or similar factors (Abbott & Snidal 2009) (Green 2014). In this context, fragmentation can undermine the effectiveness of such private rule systems. If rival private-rule setters each seek to establish their authority, which should regulators accept? Instead, to the extent private actors are aligned, regulators will find it easier to adopt their rules.

Orchestration, in turn, is effective when orchestrators possess some degree of legitimacy and leverage over private actors (Hale & Roger 2014) (Abbott et al. 2015).

The net zero governance conveyor belt: how to maximize the ‘catalytic effect’?

Based in the above logic, in policy-facing work (Hale 2022) I have proposed a governance model around the unpoetic metaphor of a conveyor belt between (good) voluntary governance and state regulation. Between these types of governance, the model emphasizes the role of orchestration and the international standard-setting process in order to address the concerns of “bad” entrepreneurial governance and fragmentation discussed above. The model is sketched in figure 1.

The conveyor belt model aims to marry the high quality and flexibility obtainable toward the right of the figure with the scale and bindingness delivered by elements toward the left. It also emphasizes the need for a dynamic governance system that constantly pushes forward the frontier of best practice and progressively scales it and make it more binding. If high quality, hard rules everywhere are the ultimate goal, a fit-for-purpose governance system should provide a process for moving toward that outcome.

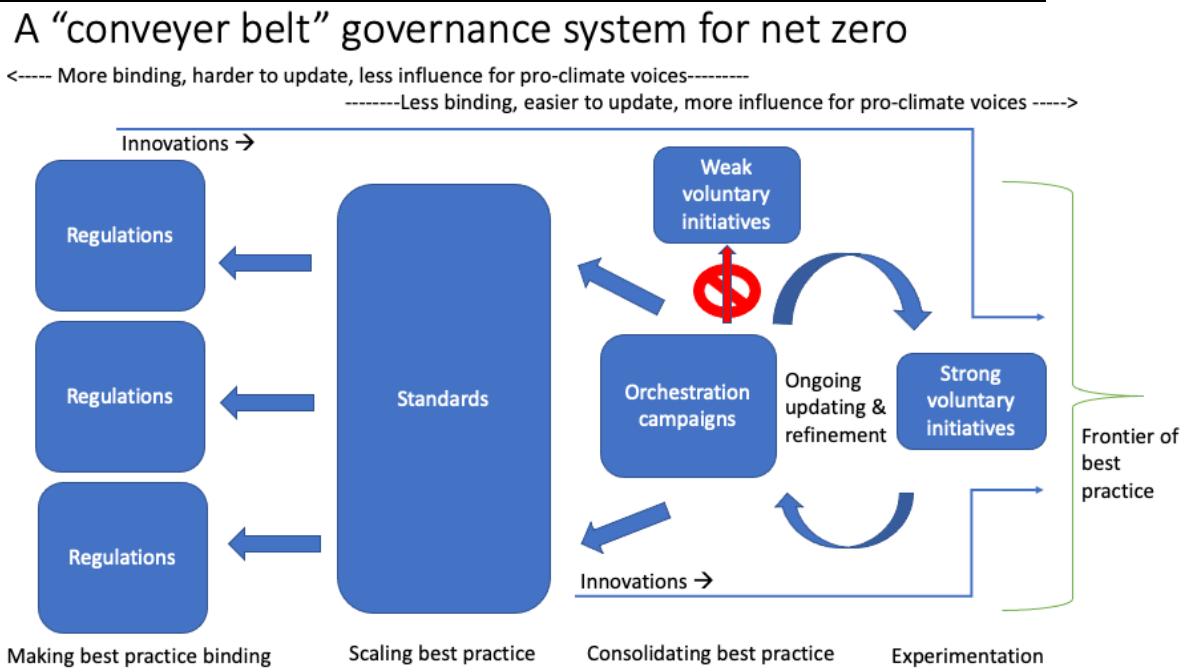
At the right side of the figure, voluntary initiatives like the Science Based Targets Initiative are experimenting and updating, pushing forward the frontier of what is possible. Orchestration initiatives like Race to Zero, in turn, work to curate and consolidate this frontier, ensuring alignment to the requirements of climate science and weeding out greenwashing.

In parallel, standard setting bodies like ISO consider the best practices emerging from these leadership groups and seek to write rules that scale globally. Though consensus based, these technical committees of standard setters can point to the frontier of best practice.

This process of scaling also exposes new challenges that can be fed back up to the voluntary initiatives and the UN orchestrators.

At the same time, governments make laws and regulations. Advocates for stronger rules at the national level are able to point to international best practices as a benchmark for success, and businesses plead for rules that align to international standards. Such forces can exert upward pressure on national rule making above and beyond what pro-climate advocates could achieve in isolation.²

Figure 1: A conveyer belt governance system for net zero over the next decades



This last step is key to the viability of the conveyer belt model, and so requires careful attention to the mechanisms through which it may work.

I have argued that various aspects of the climate challenge can be understood through the lens of “catalytic cooperation” (Hale 2020). In this logic, the collective action emerges not by solving the free riding problem, but by building up a critical mass of action amongst leaders that can then shift the preferences of others. This catalytic effect can occur through several mechanisms:

1. Learning or demonstration effects – showing that it is possible and desirable to follow rigorous net zero rules
2. Normative cascades – aligning to what peers, customers, investors, consumers, employees, (good) regulators define as appropriate

²The frontier of best practice of course does not emerge only from voluntary standards. National laws and regulations can, under the right conditions, generate important innovations. Standard setting bodies can harvest new insights from their broad spectrum of constituents. Orchestrating campaigns can act as a lighthouse to promote alignment toward certain principles. Feedback loops are therefore needed throughout the system, as the rightward arrows in Figure 1 suggest.

3. Network effects – Reducing the transaction costs of regulatory fragmentation and contradictions (if I have to comply with it in context A it is easier to also comply in context B).
4. Creation/strengthening of new constituencies and coalitions—as more and more firms begin following a certain standard, they gain the incentive to lobby regulators to make competitors follow it as well.

Establishing a core of first movers who establish what is feasible, pioneer practical ways to do it, shift norms, and advocate for stronger rules for all can be a way to reshape what is politically feasible. Policy interventions should therefore target the mechanism listed above in order to maximize the pull of the ‘conveyor belt.’

Theoretical/conceptual implications and questions

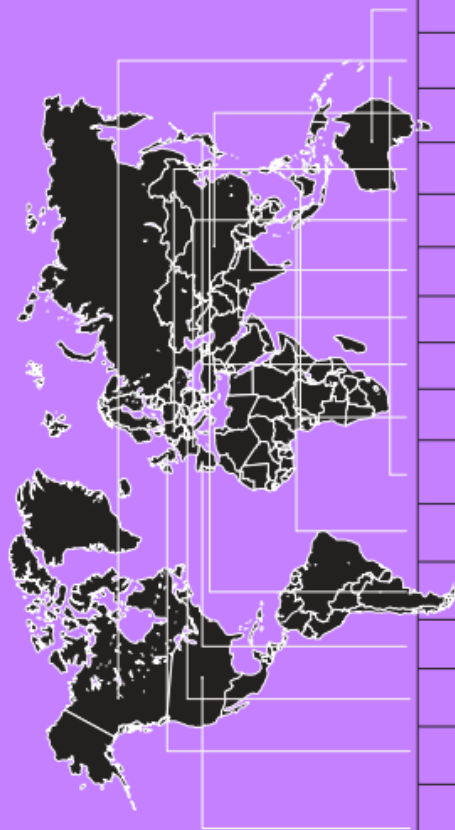
(Still brainstorming around these. It would be excellent to get ideas and feedback.)

- Variation in goal alignment (table 1) between public and private actors conditions their interaction. This point seems quite obvious, but perhaps not well appreciated in the literature on private/transnational governance?
 - Lots of literature poses private and public governance as alternatives. Under certain conditions they are much more complementary. This point is made elsewhere, but the debate persists.
 - Different types of private governance (entrepreneurial, delegated, orchestrated) matter more or less under different conditions of goal alignment.
- Are there other mechanisms that generate “catalytic” effects in this realm? (demonstration/learning, normative, network effects, building new constituencies)
- Changing understanding on the role of private governance.
 - 1990s/2000s: addressing market externalities with market tools when the state can’t/won’t (e.g. sweatshops, overfishing, unsustainable logging). Gained relatively small market share.
 - More recently: More transformative? Seeking to change the overall economy.

Appendix: The spread of net zero regulation (source: my research for (High Level Climate Champions 2022))

Table 3:

The emerging net zero regulatory landscape



JURISDICTION	DISCLOSURE	CLAIMS	PROCUREMENT & PRODUCT STANDARDS	TRANSITION PLANS
Australia	2018: Regulator recommends climate-related disclosure			
Canada	2021: Mandatory ESG reporting planned from 2024			
China	2022: Mandatory ESG reporting (including emissions) for heavy polluting companies and investors, recommended for all companies			2021: The "14-1" framework will lay out sector-specific targets for China's path to peaking emission and carbon neutrality
European Union	2023: Mandatory ESG reporting	2022: Regulator proposes specific requirements for firms including "carbon/ climate neutral"	2020: Regulator establishes taxonomy for green products	
France	2021: Mandatory disclosure of fossil fuel-related activities	2021: Specific requirements for firms like "climate/carbon neutral"		2021: Mandatory disclosure of Paris Agreement alignment strategies, emissions targets to be updated every 5 years
Hong Kong	2022: ESG and climate-related funds must disclose key information			
India	2023: Mandatory ESG reporting for 1000 largest listed companies			
Japan	2022: Regulator recommends climate-related disclosure			
Malaysia	2022: Regulator recommends climate-related disclosure			
New Zealand	2023: Regulator mandates climate-related disclosure for large financial institutions			
Singapore	2021: Regulator recommends climate-related disclosure			
South Korea	2021: Regulator recommends ESG disclosure; mandatory from 2025 for large companies and from 2030 for all companies			
Spain	2021: Mandatory disclosure of climate-related risks			2023: Creditors must publish decarbonization targets
Switzerland	2023: Mandatory climate-related disclosure			
United Kingdom	2022: Mandatory climate-related risk disclosure	2021: Regulator publishes guidelines on environmental claims	2021: Government conditions procurement on net zero alignment for suppliers bidding for contracts over £5m/year	2023: Regulator requires transition plans for large companies and financial institutions
United States	2022: Regulator proposes mandatory disclosure of climate-related risks	2022: Regulator updates guidance on environmental market claims	2021: Government targets net zero for all procurement by 2050 2022: Regulator begins process of defining standards for voluntary carbon markets	

Some examples of net zero regulation

Disclosure: At present, climate- or sustainability-related risk disclosure of some kind is mandatory in China and the United Kingdom, and it will become mandatory in the next few years in Canada (2024), the EU (2023), India (2023), New Zealand (2023), South Korea (2025), and Switzerland (2023). Together these jurisdictions already account for nearly half of global GDP (47.9% of 2021 GDP) and global emissions (46.6% of 2019 emissions). They are also collectively home to 874 of the 2000 largest listed companies in the world. Mandatory disclosure is also proposed by regulators in the United States, which, if it were to be adopted, would bring mandatory disclosure to an additional 24% of global GDP, 13% of global emissions, and 590 of the largest 2000 companies globally, cementing disclosure as a ground rule for operating in the global economy.

Transition plans. A related regulatory tool requires companies to publish transition plans for how they will achieve net zero. For example, at COP26 the UK announced it will require [transition plans](#) from all listed companies, and published [proposed guidance](#) on what transition plans should contain at COP27. Spain's climate law requires [corporate climate action plans](#) for large companies (HM Treasury 2021, Transition Plan Taskforce 2022, European Climate Foundation 2021).

Claims. Governments are also regulating what companies can claim about net zero. The European Commission has proposed a new regulation which ensures that businesses substantiate claims of being “carbon neutral” and “climate neutral” with evidence. In the United Kingdom and the United States, regulatory recommendations and guidance have been issued regarding the corporation's carbon neutral and net-zero claims and advertising.

Procurement. At COP26 the UK announced that [bidding for large government contracts](#) will depend on net-zero alignment, and at COP27 the U.S. government—the world's largest purchaser of goods and services—proposed rules that would require any company with government contracts worth more than \$50m annually to set a target via the Science Based Targets Initiative, and all companies except the smallest to report to CDP (Cabinet Office 2021). The U.S. also launched the [Global Net Zero Government Initiative](#), a coalition of 18 countries pledging to set their own rules on net-zero aligned procurement (White House 2022).

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