FACULTY OF POLITICAL
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Normative Dynamics of the Energy Transformation

Origins, Emergence, and Diffusion of Anti-Fossil Fuel Norms

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Abstract

In this dissertation, I examine the emergence and diffusion of international norms. In particular, it studies the drivers and constraints that determine the selection and diffusion of *anti-fossil fuel norms* (AFFNs). Such international norms formulate behavioural standards for those actors concerned with the effect of fossil fuels on climate change and they prescribe the phase-out and ultimate prohibition of practices and processes across the entire fossil fuel supply chain of financing, extraction, processing and consumption. In recent years, an increasing number of AFFNs have been articulated and are actively being diffused. I situate the rise of these AFFNs in a context where long-time dominant, interest-based and economic approaches to climate action are subject to growing scrutiny. Instead, critics propose new approaches, based on ethics, norms and moral obligation to act on climate change.

I construct an analytical "life cycle" framework to answer the following research question, "What are the drivers and constraints that determine the selection and diffusion of international AFFNs?" I apply the framework in four disciplined-configurative case studies of the following AFFNs: fossil fuel subsidy reform, global coal mining moratorium, phase-out of coal-fired power generation, and fossil fuel divestment. Each of four articles in this dissertation examines a separate AFFN, with a specific research puzzle, and focusses on different aspects and instances of the process of norm development. I find that the structural factors that determine the success of norms are extrinsic events and the "fit" with the extant normative environment. Agency-based determinants include: the (legitimacy) of involved actors (in particular norm entrepreneurs), framing strategies (i.e. discursive power), and material power.

This dissertation further adds six key insights to the study of norm emergence and diffusion. First, extrinsic events, in the form of political or economic crises and focussing events, continuously create windows of opportunities or normative constraints throughout the entire AFFN life cycle for relevant actors. Second, a liberal social order, associated with *liberal environmentalism* constrains the international institutionalisation of counter-hegemonic AFFNs. Domestic and local norms also affect the implementation of AFFNs. Third, AFFNs are likely to be more successful when framing strategies (also) emphasise non-climate issues. That is, in some cases, explicitly framing an AFFN in non-climate terms increases its likelihood of success. Fourth, the power to speak to (perceived) material interests emphasises the continuous impact and relevance of interest-based logics for norm development, even if AFFNs form the basis of a normative approach to climate action. Fifth, agency can be attributed to multiple types of actors, other than norm entrepreneurs, in the AFFN life cycle. This agency plays

out in the form of internal and external contestation and occurs discursively as well as behaviourally. Sixth, norm diffusion processes—i.e. institutionalisation and implementation—do not always occur sequentially. Instead they can happen the other way around, simultaneously or independently from one another.

Empirically, this study highlights a variety of AFFNs that, by their very nature and objectives, will likely be important factors in the required energy transformation away from a fossil fuel-heavy economy, toward a zero-carbon society. Theoretically, although much scholarly work has been done on the emergence of diffusion of norms, there is little agreement on how this actually occurs and what the driving or constraining determinants are. Moreover, the dissertation contributes to a growing debate in academia on how a normative approach can further the required action on fossil fuels and climate change.

Tables and figures

Tables:

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Acknowledgements

There is one person in particular without whom I would not have been able to deliver this dissertation. My supervisor, mentor and friend: Thijs Van de Graaf. I want to thank him for taking me on as his very first PhD student. His exceptional guidance, substantive contributions to key parts of this thesis and valuable feedback throughout these four great years have been very important for my personal and professional development. So wherever life may take me beyond Ghent University, I remain forever in his debt.

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Above all, of course, family is everything to me. Jean and Phil are probably among the greatest people I know, while I owe just about everything to my parents and grandparents. Without their loving care and support I would not be where I am today. And to express my gratitude, among many other things, to beautiful Nathalie, I would have to write an entire book. All I can say here is that I look forward to exploring all the wonders of the world with her. We only just got started.

In the end, of course, there is a world outside the ivory tower. A world without which we would not be able to live our privileged lives in the safe harbour of academia. A world, above all, that is worth fighting for. I have always tried to keep that in mind while working on this thesis. In one of the books that I saved from the ashes when Luc was cleaning up the library, I once read, “Those who are really convinced that they have made progress in science would not demand freedom for the new views to continue side by side with the old, but the substitution of the new views for the old.” Maybe Vladimir Lenin, of all people, wasn’t all that wrong in the end...

Mes amis, retenez ceci,

Il n'y a ni mauvaises herbes ni mauvais hommes.

Il n'y a que de mauvais cultivateurs.

~

Victor Hugo

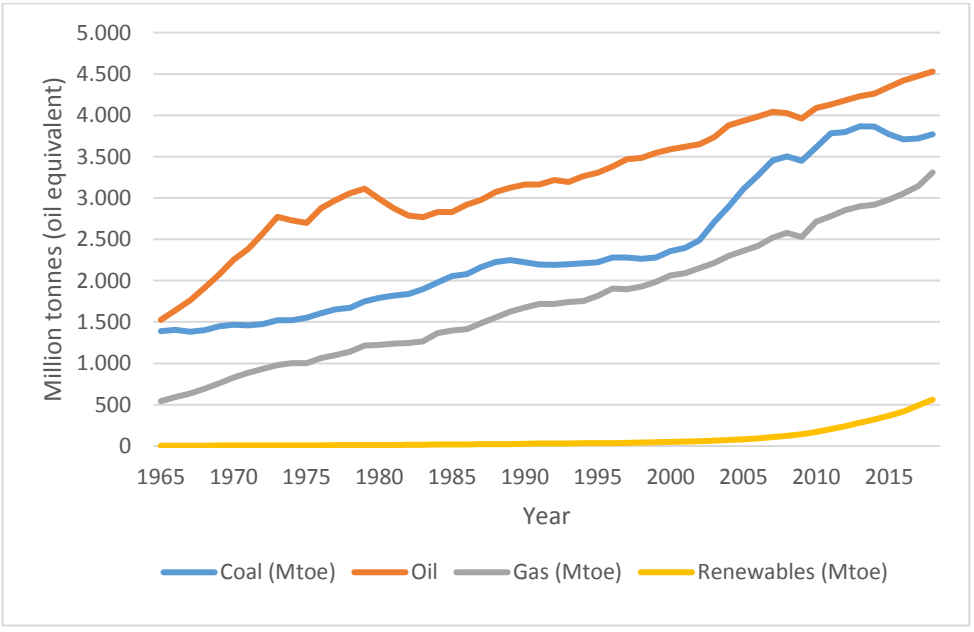
PART I. Introduction

1.1. Problem definition

Fossil fuels and climate change

Fossil fuels have been essential in supporting the world's socio-economic development since the first coal-fired steam engines appeared in 18th century England; and they have since enabled the majority of us to fulfil our basic human needs. Today, fossil fuels remain central to the global energy system, accounting for 81 percent of the world's primary energy demand in 2017 (IEA 2018, 38). The overall share of oil, coal and gas in global primary energy demand has hardly changed over the past 25 years, although new contenders, in the form of renewables—led by wind and solar PV—are growing rapidly. In absolute terms, the world is using more fossil fuels than ever—as Figure 1 shows—while renewables only recently started to gain traction.

Figure 1. Trends in fossil fuel and renewables consumption: 1965-2018[1]



Source: BP 2019

Yet the fossil fuel era of "easy-to-get, cheap, high-density energy and ever-increasing amounts of such energy" is unsustainable (Princen et al. 2015, 4), due to the many detrimental environmental, social and political effects that patterns of fossil fuel

[1] For renewables, this graph is based on gross generation from sources including wind, geothermal, solar, biomass and waste, not accounting for cross-border electricity supply and hydro generation.

extraction and consumption have. The combustion of fossil fuels, for example, is the largest source of anthropogenic greenhouse gas (GHG) emissions and therefore the main contributing factor to human-induced global climate change. Fossil fuels, however, have other harmful effects as well. Fossil fuel-related outdoor air pollution alone causes 3.61 million premature deaths each year worldwide (Lelieveld et al. 2019), while oil in particular has made a considerable imprint on patterns of conflict in (recent) history (Ross 2006). A transition toward a decarbonised economy and society is therefore urgently required in order to mitigate the effects that fossil fuels have on our environment, health, (geo)politics, and economy. The required changes do not uniquely refer to a *transition* from one set of technologies (i.e. fossil fuels) to another (i.e. renewables) but to a *transformation* of the broader social, political and economic structures with which fossil fuels—and energy systems as a whole—are associated (IRENA 2019, Newell 2019).

Of all negative implications related to the unbridled extraction and widespread use of fossil fuels, climate change can be considered the most globally impactful and urgent one. Even if we were to deploy carbon capture and storage techniques, 33 percent of all oil reserves, 49 percent of gas reserves and 82 percent of coal reserves would need to remain in the ground, if we want to maintain at least a 50 percent chance of keeping global warming below 2°C by the end of this century (McGlade and Ekins 2015).

However, in both research and policy circles that work at the intersection of climate and energy, the direct phase-out or prohibition of fossil fuel consumption and extraction as such has long been neglected. Three decades of multilateral political attention to the issue of climate change at Conferences of the Parties (COP) under the United Nations Framework Convention on Climate Change have led to very limited engagement with these potential solutions. Historically, the focus has been on reducing GHG emissions (Piggot et al. 2018). For example, the overview of climate policy instruments in the IPCC's *Fifth Assessment Report* does not refer to any direct prohibition or phase-out of fossil fuel consumption or production (Somanathan et al. 2014, 1158-59).

Policymakers, non-governmental organisations (NGOs) and scholars have mostly focussed on restricting and lowering CO_2 emissions. Particularly cap-and-trade schemes and carbon taxes—both putting a "price on carbon"—are still among the most popular instruments, as these supposedly provide effective economic incentives to change behaviour (IMF 2019, Mitchell and Carpenter 2019). Critical voices, however, point out that this approach came at the expense of engagement with other critical factors

contributing to climate change, not in the least the fossil fuel industry itself (see e.g. Lazarus et al. 2015).

Due to the failure of such "interest-based" approaches that generally favour economic incentives or market-based instruments to generate effective climate governance, some have started calling for a radically different approach, based on norms, ethics and acknowledgement of the moral dimension of the problem (e.g. Wapner 2014, Milkoreit 2015, Green 2018a, Mitchell and Carpenter 2019). Indeed, a rising tide of campaigns, initiatives and calls for action have put forward such an alternative "normative" approach to climate action. In doing so, they advance the position that addressing climate change not only requires technical or economic solutions.

Bringing norms in

When 16-year-old climate activist Greta Thunberg travelled through Europe in April 2019 to raise awareness on climate change and demand stronger climate action, the way she travelled was an important part of the message she tried to bring across. During her 11-day train journey she also brought an emerging international call to reduce or stop travelling by plane to the attention. Originating in Sweden, and called *flygskam*, proponents of this idea want to raise the feeling of embarrassment and shame among people who take the aeroplane because of the use of kerosene and the high levels of carbon emissions associated with flying.[2]

In essence, this call to "reduce and stop flying" challenges an established practice in many (developed) countries. When travelling (abroad), people take a plane not just because it is cheaper, quicker or easier, but also because it is the "normal" thing to do. In other words, the practice of flying has simply assumed a collective "taken-for-granted" status. It has become the "social norm" across certain countries and certain social groups. Thunberg and other proponents of *flygskam* essentially seek to challenge this social norm by shaming people for their flying behaviour and by promoting a new international social norm; one that establishes train travel or other environmentally friendly alternatives as morally and socially more acceptable substitutes for aeroplane travel.

A few years before anti-flying protests became headline news, another climate campaign saw the light of day at US campuses. In 2011, students at Swarthmore College urged their college to divest from coal stocks (Grady-Benson and Sarathy 2015). The divestment strategy was picked up and popularised by climate activist Bill McKibben.

[2] Thornhill, Jo. *Flight shaming is taking off – can travel be more ethical?* The Guardian, June 9, 2019.

The campaign expanded to include the whole fossil fuel industry (not just coal) and spread around the US and the rest of the world quickly. At the time of finishing this dissertation in October 2019, 1135 institutions with an estimated value of US$ 11.48 trillion, had committed to some form of divestment (Gofossilfree.org 2019). Divestment entails that people withdraw their investments from a specific economic sector for financial or moral reasons, and reinvest them in others. Inspired by the campaign for divestment from the apartheid regime in South Africa in the 1980s, climate campaigners chose divestment as a strategy to force investors to take a moral stand on the issue of climate change (Apfel 2015, 915).

But what do divestment campaigners have in common with the *flygskam* proponents and what differentiates them from other ways of addressing climate change? First, just like the anti-flying call, divestment is rooted in collectively held moral motivations regarding the link between fossil fuels and climate change, rather than based on material self-interests of utility-maximising individuals. After all, the fossil fuel industry is still a lucrative business to invest in and flying in many cases remains the cheapest and most practical travel option. Second, the proposed solutions also do not necessarily envision legal prohibitions of such behaviour, or the implementation of restrictive policies. On the contrary, it is about changing the standard of what one considers to be the "right thing to do". In other words, it is about convincing people to change their behaviour voluntarily, based on their principles, values, and normative convictions. Third, they do not focus on "putting a price on carbon", or on letting the market do its work. They single out fossil fuels—their production and consumption—as the root of the climate change problem and want to address this problem directly.

Many similar normative initiatives and campaigns have sprung up in the past years contesting and challenging existing social norms associated with the extraction, processing and consumption of fossil fuels. In addition, they also promote new norms with a view to delegitimising, stigmatising, and ultimately banning fossil fuels altogether. They range from campaigns that seek to phase out coal-fired power plants (Green 2018a), halt their financing (Buckley 2019), ban sales of internal combustion engine (ICE) vehicles (Meckling and Nahm 2019), as well as to "keep fossil fuels in the ground" altogether (Benedikter et al. 2016, Cheon and Urpelainen 2018).

This emerging set of international norms can be grouped under the category of what Fergus Green (2018a) referred to as international *anti-fossil fuel norms* (AFFNs). International norms are traditionally defined as "standards of appropriate behaviour for actors with a given identity" (Finnemore and Sikkink 1998, 891). In a similar vein, AFFNs formulate behavioural standards for actors concerned with the effect of fossil

fuels on climate change, and they prescribe the phase-out and ultimate prohibition of practices and processes across the entire fossil fuel supply chain of financing, extraction, processing and consumption. They are international in nature, so AFFNs govern the behaviour of states, as well as other internationally relevant actors such as multinational corporations, private actors (e.g. investors), international organisations (IOs) and non-governmental organisations (NGOs).

These AFFNs are not just discussed by grassroots activists and campaigners. State leaders and business actors are also increasingly aware of the potential disruptive impact of these AFFNs. Even the fossil fuel industry itself has reacted to normative campaigns that could have profound adverse impacts on their business models (Shell 2018). Until very recently, it would have been almost unthinkable to imagine the "Kodak moment" for a fossil fuel giant like ExxonMobil[3], or that "fossil fuels could go the way of the tobacco industry"[4]. Some have even suggested that fossil fuel producers today are facing their "life or death question"[5].

But where do these AFFNs come from and how can they affect policy-making with regard to fossil fuels and climate change? The remainder of this introduction, contextualises the research question, followed by an outline of the remaining parts of this dissertation.

1.2. Research question

This dissertation is an exercise to engage the study of international norms with the sub-fields of energy and climate politics in International Relations (IR) and to contribute to the developing research agenda on normative approaches to international climate action. Drawing on the literature on how international norms emerge, spread and bring about change, I am particularly concerned with the question of where and how these AFFNs originate, what affects their uptake and which factors influence their ultimate acceptance by those actors that are to be governed by these norms. To answer these questions, I examine a selection of four such AFFNs: fossil fuel subsidy reform; a global coal mining moratorium; coal-fired power phase-out; and fossil fuel divestment.

[3] Carrington, Damian. ExxonMobil is in its climate change bunker and won't let reality in. The Guardian, May 27, 2016.

[4] Disabato, Michael. *How Fossil Fuels Could Go in the Way of the Tobacco Industry.* www.playboy.com/read/how-fossil-fuels-could-go-in-the-way-of-the-tobacco-industry-1, July 12, 2018.

[5] Sheppard, David and Anjli Raval. *Oil producers face their 'life or death' question*. Financial Times, June 19, 2018.

Ultimately, this exercise can help us better grasp the role and potential of AFFNs in shaping the direction of the ongoing energy transformation and how they can affect the new "global [climate] governance approach enshrined in the Paris Agreement" (Falkner 2016, 1108).

What makes the emergence and diffusion of international norms—and more specifically, AFFNs—so intriguing and worth studying? In IR, norms have been a prominent research topic since the late 1980s – early 1990s. Scholars of international norms have demonstrated that shared ideas regarding appropriate behaviour actually have a profound impact on the nature and functioning of world politics. This expands the classic, orthodox assumption that the international system is merely a function of power distribution, material forces, and interest-based considerations (Hoffmann 2010).

Empirically, because of the nature of AFFNs and their focus on fossil fuel prohibition, if successfully institutionalised and implemented, they could have a significant impact on energy systems worldwide and contribute to the shape and pace of the ongoing energy transformation, alongside other major forces of socio-technical change such as regulation, economics and technological innovations. After all, low-carbon transition scholars should not only focus on innovations but also on the decline and destabilisation of existing fossil fuel-based energy systems. In other words, these AFFNs will contribute to a new "Great Transformation", similar to that associated with early industrialisation in 19th century Europe (Polanyi 2001), which will "neither be purely scientific or economic, nor purely social or political" in nature. It will affect all of these features of society combined and will go well beyond the energy sector itself (Newell 2019).

Theoretically, a norm approach, grounded in issues of morality, legitimacy and ethics, differs from consequentialist approaches based on strategies of sanctions and rewards, reciprocity, and self-interest that have long dominated climate policy debates, but have largely failed to deliver on their objectives. A norm perspective on climate action follows from what actors think is the appropriate or "moral" thing to do, rather than what they think is in their self-interest (Wapner 2014, Milkoreit 2015, Jamieson 2017, Green 2018a). A fundamental aspect of such an approach would evidently be the formulation of norms that challenge the existing social order and that help shape the new low-carbon society. This is where AFFNs come in.

The nascent scholarly debate on a normative and ethics-based approach to international political challenges associated with climate change leaves some puzzling

questions unresolved, including where such AFFNs come from, how they develop and what makes some of these AFFNs' emergence and diffusion work, whereas others fail. In a variety of fields in IR—e.g. arms controls, human rights, security and environment—normative approaches have successfully challenged existing political behaviour. However, many different determinants for their success have been put forward. Through the examination of the determinants of the emergence and diffusion of AFFNs in this dissertation, I contribute to the broader knowledge of norm success in the extant literature. Hence, the research question can be summarised as follows:

What are the drivers and constraints that determine the selection and diffusion of international anti-fossil fuel norms?

1.3. Dissertation outline

The remainder of this dissertation proceeds in four main parts: literature review, analytical framework and research design, scientific articles, and conclusion. The articles in Part IV constitute the main body of this dissertation. Each of these articles examines a separate AFFN, with a specific research puzzle, and focusses on different aspects and instances of the process of norm development.

Part II of this study is dedicated to the literature review. Here, the objective is threefold. First, I explain what the study of norms contributes to our understanding of IR in general, I give an overview of the development of norm research in three waves, beginning with the late 80s – early 90s "constructivist turn" in IR scholarship, and I look at the ongoing research's theoretical contributions and shortcomings. Second, I describe how research in the IR sub-fields of energy and climate politics have largely failed to engage with norms so far and what their role is in energy and climate decision-making. In other fields, more thought has been put in how norms and other ideational factors help underpin or undermine the dominance of fossil fuels in society. Third, I sketch how a nascent research agenda is trying to establish the effectiveness and role of normative approaches to solving issues within the energy-climate nexus.

In part III, I develop an analytical framework that can help us understand the dynamic development of AFFNs, based on the literature review. I structure this framework around the seminal work conducted by Finnemore and Sikkink (1998) on norm "life cycles". In doing so, I consider how different theoretical understandings of norms, particularly neo-Gramscian theory, supplement classic constructivist interpretations. Further in part III, I discuss the research design of the dissertation, including case

selection, methods and data collection. I also explain how the articles separately contribute to answering the main research question.

Part IV is composed of four articles, each of which focusses on one AFFN that presents a puzzling observation and that requires a theoretically-informed explanation. The analytical framework developed in part III will be empirically applied throughout the articles through disciplined configurative case studies:

- The first article discusses the emergence and diffusion of fossil fuel subsidy reform as an international norm. The case is puzzling because international norms are typically the products of advocacy by transnational networks and social movements. The fossil fuel subsidy reform norm did not follow this traditional pattern and instead more or less trickled down from above in 2009 when leaders of the G20 pledged to phase out inefficient fossil fuel subsidies over the medium term.
- The second article examines whether coal mining bans in the US and China reflect the emergence of a global norm to keep coal under the ground. To that end, we review recent coal mining policies in the four largest coal producers and explain them comparatively with a framework based on interests, ideas and institutions.
- In the third article, I answer the question of why states join the Powering Past Coal Alliance, a multi-stakeholder partnership that brings together state and sub-state governments, businesses and other organisations in order to establish the norm of a global coal phase-out by 2050 at the latest.
- In the last article, I examine the drivers that impact the uptake of an international fossil fuel divestment norm. I combine insights from neo-Gramscian theory and constructivism to expand the understanding and explain the development of this norm.

Table 1 provides an overview of the articles and their publication status.

Part V aims to draw generalisable conclusions from the research question. I discuss the results against the backdrop of the analytical framework that was designed based on the extensive literature review. I also discuss the wider scholarly and empirical relevance of the study, as well as avenues for future research. Lastly, I formulate some key takeaways for anti-fossil fuel norm campaigners and policy makers.

Table 1. Articles overview[6]

Title	Status
1. Fossil Fuel Subsidy Reform. An International Norm Perspective. (with Thijs Van de Graaf)	**Published** – *The Politics of Fossil Fuel Subsidies and their Reform*, edited by Jakob Skovgaard and Harro van Asselt. Cambridge: Cambridge University Press. (DOI: 10.1017/9781108241946)
2. Toward a global coal mining moratorium? A comparative analysis of coal mining policies in the USA, China, India and Australia. (with Thijs Van de Graaf)	**Published** – *Climatic Change* (DOI: 10.1007/s10584-017-2135-5)
3. Moving beyond coal: Exploring and explaining the Powering Past Coal Alliance. (with Thijs Van de Graaf and Tim Haesebrouck)	**Published** – *Energy Research and Social Science* (DOI: 10.1016/j.erss.2019.101304)
4. Taking Away a "Social Licence": Neo-Gramscian Perspectives on an International Fossil Fuel Divestment Norm.	**Published** – *Global Transitions* (DOI: 10.1016/j.glt.2019.10.006)

[6] As per Article 7 of the *Doctoral Regulations of the Faculty of Political and Social Sciences* (FB 29 March 2017), in Appendix I have added an overview of my exact contribution to each co-authored article that is part of this dissertation.

PART II. Literature Review

2.1. Tacking stock: Norms in International Relations

Why study norms?

One might wonder what the study of norms contributes to our understanding of the nature of international life. This, of course, requires some background. Until the late 1980s – early 1990s, neorealism and neoliberal institutionalism dominated the field of IR. These theories were mostly concerned with states'—and other relevant international actors—*interests*. That is, actors were considered to be looking for a combination of power, security and wealth. Grounded in natural sciences and economics, these theories mostly assumed rather than problematised (state) interests, and parsimonious assumptions of what all states wanted, were dominant (Finnemore 1996, 1). Interests, in other words, were mostly treated as exogenous and given, while norms, at best, were considered as intervening variables, particularly in rationalist-institutionalist theory (Wunderlich 2013, 21). Realists, on the other hand, mostly rejected such claims. They saw norms as dependent variables that ultimately only reflect the interests of powerful (state) actors (Mearsheimer 1994).

The "constructivist turn" in IR, however, questioned these ontological and epistemological positions and sought to provide an answer to the question of how constituent actors in IR—i.e. states—precisely acquire an identity and the respective interests that are assumed to come with it (Kratochwil 1989; Onuf 1989; Ruggie 1998; Wendt 1999). Developing from sociology and organisation theory, this perspective contributes to our understanding of the socially constructed nature of international politics—i.e. how and to what extent social factors such as norms, identities and culture influence international political behaviour in a given social context (Katzenstein 1996; Ruggie 1998; Wendt 1999). Ideational phenomena moved to the forefront of the IR agenda because of real-world events. With the end of the Cold War, it dawned on IR scholars that (state) conduct perhaps relied less on the distribution of power, and more on the soft power of "ideas, values and norms" (Björkdahl 2002, 9).

Proponents of this new constructivist approach argued that the building blocks of international reality are hence both material and ideational (Fearon and Wendt 2002). Instead of solely weighing costs and benefits, actors can also choose to act on the basis of what is considered "normatively appropriate" (Wendt 2001, 1024). Even when instrumental factors are weighed in favour of certain behaviour, actors may refrain from action based on normative grounds. Such a logic works basically because of the internalisation of norms. This is a core contribution of a constructivist and "norm account" of international life.

The social constructivist focus on norms teaches us that interests are not just "out there", waiting to be discovered, but are constructed through a process of social interaction, both on a domestic and international level (Finnemore 1996). Interests, in other words, are also formulated within social structures and imply understandings about what is "good" and "appropriate" behaviour. A social structure in turn, consists of ideas, institutionalised norms, discourses, and institutions that influence behavioural decisions by relevant actors. Social structures are also contingent and change over time. As the very norms and values that constitute them change as well, they create shifts in (perceptions of) interests and appropriateness, and consequently behaviour as a whole. International political life is thus structured through shared values and social norms, as well as interests and the distribution of power.

Ideational and normative causal mechanisms are inherent to political life and behaviour, as has been extensively proven by constructivists (Finnemore and Sikkink 1998). This is also the case for international energy and climate politics. To date, however, most policy and research involves mechanisms grounded in interest-based logics of information sharing, reciprocity and exchange. An agenda with a focus on normative considerations offers a promising avenue for stronger global climate governance.

Before focussing on norms in global energy and climate politics, I discuss the different "waves" of norm research in IR, with a specific focus on their respective contributions and shortcomings. These research waves, the key contributions and critiques are synthesised in table 3, at the end of this section. Further, I also shed light on some outstanding research issues that have not been adequately addressed in the existing literature.

First wave: Why norms matter

Norm research in IR has largely developed in three waves (see also Hoffmann 2010 for a similar interpretation). In a first wave, initiated by the "constructivist turn", scholars sought to establish an approach that countervailed the classic material and rational theories that dominated the field of IR.[7] Accordingly, early norm research centred

[7] This is not to say that *all* scholars interested in norms to date are "constructivists". For example, the study of norms has been at the centre of the English School as well. In short, the English School posits that an international society of states exists, with at its core some principled rules, institutions, and values that govern both who is a member of the society (i.e. their identity) and how they [should] behave. What these scholars are interested in, is how a specific social structure, designed and promoted in the liberal principles of Western European democracies, shapes or inhibits actors' preferences (see e.g. Watson and Bull 1984;

around conceptualising norms and how they "mattered" compared to other factors, including material interests or power (Finnemore 1996, 14-22; Checkel 1997, 1998). The concept of a social norm, however, was not "invented" by constructivists. It is rooted in much earlier sociological and economic scholarship. Moreover, the urge of individuals to conform to social norms was already demonstrated in social psychology (Sunstein 1996).

Social norms were defined as "shared understandings that make behavioural claims" (Checkel 1999, 88), or "standards of appropriate behaviour for actors with a given identity" (Finnemore and Sikkink 1998, 891). "Within the international system", as Cortell and Davis (2000, 65-66) note, "[international] norms are providing solutions to coordination problems, reducing transaction costs, providing a language and grammar of international politics, and constituting actors themselves." Norms thus have a dual quality. First, they define the identity of an actor, whereby norms' constitutive features specify which actions will help actors to recognise a particular identity. Second, norms operate as standards that specify the proper actions associated with an already defined identity. In such instances, norms have regulative—or "constraining"—features that specify standards of appropriate behaviour in a specific situation (Katzenstein 1996, 5; Checkel 1997; Winston 2018, 639-640). Norms thus "establish expectations about who the actors will be in a particular environment and about how these particular actors will behave" (Jepperson et al. 1996, 54).

It is their prescriptive quality of how one "ought to" act that sets norms apart from more formalised rules or legal norms, even if the differentiation between social and legal norms can sometimes be blurry (Raymond 1997, 225-227). Legal norms (i.e. international and domestic law, conventions, and agreements) often function as carriers of social norms (Finnemore and Sikkink 1998, 898), although this does not always have to be the case. As Abbott et al. (2000, 410-412) note, social norms can occur without the expressed intent to create legally binding obligations. In this dissertation, I refer to AFFNs as social norms, rather than legal norms, precisely because of the dual quality they have and because they have not always been translated into legislation. They explicitly proscribe fossil fuel finance, extraction, processing or consumption. This, however, is not to say that AFFNs are never translated into formalised policies, domestic law or rules, it is just not a necessary condition for AFFNs to take root and become successful.

Finnemore 1996, 17-19). See e.g. Falkner and Buzan (2019) for some excellent recent work on environmental norms from an English School perspective.

The constructivist turn in IR essentially juxtaposed a cognitivist paradigm with that of a classic rationalist-materialist one. Cognitivist approaches focussed on norms as setting "standards of appropriateness," while rationalist approaches treated norms as emerging from an actor's rationally calculated self-interest. Each of these approaches, in turn, referred to a different "logic of action" to explain behaviour. Cognitivists emphasise that norms regulate actors' behaviour through a "logic of appropriateness", while rationalists see a "logic of consequence" at play (March and Olsen 1998). By invoking a logic of appropriateness, constructivists attribute explanatory power to norms, identity considerations and values for actors' (changing) behaviour; while rationalists constrain the role of norms to the "instrumental implementation of exogenous interests" (Wunderlich 2013, 21). Although as early as the seminal work of Finnemore and Sikkink (1998), constructivists have emphasised that both these logics of action need not be mutually exclusive, subsequent constructivist norm scholarship has focussed primarily on emphasising and empirically expanding on the importance of the logic of appropriateness instead of the logic of consequence (Fearon and Wendt 2002, Choi 2015). Table 2 gives an overview of the interpretations of norms and logics of actions for different classic schools of thought in IR.

Table 2. Perspectives on norms and logics of action

	Neorealism	**Neoliberalism**	**(Neo-)Marxism**	**Constructivism**
Causal agent	Individual states with conflicting interests	Individual, self-interested actors	Self-interested classes	Individual actors with varying ideas, norms and interpretations
Causal role of norms	Dependent variable	Intermediate variable	Intermediate/ Dependent variable	Independent variable
Logic of action	Consequence	Consequence	Consequence	Appropriateness

Source: own creation, based on Geels (2010, 497)

Second wave: Normative structures, emergence and diffusion

In a second wave of norm research, scholars started studying norm development in order to give empirical evidence for their initial theoretical claims. Three different but related strands of research were developing at that time (Hoffmann 2010). First, research focussed on how *extant* normative structures influenced the behaviour of actors with a shared identity. This, of course, implied a structural interpretation of norms, since the objective was to show how behaviour can be explained by considering an ideational context and how norms influence actors' understanding of the material world (see e.g. Klotz 1995, Finnemore 1996, Katzenstein 1996). A second strand of research focussed on norm *emergence*; or the process of how ideas achieve the status of collectively held norms.[8] Several drivers for norm emergence were laid bare: hegemony, norm entrepreneurship, domestic context, framing, moral proselytism[9], and epistemic communities (see e.g. Nadelmann 1990, Goertz and Diehl 1992, Haas 1992, Finnemore and Sikkink 1998, Payne 2001). A third strand, very much related to the second one, focussed on *socialisation*, or how a norm diffuses outside of the initial group of actors who have a shared identity and supported the norm. As Johnston (2001, 494) clarifies, "socialisation is aimed at creating membership in a society where the intersubjective understandings of the society become taken for granted."

Persuasion is considered the main mechanism by which political actors are socialised into developing shared understandings. Finnemore (1996, 141) asserted that "normative claims become powerful and prevail by being persuasive." The most persuasive norm entrepreneurs are those able to frame norms in such a way that they "resonate" with relevant audiences. Empirically, norm scholarship in this stage mainly examined how states in the Global South were socialised into adopting supposedly universal norms on human rights and sovereignty (Finnemore 1996, Risse et al. 1999).

Perhaps the most prominent of diffusion models that was developed is Finnemore and Sikkink's (1998) norm "life cycle" model. At the end of three stages of norm *emergence*, norm *cascade* and finally norm *internalisation*, a norm assumes a "taken-for-granted" status. In the first stage of norm emergence, norm entrepreneurs, those actors initially interested in changing social norms, are identified as the driving forces because they

[8] Contrary to ideas, which can be held privately, norms are inherently shared and therefore *social*; they are not just subjective but intersubjective. Moreover, norms essentially concern behaviour while ideas do not. In short, Finnemore (1996, 22-23) asserts that essentially, "[norms] are collectively held ideas about behaviour."

[9] This term refers to "the compulsion to convert others to one's beliefs and to remake the world in one's own image" (Nadelmann 1990, 481).

mobilise others to change normative standards. In doing so, they frame a norm in such a way to "create alternative perceptions of both appropriateness and interest", so that it resonates with the broader public of norm addressees, i.e. those actors governed by a norm (Finnemore and Sikkink 1998, 897). Once a critical number of actors in the international community accept the norm, a *tipping point* is reached and the norm enters a phase of cascade, and is subject to international diffusion through socialisation and persuasion processes. Although not necessarily given, the norm can eventually be internalised by the relevant norm addressees. At that point, the norm is no longer subject to widespread contestation and is broadly considered "the [new] normal" within the international system. Historical examples of norms that went through these stages and that now have a "taken for granted" status include, for example, norms against slavery or for women's voting rights.

Literature on "boomerang effects" focusses on how norm diffusion occurs even when states initially attempt to ignore these normative trends. In cases where state actors are not responsive to civil society's demands, domestic groups connect to external allies, through so-called transnational advocacy networks, who use the power of principled ideas and norms to lobby their own states or IOs to put pressure on the recalcitrant state from the outside (Keck and Sikkink 1998). Similarly, Risse et al. (1999) established a "spiral model" that analyses the domestic impact of international norms through a five-stage model of socialisation driven in large part by the activities of transnational principled-issue networks. Florini (1996), on the other hand, draws an analogy between norm development and Darwinian evolution theory. In this evolutionary approach, international norms share some crucial characteristics with genes: They are "instructive to their hosts", are passed one from one actor to another through genetic or social inheritance, and they are in constant competition with others within a given normative or biological environment, which renders them subject to "natural selection".

These early phases of norm scholarship played an important role in validating constructivism as a full-fledged theory of IR. They demonstrated that it indeed could function as more than just a critique of the dominant rationalist-materialist theoretical schools and that it could be used to conduct detailed empirical analyses across a variety of relevant empirical fields, often hitherto overlooked; including human rights (Nadelmann 1990, Klotz 1995, Keck and Sikkink 1998, Risse et al. 1999), development (Finnemore 1996), the environment (Haas 1992), and even fields that were traditionally reserved for realists, such as security (Katzenstein 1996; Legro 1996; Price 1997, 1998).

However, the success of this early norm scholarship also provoked quite some criticism, mostly because this body of work tended to simplify normative dynamics precisely in order to "facilitate analysis and dialogue with competing perspectives" (Hoffmann 2010). A first critique centred around the structural bias of constructivism (Checkel 1998, 340-342). This was especially prominent in work that focussed on normative behaviour linked to the "world polity" model, whereby nation states are constructed and embedded within a world society that promotes *universal* processes of modernisation (Meyer et al. 1997). This type of critique has also been directed at the English School. The focus on how principles, values and norms, first designed and developed in Western European democracies help shape an (expanding) international society of like-minded states, is vulnerable to accusations of eurocentrism (Kayaoglu 2010).

This first critique pointed out the excessive emphasis on the role of social structures and norms that constitute them, at the expense of actors that create, promote and change them in the first place. In short, as Checkel (1998, 325) notes, constructivism lacked "a theory of agency". Despite some serious attempts at scholarly engagement with the concept of norm entrepreneurs (see e.g. Nadelmann 1990; Florini 1996, 374-375; Sunstein 1996; Finnemore and Sikkink 1998, 896-899), agency was only considered crucial in early stages of a norm's "life cycle", in order to call attention to the issues at hand. After the tipping point was passed the norm was expected to further diffuse through a *quasi*-automatic process of contagion. Norm entrepreneurs at best played a secondary role in the subsequent stages (Finnemore and Sikkink 1998, 902). Moreover, the target audience (i.e. norm addressees) were also considered not to possess any impactful agency other than norm denial or disapproval (Bloomfield 2016). They were not expected to engage in any meaningful discursive debate and remained largely passive in the diffusion process. Because of this relative neglect of the role of agency, norm research "[did] not translate into exploration of the origins and *internal* transformation of norms" (Krook and True 2012, 107).

A second critique arose from early scholarship's "linear, one-way" interpretation of how international actors align to "modern" international standards (Krook and True 2012, 107). This assumption is best exemplified by the empirical research that examined how the Global South came to accept "universal" standards regarding human rights. Indeed, norms were often considered as following a teleological pathway toward institutionalisation and internalisation. Although this scholarship did acknowledge that "new norms never enter a normative vacuum but instead emerge in a highly contested space", and that "completion of the 'life cycle' is not an inevitable process" (Finnemore

and Sikkink 1998, 895), the specifics of this dynamic process of contestation, norm backsliding and (potential) failure remained conspicuously under-addressed. Checkel (1998, 339) argued that norm researchers, therefore, ought to pay attention to cases when "the dog did not bark" and norms did not reach the final stage of internalisation.

A third critique highlighted early researchers' tendency to "freeze" norms (Hoffmann 2010). Despite the acknowledgement that norm emergence and diffusion entailed a certain degree of dynamism, early constructivist researchers treated norms as stable, fixed things that were all but "set in stone". The initial empirical approach operated best with stable norms, as Wiener (2004, 191) observes, since it helped "inferring and predicting behaviour by referring to a particular category of norms that entail standards for behaviour." To an extent, norms essentially must be stable. If they were not, it would be difficult to form shared standards of appropriate behaviour, and it would be hard to consider norms as a legitimate analytical category alongside interests and power. The research focus was therefore not on analysing norms as such, but rather on how they act within the international system. In those early days, constructivist explanations of norm development "[embodied] a curious tension" because accounts of norm socialisation in changing external environments (cfr. *supra* on norm diffusion models) were combined with more static conceptions of norms themselves (Krook and True 2012, 106).

In the end, however, "the highly contingent and contested nature of normative change and normative influence" is crucial to understanding how norms work (Finnemore and Sikkink 1998, 914). Consequently a third wave of norm research sought to include broader notions of norm dynamics. This contemporary wave of scholarship, initialised by the abovementioned critiques, is often dubbed "critical constructivism" (Wiener and Puetter 2009).

Third wave: Norm dynamics and contestation

After having established how norms "mattered" and having developed analytical frameworks on norm emergence and diffusion, new research elaborated the notion of norms as *processes* that are discursive constructs in themselves (Wiener 2009). Accordingly, Krook and True (2012, 109) argue, "a discursive approach focussed on norms […] offers greater leverage for analysing patterns in their origins, adoption and implementation in diverse contexts." This approach also allows for integrating issues of power into the process of normative construction, determining what can and cannot be said, and, thus, who can and cannot speak (Ibid.).

This new research broadly evolved around two research strands (see Hoffmann 2010, Krook and True 2012): First, we can distinguish research on "external dynamics" (or external *contestation*). Such external dynamics are generated by the broader universe of norms, the research refers to how norms operate and interact *within*, as well as are contested *by* the extant normative environment. These studies grant agency to different types of actors involved in the dynamic process of norm development and how they react to newly formulated norms and socialisation attempts. A second research strand focusses on "internal dynamics" (or internal *contestation*), or how norms are subject to conflicts of interpretation, even among those actors with a shared identity. Studies focussed on how actors can alter the meaning or content of a norm through discursive practices of framing, (re-)interpretation and contestation (see e.g. Wiener 2004, 2009, 2014; Wiener and Puetter 2009). In other words, there is a renewed focus on agentic factors determining norm diffusion and selection and how they influence the content of a new norm.

Contemporary research on *external* norm dynamics revolves around a similar question that was taken up in early norm scholarship (Acharya 2004, 240): "Why do some [transnational] ideas and norms find greater acceptance in a particular locale than in others?" Additionally, however, new research also delves into the impact that norm contestation, acceptance and compliance have on the content of such a new norm.[10] Accordingly, the scholarship that followed drew on the critique that international norms are not necessarily "good" and that they do not follow a linear path toward "modernisation" (Acharya 2004). Instead, socialisation—still considered the main mechanism of norm diffusion—should be more seen as a dynamic process, while acts of contestation, between actors that form part of different normative systems or communities, inherently form part of this. Indeed, as Acharya (2018) suggests, compliance with international norms will involve relevant actors' dynamic interaction with external norms and ideas, in the form of their manipulation and incorporation. This therefore shifts the attention toward norm addressees and the process through which actors interact with and within certain normative contexts. Moreover, contrary to previous work that mostly looked at "weaker" states as subject of socialisation who adopt norms that originated within western democracies, attention now turned to "powerful" ones as well (see e.g. Clapp and Swanston 2009).

Acharya's work on norm *localisation* and norm *circulation* (2004, 2013, 2018) is a primary example of this research strand. In his study of how the Association of South

[10] This literature broadly builds on the work of Risse et al. (1999) who were the first to theorise norm diffusion as taking place from a community of mostly Western actors to states in the Global South.

East Asian Nations (ASEAN) and its constituent states interacted with international norms, he finds that "emerging [international] norms that make universal claims are more likely to succeed in a regional setting if they can be 'grafted' onto a prior local norm" (Acharya 2018, 43).[11] International norms are hence adapted by local actors to fit their local normative circumstances. In doing so, they alter the content of the new international norm in order to build normative "congruence" (Acharya, 2004). Cortell and Davis (2005) similarly invoke the concept of domestic congruence to explain successful norm acceptance on a domestic level. As they note, this "fit" with the local normative environment is not given and it is the product of conscious domestic activity and contestation. Cortell and Davis thus also grant agency to norm addressees, or those actors that are targets of socialisation who have yet to accept or internalise a newly formulated international norm.

Research on the *internal* dynamics of norms is a direct consequence of the criticism on interpretations on the static, fixed nature of norm content. "Systems of rules or norms cannot be static", as Sandholtz (2008, 103) notes, and "tensions between norms and behaviour, and between different norms, drive a constant process of norm development." Paradoxically, although norms are relatively stable as they structure identity and standards of behaviour, they are also subject to constant contestation, (re)interpretation and substantive change. They are, in other words, in a "constant state of dynamism and flux" (Hoffmann 2010). This approach highlights that norm formulation and diffusion basically entails a discursive process. Krook and True (2012, 104) indeed refer to norms as "works-in-progress, rather than as finished products", which implies that the phenomenon of "norm change" refers both to a shift in importance of a norm in relation to competing norms, as well as a change in "meaning" that actors attribute to the norm in question.

Fundamental to this burgeoning literature on the meaning of norms and norm contestation is that different actors within the same normative community can have different and contesting understandings of the norm's content, which makes contestation inherent to a norm.[12] "Contestation", as Wiener (2014, 1) writes, "involves the range of social practices, which discursively express disapproval of norms." Stimmer and Wisken (2019) recently explored the concept of "behavioural contestation" in order to expand Wiener's discursive understanding of norm contestation. They

[11] The concept of "grafting" was first coined by Price (1998, 617). He considers it to be a pedagogical technique for stimulating normative change. It refers to "the combination of active, manipulative persuasion and the contingency of genealogical heritage in norm germination."

[12] In quite a radical interpretation, Niemann and Schillinger (2017) regard contestation as never-ending because they question whether norms can ever reflect shared understandings.

consider norms as contested "when relevant political actors are involved in any social practices that entail different understandings of the norms or of the relative weight of competing norms" (Stimmer and Wisken 2019, 5). Behavioural contestation occurs when the *actions* of relevant actors imply the existence of conflicting understandings of the meaning or (relative) importance of a norm. It thus becomes apparent in the different ways in which actors shape the implementation of norms. Both discursive and behavioural contestation are not mutually exclusive but can happen at the same time, sequentially or independently of each other. Kreuder-Sonnen (2019) e.g. exposed that China and the World Health Organization promoted their understanding of the relative importance of sovereignty and health norms through actions (i.e. behavioural contestation) rather than words (i.e. discursive contestation).

A large number of empirical studies have contributed especially to the discursive understanding of norm dynamics and norm contestation. [13] Sandholtz (2008), for example, develops a "cyclical model" to explain norm change associated with prohibition of wartime plunder on an international level.[14] He argued that different understandings of existing norms, which initially constrained the possibilities of action, eventually led a community of norm addressees to discuss and alter the meaning of the existing norm. Schimmelfenning (2001) studied EU's Eastern enlargement and norm contestation on a regional level, while Wiener (2004) explored EU members' dynamic contestation of the 2003 Iraq war and the conflicting interpretations of values among its members. Stimmer (2019), however, focusses on the Bush administration's contestation of the prohibition of torture and mistreatment in order to analyse different types of disagreements over the meaning of norms and how these variations influence political behaviour.

Bloomfield (2016) introduces the concept of "norm antipreneurs", i.e. "actors who actively defend the entrenched normative status quo against challengers", and who are therefore the polar-opposite to norm entrepreneurs (see also Bloomfield and Scott 2017). In constructing his typology of roles, he emphasises the agency-centred dynamics of discursive contestation, in that different contesting roles can be taken up

[13] A non-exhaustive list of research on (internal) norm dynamics and contestation: Sandholtz 2008, Wiener 2008 (and many of her other publications), Branch 2011, Johnstone 2011, Krook and True 2012, Deitelhoff and Zimmermann 2013, Jetschke and Liese 2013, Moses 2014, Karlsrud 2015, Bloomfield 2016, Paddon Rhoads 2016, Stimmer 2019.

[14] Note how Sandholtz' (2008) cyclical model and Acharya's (2013) model of "norm circulation" also go against earlier norm scholarship's linear interpretation of norm diffusion processes (compare e.g. with Finnemore and Sikkink 1998).

when resisting the emergence and diffusion of newly formulated norms, both within and outside of the community of actors that originally promoted the norm.

By focussing on *internal* and *external* norm dynamics and contestation, constructivist scholars responded to some of the earlier gaps and questions that still remained. Research on norms has expanded enormously since those early days and it is now a widely studied topic in IR, both theoretically and empirically. Table 3 provides an overview of these three waves through which research on norm developed.

Outstanding issues in norm research

These three waves of scholarship on international norms have taught us a lot about how norms originate, emerge and diffuse. However, there are at least six outstanding issues, of relevance to this dissertation, which I will discuss in the next paragraphs.

A first outstanding issue relates to different logics of action, how they are convergent in some cases and can diverge in others. Behavioural logics of appropriateness and consequence were introduced to understand actors' motivations to act the way they do (March and Olsen 1998). As I discussed, constructivist norm research has often invoked a "logic of appropriateness" to show that norms, values, ideas and identity mattered "instead of" rationally defined (material) self-interest. In practice, however, a mixture of these motivations is most common, and actors' particular mix of motivations will differ from context to context. Hence, one ought to treat these logics of action as ideal types and put them at either extremes of a continuum. Others have sought to deal with this issue by e.g. temporally sequencing these logics of action, whereby one logic is followed by another in specific context or stage of norm dynamics (Hoffmann 2010), yet only scarce *empirical* attention has been directed at bringing both logics of action together (Choi 2015).[15] This most likely has to do with early norm scholars' need to distinguish themselves from rationalist-materialist schools in order to legitimate their existence as a theory of IR.

Therefore, current norm scholarship would benefit from explicit consideration and empirical engagement with both logics of action, regardless of whether or not a particular case is studied through a constructivist prism. Determining how both logics engage with one another can lead to a greater understanding of how norms, interests and power interact with one another and determine political behaviour in the international system.

[15] This is all the more puzzling since Finnemore and Sikkink (1998, 912-914) early on acknowledged the simultaneous presence of both types of motivations for action and behavioural changes.

Table 3. Synthesis: waves of norm research

	Primary objectives	Research topics & key concepts	Key authors & publications	Critiques
1st wave	Establish causal role and importance of norms vis à vis interests	Logics of action	Kratochwil (1989); Finnemore (1996); Katzenstein (1996); Ruggie (1998); Wendt (1999); Checkel (1997, 1998)	Society = "ideas all the way down"?; how do ideas become norms?; no empirical evidence for theoretical claims;
2nd wave	Conceptualise processes of norm emergence and diffusion; empirical research	Norm entrepreneurs; social structure; socialisation; persuasion ; internalisation	Finnemore and Sikkink (1998); Keck and Sikkink (1998); Johnston (2001); Nadelmann (1990); Björkdahl (2002); Payne (2001)	Structuralist bias and lack of agency; norm development as linear processes; "freezing" of norms
3rd wave	Study norms as "works-in-progress"	Norm contestation; agency; norms as discursive instruments;	Acharya (2004, 2018); Betts and Orchard (2014); (Bloomfield (2016); Krook and True (2012); Wiener (2004, 2008, 2014); Wiener and Puetter (2009)	Logics of action; Structure-agency debate; norm success; statist bias; lack of empirical diversification;

A second concern refers to drivers and constraints of norm diffusion and whether these are determined by agency-based or structural factors, or a mixture of both. As I noted, early norm scholarship was criticised for its structural bias, which resulted in the "discursive" turn in norm scholarship later on. The structural bias was apparent precisely because of attempts to conceptualise logics of behaviour. A logic of consequence was considered to be entirely agent-driven, because actors act in light of their utility maximisation to get what they want. The logic of appropriateness had a structure-driven component because elements of social structure (i.e. norms, social institutions, values, roles and the rules they embody) direct behaviour.

Wunderlich (2013) argues that within the different stages of norm dynamics, both structural and agency-based factors drive norm acceptance and diffusion. While norm entrepreneurs are indispensable for the occurrence of norm change, external structural factors constitute windows of opportunity to capitalise on and frame a new norm. After all, the dominant themes in much of the related literature is that actors are most likely to embrace normative commitments that are framed in such a way that they "persuade" norm addressees (agency-based) and "fit" (structural) with extant cultural traditions (Busby 2010, 55). In her analysis, Wunderlich emphasises the indispensability of norm entrepreneurs for norm dynamics to lead to successful diffusion, although in so doing, she does overlook the critical importance of the "normative fit" with the extant social structure, and focuses too much on the purportedly unconstrained nature of agency. Analytical accounts that focus on the structural "fit" of newly formulated norms (see e.g. Bernstein 2001, Okereke 2008) can explain why some norms matter more than the others or how much norms matter relative to other factors, such as power and interests, although they insufficiently elaborate on the discursive construction of norms.

Third, how can we define and operationalise norm "success"? Early on, a norm would be considered successful once it reached the stage of internalisation (Finnemore and Sikkink 1998, 892). However, it is very hard to operationalise this concept of internalisation and the "taken-for-granted" quality, because measuring this would require "looking in the heads" of norm addressees. Moreover, as recent norm research has outlined, once a norm is settled, discursive and behavioural contestation can still occur (Wiener 2014, Stimmer and Wisken 2019). All in all, however, critical constructivists have an ambiguous position toward the study of norm success. As they mostly focus on contestedness and interpretability of norms, they are not concerned with norm "success". Instead, they are concerned with the dynamics of a norm even after successful establishment (see e.g. van Kersbergen and Verbeek 2007, Sandholtz

2008, Krook and True 2012, Niemann and Schillinger 2016). However, if a norm essentially remains "perpetually contested", at what point then does it become stable and how can we consider a norm to be successful? This is not at all clear in their understanding of norm contestation.

Bernstein (2001, 30) argues that not all relevant actors in the international system have to follow a norm for it to have a "collective" status, and thus for it to be considered successful. He notes that international norms' success can and should primarily be inferred from the degree of institutionalisation, which concerns the perceived legitimacy of norm "as embodied in laws, institutions, or public discourse". Institutionalisation thus depends on the amount and range of instruments, statements, or agreements that invoke the norm, as "most norms are stated explicitly in treaties and conventions, less formal agreements, rules and standards established by IOs, resolutions, and declarations, including the 'soft' declaratory law that has served as a basis for international environmental law and institutions" (Bernstein 2001, 30; but see also Florini 1996, 376-377). Yet, to measure norm success, one also ought to look at how individual actors within the international system deal with them. For international norms, this would generate the additional difficulty of having to analyse norm acceptance for each state, business, NGO or other actor separately. Busby (2010, 8-9) therefore proposes to define success "in a political rather than a policy sense." One then has to look at the early stages of norm development, when states are asked to make an internal decision about international normative commitments, and not at implementation or compliance. After all, the "initial commitment to a norm is a significant decision in its own right" (Ibid., 9).

However, yet another question then remains: In which, or *how many*, institutions, states, or individuals do norms have to reside in order to consider them as being successful? This is largely unclear. Finnemore and Sikkink (1998, 901) argue that a number of critical states have to adopt the norm for it to become successful. These are states without whose norm approval, the substantive goal of the norm is compromised. For example, to be able to speak of an internationally successful norm against slavery, states that still practised it, had it enshrined in their laws and executed it through their policies would have to abandon it. If not, the norm could hardly be considered successful. Yet, states may also be critical to infer norm success because they have a certain moral stature, or simply because they are powerful actors within the international system. Jepperson et al. (1996, 54) note that norms do not necessarily have to be "widely held" by actors in the international system. Instead, they have to be

"collective" or common features of a system, either by being institutionalised in procedures, formal rules or law, or by being prominent in its public discourse. [16]

Moreover, recent research has pointed out that the task of norm entrepreneurs does not end once a treaty is signed or a statement is issued. Hence, alongside institutionalisation, a parallel process of implementation therefore also takes place. Implementation is described as "the steps necessary to introduce a new international norm's precepts into formal legal and policy mechanisms, and the consequent use of these mechanisms" (Stimmer and Wisken 2019, 521). Indeed, norms ultimately matter only insofar as they translate into practice. Consequently, whether states actually sign onto or ratify international norms is not the only key to understanding how norms influence international politics, but rather in how far relevant actors understand, interpret and practice such norms (Betts and Orchard 2014; Paddon Rhoads 2016). This means that success should not always be inferred from how many states (and other actors) have signed onto a norm, but also from how practices of implementation and contestation play out (see e.g. Stimmer 2019).

All in all, norm "success" as the final stage of a dynamic process is not always easy to conceptualise, let alone to measure, as the discussion above indicates. Therefore, in this dissertation, I do not explicitly seek to further engage with this question. Rather, I focus on the process toward potential success that the respective AFFNs are going through. As it mostly regards relatively newly formulated norms, they certainly have not yet reached the stage of large-scale, international internalisation and they are still subject to widespread contestation (internal and external). Suffice to say that I propose a two-tiered yardstick to measure successful norm "diffusion" (similar e.g. to Betts and Orchard 2014; Stimmer and Wisken 2019). First, "norm institutionalisation" refers to the degree to which a norm is discursively embraced and accepted by the relevant norm addressees. Evidence of discursive acceptance can be found in treaties and conventions, agreements, rules and standards established by international organizations, resolutions, communiqués and declarations (see e.g. Bernstein 2001, 30). Second, "norm implementation" refers to the degree to which a norm induces behavioral change of norm addressees. Evidence of changed behaviour can be inferred from actual implementation of domestic laws, regulations or policies. I have applied this framework of success elsewhere with Thijs Van de Graaf and Jeff Colgan (Blondeel et al. 2019).

[16] Note the similarity with Bernstein's measure of institutionalisation (2001).

A fourth issue is that there is a "statist bias" in norm research, since state actors are still considered the constituent agents of the international system. This interpretation means that states are considered key norm addressees as it is primarily their behaviour that will be governed by a norm. Consequently, much scholarship tends to consider norm dynamics as a bottom-up process, where a norm is originally formulated by one or more norm entrepreneurs, operating through organisational platforms (NGOs, international institutions, etc.) or transnational advocacy networks (Finnemore and Sikkink 1998, Keck and Sikkink 1998). Yet, others have shown that norm entrepreneurs are not always necessary agents of norm promotion, as they can also emerge through "ad hoc series of bottom-up events occurring simultaneously at different jurisdictional levels around the world" (Clapp and Swanston 2009, 316).

In other words, international norms are typically considered to be the products of advocacy by non-state transnational networks and social movements, while eventually state actors will have to institutionalise, internalise and implement them. Yet state actors as well can act as norm entrepreneurs (Björkdahl 2002; Ingebritsen 2002; Wunderlich 2013, 33). Moreover, this bottom-up process is not necessarily given in every process of norm development and institutionalisation of an international norm should not only be inferred from the extent to which only states agree with a norm, but other relevant international actors as well, including international institutions, multinational corporations, international NGOs, etc.

The above critique is related to a fifth issue. Earlier scholarship showed how norms have an autonomous role in structuring international political behaviour, irrespective of coercion or will of powerful states (Florini 1996). Moreover, it also showed that interests are constantly reconstituted around learning, norm diffusion, changing convictions and identities. Ultimately then, this means that not only hegemonic actors (or states particularly) play a role in changing the status quo of a social structure, but others can and do too (Bernstein 2001, 12).

This emphasis on bottom-up processes eschews the role and importance of power in changing political behaviour within the international system. After all, constructivist perspectives on norm emergence and diffusion do not always fully account for why some norms matter more than the others or how much norms matter relative to other factors. I agree with an early suggestion by Goertz and Diehl (1992) that one cannot think properly about norms and their relation to behaviour without considering power. Norm entrepreneurs need not be powerful actors, yet they "simply have many more opportunities to reproduce [norms] through the greater number of opportunities afforded to [them] to persuade others of the rightness of their views" (Florini 1996,

375). This is not to say that norms merely reflect the interest of a dominant or "hegemonic" state, or a group of states, in the system. Ultimately, however, access to certain power resources could help norm entrepreneurs and norm antipreneurs alike to promote or inhibit the diffusion of a new norm. I will come back to the issue of how to conceptualise "power" in part III.

A sixth and final outstanding issue in norm research is the relatively limited empirical engagement with climate and energy politics. Despite the burgeoning nature of norm scholarship, most empirical work is still focussed on a few domains such as international public law, including human rights, conflicts and intervention, etc. Although there is a significant scholarship developing on norms in environmental governance (see e.g. Bernstein 2001, Okereke 2008, Clapp and Swanston 2009; Hadden and Seybert 2016, Dauvergne 2018), it is clear that especially at the intersection of energy and climate politics, scholars have so far largely failed to focus on the role of norms in explaining political behaviour. I explore this in the next section.

2.2. Research on energy and climate norms

Insights from International Relations

First, as far as literature on international energy relations is concerned, there is only scarce engagement with norms and how they inform behavioural decisions. Research traditions that are grounded in rational-materialist schools of thought, mostly with geopolitical and security perspectives on energy, are dominant (see e.g. Klare 2008, 2012). However, over the past decade, global energy governance emerged as a burgeoning new field of enquiry. Scholars of global energy governance try to understand how the energy system is governed at the global level, by whom and with what consequences (Florini and Sovacool 2009, Goldthau and Witte 2009, Dubash and Florini 2011, Van de Graaf 2013). Another strand of research focusses on the (international) political economy of energy. International Political Economy asks which actors govern energy, and analyses the interplay between states and markets, as well as how unequal access to power influences energy decision-making (see e.g. Van de Graaf et al. 2016, 10-11; Di Muzio and Ovadia 2016; Kuzemko et al. 2019; Newell 2019). However, so far, only a "handful of scholars have moved to examine informal norms and practices" in global energy governance and politics (Van de Graaf and Colgan 2016, 9).

Some scholars of global energy governance consider the role of norms in shaping energy relations. After all, institutions "establish and carry out rules and *norms* (author's emphasis) governing global energy problems" (Florini and Sovacool 2009). Authors in a global energy governance tradition will focus on the role of norms from a rational-institutionalist perspective, that considers norms to be determined by a set of interests of rational actors. The Extractive Industries' Transparency Initiative (EITI) is one such example where energy governance scholars have studied norms associated with transparency, disclosure and governmental accountability. Florini and Saleem (2011) focus on the policy implications of disclosure mechanisms such as EITI, and conclude that they will likely be less effective in countries that lack democratic systems because western-influenced values of governmental transparency are less established.

In a similar vein, but with a more explicit engagement with Finnemore and Sikkink's "life cycle" model, Gillies (2010) describes the "rapid" spread of EITI as an international norm.[17] She delivers a convincing account of how three elements affect a transparency norm's emergence and diffusion: First, "grafting"[18] a norm makes it adjacent to existing, more established norms; second, NGOs, functioning as norm entrepreneurs, also advance norm emergence; third, reputational utility for norm addressees enabled the norm to fully infiltrate industry discourse. Gillies thus addresses rather similar questions as I do: where do norms come from, how do they diffuse through the international system and what are their behavioural effects? Other attempts to map and trace the process of norms in energy governance include Karlsson-Vinckhuyzen's (2010, 2016) analyses of energy-related norms within the United Nations' Sustainable Development Goals. All in all, however, research on norms in energy studies remains fragmented and ad-hoc. Unsurprisingly, Van de Graaf and Colgan (2016) "[see] much promise in pursuing further research" on norms in global energy governance literature.

Second, global climate governance has been theorised in a variety of ways (Bäckstrand and Lövbrand Part I, 2015). Theories building on interpretivist approaches, such as governmentality, feminism and normative theory do indeed accord importance and explanatory power to norms, identities and values in analysing climate change politics. Jordan et al. (2018), for example, build on Ostrom's (2010) definition to define the current architecture of global climate governance as a "polycentric system", which is characterised as: "multiple governing authorities at different scales rather than a

[17] Despite this rapid diffusion of the norm, Sovacool et al. (2016) found that EITI's effectiveness in improving governance and economic development outcomes in its member countries is not so different than pre-membership.
[18] Cfr. footnote 11.

mono-centric unit. Each unit within a polycentric system exercises considerable independence to make *norms* and rules within a specific domain (such as a family, a firm, a local government, a network of local governments, a state or province, a region, a national government, or an international regime)" (Ostrom 2010, 552). This definition refers to the creation of norms as guiding principles for governing authorities but says little about the origins, development and diffusion of norms per se. In other words, tracing the process of these guiding principles' origins is not a core aspect of this research agenda.

Consequently, scarce efforts have been undertaken to examine the emergence and diffusion of norms within global climate governance from a primarily constructivist perspective, although there are some exceptions. Hoffmann (2005) builds on Finnemore and Sikkink's seminal work to explain the global response against depletion of the ozone layer (and the link with climate change). Bernstein (2002) (very briefly) touches on the creation of the Kyoto regime as an example of liberal environmentalism. Harris and Symmons (2013) focus on norm hierarchies in climate governance. All in all, though, norms remained largely on the fringes of global climate governance literature.

Insights from other disciplinary fields

Not just in IR scholarship has there been an interest in fossil fuels, energy (transitions) and climate change. Other research fields as well have demonstrated particular involvement with these topics. Scholars studying fossil fuel cultures, socio-technical transitions, and carbon lock-in have developed their own insights in the role and importance of norms and other ideational factors, and have focussed e.g. on how they affect the (de)stabilisation of fossil fuel regimes or carbon lock-in.

First, the literature related to fossil fuel *cultures* acknowledges that fossil fuels have become part of the daily life across all levels of society, beyond the mere economic realm (Barrett and Worden 2014, Johnson 2014, Wilson et al. 2017). Their political, social and cultural significance has led to the argument that modern Western democracy is built on cheap and abundantly available fossil fuels and that fossil fuels have been instrumental in shaping the broader cultural politics of capitalism (Mitchell 2011, Huber 2013, Malm 2016). Moreover, Di Muzio (2011, 2015) has argued that world order is characterised as a hierarchical *petro-market civilisation* "because of the radically unequal access to fossil fuel energy and centuries of Western domination, both violent and institutionally organised" (Di Muzio 2015, 5). The social reproduction of this order would not have been possible without "abundant, affordable and accessible fossil fuels" (Ibid., 6).

The historical, cultural and normative features of fossil fuels have created societies and political economies whose identities strongly depend on their integral relationship with "essential and just" fossil fuels (Princen 2015). The US is a case in point, where the "American way of life" is inextricably linked to its historic relation with oil (Huber 2013, XV). This cultural context helps to better understand US President Donald Trump's electoral promise to "end the war on coal" against a sector and industry that continues to help shape the identity of many communities in the United States.[19] In Australia as well, continued expansion of coal mining "speaks to the enduring mythology that surrounds the coal industry, and the assumption that its significance to the economy means what is good for coal is good for Australia."[20]

Second, the literature on socio-technical transitions also recognises how normative concerns can affect existing energy regimes (see e.g. Geels 2010, 2014; Turnheim and Geels 2012, 2013). This research agenda identifies and explains the necessary components of low-carbon transitions and explores the interaction of elements of a socio-technical system, across several levels of structuration. In this perspective, an existing socio-technological regime (i.e. the fossil fuel regime) shares certain cultural rules and norms that are "stable and well-articulated" (Geels and Schot 2007, 402-403). Fossil fuel regimes will therefore remain unwavering partly because of the stabilising effect that existing social norms exercise. A regime, however, may be destabilised through niche developments. Niches, in turn, refer to "protected spaces including new innovations, technologies, actor configurations and institutional arrangements" (Johnstone and Newell 2018, 73). Normative changes may arise from niches in order to affect and destabilise the existing regime. In such a context, the socio-technical transition may take the form of a "stretch-and-transform" pattern since it succeeds in adjusting existing rules and institutions. Contrarily, if niche innovations do not result in rule or institutional change but only technological fixes, Smith and Raven (2012) refer to this as a "fit-and-conform" pattern.

Third, a sub-set of this socio-technical transitions literature, focussing on *carbon lock-in* (Unruh 2000), discusses how a combination of technological, institutional *and* behavioural forces have "locked in" the fossil fuel-heavy energy systems. Industrial economies are dependent on existing fossil fuel-intensive energy systems. In turn, this inhibit the formulation and implementation of climate change mitigation policies and technologies (Unruh 2000, Seto et al. 2016). Unruh (2000, 824) further emphasises that there is an interaction between different types of "carbon lock-in", and that the co-

[19] Healy, Jack. *A Colorado Coal Mining Town Struggles to Define Its Future.* New York Times, July 8, 2015.
[20] Bradley, James. *How Australia's coal madness led to Adani.* The Monthly, April, 2019.

evolution with fossil fuel-related technology has profound and long-lasting influence on individual and collective behavioural preferences. In this perspective, social expectations and preferences, or "social norms", co-evolve with, as well as adapt to, a dominant fossil fuel-heavy technological system and the institutional arrangements that help maintain it in place. Norms thus form a fundamental aspect of maintaining our collective dependence on fossil fuels in his understanding.

What these literatures have in common is that they acknowledge that the evolution of (pro-)fossil fuel norms, culture and behaviour at all levels of society is an essential factor in understanding their continued dominance within energy systems. They emphasise that one must look beyond their impact on the global economy. As a result, this fossil fuel dominance will also impact the shape and pace of the energy transition in itself (Newell and Johnstone 2018, 67).

2.3. Anti-fossil fuel norms: An emerging research strand

Research on anti-fossil fuel norms saw the light of day in a context of emerging criticism of the failure of consequentialist and interest-based approaches to climate policy and governance. It is indebted to other fields of research concerned with fossil fuel cultures and energy transition, which I highlighted in the previous section.

In short, a logic of consequence had dominated debates at the expense of a logic of appropriateness, even though this approach has largely failed (Green 2018a; Mitchell and Carpenter 2019). As I mentioned, some started calling for a radically different method, favouring indeed ethical concerns, moral obligations and norms as guiding principles for climate governance (e.g. Wapner 2014, Milkoreit 2015, Mitchell and Carpenter 2019, Newell and Simms 2019). Borrowing from "successful" attempts in other fields of international cooperation, such as the nuclear non-proliferation treaty (Christoff and Eckersley 2013, Newell and Simms 2019) or conventions on biological and chemical weapons (Burke et al. 2016), calls have been raised to install similar agreements with respect to fossil fuel extraction, processing and consumption (Asheim et al. 2019).

In this context, Fergus Green (2018a) coined the term "anti-fossil fuels norms" to describe the emerging set of norms that focus on the phase-out and prohibition of fossil-fuel related actions, because of their detrimental impact on climate change. As valuable as his contribution has been for the overall debate on normative approaches to climate change, not in the least to this dissertation, Green (2018a) largely failed to provide substantial empirical evidence for his theoretical claims. He does however

provide a cutting-edge overview of how the architecture of global climate governance has favourably changed to incorporate normative initiatives to combat climate change.

This academic attention to the formulation, diffusion, and institutionalisation of AFFNs differs fundamentally from earlier approaches to climate and energy politics in at least four ways. First, fossil fuels *per se* are explicitly and primarily connected with the urgent need to act (globally) on climate change. They are expressly called out as key element in the causal chain of climate change, instead of merely focussing on emissions. Second, AFFNs formulate behavioural standards *across the entire* fossil fuel supply chain. That is, practices of fossil fuel consumption are affected by these norms just as much as fossil fuel finance, extraction and processing. Third, unlike policies that prioritise curbing GHG emissions and fossil fuel demand, AFFNs essentially challenge the "normality" of fossil fuels in our society. For example, carbon pricing allows actors to buy their way out of any direct measures to reduce emissions arising from daily activities, even if the cap on total emissions is brought down to net zero eventually. Such an *economic* approach does not entail taking a *normative* or moral stance against fossil fuels as a whole (e.g. Newell and Paterson 2010, chapter 6). AFFNs go further and seek to disrupt and transform the very social fabric that legitimises the perpetuated dominance of fossil fuels in the economy and society as a whole. The legitimacy-based paradigm evidently means that AFFNs affect the existing norms, ideas and values that underpin the social order associated with fossil fuels as crucial to the current energy system. Fourth, AFFNs differentiate from other ideational phenomena in the climate regime such as "climate justice", "sustainable development" and "common but differentiated responsibility" precisely because of their explicit focus on fossil fuel *prohibition* and not just on *reduction* of their use and production (Green 2018a).

Normative considerations also underpin the recent turn in research on climate politics and policy, which now focus more on supply-side climate policies or proposals that deal with fossil fuels directly (Lazarus et al. 2015). They seek to advance supply-side policies and to develop frameworks in order to assess their effectiveness, efficiency and feasibility. Policies included reforms and removals of fossil fuel producer subsidies, compensation of resource owners for leaving fuels "unburned", or restrictions on resource development (see e.g. Lazarus et al. 2015, Erickson et al. 2018, Piggot et al. 2018, Le Billon and Kristoffersen 2019). Sinn (2012), however, formulates some scepticism toward a supply-side approach by highlighting a "green paradox". In this context, a climate policy can act like an announced expropriation for the owners of the fossil fuel resources. In turn, this can induce them to accelerate extraction and hence to contribute more quickly and intensively to global warming.

Within this new research agenda, there was not only space for analyses of the policy instruments themselves but also for attempts to compare the feasibility of policy instruments using both economic, political, and moral criteria (see e.g. Denniss and Green 2018). In a study of drivers behind the end of the coal (extraction) industry, Collier and Venables (2014), for example, focus on the integral relationship between economic and moral incentives. They suggest that the sequenced closure of the world's coal industry could create "the moral force" that is required to mobilise collective international action. Princen et al. (2015) also showed how a normative transition could be organised through moral delegitimation of fossil fuels and the industry, rather than solely focussing on restricting and ultimately phasing out fossil fuel demand through government policies.

Likewise, Piggot (2018) analysed the impact of social movements on designing supply-side climate policies. Drawing from literature on social mobilisation and political change, she discussed social and political drivers and barriers to mobilisation focussed on fossil fuel supply restriction. Consequently, she also highlights how social movements could help steer social norms away from cultural acceptance of fossil fuel extraction and reliance. In a similar vein, but geographically restricting their analysis to anti-fossil fuel campaigns in the US alone, Cheon and Urpelainen (2018) focussed on the significance, motives and mobilisation potential of campaigns against oil pipelines (Keystone XL), fossil fuel divestment, coal and fracking.

Cheon and Urpelainen (2018) offered an interesting blend of theories associated with social movement research to explain the rise of anti-fossil fuel activism (in the US). Grievances, access to resources, political opportunities and a political economic context all partly play a role in explaining activism targeting the fossil fuel industry (Ibid., 42-46). However, they infuse their analysis with an important normative element. They argue that campaigners adhere to an "ecological paradigm" that assumes "extraction of fossil fuels [to be] a serious violation of basic ethics" (Ibid., 51). Viewed through this lens, extraction and consumption of fossil fuels is fundamentally unethical and economic counter-arguments about development and poverty eradication are unacceptable because there is no room for that within the ecological paradigm. For the campaigners, the ultimate aim is to remove the "social licence" which the fossil fuel industry operates with, and is essential to their survival.

Social movement theory (SMT) thus could also be applied to study the emergence of AFFNs, or supply-side climate action more broadly (see e.g. Piggot 2018). Political social movements are defined as "actors and organisations seeking to alter power deficits and to effect social transformations through the state by mobilising regular citizens for

sustained political action" (Amenta et al. 2010, 288). Although AFFNs inherently seek to establish social transformation away from the current fossil fuel-intensive energy system, they do not fall under the category of social movements. AFFNs are not necessarily altering a social status quo "through the state". In some of the cases of AFFNs "the state" and governments are explicitly avoided as means through which social transformation have to be achieved. The transnational fossil fuel divestment campaign, for example, has at times explicitly denounced the failure of traditional government action to address climate change (McKibben 2012). Therefore, direct engagement with investors and the fossil fuel industry was favoured over trying to establish change through the state.

Moreover, AFFNs are not always promoted by "ordinary citizens", or in other words through "bottom-up" processes. Fossil fuel subsidy reform, for example, first came in the international spotlight during the 2009 G20 summit in Pittsburgh, without a solid (transnational) social movement advocating for it. Quite on the contrary, in many countries, fossil fuel subsidies reform is firmly opposed by large swaths of the population due to the direct impact on their income. SMT has provided some interesting insights for the study of (fossil fuel) activism as a whole, not in the least for the analytical tools it provides. For example, the research strand on political opportunity structures is helpful in explaining momentum for the articulation of new international norms.

With all of this in mind, in the next part, I build an analytical framework of AFFN dynamics, based on Finnemore and Sikkink's classic "life cycle" model, and supplemented with insights from neo-Gramscian theory on power and hegemony. I also discuss the research design of the dissertation and how I went about selecting cases and choosing research methods.

PART III. Analytical framework and research design

3.1. Analytical framework

Building on the literature review and the identified lacunas in current norm research, I construct an analytical framework that can help us understand the dynamic development of AFFNs. I structure this framework around Finnemore and Sikkink's (1998) seminal work on a norm "life cycle". However, given the discussed shortcomings of current research on norms, I additionally consider how a different theoretical interpretation, in particular neo-Gramscian theory, can supplement existing interpretations of the drivers and constraints for norm selection and diffusion.

The AFFN "life cycle"

Recall that the overall research question in this dissertation is the following: "What are the drivers and constraints that determine the selection and diffusion of international anti-fossil fuel norms?" I embed the answer to this question within the theoretical debate–outlined above–on structure and agency. Table 4 provides an overview of the factors that can be considered to play a role in this process, and that I deduced from the literature review above.

Table 4. Drivers and constraints of norm emergence and diffusion

Structural factors	Agency-based factors
Extant normative environment	(Legitimacy of) involved actors
Extrinsic events	Framing (discursive power)
	Material power

Structural factors refer to the existing social order, as well as specific spatial and temporal circumstances in which a new norm is formulated and diffused. First, a norm needs to be congruent with or "fit within" the extant international normative environment. I argue that AFFNs explicitly have to speak to fundamental market norms that constitute the existing liberal social order, or what Bernstein (2001) referred to as "liberal environmentalism". This assumption predicates the emergence and diffusion of AFFNs "on the promotion and maintenance of a liberal economic order" (Ibid., 213).[21] For the successful incorporation of an AFFN in discourse, or its implementation into policies and regulations, it must be (perceived as) maintaining a liberal international economic order, which is underpinned by market norms and ideas, such

[21] In a strict neo-Gramscian context, one would refer to this as the *hegemony* of (neo)liberal ideas and norms (see e.g. Cerny 2008).

as the promotion of free trade and open markets, sovereignty over resources, or the support of market instruments over strict regulatory mechanisms (Bernstein 2002, 4).

However, on a domestic level, this normative environment can of course take a different shape, as the work of e.g. Acharya (2004) has shown. That is, not all national polities are determined by a liberal-economic social structure. In instances where norms are to be selected and incorporated by states, it might therefore be the case that a norm must fit with a specific domestic normative environment different from one of liberal environmentalism.

Another structural factor is that of *extrinsic events*; a term that I borrow from Wunderlich (2013, 30) and that describes the idea that norm change is mostly triggered by external shocks or crisis situations in the international system.[22] These extrinsic events can upset the existing social structure, which can render existing normative commitments obsolete and pave the way for the establishment of new or altered norms. These extrinsic events are most likely to be key in the early stage of norm emergence and formulation, while further diffusion of AFFNs will be largely dependent on their "fit" with the existing social order. Structural factors, however, only provide windows of opportunity, agency is needed for norm change to take place.

Factors that influence norm emergence and diffusion and that are related to the agency of relevant actors include: the (legitimacy of) actors involved, framing strategies (discursive power), and material power. Essentially, norms are the products of *actors* that construct, contest and implement them. These norm entrepreneurs, addressees, and–potentially–antipreneurs, play a pivotal role in determining how and when an international norm will be diffused. This is not any different in the case of AFFNs. As has already been observed elsewhere (Nadelmann 1990, Wunderlich 2013), norm entrepreneurs, as the agentic sources of international norms, are key factors to the process of emergence and diffusion of international norms. Indeed, if a norm entrepreneur is considered a legitimate actor by the community of norm addressees then the newly formulated norm has a higher chance of being selected for institutionalisation and implementation.

However, it is not just the source, but also the force of articulation that matters. The strategy of *framing* involves the discursive construction and contestation of cognitive

[22] Different research traditions have used different terms. See e.g. Collier and Collier (1991, 29) who refer to "critical junctures", Sandholtz and Stiles (2009, 325) referring to "triggering events", Kitschelt (1986) and other social movement theorists on "political opportunity structures", or Finnemore and Sikkink (1998, 909) on "world-time context".

frames that call attention to or create issues by using language that names, interprets, and dramatises them (Finnemore and Sikkink 1998, 897). In a context of norm development, frames are persuasive discursive devises that have the dual quality of both providing a specific interpretation of a particular situation or problem and of indicating appropriate behaviour for that context (Payne 2001, 39). The most successful norm entrepreneurs are those able to frame normative ideas in such a way that they "resonate" with relevant audiences (Ibid.; see also Blondeel et al. 2019). Which makes framing central element of international persuasion. However, norm entrepreneurs face firmly embedded incumbent frames that create alternative perceptions of appropriateness and interest, and "protect" the existing normative environment. Contests over framing are sometimes referred to as the exercise of "discursive power" (see e.g. Levy and Newell 2002 for a neo-Gramscian interpretation of "discursive power" in environmental governance, or Gunningham 2017 in the context of fossil fuel divestment).

Alongside discursive power, I add another dimension of power to supplement classic, agency-oriented accounts of norm diffusion, whereby (changes in) political behaviour are primarily socially constructed, independent from such factors as interests, power or politics. A second addition is *material* power, i.e. the material and financial means at the disposal of relevant actors to promote or contest the norm (see e.g. Orsini 2011). But material power of norm should also be understood in a different way, namely the ability of norm entrepreneurs—or the proposed norm in question—to impact the (perceived) material interests of the norm addressees. That is, a norm will be more successful if the norm promotors are materially powerful actors, but also if the proposed norm is relevant to solving issues related to the material, self-interest of norm addressees. Interests can be defined as "real, material interests of principal actors, whether conceived as individuals or groups" (Hall 1997, 176). Policies or regulations can be designed in pursuit of maximising the public interest (rather than that of individuals, groups or sectors), they can be inspired by particularistic concerns of certain interest groups, which can result in what is called "regulatory capture" (Stigler 1971) by an industry, or they can result from politicians' own electoral aspirations (see Hall 1997). I add this because one cannot properly think about norms and their relation to behaviour without considering power, as e.g. Goertz and Diehl (1992) or Florini (1996) already noted.

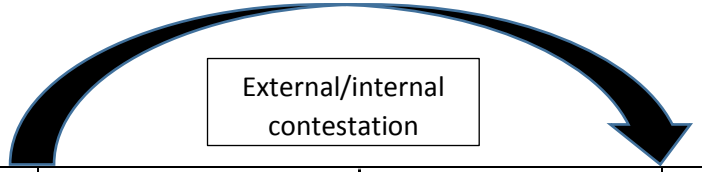
Crucially, the dynamic process of international norm emergence and diffusion is also characterised by continuous contestation. As recent literature on norms has shown, this may result in norm backsliding, failure or disappearance. This contestation occurs

externally, between norm entrepreneurs and those actors who oppose a newly formulated norm. External contestation may also refer to the disconnect between a norm and the extant normative environment in which it is diffusing, without the requirement of agency. However, norm contestation may also occur *internally* among proponents of a norm. It then refers to disagreements on content, applicability, legitimacy and other aspects of the norm. Both internal and external contestation have effects on a norm's content and outcomes.

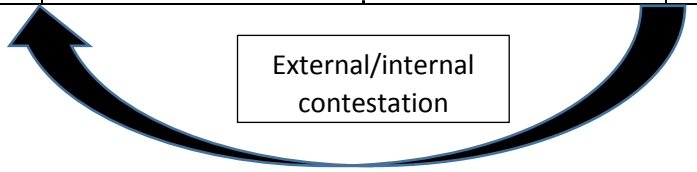
Figure 2 provides an analytical framework in which the drivers and constraints of international norm dynamics are shown, according to the stage of norm emergence and diffusion in which they are most prevalent. I do not assume that the different stages unfold in a strictly sequential manner. Rather they can occur at the same time, sequentially, or even independently of each other, while reaching a final stage of "internalisation" is not at all guaranteed.

In a first stage of norm *emergence*, an idea is articulated by one or more norm entrepreneurs and emerges within the international system as potential new norm. The single most important structural driver in this stage of norm are extrinsic events, such as economic shocks, political crises or other important political events such as elections. Norm entrepreneurs can capitalise on these extrinsic events to frame a specific issue so that it can be put high on the political agenda and emerge on the rising tide of political saliency. Hence, norm entrepreneurs and their framing strategies are the most important agency-oriented factors in this stage of the life cycle. Norm entrepreneurs are most likely to act because of feelings of altruism, morality and ideational commitment. This is not to say that they act against their interests, rather they act in accordance with a *re*defined understanding of their interests (see Finnemore and Sikkink 1998, 898). This means that the logic of action that drives their behaviour is that of appropriateness. They are inclined to act as they do, simply because they are convinced that it is "the right thing to do". In this stage, evidence of emergence can be found in normative campaigns. These are commonly established to promote norm emergence through organisational platforms, such as NGOs and IOs, or transnational advocacy networks of like-minded norm entrepreneurs abroad.

Figure 2. Analytical framework: The AFFN life cycle



Stage / Mechanism	1. Emergence: Articulation	2.1. Diffusion: Institutionalisation	2.2. Diffusion: Implementation	3. Internalisation: "taken-for-granted" status.
Structural drivers & constraints	- Extrinsic events	- Extrinsic events - International normative environment	- (Inter)national normative environment	
Agency-oriented drivers & constraints	- Norm entrepreneurs Framing	- Entrepreneurs, antipreneurs & addressees - Framing - Material Power	- Norm addressees - Framing - Material Power	- Norm addressees
Logic of action	*Appropriateness*	*Appropriateness /Consequence*	*Appropriateness /Consequence*	*Appropriateness*
Action	- Normative campaigns, social movements	- Intl. agreements, resolutions, treaties, declarations & statements	- Laws, regulations, policies, behavioural change	- Cognitive changes



The second stage in the norm dynamics model, that of international norm *diffusion*, actually consists of two "sub-stages", norm institutionalisation and implementation. Institutionalisation refers to the way in which norms emerge at the international level and the degree to which norms are reflected in international laws (brokered between and applying to states) and international organisations, as well as in the relations between other relevant international actors such as NGOs and multinationals (Bernstein 2001; Checkel 1998, 340; Finnemore and Sikkink 1998, 900). Again, extrinsic events may affect the institutionalisation of norms at the international level. For example, issues can be put on the political agenda of international fora in time of crisis, which can result in the institutionalisation of new norms into agreements, communiqués or treaties. In this stage, the congruence of the AFFN with the extant social order, or normative environment, is also crucial, as the norm is granted a more formal character through its institutionalisation. Norms that go expressly and fundamentally against the existing social order will likely be firmly opposed by norm antipreneurs in this stage and ignored for adoption by essential norm addressees. Hence, norm entrepreneurs will have to frame the issues in such a way that they resonate with existing normative environment. Through such framing strategies, norm entrepreneurs can reach out to norm addressees and antipreneurs and build coalitions to increase the likelihood of acceptance. For example, campaigns against pipeline construction in the United States have led to rise in "unlikely alliances" between native communities, farmers and NGOs that are considered to have diametrically opposed interests in other circumstances (Grossman 2017).

However, the material power of norm antipreneurs, often fossil fuel incumbents, cannot be underestimated in this stage. Through lobbying efforts, financial contributions, or political influence, they can block widespread diffusion of the norm (see e.g. Smink et al. 2013, Hess 2014, Haas 2019). All in all, in this stage, both logics of action interfere with one another. Although actors may be morally inclined to institutionalise a norm, interest-based considerations are likely to play an important role as well. Further, institutionalisation can be inferred from the degree to which a norm is discursively embraced and accepted by the relevant norm addressees. Evidence of discursive acceptance can be found in treaties and conventions, agreements, rules and standards established by international organisations, resolutions, communiqués and declarations (Bernstein 2001, 30).

The task of norm entrepreneurs does not end once a treaty is signed or a statement is issued. Alongside institutionalisation, a parallel process of implementation therefore takes place during the stage of norm diffusion. Implementation is of course a task for

norm addressees, so they are the principal actors in this stage of diffusion. They are responsible for translating the discursive acceptance of a norm into laws (for states) or other types of policies and regulations that are applicable to non-state norm addressees as well. Implementation should also result in compliance with the said laws and policy (statements) and thus behavioural change of the norm addressees should be observed. Here as well, both logics of action are relevant for norm addressees to implement a diffusing norm. The degree of implementation of a norm can be inferred from the extent to which a norm induces behavioural change of norm addressees through the issuance of laws or policies, and consequent behavioural changes that come with it.

In a third and final stage of norm *internalisation*, a norm can take a "taken-for-granted" status among norm addressees. Actors now follow a norm simply because they cognitively have accepted that the new norm promotes "the right thing to do". Therefore, they are driven by a logic of appropriateness when internalising a norm. However, I largely avoid discussing this stage of norm dynamics in this dissertation as 1) the AFFNs that I discuss are quite "young" and mostly have not yet reached the status of "no longer [being] controversial", on the contrary, they are still developing and in many cases highly contested; 2) it is quite hard to operationalise or infer when and to what extent a norm is "taken for granted". The incidence of purely moral-based action is hard to prove or disprove (as it requires taking a look into decision-makers' heads); 3) internalisation, after all, is perhaps not all that relevant in determining the "success" of international AFFNs. Looking at the definition of a norm ("collective standard of appropriate behaviour"), one can conclude that institutionalisation and implementation are sufficient factors to determine norm success.

This "life cycle" model does not describe a teleological process toward certain internalisation. Success is not at all given. At every stage of this dynamic process, AFFNs can and are subject to external and internal contestation. As I outlined before, internal contestation refers to discursive disagreements on the validity, content or applicability among proponents of a norm, while external contestation refers to attempts of outsiders (norm addressees or other relevant actors) acting as norm antipreneurs, seeking to block or inhibit the emergence or diffusion of a norm. Therefore, the newly formulated norm can and will always be subject to backsliding, reinterpretation or even disappearance.

Throughout the articles in part IV, I will empirically apply the life cycle model. However, not all of the AFFNs that I discuss have gone through the entire process, thus each

article separately highlights (a) different stage(s) of the model. I will discuss this in the coming section on case selection.

Neo-Gramscian theory and norms

As said, constructivist and discursive approaches to norms have been dominant in the study of norm dynamics and change. In this dissertation I supplement a primarily constructivist approach to processes of norm emergence and diffusion with insights from neo-Gramscianism. Such an approach to power and norms is especially relevant because it offers space for a richer understanding of the factors that affect the emergence and diffusion of norms, as well as for explaining their impact and limits in international regimes. Historically, research on norms is often limited in its approach to power characteristics of norms: which actors hold them, what are the power resources these actors have at their disposal and who gets a seat around the negotiation table?

Although rooted in Marxism and therefore mainly departing from the importance of (material) power and interests, neo-Gramscian accounts are also acutely sensitive to the role of ideas and ideational factors, such as norms, in politics. It responds to a critique to social constructivism that it gives little or no attention to mapping who the relevant actors are, what such actors want, what power resources they have at their disposal and, crucially, whose norms are promoted in particular social structures. Or, in other words, why do some norms matter more than others and who gets a seat around the norm negotiation table?

Bernstein for example has proposed a "socio-evolutionary" approach which seeks to combine insights from constructivism, agent-based theories and neo-Gramscian approaches. This integrative model allows us, he claims, to recognise the independent role of ideas while noting that the legitimacy of norms is contingent on the "promotion and maintenance of a liberal economic order" (Bernstein 2001, 4). Moreover, as Goertz and Diehl (1992, 639) note, it is not because norms are normative and have a deontological character that "power politics" are not relevant. In many cases, it is powerful, dominant groups that eventually decide on the selection and implementation of a norm. Hegemonic stability theory establishes that international regimes, and the norms that they embody reflect the interests and ideas of a dominant, or hegemonic, state in the system. Florini (1996, 375) also notes that norms held by powerful actors "have many more opportunities to reproduce through the greater opportunities afforded to powerful [states] to persuade others of the rightness of their views. So power does matter in explaining norm dynamics, although especially a *state-centric* view of hegemonic stability has proven of limited usefulness in explaining

normative development (see Bernstein 2001, 12-13 for a critique). Power, in other, words, requires a multi-dimensional conceptualisation, without a state-centric approach, in order to apply it to the study of norms.

A neo-Gramscian account not only sheds light on the drivers of norm diffusion and institutionalisation, it also offers an in-depth understanding of how ideas and norms interact with the broader economic structure and associated constellations of power. Unlike other Marxist perspectives, in a neo-Gramscian understanding ideas and norms are relevant because power is not exclusively coercive or economic, but also derives from institutional and discursive forces (Gramsci 2003, Okereke 2015, 128). Hegemony is a key notion in this conceptualisation. It refers to the persistence of specific social, cultural and economic structures that systematically advantage certain social groups, the so-called "historical bloc", i.e. The dominant social group that emanates from a particular hegemony (Cox 1983). Crucially, hegemony is contingent on coercive control by elites, as well as on political and ideological accommodation by other, subordinate social groups. As Cox (1983: 137) notes, "[World] hegemony is expressed in universal norms, institutions, and mechanisms which lay down general rules of behaviour for states, and for those forces of civil society that act across national boundaries." An idea is hegemonic once it has won legitimacy over alternative ways of looking at society and broadly sets limits on what are considered acceptable ways of addressing social challenges faced by society. Hence, it not only favours certain ideas and norms, it also renders others potentially non-negotiable or not up for discussion.

Norms thus form part of the basis through which non-elites authorise and legitimate the dominant positions of certain social groups. For Gramsci, the disagreements, concessions and alliances inherent to political struggles are generally negotiated against a backdrop of broad-based societal consent to and acceptance of hegemonic ideas (Okereke 2008). In other words, hegemony is ultimately contingent on popular consent and legitimacy. If one manages to change prevailing norms and cultural preferences, e.g. about flying, eating meat or fossil fuel investments, one can indirectly undermine the respective aviation, meat and fossil fuel industries' social licence to operate, and therefore their hegemonic position of the actors that form part of a historical bloc. Such so-called "counter-hegemony" (Cox and Schilthuis 2012) strategies entail the development of ideas, norms and discourse to challenge dominant assumptions, beliefs and established patterns of behaviour.

In this neo-Gramscian understanding of norms, existing constellations of power and the associated hegemonic ideas and norms privilege certain newly formulated norms over others. This sets limits to what is politically achievable within a particular social order,

meaning that there is no such thing as "unconstrained agency" (see e.g. Bernstein 2001, Levy and Newell 2002, Ford 2003, Paterson et al. 2003). In such a context, what could originally be formulated as a counter-hegemonic norm, runs the risk of becoming part of a "war of position", where alliance formation and discursive practices by the subordinate groups designed to gain influence within dominant institutions while avoiding direct confrontation, affect the radical nature of the norm and basically no longer affect the dominant position of the historical bloc.

The stability of this historical bloc's position depends on its ability to align *material*, *discursive* and *organisational* sources of power (Levy and Newell 2002, Levy and Egan 2003). If the incumbent regime around fossil fuels can be understood as an expression of hegemony, resulting in the existence of a "carboniferous historical bloc" (Elah and Okereke 2015), then this bloc's power resources are the following:

- **Discursive**: Discursive power reflects "the argumentative struggle that determines which perceptions at some point start to dominate the course of affairs in [environmental] politics" (Hajer, 1995: 19). Constructivists and SMT refers to this as "framing", as I noted before. There are multiple narratives underpinning the carboniferous bloc's discursive power, two of which stand out. First, paradoxically the carboniferous bloc combines ideas of ecological modernisation and sustainable development with that of the long-term need for fossil fuels to secure economic development (Newell 2008, 524). Second, on a more abstract level, the carboniferous bloc is fuelled by a discursive paradigm that sees the market as the space in which new technologies, economic development and innovations are to be accomplished (Elah and Okereke, 2015; Newell and Paterson, 2010).

- **Organisational:** Organisational power reflects the ability to establish or link to formal and informal cooperation and alliances, in the form of coalitions or advocacy networks (see also Orsini, 2013). In a Gramscian understanding it refers to the linkages between dominant fractions of capital and industry, the state, its institutions, and segments of civil society (Elah and Okereke, 2015: 24). Newell (2016) refers to this as the "capillaries of fossil fuel power", epitomised by the web of linkages that associates the fossil fuel industry with government and finance. When confronted with potential challengers of the historical bloc, fossil fuel companies are for example likely to form issue-specific associations to lobby politicians and governments, mobilise resources and coordinate strategy (Levy and Egan 2003, 812).

- **Material:** Material power refers to the material assets actors can use to further their interests and ideas, particularly their financial capacities and economic dominance. The present-day global economy is characterised as heavily fossil fuel dependent. Consequently, the list of the world's largest companies is dominated by the carboniferous bloc.[23] This has resulted in a material dominance of fossil fuel companies and makes it one of the most financially resourceful industries worldwide.

This historical bloc, however, should not be treated as a homogeneous entity. Not all actors that are part of it share the same interests, norms and ideas at the same time. Hegemony, moreover, is contingent and unstable. Social groups, campaigners, advocacy networks, etc. can engage in counter-hegemonic struggles that fundamentally question and challenge the power structures in order to transform them. Such groups hence promote norms and discourse(s) to challenge dominant assumptions, beliefs and established patterns of behaviour, and will form alliances to challenge the dominance (of certain parts) of the historical bloc (see Cox and Schilthuis 2012, but also Elah and Okereke 2015, Levy and Newell, 2002).[24] Alliances can even be formed with fractions from within the historical bloc. For example, anti-coal campaigners can reach out to natural gas companies in order to team-up and push coal companies out. In other words, precisely because of the material power of the historical bloc, counter-hegemonic struggles will entail the exercise of discursive power (i.e. framing) and organisational power.

In turn, in order to maintain its hegemony, the historical bloc will have to engage in bargaining and ideological contestation while making a series of non-core threatening concessions. This process is referred to as "passive revolution". It describes the process of "reforms from above", whereby a historical bloc implements supposed concessions in an effort to preserve the essentials of the existing social structure (Levy and Newell, 2002: 88). Equally important to the notion of passive revolution as a top-down co-optation in order to neutralise counter-hegemonic struggles, is that of "adaptation from below" by those initially combatting hegemony. Previous examples of the fossil fuel industry's attempts to tackle counter-hegemonic projects are found in transnational climate negotiations within the UNFCCC (Levy and Egan 2003), EU energy

[23] In the 2018 Fortune 500, an annual list of the world's largest companies by revenue compiled by Fortune Magazine, the top 10 alone is dominated by six companies active in the energy sector (mainly related to fossil fuels) and two car manufacturing groups. Stephan (2011) provides a good oversight of the historical development of the historic bloc's economic and material dominance.

[24] This refers to a process of "delegitimation" (Bernstein 2011), whereby justifications and claims to legitimate authority (or positions of dominance in society) are fundamentally questioned and challenged.

transition (Stephan 2011, Haas 2019), or the Clean Development Mechanism (Elah and Okereke 2015). In turn, LeQuesne (2019) focusses on how social movement protests against pipelines in the United States actually formulate counter-hegemonic challenges to what he refers to as "petro hegemony".

In conclusion, the neo-Gramscian interpretation of hegemony bears resemblance to the constructivist notion of a "social structure" in that hegemony is also contingent on the complex interplay of material, discursive and organisational factors. Moreover, the neo-Gramscian account of power adds to the understanding of how interests, discourses and norms interact in constituting or undermining this hegemony (or social structure). Consequently, this framework can readily be applied to expand our understanding of how norms—and in particular AFFNs—emerge, diffuse and ultimately affect behavioural decisions. If these AFFNs are originally formulated in a such a way that they seek to undermine the legitimacy of fossil fuel incumbents (i.e. question the societal consent that it attributed to them in order for them to function appropriately), norm entrepreneurs will have to speak to a broad variety of actors, both outside and within the historical bloc. Norm entrepreneurs, acting from outside the historical bloc will mostly employ discursive (framing) and organisational strategies, while antipreneurs, mostly fossil fuel incumbents have the additional advantage of material power and financial resources at their disposal.

3.2. Research design

In the remainder of part III, I highlight the specific research design and methodology. In doing so, I also reflect on my ontological and epistemological position as a researcher, as well as how this dissertation "developed". Further, I also provide information on case and data collection. Lastly, I contextualise the different AFFN cases that each of the articles is concerned with and explain their relevance with regard to the overarching research question and objectives of the dissertation.

Case study research and methodology

Throughout the articles I conduct "disciplined configurative case studies"[25] (Eckstein 1975, 1992) of four cases of that fit the characteristics and definition of an AFFN. These four AFFNs have scarcely been addressed so far in the literature—at least from a norm

[25] Similarly, Lijphart (1971) refers to "interpretative case studies", Odell (2001) dubbed this "disciplined interpretive case studies", while Levy (2008) calls it "theory-guided case studies". Although each with their own nuance, in general they all refer to the same type of case study research.

perspective—or cannot be readily explained by existing theory on norms and norm diffusion. The cases that I study are the following: fossil fuel subsidy reform; global coal mining moratorium; coal-fired power phase-out; and fossil fuel divestment. A disciplined configurative case study involves the application to a case, or cases, of a pre-established framework for analysis. Although indeed this type of case study research is "idiographic" in nature because it explains single historical episodes or sequences of events, it differs from historiographic or "atheoretical" research (Lijphart 1971), since the latter mostly takes the form of "total history" with the assumption that everything is connected to everything else and it aims to explain all aspects of a case, given the absence of an explicit conceptual framework (Levy 2008, 4).

George and Bennett (2005, 5) define a case as "an instance of a class of events", and a case study as "the detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalisable to other events." Consequently, I study four AFFN cases. Or, in other words, I examine in detail four cases because they each are instances of a wider class of AFFNs. I study these cases to test whether the framework regarding the drivers and constraints of their emergence and diffusion are generalisable to other AFFNs, such as the phase-out of ICE vehicles, the greening of development aid, or halting the construction of oil and gas pipelines.

As a result, I examine anti-fossil fuel *norms* as such and not necessarily the *campaigns* that promote them. There are two reasons for this. First, of course, norms are often promoted and championed through (transnational) campaigns or movements. Yet, this certainly does not always have to be the case. Norm emergence can occur ad hoc, through unrelated bottom-up events that simultaneously develop at different jurisdictional levels, in different geographies (Clapp and Swanston 2009). Second, the different articles in part IV do not always study the campaigns behind the AFFNs under scrutiny. Instead, they can focus on a specific instance in the AFFN life cycle. For example, one article might focus on the *implementation* of an AFFN in the form of policies and legislation on a national level, while another may focus on international norm *institutionalisation*. Although I can refer to the organised actions and efforts by norm entrepreneurs to promote the norm, the specific research questions do not always require a thorough study thereof.

The disciplined configurative case studies in this dissertation are structured by the AFFN life cycle framework that I developed earlier and that highlights theoretically specified aspects of reality. In other words, disciplined configurative case studies "interpret or explain an event by applying a known theory to new terrain" (Odell 2001, 163). The explicit and structured use of theory to explain discrete cases often provides better

explanations and understandings of the key aspects of those cases. It is not because we study one case that we must assume that the dynamics under examination are fundamentally exceptional and therefore different from those unfolding in other cases. In other words, the study of a particular case and its outcome, does not mean that the "truth about a case is contained in factors that are specific to that case" (Gerring 2007, 196). Or as Flyvbjerg (2006) put it, a single case study can indeed contribute to scientific development.

Moreover, such case studies do not just passively apply general laws or theories to particular cases. A case in itself can also dispute established theory, when it turns out that the theory does not fit. Hence, it may also point to the need for theory-updating or theory-building in neglected areas. Therefore, it is not merely a deductive way of doing research in the strict sense of the word (Eckstein 1992, 139). All in all then, one studies causal mechanisms in single cases to make within-case inferences of the presence of a causal mechanism[26], whether in view of testing or building a theory, or merely crafting a minimally sufficient explanation of a puzzling outcome in that specific historical case. The articles in this dissertation actually do both. The aim is twofold: to contribute to the theoretical understanding of how AFFNs norms emerge and diffuse, as well as to explain puzzling outcomes in four respective cases of an AFFN.

Four important additional remarks are in place here. First, the AFFNs are not studied comparatively in this dissertation. The main reason for this is that any comparable case research design is confronted by the difficulty of cases that are truly comparable; that is, to find cases that are identical or different in all respects but one (Levy 2008, 10). Despite the fact that I employ the term "case study", in reality, the units under focus in this dissertation are not perfectly representative of the population of AFFNs. After all, "unit homogeneity across the sample and the population", as Gerring (2007, 20) writes, "is not assured."

In a comparative set-up, there are two closely related methods for empirical testing: the method of difference and the method of agreement. The *method of difference* selects cases with different values on the dependent variable and similar values on all but one of the possible causal variables, while the *method of agreement* focusses on cases that are similar on the dependent variable and ad different on all but one of the independent variables (Ibid.). In a comparative set-up, one runs the risk of uncontrolled heterogeneity where cases become "apples and oranges"; and one cannot learn

[26] Within-case evidence is defined as evidence "from within the temporal, spatial, or topical domain defined as a case" (Bennett and Checkel 2015, 8).

anything about underlying causal mechanisms by comparing their histories (Gerring 2007, 50-53). Another difficulty with comparative case designs is that they face the problem of "causal complexity" (Ibid. 61-62). While this method might work fine for hypotheses involving a single explanatory variable, this is far more problematic in situations involving complex causation where interaction effects can occur, and if different sets of conditions are present and may lead to the same outcome (Levy 2008, 10-11).

The issue of causal complexity brings me to the second remark that I did not make any use of statistical, large-N, methods in this research and that I solely relied on a mix of *qualitative* research methods (Small 2011). This mostly has to do with the research objectives of the dissertation. Throughout the articles, I am interested in establishing a causal *mechanism* within a case (i.e., explaining the pathway from *X* to *Y*), in view of potentially updating or designing a theoretical framework. Large N-studies can demonstrate correlations between inputs and outputs but do not clarify or help interpret "the reasons for those correlations (i.e., clear causal pathways)" (Gerring 2007, 44). Case studies, in other words, help us peer into the "black box" of causality. Moreover, the case study method is also useful given that the scope of the causal argument. Arguments that strive for great breadth are usually in greater need of cross-case evidence; causal arguments restricted to a small set of cases can more plausibly subsist on the basis of single-case study. Indeed, a case study of France offers more useful evidence about Europe than for an argument about the entire world (Ibid., 48-49). Moreover, in this dissertation, the method followed the research question. Often, there is a clear lack of reliable and useful databases for large-N statistical analysis for the study of topic as abstract as norm emergence and diffusion. In short, both research traditions have been metaphorically referred to as "distinct cultures, marked by different values, beliefs and norms" (Mahoney and Goertz 2006, 227).

Third, although all articles can be considered a separate disciplined configurative study of one particular AFFN, I applied different methods of analysis throughout them. For example, to answer the research questions in the articles on fossil fuel subsidy reform and fossil fuel divestment, I applied process-tracing analyses. The article on coal mining moratoria is a comparative study of four country cases, while the article on the Powering Past Coal Alliance employs the method of qualitative comparative analysis (QCA).

Fourth, because of the nature of this type of case study research, there are limitations to the "generalisability" beyond the investigated AFFN cases. The ambition here is to contribute through case study research to a potentially generalisable analytical

framework of an AFFN "life cycle". Rather than finding law-like generalisations, I am interested in working with midrange theory that is bound within a specific context. Hence the causal mechanisms that I identify are understood to be systematic, in the sense that they are be generalised across cases "within the context they are expected to operate" (Beach and Pedersen 2013, 12; see also Falleti and Lynch 2009). I cannot make any claims about generalisation to other international norms in other fields—e.g. norms related to security, human rights, or environmental issues—of the "life cycle" framework that I have developed, beyond AFFNs. Generalisation of my claims about causal mechanisms to other cases can only be done after it is demonstrated that the studied case is contextually similar to other positive cases where the relationship might be present, even if some authors claim that one can make generalisable claims based on a theory test of one case study (Beach 2017).

Before I proceed with a theoretical rationale for case and data collection, a word is required on the epistemological choices and ontological position that underpin the research design of this dissertation.

A reflective note on ontology, epistemology and academic pragmatism

Because of the focus on norms in the dissertation, I am well aware that some questions can be raised related to *ontology* (i.e. what kind of "stuff" the international system is made of) and *epistemology* (i.e. what kind of knowledge claims can be made about the international system).

Ontologically, I do not necessarily abide by the rule that society is "ideas all the way down" (Wendt 1999). Rather, I assume that interests and ideas are mutually constitutive and each have their explanatory role to play (Fearon and Wendt 2002; Choi 2015). Consequently, as Fearon and Wendt (2002, 53) argue, there is room for certain ontological *pragmatism* or even pluralism. In IR there is no inherent *need* to commit to a certain ontology to work in this area. IR scholars can proceed pragmatically and remain "agnostic" about what society is really made of. Prior research in IR has amply shown that an idealist ontology can certainly co-exist with a materialist ontology that places value on material power based e.g. on geography, technology or military power (see also Fearon and Wendt 2002, 58-60). Related to that, I also want to refrain from positioning myself as either being a *constructivist* or a *rationalist*. After all, rationalist schools such as neoliberal institutionalism and regime theorists have been examining how norms and ideas, in concordance with material self-interest, may explain political outcomes (Finnemore and Sikkink 1998, 912), while constructivists such as Finnemore

and Sikkink (1998) have also always underscored the co-constitutive nature of norms, ideas and interests.

Surely, one of the most divisive issues in IR today centres around epistemology, not ontology. Its importance is reflected in the fact that it is considered as one of the Great Debates in IR (i.e. the "Third Debate"), largely discussed between two camps (see e.g. Lapid 1989; Balzacq and Baele 2014). A first camp of so-called *positivists* see science as an "epistemically privileged discourse through which we can gain a progressively truer understanding of the world (Wendt 1999, 38). These positivists seek to "explain" the social world. A second camp, that of the *post-positivists*, does not necessarily recognise the privileged status for science in explaining "the world out there" (Ibid.). They argue that scholars ought to expand the "understanding" of the social world. In short, an important part of what divides the two camps is whether they think the methods of natural science are appropriate in social inquiry.

Given the importance that I attribute to norms and ideas in this dissertation, one might be mistaken to assume that I stand on the post-positivist side of this Third Debate, solely focussing on discourse and interpretation, rather than hypothesis testing and "objective reality". However, here I draw inspiration from Alexander Wendt (1999). When it comes to the epistemology of social science[27], I am an acolyte of "pluralistic science" (Ibid., 39) in which the primary objective is to seek objectivity in explaining the social world, all the while acknowledging that there is a significant role reserved for "understanding" as well. In that sense, I might be considered a *positivist*, although I do not grant significant importance to such labels, for two reasons. 1) knowledge claims about social life can be given any warrant other than the discursive power of the researcher; and 2) causal explanations are appropriate in social inquiry (Fearon and Wendt 2002, 57). Moreover, my position should not be seen as an outright rejection of the value of radical interpretivism or other discursively-oriented epistemologies; I simply ask different research questions than those associated with such types of research.

The pragmatic nature of this dissertation not only refers to debates on ontology and epistemology, but also the "story" of this PhD. The research topic after all, is not "fixed" from the outset. This means that the research design, the cases under examination and the research questions have all developed dynamically. As a consequence, this dissertation has not taken the form of a "traditional" monograph, but it consists of a combination of four scientific papers, all focussing on one AFFN in particular. This

[27] In the specific context of IR scholarship.

choice has allowed me to quickly adapt to, and integrate, newly emerging initiatives and developments around AFFNs "in the real world".

The dynamic nature of the writing process has had two implications. First of all, it has affected *case selection*. In early 2016, when I started my research project, the working title was the following, "The construction of international norms: The cases of fossil fuel subsidy reform and carbon divestment". As this title suggests, the initial objective of the project was to study only two such international norms. Moreover, the term "anti-fossil fuel norms" had not yet been coined either, so this did not appear in the title either. I stated earlier that this concept was first mentioned in 2018 by Fergus Green in a special issue of the journal *Climatic Change*.

AFFNs are a relatively recent phenomenon and many new such norms, as well as associated initiatives and campaigns have only sprung up in recent years. Hence, the two other AFFNs that I studied in this dissertation, a global coal mining moratorium and a coal-fired power generation phase-out, were selected as potentially relevant cases due to these real-world developments.

With regard to the coal mining moratorium, it came to our attention that calls had been raised by prominent international political figures for such a moratorium, that an international "No New Coal Mines" campaign had been launched by an Australian NGO, and that the two largest coal producers in the world—China and the US—had both implemented a moratorium as well. These developments led us to inquire whether or not these domestic moratoria on new coal mines could eventually lead to a global moratorium. Examining the phase-out of coal-fired power generation through a case study of the Powering Past Coal Alliance was also inspired by real-world events. The Alliance was established in November 2017 and signified a highly relevant development in the institutionalisation of an international AFFN to phase out coal-fired power generation. In the months following its establishment, new (sub-)national governments, organisations and companies joined the Alliance and it garnered broad media and (international) political attention. Consequently, I considered this Alliance to be an important case of AFFN institutionalisation, worthy of study.

Second, both the dynamic nature of the case selection, as well as the articled-based approach to this dissertation affected the respective *research questions and methods*. Moreover, in this dissertation the methods followed from the research question. This follows Wendt's (1999, 40) argument that "[s]cience should be question- rather than method-driven." Originally, the objective was to examine the origins, emergence and diffusion of both the divestment and fossil fuel subsidy reform norms. Studying these

developments of course could be done through the method of process-tracing, where one conducts a detailed, within-case empirical analysis to understand and explain how a causal process plays out in practice (Beach and Pedersen 2013, George and Bennett 2004). Yet, as my attention turned toward these other cases and other research questions that emerged from some puzzling observations, different methods needed to be explored. In order to understand and explain different reasons for, and approaches to, coal mining policies in a small variety of countries, the most fitting method was that of a comparative study of a limited set of cases. The same goes for the study of the Powering Past Coal Alliance. Here, we opted to use a qualitative comparative analysis to understand why countries (do not) join such a coalition.

Moreover, not all of the case studies and articles have the primary objective to examine the entire process of norm emergence and diffusion. Rather, they focus on one particular instance thereof. Of course, process-tracing is valuable to longitudinally track norm development. Other methods are more effective to answer research questions not necessarily concerned with examining processes in time.

Next, I discuss the theoretical and empirical rationale for my case selection.

Case selection

A relatively large number of normative campaigns and initiatives that fit the characteristics of AFFNs, have emerged in the last decade. Earlier, I defined AFFNs as standards of appropriate behaviour that prescribe the phase-out and ultimate prohibition of practices and processes across the entire fossil fuel supply chain of financing, extraction, processing and consumption, for those actors concerned with the effects of fossil fuels on climate change. Here, I discuss which AFFNs have emerged in recent years before I explain which have been selected for further study.

Table 5 provides a non-exhaustive overview of some of these emerging AFFNs that have been formulated in recent years and cover various aspects of the entire fossil fuel supply chain. The AFFNs highlighted in bold italics are the ones that are examined in this dissertation.

Table 5. Examples of anti-fossil fuel norms

Finance	Extraction	Transport & Processing	Consumption
- ***Fossil fuel divestment*** - Shareholder activism - ***Fossil fuel subsidies reform*** - Greening of development finance	- ***Coal mining moratorium*** - Oil and gas drilling ban - Fracking ban - Fossil fuel exploration prohibition - Fossil fuel "free zones" - Fossil fuel non-proliferation treaty/convention - Fossil fuel litigation[28]	- Oil and gas pipeline cancellations (Keystone XL, DAPL, TAP) - Coal port blockades	- ***Coal power phase-out*** - Diesel car bans - internal combustion engine (ICE) vehicles bans - Flygskam

First of all, many such normative initiatives regarding fossil fuel finance originated in recent years. In their broadest sense, this group of AFFNs eventually seeks to limit or prohibit both public and private investments in fossil fuel projects and companies. As noted in the very beginning of this dissertation, since 2011 a transnational fossil fuel divestment campaign has been promoting a norm for investors to withdraw their financial investments in fossil fuel bonds, stocks and other assets and reinvest them into "green" alternatives. Around the world, multilateral development banks, national development finance institutions and export credit agencies are also "greening" their development finance portfolios and shunning fossil fuel investments (Wright et al. 2017; Steffen and Schmidt 2019), especially in coal (see e.g. Buckley 2019), because these investments have increasingly become taboo (Carney 2015). Another such AFFN associated with fossil fuel finance refers to attempts by fossil fuel companies' shareholders to hold management accountable and to push for specific climate targets, including e.g. CO2 reductions or developing corporate scenarios aligned with a Paris scenario (Neville et al. 2019). Lastly, reforms and phase-outs of fossil fuel production

[28] Although the primary focus of activists is the fossil duel industry, litigation is not just limited to extraction and it can also occur at other instances of the fossil fuel supply chain. I explain this below.

and consumption subsidies also impact patterns of finance for fossil fuel production and consumption.

Second, there are also normative initiatives and campaigns that promote AFFNs that single out (specific modes of) extraction of fossil fuels. For example, numerous EU countries and local governments have banned fracking in recent years (Van de Graaf et al. 2018). While the US and Canada in 2016 labelled public-owned waters in the Arctic and certain areas in the Atlantic Ocean as indefinitely off-limits to future oil and gas leasing, the US (and China) also implemented a moratorium on the construction of new coal mines and new coal mine leases on federally-owned lands. Green (2018d) also notes that "fossil fuel free zones" could be designated. These are geographic areas that would be completely off limits for fossil fuel exploration and extraction (although this could also be used for transportation, intermediate treatment, and consumption activities), similar to the historical precedent of Nuclear Weapon Free Zones. Others have called for broad fossil fuel, or specifically coal, "non-proliferation treaties" or "conventions", analogous to the creation of a nuclear non-proliferation treaty or conventions on chemical and biological weapons (see Newell and Simms 2019 on "fossil fuel non-proliferation"; on coal specifically, see e.g. Burke et al. 2016, 514-515; Christoff and Eckersley 2013).

Litigation is also an increasingly visible way of compelling governments and companies in climate change action, although this is not just limited to fossil fuel extraction. High-profile cases such as Urgenda in the Netherlands, where the Urgenda Foundation won a legal case to compel the Dutch state to take more effective action to address climate change have spiked activist interest in climate litigation. Indeed, judiciaries and the litigants that prompt them to action can indeed play important governance and normative roles, and the adjudication of climate change has the potential to shape norms and beliefs in the broader population regarding the salience of climate change and the responsibility of different actors to act, including states and the fossil fuel industry itself (Setzer and Vanhala 2019). Examples include suing large fossil fuel companies for their decades-long active role in covering up evidence on their climate change impacts, or their failure to accurately disclose the risk of climate change (legislation) to their shareholders.[29]

Third, mid-stream fossil fuel activities, including intermediate processing of fossil fuels and the construction of pipelines or other infrastructure for transportation, are also

[29] Schwartz, John. New York Sues Exxon Mobil, Saying It Deceived Shareholders on Climate Change. New York Times, October 24, 2018.

subject to normative anti-fossil fuel campaigns. Protests in the US against the Keystone XL and Dakota Access pipelines, and in Europe against the Trans Adriatic pipeline, are among the most visible examples of normative campaigns targeting fossil fuel transportation and processing (see e.g. Cheon and Urpelainen 2018; LeQuesne 2019). Around the world, AFFN campaigners have also targeted coal ports, e.g. Code Rood that blocked coal port of Amsterdam, or protests against expansion of Abbott Point coal terminal in Queensland, Australia.

Lastly, AFFNs related to fossil fuel consumption seek to limit and phase-out demand for oil, coal and/or gas. For example, in recent years, an increasing number of countries has set out deadlines to phase out the sale of ICE vehicles (Meckling and Nahm 2019). Norm-based diffusion plays a role in some cases where such bans have been announced. By September 2018, 16 countries had taken varying types of action to phase out ICE vehicles and increase the number of electric vehicles (Birch and Gilchrist 2018). Other initiatives include protests against construction of new fossil fuel power plants, or campaigns to rapidly phase-out existing ones. One such example is that of the international *Powering Past Coal Alliance* (PPCA), a growing group of actors that seeks to phase out the coal fleet by 2050 at the latest (Jewell et al. 2019).

Armed with empirical and theoretical expectations based on the AFFN "life cycle" framework that I have developed, I examine *four* cases separately throughout the different articles of this dissertation: fossil fuel subsidy reform; coal mining moratoria; coal-fired power phase-out; and fossil fuel divestment. Why exactly were these four cases selected? A first criterion relates to their comprehensive coverage of the entire fossil fuel supply chain and their neat fit with the definitional characteristics of AFFNs. Indeed, I examine norms that affect the entire fossil fuel supply chain, from finance and extraction to consumption. In doing so—as I remarked earlier—I also situate the rise of these AFFNs within a broader debate about the role and effectiveness of supply-side climate policies, as well as those around the potential for normative approaches, given the ostensible failure of the traditional consequentialist lens through which climate change policy has been developed throughout the years.

Second, each of the four AFFNs that I study are empirically rich examples of (the call for) a normative turn in policy-making within the climate-energy-fossil fuel nexus. All of the AFFNs have been around for at least a few years, even though they may differ in age (see e.g. Blondeel et al. 2019 for a discussion on the difference in "age" between fossil fuel subsidy reform and fossil fuel divestment). Unlike other AFFNs—e.g. flight shame—they have already passed the first stage of norm articulation and have reached the stage of diffusion, both in terms of institutionalisation and implementation. Even

though not all AFFNs can be considered to be developing at similar paces. These norms are also highly internationalised as many of them have a global coverage and have been picked up by a large variety of internationally relevant actors, including states, multinational corporations, IOs and NGOs. This global coverage has also given rise to political and media attention. Consequently, there is much empirical documentary evidence available for examination. The presence of such an "extensive trail of communication" (Finnemore and Sikkink 1998, 892) helps us better understand how these norms have emerged and are currently diffusing.

Third, these cases were also selected because they are "significant in their own right" given their (potential) real-world impact. That is, the nature of these AFFNs is such that they could significantly impact the shape and pace of the global energy transformation. For example, if fossil fuel consumer subsidies today stand at over US$ 400 billion, their phase-out would lift a significant strain on many public budgets in developing countries around the world. Moreover, removing all consumer subsidies by 2020 would result in a 6.4 percent reduction of GHG emissions by 2050 (Schwanitz et al. 2014). This impact does not necessarily already have to be material or in terms of policy output. Instead, this impact can also be institutional or discursive. For example, the fossil fuel industry itself has warned for the dangers of the fossil fuel divestment campaign for their very business model (Shell 2018). Also, even though the countries that form part of the Powering Past Coal Alliance only represents 3% of all coal-fired power plants, and the US and China only temporarily installed moratoria on the construction of new coal mines, coal ought to be the number one priority for all relevant actors to phase out, given that of all fossil fuels, it has the most devastating impact on CO_2 emissions and climate change.

Data collection

In order to collect analytically and empirically relevant data, I did not resort to one specific method, but have relied on an approach of mixed data collection (Small 2011). This data collection was informed by the specific research puzzle and question in the respective articles. All four articles rely solely on qualitative methods to answer the research questions.[30] In short, qualitative techniques of data collection including in-

[30] Qualitative studies, however, quite frequently employ numerical data; many qualitative techniques in fact require quantitative information (Mahoney and Goertz 2006, 245). This is also the case in this dissertation, where I relied on numerical data for my some of the analyses (cfr. article on the *Powering Past Coal Alliance* where I relied on publicly available, quantitative datasets.)

depth interviews, participant observation, document analysis, and data triangulation have guided this dissertation's data collection.

Empirical data for within-case evidence come from both secondary and primary sources. In terms of secondary sources, the broader empirically-founded scholarly research in social science on fossil fuel subsidy reform, coal and climate change, and fossil fuel divestment, has proven to be quite a valuable source. Next to academic research, other secondary sources, such as reports by NGOs, research institutions and think tanks (e.g. by the *Global Subsidies Initiative*, the *Carbon Tracker Initiative,* or the *Institute for Energy Economics and Financial Analysis*), policy reports (e.g. *Economist, IEA, OECD*), as well as newspapers and magazines (*Financial Times, New York Times, The Guardian, The Economist*) have been critical to providing empirical support for the arguments that I make.

I obtained primary data from documentary research of policy documents and public statement as well as semi-structured interviews and participant observation. The documents that I selected were primarily obtained through the internet and include open-source material, such as position statements, official government documents and reports. For example, documentation from relevant NGO websites explaining their goals and strategies and corporate press releases criticising the normative campaigns against fossil fuels were found to be useful complements to the interview data.

In addition, 22 semi-structured expert interviews of different lengths were conducted between June 2016 and September 2019, with campaigners, NGO professionals, government officials and other experts working mostly within international organisations, in Europe and the United States (see appendix 2 for a list of interviews). The interviews were semi-structured and based on a series of questions and prompts which were intended to explore in detail the central research question and objective(s). The number of conducted interviews differs between the articles. While for the first article on fossil fuel subsidy reforms, only a handful interviews were conducted, because sufficient data for within-case evidence could be derived from other sources, nine interviews were conducted for the article on the *Powering Past Coal Alliance*, to gain greater insights in the chain of events that led to the establishment and expansion of the Alliance, as well as to better grasp individual countries' motivations to (not) join the coalition. For the article on fossil fuel divestment, I also relied on my own experiences and participant observation, as I was involved in fossil fuel divestment campaigns at several universities in Belgium (Flanders), notably those at Ghent University and the KU Leuven, between September 2016 and October 2018.

I selected my interviewees on the basis of "non-probability sampling", which involves sampling from a larger population without the requirement of random selection (Tansey 2007). Potential disadvantages of this sampling technique might be that there is a greater scope for selection bias or that there is a limited potential to generalise from the sample to the wider population. However, if such generalisations are not the aim and the goal is rather to obtain information about specific events, processes and to uncover causal mechanisms that link independent and dependent variables to one another in a particular context (as is the case in this research), then this critique can be dismissed. The use of elite interviews has four distinct features or objectives: 1) to corroborate what has been established from other sources (i.e. data triangulation[31]), 2) to establish what a set of people think, 3) to make inferences about a larger population's characteristics and decisions, 4) to reconstruct events, sets of events or causal mechanisms. In light of the research puzzles in the articles and nature of this dissertation, expert interviews were mostly conducted in light of objectives 1 and 4.

I employed two techniques of interviewee selection that fall under this rubric of non-probability sampling. In a first one, purposive sampling, the selection of partners was based on the research objective and associated research questions. With the research questions in mind and with a clear idea of which processes and causal mechanisms ought to be studied, I selected particular respondents that I deemed most eligible to provide within-case evidence. A second, well-known, method of interviewee selection is that of snowballing, whereby interviewees spontaneously refer to other potential interview partners or at the end of the interview are asked who they would consider relevant interviewees. This technique helped select previously unidentified and potentially relevant interviewees.

Selected potential interviewees were contacted over e-mail or in person at workshops or conferences. In case of agreement, the interview was conducted in person, over the phone or through Skype. In case there was no response, I sent a follow-up e-mail, maximum one week later. Each interview partner was guaranteed anonymity, unless they explicitly stated that they did not object to the opposite. In essence, when referring to an interview in one of the articles, I only refer to the date, location and their respective organisation, company or department where they are employed (see appendix II at the end of this dissertation for a list of interviews). It was made sure that

[31] Triangulation refers to the use of a variety of methods to collect data on the same case. In doing so, we can increase the validity of the collected data and the research as a whole. The purpose of such data triangulation is not necessarily to cross-validate data but instead to capture different dimension of the same class of events or phenomenon.

sensitive quotations are non-attributable. Moreover, off-the-record comments, although highly valuable and insightful, were not used. If the comment could be corroborated by other sources, then it was used without attribution. Interviews were recorded and fully transcribed to make sure that I was able to process all information provided and to grasp every nuance.

One obvious question that emerges is when to stop gathering evidence. Of course, one ought to gather as diverse and relevant evidence as possibly, but one can justifiably make a decision to stop doing so once repetition occurs and more of the same kind of evidence has a low probability of revising the estimate of the likely accuracy of the alternative explanations (Bennet and Checkel 2015, 27-28). This question also relates to the risk of infinite causal regress (Gerring 2010) in research on causal mechanisms. At some point, a researcher just has to stop the empirical process and rely on what we (think we) know to reach causal inference, even though there is no simple algorithm for deciding when to stop.

In the next paragraphs, I highlight the theoretical and empirical contexts of the research puzzles associated with these AFFNs, as well as the contribution of the separate articles to the overall research question of this dissertation.

Fossil Fuel Subsidy Reform

Research context

In the first article, I examine the emergence of fossil fuel subsidy reform (FFSR) from an international norm perspective. FFSR can be considered an anti-fossil fuel norm because it has distinctive normative aspirations and proponents argue that their cause is simply "the right thing to do" given the risk fossil fuels pose to the fate of our planet. Former UN Secretary-General Ban Ki-Moon (2016) called for the elimination of subsidies on the grounds that "we have no right to gamble with the fate of future generations or imperil the survival of other species that share our planet." Before getting to the puzzle of the article and its fit within the overall objectives of the dissertation, I shed light on some of the existing controversies around fossil fuel subsidies and their reform, including definitional and measurement concerns, the politics and political economy of FFSR, and the role of international institutions.

First of all, many debates on FFS centre around how to *define* and *measur*e them. Fossil fuel subsidies, in general, refer to *public* financial support for the consumption and production of fossil fuels. Consumption subsidies are directed at the energy use of households and companies and include, amongst others, consumption prices that are set below the market price, or reduced retail taxes. Production subsidies include tax

breaks, cash transfers, loans, infrastructure support and insurance provided by governments at more favourable conditions than those of the market (Skovgaard and van Asselt 2019). Differences in subsidies' estimates are caused by the way in which they are measured. There are two distinct ways of doing so: through an "inventory" or a "price-gap" approach. The Organisation for Economic Cooperation and Development (OECD) for example, uses an inventory approach, while its partner organisation, the International Energy Agency (IEA), uses a price-gap approach.

The inventory approach adds up specific government actions that confer financial benefits to particular fossil fuel producing or consuming groups. The total financial value of all discrete actions is then added up to calculate the total value of FFS. The price-gap approach, instead, focusses on the gap between prices paid by consumers or producers and an associated benchmark price. The value of the difference between the price paid and the benchmark price equals the amount of the subsidy. These benchmark prices are mostly based on international market prices, and often differ for producer and consumer subsidies, because for consumer subsidies benchmark prices often include the cost of transportation, distribution and national value-added taxes, as well as taxes corresponding with so-called *externalities* associated with fossil fuel use, including air pollution, climate change and traffic accidents. When one includes the cost of such externalities, we refer to *post-tax* subsidies, when one does not, we refer to *pre-tax* subsidies. The International Monetary Fund (IMF) is the only IO that calculates the size of post-tax subsidies (through a price-gap approach), which explains its very high estimate of the value of FFS.[32]

These different approaches result in different estimates of the total size of fossil fuel subsidies. The IEA, which provides the most commonly used measure, estimated 2018 fossil fuel *consumer* subsidies at US$ 427 billion, which is the second yearly increase in a row, probably due to rising oil prices (IEA 2019). Their calculations include only 41 (large developing) countries and is based on a price-gap approach. Hence, the IEA is in the low-end of the range of estimates. The OECD uses an inventory approach to measure public support to fossil fuels in 43 countries, which totalled US$ 140 billion in 2017, down from US$ 373 billion in 2015 (OECD 2019). The IMF, in turn, estimated the total of post-tax consumer *and* producer subsidies at a total of US$ 5.2 trillion in 2017

[32] Although environmental economists are generally in favour of taxing externalities. Including externalities in their global FFS estimates has been quite controversial for the IMF (Koplow 2018, 37-38). Fossil fuel *production* externalities–such as spills, flaring of associated gas or ecosystem damage–are not evaluated by the IMF.

(Coady et al. 2017).[33] In a joint report of several NGOs[34], fossil fuel *producer* subsidies are estimated at US$ 70 billion annually for the period 2013-2014 (Gerasimchuk et al. 2017), although this only includes direct spending and tax breaks and does not include the estimated US$ 286 billion/year in state-owned enterprises investments and US$ 88 billion/year in public finance for fossil fuel production, as calculated elsewhere (Bast et al. 2015).

Table 6. Estimates of fossil fuel subsidies

	IEA	OECD	IMF	OCI, ODI, GSI
FFS estimate (US$)	427 billion	140 billion	5.2 trillion	70 billion
Year	2018	2017	2017	2013-2014 (annual average)
Countries	41 large developing countries	44 countries (36 OECD members and eight others[35])	191 countries	G20 (extrapolated to world)
Approach	Price-gap	Inventory	Price-gap (incl. externalities)	Inventory
Type of subsidies	Consumption	Production & consumption	Production & consumption	Production

Sources: Gerasimchuk et al. 2017; Coady et al. 2019; IEA 2019; OECD 2019.

Second, existing studies on the politics of fossil fuel subsidies and their reform have mostly focussed on how they are entangled with the (domestic) political economy of fossil fuel production and consumption. Indeed, although reforming fossil fuel subsidies would have beneficial climate effects (Jewell et al. 2018), these studies mainly argue that a mixture of domestic political, economic and social effects explain their persistence *as well as* their reform (Victor 2009, Cheon et al. 2013, 2015, Inchauste and Victor 2017, Rentschler and Bazilian 2017a, 2017b, Sovacool 2017). For example, Moerenhout (2018) has argued that subsidies are often part and parcel of the "social contract" between (autocratic) governments and citizens in the regional context of the

[33] Externalities accounted for around US$ 5 trillion, while pre-tax subsidies accounted for US$ 333 billion.
[34] OCI, ODI and GSI. OCI = Oil Change International, ODI = Overseas Development Institute, GSI = Global Subsidies Initiative.
[35] These countries include: Argentina, Brazil, Colombia, China, India, Indonesia, the Russian Federation, and South Africa.

Middle East and North Africa. The political economy approach to FFSR is dominant in academia. Consequently, much of the literature consists of case studies that focus on the political economic circumstances of subsidy persistence or reform in a particular context (see e.g. Vagliasindi 2013, Lockwood 2015, Kojima 2016, Erickson et al. 2017, Scobie 2017).

Third, other research on FFSR and phase-out has concentrated on its international dimensions, and in particular the role of international institutions in promoting and supporting domestic reform efforts. Authors have focussed on the distinctive role that can be played by the IMF, World Bank and OECD (Skovgaard 2017, Smith and Urpelainen 2017, Van de Graaf and van Asselt 2017), the G20 (Aldy 2017), UNFCCC (van Asselt and Kulovesi 2017), and the World Trade Organization (Verkuijl et al. 2019). Building on prior work on FFS, ranging from domestic political economy to international institutions, Skovgaard and van Asselt (2018, 2019) focus on the international *political* dimensions of fossil fuel subsidies and their reform and how international reform efforts tie up with domestic politics.

Article objectives and contributions

In the article on FFSR that is part of this dissertation, co-authored with Thijs Van de Graaf, we offer a novel interpretation to the international attempts to reform fossil fuel subsidies, by examining it from an international *norm* perspective. Looking at FFSR through the lens of international (anti-fossil fuel) norms raises two particularly puzzling observations and associated research questions. First, international norms are typically considered as the products of bottom-up advocacy by norm entrepreneurs, operating through organisational platforms such as transnational networks and social movements (see Finnemore and Sikkink 1998, Keck and Sikkink 1998). The FFSR norm, however, did not follow this traditional pattern. Instead, it more or less trickled down from above in 2009, when the leaders of the Group of 20 (G20) pledged to "phase out over the medium term inefficient fossil fuel subsidies" (G20 2009). The very few NGOs that had worked on the issue were completely taken by surprise by this G20 commitment. Existing theory is inadequate to account for the top-down emergence of FFSR norm in the absence of a transnational advocacy network led by norm entrepreneurs. A second puzzling observation concerns the degree of diffusion of the norm. While it has been rhetorically embraced by a large number of states, at the highest political level (the G20), state governments continue to provide lavish financial support to fossil fuel consumption and, to a lesser extent, production and processing. What explains this lack of implementation? In short, the article seeks to explain the top-

down emergence and incomplete diffusion of fossil fuel subsidy reform as an international (anti-fossil fuel) norm.[36]

The two questions are related to some of the earlier theoretical lacunas in norm research that I outlined before. The first question can be situated within the debate on the "statist bias" of norm research and the insistence on the importance of an apparent bottom-up process of norm articulation and diffusion. The second question touches on issues regarding norm success, in particular around the conceptualisation of "norm diffusion". The article highlights that it is important to employ a two-tiered approach to norm diffusion—based on institutionalisation, implementation, and the dynamic interaction between the two—to understand norm success (see also Blondeel et al. 2019).

How does this article contribute to the overall objectives of this dissertation? First, the article traces the dynamic development process of an AFFN, namely fossil fuel subsidy reform, through the stages of norm emergence and diffusion. Moreover, it also outlines the agency-based and structural determinants of its emergence and diffusion, namely norm entrepreneurship, political opportunity structures and internal and external dynamics, specifically in the form of discursive contestation.

As I noted, we conduct a disciplined configurative case study (Eckstein 1992) of FFSR as an international norm. We apply the method of theory-testing *process-tracing* in order to study the causal mechanism of norm emergence and diffusion of the FFSR norm (Beach and Pedersen 2013). In this case, we explicitly and systematically apply theoretical concepts from constructivist norm theory to the case of fossil fuel subsidy reform. And even though this method does not formally test a theory, it shows that constructivist theoretical perspectives on international norms can be extended to account for the phenomenon of fossil fuel subsidy reform. The risk, however, associated with this approach is that the events described can be consistent with more than one theoretical interpretation. A check against this risk is the disciplined interrogation of evidence to check each potential theoretical explanation. Doing so makes the case study more disciplined.

Process-tracing seeks to "identify the intervening causal process –the causal chain and causal mechanism- between an independent variable (or variables) and the outcome

[36] In the paper, we do not employ the term "anti-fossil fuel norm" but instead generally refer to FFSR as an "international norm". This has to do with the fact that the exact term "anti-fossil fuel norm" had not yet been coined at the time of writing and publication of the paper. However, it should be clear when reading the article that there is a clear fit with the concept.

of the dependent variable" (George and Bennett 2004, 206). Process-tracing, in other words, uses detailed, within-case empirical analysis to understand and explain how a causal process plays out in practice (Beach 2017). As Ruggie writes (1995, 1998), this research process largely involves two steps. In a first step, social events or facts are identified and ordered chronologically. Also, their effect on each other is established to the extent possible. In a second, configurative, step a narrative is built by going back and forth between the observed social facts and a theoretical framework with the aim of producing "results that are believable and verisimilar to other observers of the same process" (Ruggie 1995, 98).

There are three variants of process-tracing, two theory-centred types, theory-testing and theory-building process-tracing, and one case-centric type, explaining-outcome process-tracing. The difference between these two types is that theory-centric process-tracing is concerned with making inferences about the presence or absence of a causal mechanism and the generalisability thereof to a wider set of cases (i.e., population), while case-centric process-tracing is focussed on enabling inferences about the sufficiency of the explanation to be made about a case.

In this article, we employed the method of theory-testing process-tracing in order to test the theorised causal impact of a variety of factors on the emergence and diffusion of the FFSR norm. Theory-testing process-tracing occurs along three steps. First, we use existing theorisation (Wunderlich 2013) to conceptualise a causal mechanism and we make the context explicit in which it functions. During step two, we operationalise the empirical tests and translate theoretical expectations into case-specific predictions of what observable manifestations each of the parts of the mechanisms should have, if the mechanism is present in the case (Beach and Pedersen 2013, 14). In practice, this will also have inductive elements. In step three, we collect empirical evidence that can be used to make causal inferences, which updates our confidence in step one. Hence, we are not necessarily tracing a series of empirical events, but rather the "underlying theorised causal mechanism itself, by observing whether the expected case-specific implications of its existence are present in the case" (Ibid., 15). Note, however, that this type of research does not allow us to test the relative explanatory power of competing mechanisms, nor does it allow us to make claims about the necessity of the mechanism (Ibid., 15-16).

A nuance with regard to the application of theory-testing process-tracing is in place here. The above description of this method is clearly ideal-typical and in the article itself I do not make an explicit reference to the method and its specific implementation. This does not mean that these paragraphs are a *post hoc* justification for a lack of clearly

identified methodological approach. The research design of the article fits the description and objectives of process-tracing method and is applied in a pragmatic, rather than a dogmatic, sense. That said, I accept that this might be a point of critique.

In order to collect within-case evidence for our argument in this article, we conducted interviews with officials from IEA, OECD and IMF and we relied on primary and secondary documentary sources. The interviewees were selected on the basis of their technical expertise. Interviews were also conducted in view of tracing the historical process of norm articulation and diffusion, dating back as early as the 1980s. The objective was to reconstruct a the chain of events associated with FFSR emergence as an international norm and to corroborate evidence from other sources. In addition to that, we relied on quantitative data from GSI and the IEA on domestic subsidy reform efforts to look at implementation of the norm.

Coal mining moratorium

Research context

In the second article, I examine whether an international norm is emerging to keep coal in the ground. There is only a very limited literature that closely examines the question of coal extraction as an instrument to rapidly transition away from coal (Edwards 2019). Most of the research addresses this question from a (domestic) political economy perspective. For example, Spencer et al. (2018) survey the domestic political economy of coal sector transitions in major coal producing and consuming countries, including Australia, South Africa, China and India. Zhao and Alexandroff (2019) provide a similar political economic framework to explain the expansion of coal capacity expansion in large coal producing countries. However, apart from these limited studies in selected countries, there is not really any comprehensive, policy-focussed literature primarily on the (comparison of) strategies to transition away from coal extraction, let alone that the normative aspects of coal mining moratoria or prohibitions are considered.

Regarding coal mining moratoria specifically, Collier and Venables (2014) authored an article on the interaction between economic and moral incentives for keeping coal in the ground. More broadly, there is an emerging literature on the politics of supply-side climate measures, as I already discussed above, but so far this has failed to engage specifically with the question of keeping *coal* in the ground. Piggot (2018), Denniss and Green (2018) and Green (2018b) all hint at the prospect of coal mining moratoria or prohibitions as part of broader political strategies to keep coal in the ground, yet their articles are mostly theoretical narratives and do not contribute to the empirical understanding of this issue. Others have called for supply-side treaties to ban fossil

fuels as a whole (Asheim et al. 2019, Newell and Simms 2019), or coal non-proliferation treaties and conventions specifically (Christoff and Eckersley 2013, Burke et al. 2016).

Article objective and contributions

In the second article, written together with Thijs Van de Graaf, we examine the puzzling decision of the United States and China in 2016 to impose temporary moratoria on the approval of new coal mining leases and whether or not this reflects the emergence of a global norm to keep coal under the ground. Coal is the fossil fuel with the greatest proportion that cannot be used, so various advocacy groups have been campaigning for a ban on the opening of new coal mines and leaders such as former President Tong of Kiribati, while dialogues such as the 2015 Suva Declaration on Climate Change have called for a moratorium on the construction of new coal mines. These developments beg the question: how realistic is a global halt on new coal mines and mine expansions? To answer this question, we examine the sources and drivers of the coal extraction policies of four countries: China, the United States, Australia and India. Our objective is to look at the domestic politics of each country to see if there is any basis or fertile ground on which a global anti-coal mining norm might take root. These four cases were selected on three grounds. First, they are the largest coal producers in the world. Second, they exhibit a puzzling variance in their coal mining policies, since China and the United States adopted temporary bans on the approval of new coal mining leases in 2015 and 2016, respectively, Australia and India did not. A third reason to focus on these 'big four' producers, is that powerful states are well positioned to advocate new norms given their large material and ideational resources.

How does this article contribute to the overall objectives of this dissertation? Here, we do not study the civil society campaigns to keep coal in the ground or the process of norm diffusion as such, but instead focus on one specific stage of the life cycle of norms; that is, norm implementation (on a domestic, state level) and its drivers. The article touches on the additional question of the role of power in helping distribute a particular AFFN. In doing so, it contributes to the overall goals of the dissertation in multiple aspects. First, it addresses several theoretical lacunas in norm research, with an explicit empirical engagement of how different logics of action (appropriateness and consequence) impact policy making related to coal extraction, as well as the role of powerful actors and their power resources as pivotal actors to convince others of the "rightness of their views". Second, in view of the overall research question in this dissertation, it builds on an analytical framework of ideas, interests, and institutions to explain decisions with regard to (non-)implementation of coal mining bans or prohibition of coal mine expansions.

Although it can be considered a disciplined configurative case study of one AFFN–namely a global moratorium on coal mining–the method for conducting the study is somewhat different from the other articles. This four-country comparative analysis builds on the method of structured, focused comparison (George and Bennett 2005). The method is "structured" in that empirical research is guided by a research question (i.e. "what are the sources and drivers of coal extraction policies in a given coal producing country?") that is derived from the research objective (i.e. examining how realistic a global halt on new coal mines and mine expansions is). The research question is applied to all four country cases in order to guide and standardise the data collection. In doing so, this makes systematic comparison and accumulation of the findings in each of the cases possible. The method is "focused" in that it pays selective attention to particular analytically relevant aspects of the cases. In the case of this article, this means that our focus is on a classic political economic explanatory framework that posits that one ought to pay attention to ideas, interests and institutions that underpin political behaviour (Hall 1997).

In a first phase of the structured, focused comparison, we select cases in view of a "controlled comparison"—i.e. the comparison of cases whose variance on ideally one independent variable explain the difference in outcome on the dependent variable. Controlled comparison, moreover, can also be achieved by dividing a single longitudinal case into two, a "before" and "after" case, "that follows a discontinuous change in an important variable" (George and Bennett 2005, 81). In fact, in this article, we provide both types. Not only do we compare four countries, we also divide the case of the US into two parts: before and after the 2016 presidential elections. Note that as a researcher, we can also be somewhat "opportunistic" in our case selection and pick those that "closely fit" a most similar design. It is generally extremely difficult to find two cases (let alone four) that resemble each other in every respect but one, as controlled comparison ideally requires (George and Bennett 2005, 70). As is often the case in this method, our case selection of the United States, China, Australia and India was not necessarily inspired solely by theory and it basically blends inductive and deductive thinking. As researchers, we were interested in an outcome Y, and we chose four cases to illustrate variance in Y. Consequently, we examined possible antecedents (ideas, interests and institutions) that could have produced the difference. Such a "retrospective contrast" (Odell 2001, 167) is of course open to the risk of differences between the cases, each of which could have explained Y. In order to avoid selection bias, we selected two cases where the outcome is absent (King et al. 1994, 129). In a second phase we carry out the case studies and study the "paper trail leading to policy decisions [or lack thereof]" in each of the cases comparatively (George and Bennett

2005, 100). In a third and final stage, we draw implications of the case findings for theory.

The sources for empirical evidence in this comparative analysis are the nationally determined contributions (NDCs), as submitted under the Paris Agreement, as well as the latest policy papers, official documents and statements of the respective countries under examination. I also conducted interviews with experts involved in the civil society campaigns to keep coal in the ground. But as I did not explicitly study these in this article, they were not used to provide within-case evidence, but rather to expand my broader understanding of the topic.

Phase-out of coal-fired power generation

Research context

The third case that I examine in this dissertation centres around the phase-out of coal-fired power generation, with a specific focus on the in 2017 established Powering Past Coal Alliance (PPCA). The PPCA brings together a group of countries, regional and local governments and non-state actors that vow to phase-out their coal-fired power capacity or reliance on coal-fired power by a specific date.

Almost no prior research has been done on this case specifically. Recently, however, Jewell and colleagues (2019) published an article specifically on the PPCA. Alongside the question of why states phase out coal from their electricity mix, they focussed on how much CO_2 emissions would be avoided by current PPCA members' expedited coal phase-out. Moreover, a recent two-year project, by an international research consortium (including NGOs, think tanks and universities) which aimed to develop trajectories and policy guidance for transitions in the coal sector in six major coal using countries: China, India, Australia, South Africa, Germany and Poland. This project, did provide some policy recommendations about coal-fired power generation phase-outs but did not produce scholarly, peer-reviewed articles (except for Spencer et al. 2018 where they focus on both coal production and consumption transitions, cfr. supra).

In fact, when Green (2018a) developed his concept of anti-fossil fuel norms, he referred to the PPCA as a prototype anti-fossil fuel norm which would require further research. In this article, together with Thijs Van de Graaf and Tim Haesebrouck, I am concerned with the puzzling question of why states sign onto an international coalition seeking to establish a coal phase-out by 2050 at the latest, when most countries that join do not burn coal in large quantities or do not even burn coal at all for electricity generation. We advance four hypotheses that revolve around material costs, political economy, feedback effects, and identity.

Article objective and contributions

In terms of overall contribution to the objective of the dissertation, this article speaks to the instances of institutionalisation and implementation of norm diffusion. It focusses on the question of what determines a state's decision to rhetorically embrace an AFFN that formulates the phase-out of coal-fired power generation. It also does not consider both aspects of norm diffusion to be separate processes, but as closely interlinked, potentially occurring simultaneously, and mutually impactful. That is, states not necessarily have to first discursively embrace an international norm before they implement it; this process can occur the other way around, where a phase-out is first domestically implemented and subsequently supported internationally. Moreover, as I probe different factors that might contribute to the decision to (not) become member, again, we empirically assess whether actors are driven by logics of consequence or logic of appropriateness.

Through a crisp set Qualitative Comparative Analysis (csQCA) and expert interviewing, we test which combination of variables explains our outcome of interest (state membership in the PPCA). QCA allows to systematically compare an intermediate to large number of cases in order to draw conclusions on causal relations between a set of conditions, i.e. plausible causally relevant factors, and an outcome, i.e. the phenomenon under study. More specifically, the method can be used to identify minimally necessary disjunctions of minimally sufficient conditions, which according to regularity theories of causation contain the conditions that are causally relevant for an outcome (Baumgartner 2008). A condition or (combination of conditions) is sufficient if the outcome is always present when this condition (or combination) is present. Conversely, a condition or (disjunction of conditions) is necessary if it is always present when the outcome is present. Necessity and sufficiency entail a complex form of causation, generally referred to as multiple conjunctural causation (Schneider and Wagemann 2012, 77). Conjunctural causation implies that causally relevant factors generally do not bring about their effects in isolation, but in combination with other factors. Multiple causation, or equifinality, implies that there are generally several combinations of factors that cause the same effect. The choice for QCA is driven by its ability to capture this complex form of causality, since membership in the PPCA can be expected to result from a complex interplay of the four identified conditions (Schneider and Wagemann 2012, 77). The choice for QCA's crisp set variant is informed by the nature of the outcome, which presents itself in a dichotomous form.

The method of QCA allows for systematic and reproducible research and parsimonious results, although there are certainly difficulties involved. One such important issue

relates to case-specific, idiosyncratic circumstances, which a QCA analysis cannot always capture (see also George and Bennett 2005). Ragin (1989, 113) noted that cases with the same values on independent variables may exhibit different values on dependent variable. Hence, we examine these cases more closely to determine if there are important omitted variables on which the cases differ, or whether there are idiosyncratic mechanisms at play, that are difficult to generalise beyond the cases.

Empirically, the analysis draws on data from nine semi-structured interviews with officials from both PPCA members and non-members, and with representatives from NGOs closely involved in its establishment. The interviews were conducted in two parts, between September and November 2018 and in June 2019. In addition to these interviews, we rely on official policy documents (such as national laws, regulations and nationally determined contributions), a quantitative dataset on the global coal plant fleet, as well as scholarly literature. In order to operationalise and measure our independent variables, we relied on quantitative, publicly available datasets.

Fossil fuel divestment

Research context

Fossil fuel divestment (FFD) is the fourth normative case that I study in this dissertation. Existing scholarship on fossil fuel divestment can broadly be divided into two categories. First, there is an economic literature focussing largely on the return effects on financial portfolios and the effect of divestment on the ability of fossil fuel incumbents to finance their operations. Second, social science research on FFD approaches the campaign from a social movement perspective, with an explicit focus on the energy and climate *justice* aspects of the (transnational) FFD movement.

A handful of scholarly financial-economic articles have centred around the following question: "what is the effect of fossil fuel divestment on financial portfolio performance?" Ritchie and Dowlatabadi (2014, 2015) found that (institutional) investors only have a limited ability to use divestment as a strategy to isolate their holdings from fossil fuel and GHG exposure and that divestment would therefore probably have a negative impact on portfolio returns. Subsequent research comparing carbon-intensive with low-carbon portfolios has found that divestment actually could have a positive effect on risk-adjusted returns for investors (Halcoussis and Lowenberg 2018, Henriques and Sadorsky 2018, Trinks et al. 2018, Hunt and Weber 2019), although it is fair to say that there is still no conclusive evidence whether or not FFD has (or *will have*) a significant positive effect on portfolio performance. Other financial research looks at the impact of divestment on the ability of fossil fuel companies to

finance their operations. There, however, findings are even less optimistic, given that the–current–size of divestment commitments has not (yet) made it more difficult for fossil fuel companies to access capital markets and finance their operations (Ansar et al. 2013, Hansen and Pollin 2018).[37]

Social science research on fossil fuel divestment also falls apart into different categories. First, there are those that address FFD from the perspective of social movement literature, thereby focussing on the organisation, the wins and losses of a social movement campaign (see e.g. Ayling and Gunningham 2017, Healy and Debski 2017, Bergman 2018, Cheon and Urpelainen 2018, Piggot 2018, Hestress and Hopke 2019). Others have sought to historically compare this FFD with other divestment movements, notably those against Apartheid and tobacco (Apfel 2015, Seidman 2015, Hunt et al. 2017). Another strand of social research on fossil fuel divestment builds on this social movement literature, but adds that the campaign is succeeding in mainstreaming issues of energy and climate *justice* in circles notoriously difficult to penetrate for climate campaigners: among investors and even the fossil fuel industry itself (Bratman et al. 2016, Grady-Benson and Sarathy 2016, Finley-Brook and Holloman 2016, Healy and Barry 2017, Lenferna 2018; but see also Schifeling and Hoffman 2017). Others, in turn, have focussed on the legal approach that some divestment campaigners have taken by suing investors or asset managers over their "fiduciary duty" to act in the best interest of their shareholders or other relevant stakeholders (Coplan 2016, Franta 2017).

Most of the existing studies, however, fail to problematise the social and political structure in which campaigners are operating and formulating FFD as an anti-fossil fuel norm. Of course, the existing insights from the social movement approach do provide some useful conceptual and analytical tools in order to help discern the roadblocks for FFD, including those of "political opportunity structures" or "resource mobilisation" (cfr. Cheon and Urpelainen 2018), yet critical engagement with politics and power of fossil fuel divestment as an AFFN remains largely absent from current approaches.

To be fair, some research has been done on these issues. Rowe and colleagues (2017), as well as Mayes et al. (2017) address fossil fuel divestment from a neo-Gramscian perspective and address issues of power and (counter-)hegemony related to divestment and the fossil fuel industry. Moreover, authors such as Ayling (2017) and

[37] This is especially the case for oil and gas companies. For coal companies, the story is somewhat different. According to a Goldman Sachs report (2018), coal producers underwent a 60% financial devaluation in the period 2013-2018, which, according to the report, was in large part due to the divestment movement, although other factors evidently played a role as well.

Gunningham (2017) have engaged with other crucial aspects of the FFD campaign. The former analysed the way in which divestment campaigners seek to *delegitimise* the fossil fuel industry, while the latter actually considered divestment as an emerging norm and sought to explain the success of divestment activists by focussing on their discursive power. However, Gunningham (2017) focussed on what he considered the "activist" branch of divestment, referring to grassroots campaigners, while he clearly states that "financial actors" (including institutional investors, asset managers, etc.) also play a pivotal role in helping succeed the norm. Yet Gunningham does not look at how both these groups interact–if at all–and how the extant social structure in which the FFD norm is formulated affects its content and outcome. In other words, the *external* and *internal* dynamics of this emerging norm are left considerably neglected.

Article objectives and contribution

How does this article contribute to the objectives of the dissertation? Here, I am concerned with the puzzlingly rapid rise and diffusion of FFD as an international norm. In only eight years, it has become one of the largest and fastest growing divestment campaigns in history (Ansar et al. 2013). This rise is surprising for a number of reasons. First, the original norm entrepreneur of the FFD campaign is a relatively small grassroots organisation, 350.org and it has found a very powerful opponent in the fossil fuel industry. Second, the audience that they seek to convince, are not generally susceptible to moral outrage, since they mostly concern large institutional investors, insurance corporations and asset managers. Third, there is still no conclusive evidence that FFD actually has significant positive effects on portfolio returns.

Essentially, its objective is to "take away the fossil fuel industry's social licence to operate" by addressing the financial streams that underpin their functioning in order to undermine the structural power that they wield and that allows them to continue their extractive operations. Because of the campaign's strong focus on "social licence", I argue that a synthesis of neo-Gramscian theory and constructivist account of norms can be deployed to study the emergence, diffusion and potential future impact of the FFD norm.

The article also explicitly engages with some of the overall objectives of the dissertation. First, it poses the question of how a specific AFFN is currently being diffused internationally and why certain actors decide to adopt the said norm. Second, it explicitly synthesises the neo-Gramscian literature with that of constructivism to discuss the drivers and constraints that affect the international emergence and diffusion of the FFD norm. In doing so, it injects important notions of power into

debates on norm diffusion and socialisation. Something that so far has largely been neglected by constructivist scholars of norms. FFD also explicitly speaks to non-state actors, in that the main norm addressees are investors, asset managers and other financial actors, not just states. Therefore, it is an acknowledgement that for a norm to have an effect internationally (politically or economically) states are not necessarily the central actors to be engaging with.

In this article as well, I conduct a disciplined configurative case study of the FFD norm. I rely on a process-tracing analysis to establish the dynamic development of this norm and to uncover the causal mechanisms that underpin it. Empirical, within-case evidence was collected through document analysis, as well as expert interviews with divestment campaigners and financial experts working in the United Kingdom and Belgium. I also relied on data gathered during participant observation (Uldam and McCurdy 2013). I was involved in fossil fuel divestment campaigns at several universities in Belgium (Flanders), notably those at Ghent University and the KU Leuven, between September 2016 and October 2018. I participated in public (discussion) events, panel discussions, or roundtables organised by local chapters of 350.org and the "Fossil Free" campaign. The informal discussions that I had with participants, activists, and panel members from the finance industry or asset managers of the universities themselves, throughout these events, are also used to complement the study of evidence. These experiences were mostly used for background information and to fill gaps in the sequence of events. I do not claim to come to this from an uninfluenced perspective. Nonetheless, I tried to balance this potential personal bias through triangulation with other primary research and a survey of the literature on divestment.

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PART IV. Articles

4.1. Fossil Fuel Subsidy Reform: An International Norm Perspective.

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Abstract:

The idea of fossil fuel subsidy reform (FFSR) can usefully be considered an international norm. Looking at FFSR through the lens of international norms raises two puzzling observations: First, international norms are typically the products of advocacy by transnational networks and social movements. However, when FFSR first came into the international political spotlight in 2009 it was formulated at the highest possible political level, within the Group of 20 (G20), and it has since more or less trickled down onto the national level. This raises the question of how we can account for the top-down emergence of the FFSR norm in the absence of a networked and organised "movement", led by transnational norm entrepreneurs. Second, the weak diffusion of the norm of fossil fuel subsidy reform is also puzzling. In spite of the commitment to phase out fossil fuels at the highest possible political level (the leaders of the G20), the positive environmental, social and economic effects of FFSR, many states inside and outside the G20 continue to provide lavish support to fossil fuel consumers and, to a lesser extent, producers. This chapter traces the process of emergence and diffusion of FFSR as an international norm. To that end, it employs a constructivist analytical framework that emphasises three driving forces: norm entrepreneurs, political opportunity structures, and frame contests. The chapter finds that, in spite of its institutionalisation at the global level, the norm of FFSR remains essentially contested, and this hampers its wide implementation and further diffusion.

1. Introduction

The idea of fossil fuel subsidy reform can be considered an 'international norm', usually defined as a 'standard of appropriate behaviour' (Finnemore and Sikkink 1998: 891). Norms define what actors ought and ought not to do – respect human rights, for example, or ban chemical weapons. Contrary to binding laws and rules, norms are obeyed not (necessarily) because they are enforced but because they are seen as legitimate and contain a sense of 'oughtness' (Florini 1996). This description captures fossil fuel subsidy reform quite well, as state support for fossil fuels is increasingly portrayed as deviant from 'proper' or 'appropriate' behaviour. Lord Nicholas Stern (2015), for example, called low taxes on coal consumption 'unethical' because they result in large-scale deaths and damage to others. Similarly, Fatih Birol, now the head of the International Energy Agency (IEA), declared that fossil fuel subsidies 'do not make sense' and are 'public enemy number one' (cited in Casey 2013).

Looking at fossil fuel subsidy reform through the lens of international norms raises two questions. First, international norms are typically the products of advocacy by transnational networks and social movements (Keck and Sikkink 1998). The fossil fuel subsidy reform norm, however, did not follow this traditional pattern. Instead, it more or less trickled down from above in 2009, when the leaders of the Group of 20 (G20) pledged to 'phase out over the medium term inefficient fossil fuel subsidies' (G20 2009). The very few non-governmental organisations (NGOs) that had worked on the issue were completely taken by surprise by this G20 commitment. How can we account for the top-down emergence of the fossil fuel subsidy reform norm in the absence of a networked international 'movement' led by transnational norm entrepreneurs? And why did the norm emerge in the late 2000s, even though the first calls for reform of fossil fuel subsidies can be traced back to the 1980s?

Second, the weak diffusion of the norm of fossil fuel subsidy reform is also puzzling. In spite of the commitment to phase out fossil fuels at the highest possible political level (the leaders of the G20), many states inside and outside the G20 continue to provide lavish support to fossil fuel consumers and, to a lesser extent, producers. Moreover, the issue has been generally overlooked in the international climate change regime (van Asselt and Kulovesi 2017; see Chapter 8). The absence of real action within the United Nations Framework Convention on Climate Change (UNFCCC) regime on fossil fuel subsidies is surprising given that fossil fuel subsidies can be regarded as a form of 'negative climate finance' (Brende 2015) or even an 'anti-climate policy' (Compston and Bailey 2013). An efficient climate policy would first seek to eliminate fossil fuel subsidies

and then explore ways to price carbon, yet international efforts have focused primarily on ways to price carbon, arguably putting the cart before the horse.

This chapter seeks to explain the top-down emergence and incomplete diffusion of fossil fuel subsidy reform as an international norm. Our focus lies on the international level. We first trace the long history of multilateral efforts to address fossil fuel subsidies, before interpreting the role of norm entrepreneurs, political opportunity structures and discursive contestation. A key conclusion that emerges from this is that the norm of fossil fuel subsidy reform remains essentially contested. In contrast to the established international consensus over how to define agriculture and fisheries subsidies, no common definition of energy subsidies has emerged, which hinders implementation of the norm. The norm of fossil fuel subsidy reform thus follows a broader pattern, recently identified by constructivist norm scholars, whereby very general norms have weak normative power because they permit a very wide range of interpretations. This often leads to their decay or irrelevance (e.g. Bailey 2008; Hadden and Seybert 2016).

2. Genesis of the Fossil Fuel Subsidy Reform Norm

How did the norm of fossil fuel subsidy reform emerge? Here we describe the process of how international norms emerge along three stages. In the first stage, a norm is articulated by a set of norm entrepreneurs. In this process of norm building, norm entrepreneurs call attention to issues and set new standards of appropriate behaviour. In the second stage, the norm gets institutionalised in specific sets of international rules and organisations. This happens when norm entrepreneurs convince a critical mass of states (norm leaders) to embrace the new norm. The third stage involves implementation of the norm, as norm addressees (i.e. those governed by the norm) take steps to introduce the new international norm's precepts into formal legal and policy mechanisms regulations and subsequently use these mechanisms (Stimmer and Wisken 2019)).[38]

[38] In the original article, as it appeared in *The Politics of Fossil Fuel Subsidies and their Reform* (Skovgaard and van Asselt 2018), the third stage was referred to as the stage of "norm diffusion". Hence, this was also the title of section 2.3. However, I changed this into "norm implementation" to more adequately reflect the analytical framework as I designed it in Part III of this dissertation. Indeed, I consider norm institutionalisation and implementation as two distinct instances of a broader phenomenon of norm diffusion. Moreover, when discussed in section 2.3. of this article, this section clearly refers to the implementation of the norm "on the ground" and the effective translation of the norm into policies and regulations on the domestic level.

Our three-staged model is inspired by the seminal work of Finnemore and Sikkink (1998), but it also differs from their model because we do not assume that these stages unfold in a strictly sequential manner. Some norms may indeed 'cascade' through the international system and eventually reach the stage of internalisation. This is the point where the norm gets a taken-for-granted character and is no longer a matter of broad public debate. For example, few people today would dispute the abolishment of slavery or the immunity for medical personnel during war (Finnemore and Sikkink 1998). Other norms fare less well and may be subject to backsliding, reinterpretation, replacement and even complete disappearance.

Therefore, rather than seeing the norm of fossil fuel subsidy reform as a concept with a fixed meaning that evolves linearly, we subscribe to the more constructivist position of norms as 'processes' or as works in progress that have contested and shifting meanings. Norms are often agreed to in international treaties and organisations precisely because they mean different things to different actors (Wiener 2008; Krook and True 2010; Bucher 2014). The articulation of the fossil fuel subsidy reform norm (e.g. determining which fossil fuel subsidies are 'inefficient') may continue well after the norm has been embraced in an international forum (e.g. the G20). The three stages laid out in the remainder of this section thus should be seen as overlapping and not as strictly separate or sequential.

2.1 Norm Articulation

There is a long history of international efforts to reform fossil fuel subsidies, but attention to the issue has waxed and waned over time, and the policy goals and justifications have shifted considerably. The first major multilateral effort to address energy subsidies was the 1951 Treaty Establishing the European Coal and Steel Community, the precursor to the European Union. This treaty expressly abolished and prohibited all 'subsidies or aids granted by States' to the coal sector, which were deemed 'incompatible with the common market for coal' (ECSC Treaty 1951: Article 4). However, since 1965, given the severe problems in this industry, exemptions from that rule became routine (Steenblik 1999).

The 1980s was the first decade during which energy subsidies began to be scrutinised by NGOs and international organisations (World Bank 1982, 1983; Kosmo 1987; IEA 1988). The global context was characterised by the rise of neoliberal ideology, with its emphasis on liberalisation, fiscal discipline and redirection of public expenditures. Against this backdrop, initial studies on energy subsidies emphasised their macroeconomic, fiscal and public revenue effects, rather than their environmental

effects. A 1987 World Resources Institute study only briefly touched on the environmental consequences of energy subsidies while covering the macroeconomic and microeconomic effects to a much larger extent (Kosmo 1987). The so-called Washington Consensus spread to developing countries through the Structural Adjustment Programmes of the International Monetary Fund (IMF) and the World Bank. As a result, energy consumption subsidies were reduced in most of the newly emerging countries of Central and Eastern Europe, and several African and Asian countries partially or completely deregulated their fuel prices in the 1980s and 1990s (Steenblik 2009: 188).

As environmental issues were increasingly capturing global attention, a World Bank study for the first time calculated the potential carbon dioxide emission reduction gains from subsidy removals (Larsen and Shah 1992). The report caught the attention of the Group of 7 (G7) environment ministers in 1994, who recommended reducing 'the currently high volume of environmentally damaging subsidies in the industrialised and in the developing countries' (G7 1994a). This statement was noteworthy because fossil fuel subsidy reform was no longer solely justified on fiscal (economic) grounds but also on climate change (environmental) grounds. More importantly, industrialised states acknowledged that they had environmentally damaging subsidies in place. Yet, at the subsequent G7 leaders' meeting in Naples, this issue was not raised in the final communiqué (G7 1994b).

Attention to the issue of energy subsidies waned until the IEA decided to make it a key focus of its 1999 World Energy Outlook (IEA 1999). The IEA noted that 'very few detailed quantitative estimates exist of the true costs of energy subsidies' and that 'information is particularly poor for developing countries, which are projected to contribute two-thirds of the world's incremental energy demand in the next twenty years' (IEA 1999: 9). In other words, pricing distortions were emerging as a key uncertainty in the outlook for energy demand growth and were hence complicating the IEA's mission to develop global energy scenarios. The IEA framed the issue of energy subsidies in terms of both public spending and environmental stewardship. The report received a lot of press, and the IEA decided to continue working on this issue.[1]

It is remarkable to see how, from the very beginning, there have been different articulations of the norm. In fact, the norm has never been consistently defined or measured. In its 1988 study of coal subsidies, the IEA applied the Organisation for Economic Co-operation and Development's (OECD) producer-support estimate approach (IEA 1988). Larsen and Shah (1992) of the World Bank combined the price-gap approach with elasticities to estimate the welfare and environmental costs of

energy subsidies. More recent work by the IMF (Coady et al. 2015a) even frames the absence of Pigouvian taxes on negative externalities as a subsidy.[2] The lack of a common definition of energy subsidies meant that the ongoing work in the 1980s and 1990s was piecemeal and largely non-cumulative. Most studies were done in the form of case studies, but since each started from a different definition and followed a different format, the findings were not comparable across the cases. The upshot is that, today, 'nobody refers back to that work'.[3] The lack of consensus over what fossil fuel subsidies are, and how they should be measured, continues to fuel norm contestation to this very day (see Chapter 2).

2.2 Norm Institutionalisation

Bernstein (2001: 30) defines 'norm institutionalisation' as the 'perceived legitimacy of the norm as embodied in law, institutions, or public discourse even if all relevant actors do not accept or follow it'. It can be inferred primarily from 'the norm's frequency or "density" in social structure, that is, the amount and range of instruments, statements, and so on, that invoke the norm' (Bernstein 2001: 30).

The institutionalisation of the norm of fossil fuel subsidy reform received a shot in the arm in 2009 when the G20 leaders pledged to rationalise and phase out fossil fuel subsidies at their Pittsburgh summit (G20 2009). A few months later, the Asia-Pacific Economic Cooperation (APEC) countries adopted a similar voluntary commitment (APEC 2009), which added 11 new countries to the group committing to the phase-out. While a number of NGOs and international organisations had raised the issue before, many of them were surprised that the G20 took up the issue. Leadership by the Obama administration and the wider context of the global financial crisis were instrumental in getting the issue onto the G20's agenda (see Section 3). The G20 and APEC endorsements of fossil fuel subsidy reform arguably represented what Finnemore and Sikkink (1998: 901) call the 'tipping point': the moment 'at which a critical mass of relevant state actors adopt the norm'.

By committing in 2009 to phase out 'inefficient' fossil fuel subsidies over 'the medium term' and by reiterating the commitment every year until 2016, the G20 set in motion a process whereby the fossil fuel subsidy reform campaigners gained a larger supporting constituency. To implement its strategy, the G20 asked four relevant institutions – the IEA, the Organization of the Petroleum Exporting Countries, the OECD and the World Bank – to 'provide an analysis of the scope of energy subsidies and suggestions for the implementation of this initiative' (G20 2009). Several follow-up reports were commissioned, ensuring that the issue of fossil fuel subsidies gained

primary attention in those organisations as well. Not only international organisations but also national finance and energy ministries started addressing the issue of fossil fuel subsidy reform when the G20 countries were asked to prepare national reports on fossil fuel subsidies.

The fossil fuel subsidy reform norm gradually made its way into the United Nations (UN) sphere and was included in the final reports of the Advisory Group on Climate Change Financing (2010), the High-Level Panel on Global Sustainability (2012), and the Third Financing for Development Conference (2015). Prior to the UN Rio+20 Conference (2012), there was a huge push from NGOs to make fossil fuel subsidy reform the lead issue within the energy goal of the new Sustainable Development Goals, but the issue was too contentious. In the end, fossil fuel subsidy reform was moved from Goal 7 (on Secure, Sustainable Energy) to Goal 12 (on Sustainable Production and Consumption), where it was mentioned as a possible means of implementation. For NGOs like the Global Subsidies Initiative, this represented a step backwards, since 'the wording is no longer a goal, no longer linked to energy, does not include an end date, and is no longer about a phase out' (Merrill 2014).

Efforts to graft the issue of fossil fuel subsidy reform onto the agenda of global climate negotiations also largely failed. The UNFCCC does not mention fossil fuel subsidies even once, whereas the Kyoto Protocol only includes a vague reference to 'subsidies in all greenhouse gas emitting sectors' in an illustrative list of policies and measures, leaving it up to the parties to decide which policies to implement (van Asselt and Skovgaard 2016; see Chapter 8). During the December 2015 climate negotiations in Paris, a proposal urging countries to 'reduce international support for high-emission investments' appeared in the penultimate draft text but was cut from the final version (UNFCCC 2015: 6). Countries could refer to fossil fuel subsidy reform as part of their nationally determined contributions, but only 14 countries did so in the run-up to the climate summit in Paris (Terton et al. 2015).

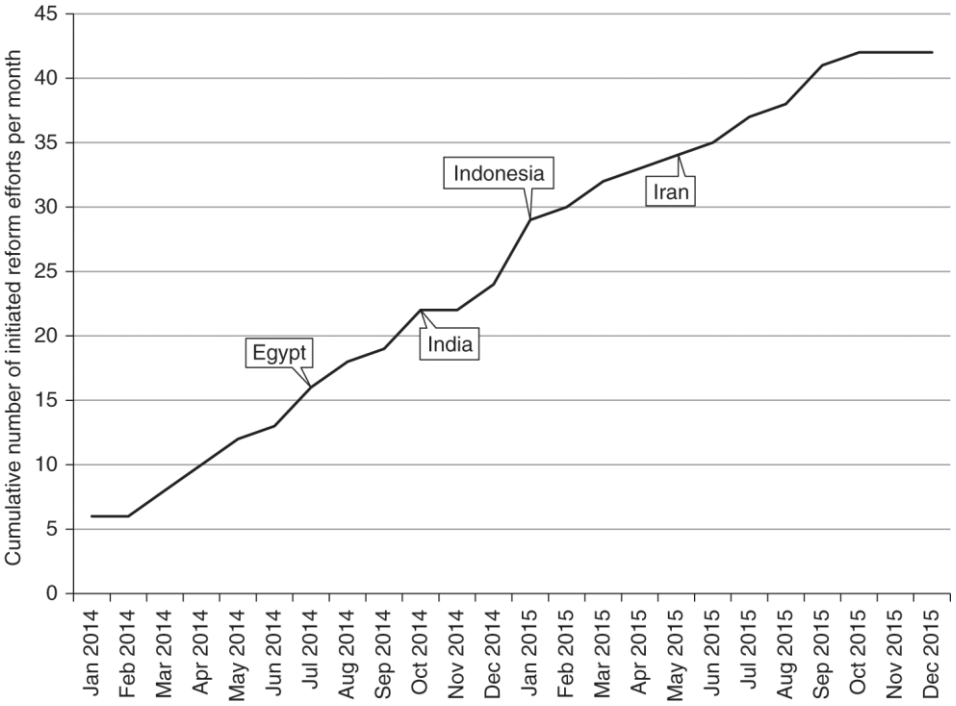
Despite these setbacks at the United Nations, a few months later the leaders of the G7 pledged to 'remain committed to the elimination of inefficient fossil fuel subsidies and encourage all countries to do so by 2025' (G7 2016). This was the first commitment related to fossil fuel subsidy reform that included an implementation date. At the subsequent G20 Hangzhou summit in September 2016, the first voluntary peer reviews were presented of the reform efforts of China and the United States (G20 2016). Two other members, Germany and Mexico, volunteered to be next subjected to peer review. Their reviews were presented in November 2017.

2.3 Norm implementation

Over the past few years, numerous countries have initiated fossil fuel subsidy reform to some degree, as documented in various chapters in this book. In 2014 alone, almost 30 countries implemented fossil fuel subsidy reform (Merrill et al. 2015), including countries such as Ukraine and Saudi Arabia that had no (recent) history of attempted reforms. Whether these reforms will stick if crude oil prices rise again remains to be seen, as there are many historical examples of countries reversing reforms. Yet the impact of the implemented reforms in the wake of the G20 commitment is real and tangible. The IEA has calculated that without the national reforms undertaken since 2009, the value of fossil fuel consumption subsidies would have been 24 per cent higher in 2014, putting the level of these subsidies at USD 610 billion instead of USD 493 billion (IEA 2015: 96–97).

Figure 3 shows the cumulative monthly number of initiated reform efforts in the period 2014–15. This figure was compiled using data from the IEA (2015) and the Global Subsidies Initiative. There are four important considerations to keep in mind. First, since the figure counts reform efforts, countries can appear more than once. Iran, for example, raised gasoline prices by 75 per cent in April 2014 and then by another 25 per cent in May 2015. These reforms are counted separately. Second, the figure only counts initiated reform efforts and does not trace whether or not the reforms have been sustained. Third, the figure shows that there is a wave of countries initiating reforms, including large countries such as India, Indonesia, Nigeria and Egypt, which are highlighted on the chart. However, it is hard to tell whether the global pace of fossil fuel subsidy reform has accelerated after 2009 due to the lack of adequate and comparable historical data. International organisations have only recently started to compile databases of fossil fuel subsidies. The IEA's fossil fuel subsidy database, for example, only goes back to 2012. Fourth, measuring energy subsidies is also hampered by the varying definitions of what constitutes a subsidy and different ways of measuring them. The bulk of subsidy reforms reported here was calculated with the price-gap method.

Figure 3. A 'norm cascade'? Initiated fossil fuel subsidy reforms, 2014–15



Source: Based on data from the Global Subsidies Initiative and the IEA.

It is clear that fossil fuel subsidies are still widespread, even in many G20 countries. The institutionalisation of the norm of fossil fuel subsidy reform in global forums thus should not be conflated with genuine norm adoption and internalisation (Finnemore and Sikkink 1998).

3. Key Drivers Behind the Fossil Fuel Subsidy Reform Norm

The concept of fossil fuel subsidy reform rarely came up until 2005, but in recent years more than 40 efforts to reform fossil fuel subsidies have been initiated. What explains the emergence of fossil fuel subsidy reform as an international norm? Drawing on recent scholarship on international norms (Wunderlich 2013), we highlight the role of norm entrepreneurs, political opportunity structures and discursive contestation in shaping the emergence and uneven diffusion of the fossil fuel subsidy reform norm.

3.1 Norm Entrepreneurs

There is a large consensus in the literature that 'norm entrepreneurs' play a key role in both the emergence and further development of norms (Finnemore and Sikkink 1998;

Bucher 2014). Norm entrepreneurs may operate from organisational platforms such as NGOs, transnational advocacy networks or standing international organisations that have their own distinct purposes and agendas. Norm entrepreneurs can therefore be non-state as well as state actors (Wunderlich 2013: 33).

The fight against energy subsidies was spearheaded in the 1980s by NGOs (most notably the World Resources Institute) and international organisations (particularly the IEA and the World Bank). These actors and institutions all contributed to placing fossil fuel subsidy reform on the global agenda. Between 2005 and 2009, the issue had been addressed by several NGOs, including Oil Change International and Earth Track, mostly from a climate change perspective. In 2005, the Global Subsidies Initiative was established within the International Institute for Sustainable Development, the first NGO to focus squarely on the issue of subsidy reform (see Chapter 10). Fossil fuel subsidy reform was a central part of the Global Subsidies Initiative's long-term strategy, set out at a meeting in the margins of the December 2005 World Trade Organization (WTO) Ministerial Meeting in Hong Kong. Yet, in its early days, the Global Subsidies Initiative focused mostly on biofuel and irrigation subsidies. The newly created NGO wanted to 'cut its teeth first on subsidies that few were addressing before taking on the much larger and challenging subject of fossil fuel subsidies' (Steenblik 2016).

It is hard to overstate the role of the Obama administration in promoting the fossil fuel subsidy reform norm on the international stage. The September 2009 G20 Pittsburgh Summit was the first chance for the newly elected US President Barack Obama to host and chair a summit and thus make history at home on a central world stage. The idea to act on fossil fuel subsidies was pushed by Lawrence Summers, then director of the National Economic Council, who had long opposed such subsidies. It was presented at the Sherpa meeting only two weeks before the actual summit. The idea was to 'creatively link climate change to the financial and fiscal issues at the G20 agenda's core' (Kirton and Kokotsis 2015: 229). When the G20 partners did not oppose to the general idea, 'the Americans seemed pleased and surprised that they had gotten so far with the fossil fuel subsidies initiative' (Kirton 2013: 302).

Many of the above-mentioned NGOs, including the Global Subsidies Initiative, were caught completely off guard when the G20 made the pledge to phase out fossil fuel subsidies at their Pittsburgh Summit (Chapter 10). Ronald Steenblik, a long-time expert on energy subsidies at the OECD and former research director of the Global Subsidies Initiative, only heard about the G20 pledge one week before the summit.[4] In other words, NGOs and international organisations did not influence the G20 agenda through direct lobby efforts but may have influenced the G20 agenda indirectly by exerting

ideational power – that is, by conveying information, providing advice and identifying new policy options.

The Friends of Fossil Fuel Subsidy Reform (FFFSR), an informal coalition of non-G20 countries led by New Zealand, is helping to sustain momentum on fossil fuel subsidy reform (see Chapter 9).[5] Established in June 2010, the group advocates for reform through three interrelated principles: increased transparency around fossil fuel subsidies, greater ambition in the scope of reform and the provision of targeted support for the poorest (FFFSR 2015). The FFFSR has organised meetings and summits, published statements and hosted side events at the annual Conferences of the Parties to the UNFCCC, often in cooperation with the Global Subsidies Initiative. The FFFSR group was created in analogy to existing groups of like-minded WTO members – such as the Friends of Fish, Friends of Special Products and Friends of Anti-Dumping Negotiations – that act as informal negotiation coalitions within the WTO or other international trade, development or environment contexts. The FFFSR group appears to be largely focusing on the reform of consumption subsidies (a problem largely for developing countries) rather than on production subsidies (recurrent in both developing and industrialised countries).

3.2 Political Opportunity Structures

Agents do not exist in a vacuum but instead operate in shifting contexts. The importance of these settings is captured by the term 'political opportunity structures', generally referring to the nature of resources and constraints that are external to norm entrepreneurs. Particularly important exogenous factors are crises and so-called focusing events. A crisis situation usually leads policymakers to question conventional policy wisdom and thus opens a window of opportunity for new policy ideas. Norm entrepreneurs can capitalise on the opportunity by framing the policy issue at hand in a new way (Baumgartner and Jones 1993).

The G20 Pittsburgh Summit, organised in the midst of a global financial and economic meltdown, primarily addressed the critical transition from global crisis to recovery. It focused on turning the page on an era of 'irresponsibility' by adopting a set of reforms through the G20 Framework for Strong, Sustainable and Balanced Growth (G20 2009). The financial crisis led global leaders to rethink embedded wisdoms on economic growth, thus creating a political window of opportunity for fossil fuel subsidy reform to be grafted onto the global sustainable-development agenda. The G20, under the auspices of President Obama, pushed for 'sustained and systematic international cooperation' and a 'credible process for withdrawing extraordinary fiscal, monetary

and financial sector support' (G20 2009). The crisis proved to be a useful window of opportunity in political terms to advocate for fossil fuel subsidy reform based on a convergence of fiscal, macroeconomic, distributive and environmental arguments.

Another important contextual factor is the international price of oil. Albeit economically inefficient, energy subsidies provide economic benefits to actors who consume fossil fuels and producers who extract them. Interest groups that demand subsidies are mostly well organised, while simultaneously the beneficial effects of these subsidies strengthen these interest groups' awareness of their need to sustain policy subsidies (Victor 2009: 7). Here it is important to differentiate between consumer and producer subsidies: consumer subsidy reform is easier when oil prices are low. Under low oil prices, such as in the period between 2014 and 2016, the economic and political costs of consumption subsidy cancellation or reform are less severe than under high oil prices. As a result, 'a rational interest group that benefits from fuel subsidies lobbies less aggressively for their continuation when oil prices decrease' (Benes et al. 2015: 10). Reform of producer subsidies, by contrast, should in theory be easiest when prices are high, as they were between 2010 and 2014.[6] When fossil fuel prices are low, we would expect producers to lobby harder for their subsidies because they account for a higher relative share of their net profits due to the lower prices for their products.

3.3 Discursive Contestation

The third driving force of the dynamic evolution of norms is 'discursive contestation'. In constructing their cognitive frames, norm entrepreneurs face opposition from firmly embedded norms and frames that create alternative perceptions of both appropriateness and interest ('external contestation'). For example, fossil fuel subsidies are still often represented as social policy, helping to bring energy services to the poor, particularly in rural areas. They have also been justified on the grounds of redistributing national wealth, fostering energy security or promoting economic development by supporting energy-intensive industries (Commander 2012; Strand 2013). Supporters of fossil fuel subsidy reform counter these arguments by pointing to the fiscal, economic, environmental and distributional costs of fossil fuel subsidies (Coady et al. 2015b; Rentschler and Bazilian 2017). They argue that governments may reap political benefits from offering a salient and visible bonus to their citizens (Victor 2009).

There can also be contestation among the supporters of the norm themselves ('internal contestation'), often on matters of definition (Krook and True 2010; see also Chapter 2). Such controversy usually plays out in the form of 'frame contests', whereby actors

promote competing discourses that differ in how they make sense of different situations and events, attribute blame or causality and suggest lines of action (Schön and Rein 1994). Critical constructivist scholars argue that such norm contestation is a permanent feature of any normative system (Wiener 2008).

The vague description of fossil fuel subsidies at the G20 Pittsburgh Summit demonstrates that framing an international norm is a highly strategic process. The concept of fossil fuel subsidy reform was not defined in the summit's outcome document, and no specification was given to the terms 'rationalise', 'medium term' and 'inefficient'. If a detailed definition had been given, many countries would have probably not accepted the Pittsburgh pledge to phase out fossil fuel subsidies. The BRICs group (Brazil, Russia, India and China), with India as their agent, succeeded in including the word 'rationalise' in the commitment (Kirton and Kokotsis 2015: 230). Saudi Arabia was less successful when it tried to replace the term 'fossil fuel subsidies' with the more generic 'energy subsidies', thus targeting, among other things, subsidies for biofuels. After the summit, Saudi Arabian authorities were quick to claim that the country's subsidies were not 'inefficient' and therefore should not be subject to reform (Lahn and Stevens 2011: 12–13).

Many G20 countries made a similar argument in their reports submitted after Pittsburgh. Of the 20 member countries, eight stated that they had no 'inefficient' fossil fuel subsidies that needed to be phased out, including two (the United Kingdom and Japan) that provided no information at all.[7] The number of countries opting out of reporting entirely tripled from two in 2010 to six in 2011 (Van de Graaf and Westphal 2011). The emerging norm of fossil fuel subsidy reform is thus a perfect illustration of the argument that the institutionalisation of norms in international forums and treaties should not be conflated with the genuine adoption of the norm. The success of international agreements or conventions often depends on the impreciseness of their content, or as Wiener (2004: 198) puts it, 'detail is not necessarily conducive to agreement.' A broad and often imprecise formulation fosters a broader adoption of the norm precisely because the norm means different things to different people. Therefore, it maximises the potential for consensus but complicates the task of determining what types of behaviour constitute a violation of the norm (Krook and True 2010: 110).

There is not just disagreement over what constitutes a fossil fuel subsidy but also over how to best measure its different elements (IISD 2014). The IEA follows the above-mentioned 'price-gap approach' in defining energy subsidies as 'any government action that concerns primarily the energy sector that lowers the cost of energy production,

raises the price received by energy producers or lowers the price paid by energy consumers' (IEA 2006: 1). The OECD, by contrast, follows the 'inventory approach' and defines 'energy subsidies' (or 'support' as it prefers to call them) as '[a] result of a government action that confers an advantage on consumers or producers [of energy], in order to supplement their income or lower their costs' (OECD 2010: 191). This definition is based on the WTO's Agreement on Subsidies and Countervailing Measures, according to which a subsidy only exists when it confers a benefit to a specific party, and is meant to be consistent with the OECD's treatment of government support to agriculture and fisheries. The OECD recognises the fossil fuel consumption subsidies measured by the IEA as an important component of total support to fossil fuels, but it does not measure such subsidies itself because to do so would constitute a duplication of effort. Thus, the OECD views its estimates as complements to those of the IEA, its sister organisation.

The lack of a consensus over the definition and measurement of energy subsidies is not merely a technical matter but a deeply political one. It translates into hugely varying estimates of the size of energy subsidies, ranging from USD 325 billion (IEA 2016) to USD 5.3 trillion in 2015 (Coady et al. 2015). These diverging estimates obviously convey different messages about the magnitude and urgency of the policy issue at hand and what kinds of reform (if any) are recommended. The disagreement over what should be counted and how is thus an inherently value-laden exercise (Van de Graaf and Zelli 2016). The IEA's estimate of USD 325 billion covers most consumer subsidies, which are especially rampant in non-OECD countries, but it leaves out production subsidies, which might actually contribute to the energy security of the IEA's member governments, still the agency's primary objective. Economists at the IMF typically frame energy subsidies in terms of fiscal stability, which is related to the organisation's core tasks, but their estimates also factor in various externalities, such as climate change, air pollution, and traffic congestion. In WTO terms, subsidies are only relevant insofar as they are trade distorting because that could make them legally actionable. In sum, when actors define energy subsidies differently, they construct different policy problems according to their value stance.

4. Conclusion

This chapter has examined the drivers behind the development of fossil fuel subsidy reform as an emerging international norm. Our analysis reveals that the initial articulation of the fossil fuel subsidy reform norm can be clearly linked to specific norm entrepreneurs. The anti-subsidies campaign has been backed by an informal coalition of NGOs (most notably the Global Subsidies Initiative, Oil Change International and the

World Resources Institute), policymakers (notably the Obama administration) and international organisations and their staff (the IEA, IMF, OECD and World Bank). The Obama administration was probably the most important norm entrepreneur; without its leadership, the norm would have not reached the same level of institutionalisation. The global financial crisis also played a key role in turning the attention of the G20 to fossil fuel subsidy reform.

The norm is also characterised by internal and external contestation and discursive cleavages. Neither the definition of 'fossil fuel subsidies', nor the precise meanings of 'inefficient' or 'reform', have been settled. It has become clear that different alternative framings of the norm coexist, targeting different audiences. Efforts to forge a common definition of fossil fuel subsidies, or a common methodology, among international organisations are likely to falter. However, a division of labour among international organisations may be emerging, such as between the IEA and the OECD, who view their estimates of fossil fuel subsidies as complementary. Such acts of coordination could bring more coherence to the fragmented landscape of international organisations that govern energy subsidies (Van de Graaf and van Asselt 2017).

The availability of more data on fossil fuel subsidies and on how reform strategies can be successfully implemented might in itself spur more countries to enact reforms. To the extent that this happens, the diffusion of the norm of fossil fuel subsidy reform may come to rely less on the mechanism of moral persuasion (a communicative process through which actors convince each other that subsidy reform is 'the right thing to do') and more on learning (the experience of others provides new information on the effectiveness of policies, leading to an update of causal beliefs) and emulation (the desire of actors to conform to widespread social practices).

Clearly, the fossil fuel subsidy reform norm has not yet reached the stage of being 'taken for granted'. While this chapter has described the emergence and uneven diffusion of the norm, it did not assess the causal influence of the international norm on actual domestic policy reforms. If countries reformed fossil fuel subsidies in the 1980s and 1990s without referring to it as such and before the norm emerged in the G20, to which degree are the recent domestic reforms the result of the norm being diffused? Future studies could attempt to parse out the effects of the 2009 pledge on the global level of subsidies. In addition, they could look more closely into the causal mechanisms through which fossil fuel subsidy reform as a (contested) norm influences domestic policy processes; for example, it may empower certain constituencies or shift the framing and content of specific reforms. These questions show that analysing fossil fuel subsidy reform from an international norm perspective opens up a promising area

for governance and policy scholars, one that we believe can yield both valuable theoretical and empirical insights.

Notes

[1] Interview with Ronald Steenblik, OECD Special Counsellor for Fossil-Fuel Subsidy Reform, 22 September 2016.

[2] A Pigouvian (or 'corrective') tax reflects the environmental and social costs (or externalities) associated with energy consumption. Fossil fuels are associated with climate damage, air pollution, and traffic congestion and accidents. The non-inclusion of these external costs in the price of fossil fuels is considered by the IMF to be a subsidy (Coady et al. 2015a).

[3] Interview with Ronald Steenblik, OECD Special Counsellor for Fossil-Fuel Subsidy Reform, 22 September 2016.

[4] Interview with Ronald Steenblik, OECD Special Counsellor for Fossil-Fuel Subsidy Reform, 22 September 2016.

[5] Comprising Costa Rica, Denmark, Ethiopia, Finland, New Zealand, Norway, Sweden, Switzerland and Uruguay.

[6] We are indebted to an anonymous reviewer for this point.

[7] Those eight states were: Brazil, China, France, India, Japan, Saudi Arabia, South Africa and the United Kingdom.

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4.2. Toward a global coal mining moratorium? A comparative analysis of coal mining policies in the USA, China, India and Australia.

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Abstract

To stop global warming at well below 2° C, the bulk of the world's fossil fuel reserves will have to be left in the ground. Coal is the fossil fuel with the greatest proportion that cannot be used, and various advocacy groups are campaigning for a ban on the opening of new coal mines. Recently, both China and the USA implemented temporary moratoria on the approval of new coal mining leases. This article examines whether these coal mining bans reflect the emergence of a global norm to keep coal under the ground. To that end, we review recent coal mining policies in the four largest coal producers and explain them comparatively with a framework based on interests, ideas and institutions. We find that the norm of keeping coal in the ground remains essentially contested. Even in those countries that have introduced some form of a coal mining moratorium, the ban can easily be, or has already been, reversed. To the extent that the norm of keeping coal in the ground has momentum, it is primarily due to non-climate reasons: the Chinese moratorium was mostly an instance of industrial policy (aiming to protect Chinese coal companies and their workers from the overcapacity and low prices that are hitting the industry), while the USA's lease restrictions were mainly motivated by concerns over fiscal justice. We do not find evidence of norm internalisation, which means that the emerging norm fails to gain much traction amid relevant national actors and other (large) coal producing states. If proponents of a moratorium succeed in framing the issue in non-climate terms, they should have a greater chance of building domestic political coalitions in favour of the norm.

1. Introduction

For this century, to keep a global temperature increase to well below 2 °C, the bulk of fossil fuel reserves must be left in the ground. Coal is the fossil fuel with the greatest proportion that cannot be used, with a global total of 82% to be left unburned before 2050 (McGlade and Ekins 2015).[1] In August 2015, a global moratorium on new coal mines and mine extensions was therefore proposed by the president of Kiribati, one of the most climate vulnerable countries.[2] His proposal received the backing of several other Pacific island nations (Pacific Island Development Forum 2015), high-profile individuals such as Lord Nicholas Stern (Grantham Institute 2015), and non-governmental organisations such as the Australia Institute (TAI), which launched a dedicated 'No New Coal Mines' campaign in the very same month (Denniss 2015).

From an international relations standpoint, the call for a global coal mining moratorium can be considered as an international norm. International norms are shared understandings of what constitutes appropriate behaviour (Finnemore and Sikkink 1998). Norms are obeyed not because they are enforced, but because they are seen as legitimate (Florini 1996). Some norms are eventually codified in international agreements, but this is not always the case. For example, over the past 40 years, all but three countries have moved to phase out leaded gasoline, even though there is no global treaty banning its use (UNEP 2017). Norms are often promoted by so called norm entrepreneurs, but they can just as equally emerge 'as an ad hoc series of bottom-up events occurring simultaneously at different jurisdictional levels around the world' (Clapp and Swanston 2009, p. 316). In recent years, a set of anti-fossil fuel norms has begun to be articulated across the globe (Piggot 2017; Van de Graaf and Blondeel 2018; Green, this issue), stigmatizing the use and extraction of fossil fuels. The plea for a coal mining moratorium is part of this trend and aims to bring about a normative shift in which the opening of new coal mines would be deemed unacceptable, in the same way as norms have shifted about slavery, women's suffrage and whaling.

Yet, how realistic is a global halt on new coal mines and mine expansions? To answer this question, we examine the sources and drivers of the coal extraction policies of four countries: China, the USA, Australia and India. Our goal is not to study the civil society campaigns to keep coal in the ground or the process of norm diffusion but instead to look at the domestic politics of each country to see if there is any basis or fertile ground on which a global anti-coal mining norm might take root.

The selection of cases is justified on three grounds. First, these countries are the world's largest producers, responsible for over 72% of global coal production and holding

almost two thirds of global coal reserves (see Table 7), so they are absolutely critical for a global ban on coal extraction.[3] Second, they exhibit a puzzling variance in their coal mining policies, while China and the USA adopted temporary bans on the approval of new coal mining leases in 2015 and 2016, respectively, Australia and India did not. The US moratorium only applied to federal lands, and was lifted in March 2017 by the incoming Trump administration, offering a useful degree of within-case variation that can be leveraged to search for the drivers of coal extraction policies. A third reason to focus on these 'big four' producers, is that powerful states are well positioned to advocate new norms given their large material and ideational resources. The norms these actors hold are more easily distributed because of the greater opportunity for powerful states to convince other of 'the rightness of their view' through persuasion and coercion. Other actors might also simply emulate the behaviour of powerful states because they are perceived as guiding or prestigious actors (Florini 1996).

Table 7. Descriptive statistics for the four selected countries

	Share in global coal…			
	…reserves (%)	**…production (%)**	**…consumption (%)**	**…exports (%)**
China	21,4	46,1	50,6	0,7
US	22,1	10,0	9,6	4,3
Australia	12,7	8,2	1,2	30,7
India	8,3	7,9	11,0	/
Total:	64,5	72.2	72,4	35,7

All figures are for 2016. Data comes from BP's Statistical Review (www.bp.com/statisticalreview), except for the data on exports, which is drawn from the ITC's Trade Map (www.trademap.org). Coal exports includes coal, anthracite, bituminous coal and coal briquettes, but excludes lignite, peat, and coke

This article proceeds as follows. The first section surveys these states' recent coal mining policies and puts them into historical perspective. It also delves into the official rationales behind the coal extraction policies. The sources for this descriptive analysis are the nationally determined contributions (NDCs), as submitted under the Paris Agreement, as well as the latest policy papers, official documents and statements of the respective countries. Next, the article moves from description to interpretation. More specifically, it attempts to explain the divergence in coal extraction policies with a classic political economy framework centred around ideas, institutions and interests (Hall 1997). In the concluding section, we reflect on what this implies for the norm's emergence on a global level and discuss some broader implications.

2. Coal mining policies in key producer states

This section describes recent evolutions in the coal mining policies of China, the USA, Australia and India. For each case, we proceed in a similar fashion: we describe their coal extraction policies in historical perspective, whether a ban on mining has been enacted or not, and how these policies are justified.

2.1. China

China has been the world's largest coal producer since the mid-1980s, when it overtook the former Soviet Union (BP 2016). Since 1998, the government has implemented policies to shut down illegal small-scale coal mines, whose rising output had helped to create an oversupply problem and posed safety and environmental risks (Shen and Andrews-Speed 2001). The coal phase-out policy has been strengthened in every subsequent 5-year plan, bringing about the closure of 16,866 small coal mines between 2006 and 2015 (Duan 2016). Recently, China has stepped up its efforts and has also put a ban on the opening of new mines. In September 2015, the National Development and Reform Commission (NDRC) banned coal mines in eastern regions and issued stricter approval requirements for other regions (NDRC 2015). In December 2015, the ban on coal mines was extended to a 3-year moratorium on any new mines (Ziman 2015). And in February 2016, the State Council announced that China would eliminate 500 million tons of coal mining capacity within 3–5 years (State Council 2016). China further explicitly focuses on controlling coal consumption in its NDC, as submitted under the Paris Agreement.

Although these curbs on coal extraction followed in the wake of the Paris Agreement and of global civil society calls for a global moratorium, the decision does not seem to be inspired by it. Cutting industrial overcapacity and economic restructuring are the overarching rationale behind the country's moratorium and related capacity cuts. The move comes amid a structural shift in China's economy toward the 'new normal' of slower growth rates, while realigning itself on a consumption-led growth path away from energy intensive industries, including steel, coal and construction, and amid reports that China's coal consumption has effectively peaked (Qi et al. 2016). However, under its 'Belt and Road Initiative', production for the domestic market might stabilise or even decrease, yet China could also rebrand itself as a regional and global exporter of coal and coal-fired power plants (Mathews and Tan 2017).

2.2. The USA

The second largest coal producer, the USA, issued a moratorium on coal mining approvals on federal lands in the early 2016. More precisely, the Secretary of the

Interior, Sally Jewell, ordered a programmatic review of the federal coal lease programme in January 2016, which was likely to take 3 years for completion. During this period, no new coal leases for federal lands would be granted. Plummeting prices and production levels, cheap(er) natural gas and renewables, as well as an overall reluctance to invest in the sector eased the implementation of a moratorium (Marino 2016). Yet, this moratorium remained largely symbolic. It only affected mining on federal lands, which fall under the jurisdiction of the Department of the Interior (DOI) and its agency responsible for the administration of public lands, the Bureau of Land Management (BLM), and thus does not affect the approximate 60% of total coal production coming from non-federal lands in the USA. Moreover, the pause did not apply to existing production activities, metallurgical coal mining, small lease modifications, and emergency modifications (Secretary of the Interior 2016). Additionally, the USA did not mention coal in its NDC proposed under the Obama administration.

As was the case for China, despite being announced shortly after the call for a global moratorium, no reference was made thereto when the US moratorium was announced. The DOI identified the following issues as the most pressing to be addressed by the review: (1) a fair return for American taxpayers; (2) climate and environmental policies, including price adjustments based on externalities; (3) the interests of the coal industry, plagued by overcapacity, and of the coal workers (Secretary of the Interior 2016). The US moratorium (very much like the Chinese) was thus framed mostly as a domestic issue, and it was in no way flanked by calls for a global moratorium.

2.3. India

In 2015, the government announced ambitious plans to rake up production to 1.5 billion tonnes by 2020 (IEA 2015, p. 514). The state-owned miner (and largest coal mining corporation in the world), Coal India Limited (CIL), is set to contribute 1 billion tonnes to this target. To meet this production target, the government is counting on capacity addition from new mining projects (Ministry of Coal 2016). Yet, officials have already backtracked on this target amid slow economic growth and slower-than-expected growth in power demand. Moreover, in December 2016, the government launched its draft National Electricity Plan, according to which there is no need for new coal-fired power plants beyond the 50-GW coal fleet that is currently under construction, until at least 2027.

Two narratives dominate coal mining policy in India. First, the narrative of self-sufficiency. In 2015, India became the world's largest coal importer (ITC 2017), and

large exporters such as Indonesia and Australia have been eyeing India as a growing export market in the years to come (Connor 2016). Second, the current government intends to rely mostly on coal for energy poverty alleviation (Rosewarne 2016). This is also reflected in the country's NDC. Coal, in short, is seen as a key to the country's sovereignty and modernity (Lahiri-Dutt 2016). In contrast with China, India has far less robust action plans in place for emission reductions and the peaking of coal consumption. The NDC and current policies exemplify the pro-coal political economic environment which stands in the way of adopting a coal mining moratorium.

2.4. Australia

In Australia, the largest coal exporter in the world, the government is firmly opposed to a moratorium, despite the country being home to the 'No New Coal Mines' campaign, one of the most vocal advocacy campaigns in favour of a ban. In reaction to this campaign, spearheaded by TAI, and an open letter signed by dozens of prominent Australians advocating for a ban on new mines and expansion of existing ones (Taylor 2015), the Australian prime minister, Malcolm Turnbull stated that '[an export moratorium] would make not the blindest bit of difference to global emissions, because importers would buy it from elsewhere' (Hurst 2015).

The Australian government further argues that its coal exports are critical in alleviating energy poverty and in 'promoting prosperity around the world' in general (Hurst 2015). In the midst of discussions around the approval of the planned Adani Carmichael mine in Queensland, the Minister for the environment emphasised that there is a 'strong moral case for coal' (Milman 2015). It is considered an indispensable resource to provide universal energy access, as envisaged by the United Nations Sustainable Development Goals. In addition, coal projects such as the Carmichael mine are believed to 'create thousands of jobs and [it will] see billions of dollars invested into those regional economies' (Milman 2015). Australia's continued support for coal mining is thus framed as both a moral obligation to provide 'clean coal' and an economic necessity to provide national jobs and economic growth (Baer 2016; Rosewarne 2016). The Australian NDC does not refer to coal at any point. Table 8 provides a schematic overview of the abovementioned positions and arguments.

Table 8. Framing of coal mining policies in the four largest producing states

	China	**US (Obama)**	**US (Trump)**	**India**	**Australia**
Moratorium?	Yes	Yes	No	No	No
Official rationale	- Cutting overcapacity in the coal sector; - Controlling pollution	- Fiscal justice; - Protecting the coal sector and coal workers; - Climate and environmental concerns	- Protecting the coal sector and coal workers; - Energy Security	- Protecting the coal sector and coal workers; - Economic development	- Jobs and economic growth; - Alleviating energy poverty abroad
Nationally Determined Contributions under Paris Agreement	- 'Control' coal consumption and enhance use of 'clean' coal	- Under 'Clean Power Plan' coal-fired power plants forced to reduce carbon emissions	- Aims to withdraw from Paris Agreement - CPP repealed	- 'coal will continue to dominate power generation in the future'	- GHG emissions reduced with 26-28% by 2030, no mention of coal

3. Explaining diverging policies

Rather than taking these official policy rationales at face value, in this section, we 'dig deeper' to uncover the key ingredients that make up the different political economies of coal in the cases under consideration, including interests, ideas and institutions. The goal is to comparatively identify the driving forces of coal policies in these four countries, in order to explain policy divergence, but also to assess whether the recent moves to ban new coal mines in China and the USA are merely transitory or whether they signal a deeper process of a changing normative environment, which could assist the emergence and diffusion of a global moratorium on new coal mines.

3.1. Interests

Interests can be defined as 'real, material interests of principal actors, whether conceived as individuals or groups' (Hall 1997, p. 176). Policies or regulations can be designed in pursuit of maximising the public interest (rather than that of individuals, groups or sectors), they can be inspired by particularistic concerns of certain interest groups, which can result in what is called 'regulatory capture' (Stigler 1971) by an industry, or they can result from politicians' own electoral aspirations (see Hall 1997). In the context of coal mining policies, public interests may include a wide variety of concerns such as job creation and economic development, as well as environmental considerations.

Despite differences in their economic models, in all four countries, the state is a central actor in coal extraction decision-making. Yet, this does not mean that it will always solely act on behalf of the 'public interest'. A case in point is the USA, where the moratorium was the outcome of a complex institutional consultation model between the state (represented by the DOI and BLM), the coal industry and (environmental) advocacy groups. Government reports focused on the uncompetitive nature of the bidding process and securing public revenue, the climate and environmental pollution argument was supported by environmental advocacy groups, while the industry wished to maximise profits, and coal communities aimed at averting job losses (DOI 2017, pp. 27–28). Electoral party interests also affected policy outcomes. Under the new Trump Administration, the moratorium was cancelled as the interests of the coal industry (and its workers) took centre stage, while climate considerations were completely discarded.

In China, the state-led coal sector has been undergoing reform for some years through consecutive top-down imposed 5-year plans for economic and social development. Initially, these plans and their sectoral sub-plans focused on safeguarding the interests of the state-owned coal mines vis à vis the small, local, and illegally operating township

and village mines—e.g., through a state-led consolidation movement (Shen and Andrews-Speed 2001). The aim of the current thirteenth 5-year sub-plan for the coal industry is to reduce overcapacity and inefficiency, as well as to produce cleaner coal to improve air and water quality (Platts 2017). Chinese coal workers have already taken the streets to protest against Beijing's long-term plans for downsizing the coal sector in a push for their collective interests (Hornby 2016). In the USA, coal workers also felt disadvantaged by the moratorium and supported Trump's electoral campaign.

In Australia, the government's opposition to a mining moratorium mainly stems from a focus on coal as an export commodity. Coal accounted for 12.8% of Australia's total goods and services exports in 2016, making it the nation's second largest export income earner after iron ore (Department of Foreign Affairs and Trade 2017). Furthermore, Australia's coal industry continues to benefit from the lack of alternatives to metallurgical coal for global steel production, and the world's ongoing reliance on coal for power generation (Lucas 2016). Initiatives such as the Australia Institute's 'No New Coal Mines' campaign have so far failed to bear much influence on the government's coal extraction policies. Australia's historical pro-coal state-industry nexus, especially in New South Wales and Queensland, where almost 98% of Australia's black coal is produced, as well as the industry's export orientation explain the centrality of the coal industry's interests in policy formulation. Moreover, just like the Trump administration, the Australian government frames coal as an essential job-creating sector in the public's interest, despite official accounts not substantiating any such claims (Denniss et al. 2016). Yet, the industry is not acting as a monolith in defence of its interests. Incumbent industrial actors have voiced their discontent over the proposed Adani coal mine. The Port of Newcastle for example, the world's largest coal export port, opposes the plans claiming it will destroy jobs and drive coal prices down in an already shrinking market. Moreover, Australia's second largest bank, Westpac, recently issued new lending criteria, declaring it would limit lending for new thermal coal projects to existing coal producing basins only.[4] In short, based on rational self-interests, these financial and industry actors are already supporting a moratorium on new coal mines in all but name. Therefore, powerful 'unlikely' coalitions between incumbents and climate campaigners could help ease the implementation of a moratorium.

The Indian government's main concern is the expansion of the country's electricity generation capacity in view of its economic development. It relies on the presumption that for the material well-being of its citizens, i.e., the public interest, coal development is indispensable. Economic and development interests seem decisive in the country's decision-making on coal mining (Lahiri-Dutt 2016). Because of subsequent failures in

boosting national coal production, both public and private Indian mining companies are internationalising their activities to secure a global coal supply chain (Rosewarne 2016).[5] Given Australia's particular political economy of coal, India is eyeing Australia's coal resources for its development, while vice versa Australia sees India as a potential key export market for its consolidation as an energy 'superpower'.

In general, all countries use similar frames of interests in order to rationalize their policies. They attempt to align public interests of economic development and job creation with those of their respective industries' need for profit maximisation.

3.2. Ideas

(Party-) ideologies and worldviews also play a vital role in regulatory design (Hall 1997; Baldwin et al. 2012). In the case of coal mining, a crucial set of ideas relates to the ideological questions of how the economy should work and could be steered accordingly. In other words, where do respective political economic policy preferences come from, what are the beliefs and norms that underpin these convictions, and how should the government fulfil its role in the economy (Houle et al. 2015, p. 55)? Next to ideology, ideas can also relate to broader moral convictions of 'what is right'.

China's political economy is built on the assumption that the state, as the embodiment of the Chinese people, is the only actor that has decision-making power in implementing economic or climate policies. Hence, the 'socialist' market economy can be shaped to align traditional economic objectives of growth and reform with environmental goals of improving air quality and mitigating the effects of climate change (McNally 2012). In order for this policy to be successful, the moratorium and other coal mining measures (capacity cuts, mine closures, consolidations, etc.) that have been announced in recent years were linked to the material economic interests of sustaining solid growth figures. Further, in 2007, the Premier Hu Jintao announced that China would become an 'ecological civilisation', eschewing the previous development model that had seen economic growth be prioritised over the environment. This meant a fundamental ideational shift in the construction of notions such as 'growth' and 'development' (Guangyao 2016).

In the USA, the ideational conflict does not so much centre around the role of the government with(in) the coal economy, as it does around the basic science of climate change. Market forces have always been key to the energy transition, according to the former President Obama (2017), who was nevertheless accused by current President Trump of waging a 'political war on coal'. Under consecutive administrations, even those that considered climate change as a fundamental political concern, political

consensus in the USA has always been that of enhancing market-based solutions to energy and climate issues. The coal mining moratorium is a case in point, since it only went as far as to include coal mines located on federal lands, not those on private (or state-owned) lands. The fundamental ideational difference between the two administrations is that President Trump does not underscore the near-universal scientific consensus on anthropogenic climate change, the idea that the current changes in climatic conditions are caused by greenhouse gas emissions generated by human activities. Prior to his presidency, he repeatedly criticised the concept of climate change, calling it a 'hoax', 'non-existent' or 'mythical'. As a consequence of these beliefs, President Trump announced the USA's withdrawal from the Paris Agreement in June 2017 (Baker 2017; Urpelainen and Van de Graaf 2017).

Ideational preferences and beliefs also help explain successive Australian governments' support for the coal industry. In spite of environmental opposition, as well as genuine concerns about the economic viability of new coal projects, the government remains convinced that 'expanded development of the economy is tied to extracting and exporting fossil fuels, to consolidating Australia as an 'energy superpower" (Rosewarne 2016). The government continues to play an enabling role in the development of (private) coal projects and the internationalisation of Australia's coal economy. Moreover, in both Australia and India, there is a shared ambition of increased extraction and burning of coal as the foundation of national economic development. This belief of 'coal developmentalism' concurs with the material interests of both countries and the increasing integration of both coal economies, despite calls in India to temper its dependence on foreign coal (Rosewarne 2016).

The Indian Ministry of Coal, in cooperation with the state-owned enterprise Coal India Limited, which contributes about 81% of total coal production in India, set production targets for the industry, reflecting its large impact on the sector and the determining pro-coal, interventionist role of the government in the coal economy (Lahiri-Dutt 2016). Moreover, the Indian government believes that it is their moral right and obligation to provide their population with coal-fired power as to alleviate widespread (energy) poverty.

3.3. Institutions

The policy divergences might also stem from differences in the organisational structure of the political economy (Hall 1997). 'Institutions' is a category that does not (only) refer to tangible organisations such as legislatures, courts, executives, etc. Instead, institutions can also be described as humanly devised social constraints that shape

human (inter)action (Baldwin et al. 2012, p. 53). The openness of a political system toward particular interests, for example, might be an important factor, one that could mediate the impact of advocacy and lobbying (i.e., private interests).

China has a one-party political system. While the ruling party is not immune for pressures emanating from society, see for example its pragmatic responses to rising public concerns over coal-induced air pollution, the country's polity is more closed compared to democratic societies to such pressures. The main administrative authority, the State Council, by means of the NDRC, formulates and implements the strategies of economic development, resulting in highly concentrated and asymmetrical decision-making power (Peng 2015). This might explain why the government could push forward its plans to restructure the coal industry, defying protests and manifestations from the many mine workers who fear losing their jobs as a result of the government's policies.

What is striking about the US institutions, is that it is not the Department of Energy or Environmental Protection Agency that has implemented the moratorium but rather the DOI and its affiliate, the Bureau of Land Management. The reason is that the DOI has authority over federal, public lands, accounting for approximately 40% of the countries' total coal production. This might explain why the moratorium has been framed more in terms of fiscal justice and competitiveness, rather than in energy or environmental terms. The US' institutional set-up also explains the limited reach of the moratorium. Although a broad collection of federal, state and tribal laws govern the mining and use of coal in the United State, the federal government does not have the capacity to enforce the moratorium, since it falls outside the scope of the federal coal lease programme.

In India, the government is the principal energy market agent, with responsibility for both setting energy policies and administering the public companies that produce energy. It has a Ministry of Coal, now falling under the umbrella Ministry of Power, Coal, New & Renewable Energy and Mines (a consolidation of ministries),[6] which is the only one of its kind in the four largest producing countries. The Ministry explicitly aims to 'augment[ing] production through government companies' (Ministry of Coal 2013). With such a dedicated ministry attempting to shape the nation's energy landscape, coal has a significant impact on India's political economy (Lahiri-Dutt 2016), and it may make the government more vulnerable to 'regulatory capture'.

In Australia, state authorities are key stakeholders as well. With coal production concentrated in these regions, New South Wales and Queensland are very influential

in coal policy-making. Moreover, since Australia's state governments are given wide control over the planning, development, extraction and sale of coal and other mineral resources, this level is the primary venue for industry-government interactions and possible regulatory capture (Lucarelli 2015; Baer 2016).

4. Conclusion and discussion

Addressing fossil-fuel supply as an effective climate policy measure has only recently started attracting attention (Lazarus et al. 2015). This article has attempted to shed light on the ideas, institutions and interests that underpin diverging coal mining policies of the four largest coal producing countries in the world. The underlying goal was to assess whether there is a normative shift away from the view that the extraction of coal constitutes 'appropriate' behaviour.

The analysis shows that climate change considerations are not yet factored into coal-extraction policies. Australia and India have ambitious plans to expand coal production, largely because of domestic economic concerns. The Australian conservative government puts strong emphasis on increasing coal exports (and related revenues) in an effort to boost the national economy. A similar version of such 'coal developmentalism' is found in India, where the absence of a moratorium can partly be explained by the near-monopolistic position of state-owned CIL, coupled with the country's drive for self-sufficiency; imposing a ban on the opening of new coal mines would thus not help the incumbent (since CIL dominates the market), and it could lead to more imports over time.

Even in China and the USA, countries that have or had temporary bans on new coal mines, climate considerations played second fiddle and there is little to no evidence that normative ideas regarding coal extraction have shifted, assisting in the emergence of a global anti-coal mining norm. Instead, the current Chinese and US coal extraction policies can best be explained as strategic moves to protect the industry from the headwinds it is facing. The Chinese moratorium's main purpose was to serve as industrial policy to combat growing overcapacity, and it might be easily overturned (or simply cease to exist after three years if it is not prolonged). The temporary ban under the previous US administration was primarily motivated by concerns over fiscal justice rather than climate justice.

Beyond the countries studied here, it should be noted that a coal mining moratorium has also recently been discussed in Indonesia and Myanmar. In Indonesia, a moratorium on new coal mining concessions was proposed in April 2016. The President framed the plan as an environmental measure, an extension of the 2011 forestry

moratorium, but it is clear that a licencing freeze would also neatly extend the government's efforts to prevent over-mining and preserve coal reserves for future consumption (Cornot-Gandolpe 2017). In Myanmar, the government announced that it would stop issuing new coal mining leases due to coal's harmful effects on health.[7]

These particular national cases demonstrate that national circumstances and sensitivities are key in debates about (curbing) coal extraction. Recent developments in global climate governance also highlight a '(re)turn to the state' (see, e.g., Purdon 2015; Green, this issue). The 2015 Paris Agreement institutionalised the logic of domestically driven climate action through voluntary nationally determined contributions. Indeed, the domestic sphere has become the primary institutional setting where relevant political actors interact, contest, negotiate and bargain on climate-related political issues (Falkner 2016).

In short, the emerging anti-coal extraction norm struggles to gain political traction due to firmly entrenched material interests, political constellations, beliefs and institutions. Despite the compelling logic of the carbon budget and the resulting amounts of 'unburnable' coal, a global treaty prohibiting the opening of new coal mines—comparable to, for instance, the Minamata Convention which phases out mercury mining—remains a distant prospect. While there is scope to increase international moral pressure through the Paris process (e.g., countries could include coal mine moratoria, fracking bans, etc. in their NDCs),[8] our analysis suggests that the domestic political arena is the key for the success of any campaign that aims to stymie future coal production. Proponents of a global coal moratorium should have a greater chance of overcoming opposition to the extent that they succeed in framing the issue in non-climate terms (e.g., fiscal justice, energy conservation, industrial policy, public health), which would expand the domestic political coalition in favour of a ban on new coal mines.

Notes

[1] It is worth noting that this figure only gives an estimated 50% chance of staying with the 2 °C limit. Moreover, the figure assumes a widespread deployment of carbon capture and storage (CCS) technologies as from 2025 onwards. If CCS is not widely deployed, the amount of unburnable coal rises to 88% (McGlade and Ekins 2015).

[2] The full text of President Tong's call is available from: http://www.climate.gov.ki/wp-content/uploads/2015/09/CallForCoalMoratorium.pdf .

[3] Moreover, they also account for over 72% of global coal consumption, so any sign of a change in mining policies is set to create waves in the global coal market. Yet, our interest here lies with the extraction policies of the named countries, not with their coal usage policies, although we consider potential linkages between the two.

[4] Interview with Richard Denniss, Chief Economist, The Australia Institute, 29 August 2017. This would mean that the Galilee Basin, where the proposed Carmichael mine is located, would not be eligible for funding by Westpac. Three other large Australian banks had already distanced themselves from financing the Adani project prior to Westpac's decision (Robertson 2017).

[5] E.g., Adani (Indian company) and its attempts to open the Carmichael mine in Queensland, Australia.

[6] Prior to 1992, the Ministry of Power, Coal and Non-Conventional Energy Sources consisted of three departments. In 1992, that ministry was split into the Ministry of Power, Ministry of Coal, and Ministry of Non-Conventional Energy Sources (rechristened the Ministry of New and Renewable Energy in 2006), overseen by the same Minister and with interdependent competencies.

[7] "No more coal mining licences due to harmful health effects, says Union Minister," Myanmar Times, Feb. 13, 2017.

[8] Many thanks to Richard Denniss for highlighting this.

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4.3. Moving beyond Coal: Exploring and explaining the Powering Past Coal Alliance

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Abstract:

In 2017, the UK and Canada launched the 'Powering Past Coal Alliance' (PPCA), a coalition of governments, organisations and businesses seeking to establish a phase-out of coal for electricity generation by 2050 at the latest. Yet, most of the countries that have signed the charter do not burn coal in large quantities. Some do not even burn coal at all. This raises an important question: Why do countries join such an Alliance? We advance four hypotheses that revolve around material costs, political economy, feedback effects, and identity. We conduct a study of 38 country cases. Through a crisp set Qualitative Comparative Analysis (csQCA) we test which combination of variables explains our outcome of interest (state membership in the PPCA). The results indicate that countries that have no coal in their electricity mix and that have adopted a phase-out plan are most likely to join the PPCA. There are two combinations of conditions almost always lead to the outcome: Countries join the PPCA if they have a phase-out plan and are a climate leader, or they have a phase-out plan and do not have a strong coal industry. Conversely, the solution for non-membership shows that countries do not join the PPCA if they are not a climate leader and do not have a phase out plan, or have a strong coal industry. The results further suggest that the PPCA should focus on different outreach methods, beyond merely expanding its membership, including technical diplomacy and maintaining political momentum at high-level political events.

1. Introduction

An expedited phase out of coal combustion is required to meet the goals of the Paris Agreement. Coal is still the backbone of global electricity production, accounting for 38.3% of power generation in 2016 (IEA 2018a). A recent IPCC special report shows that the share of coal in electricity generation worldwide will have to be phased out almost entirely (to 0 - 2%) by 2050 to maintain at least a 33% chance of remaining on a 1.5°C pathway (IPCC 2018, 15). However 2018 saw both coal production and consumption growing at levels not seen in five years (BP 2019). The projected global cumulative CO_2 emissions from coal-fired capacity that is currently installed, planned, or under construction are already enough to take the world beyond the 1.5°C climate target under the Paris Agreement (Gonzalez-Eguino et al 2017; see also Edenhofer et al 2018).[39]

At the 23rd Conference of the Parties (COP23) in Bonn, Germany, in 2017, the UK and Canada launched the Powering Past Coal Alliance (PPCA), a multi-stakeholder partnership that brings together state and sub-state governments, businesses and other organisations in order to establish a global coal phase-out by 2050 at the latest.[40] The Alliance has three distinct, but interrelated objectives: First, governments commit to phase out existing unabated coal power generation and to put in place a moratorium on any new coal power stations without operational carbon capture and storage; second, businesses and other non-state actors commit to powering their operations without coal; and third, all members commit to supporting clean power generation through their policies and investments, and to restricting financing for unabated coal power generation (PPCA 2019). It should be noted that the PPCA Declaration only refers to coal use for power generation (thermal coal) and does not include the phase-out of coal for other industrial processes, including steel and cement production (coking coal), other important sources of associated CO_2 emissions.

The PPCA was launched with 27 members. By August 2019, membership had expanded to 83. By bringing together a diverse group of stakeholders, the PPCA adds another layer to the increasingly polycentric climate architecture that has taken shape since the

[39] The carbon budget thresholds from 2015 for the 1.5°C and 2°C targets with a 66% likelihood are 225–825 $GtCO_2$, while the cumulative emissions from existing and planned plants add up to 287–569 GtCO2. This leaves little to no margin for other energy infrastructures (Gonzalez-Eguino et al 2017,).

[40] This 2050 deadline is based on research conducted by Climate Analytics (2016) with a 50% probability of limiting warming to 1.5°C in 2100 compared to pre-industrial levels. It takes into account least-cost pathways and equity considerations. This would mean a coal phase-out by 2030 for OECD countries, 2040 for China, and 2050 for the rest of the world. These results are more or less in line with the projections for coal in the recent special IPCC report on 1.5°C (Interview #3, 25 September 2018).

adoption of the Paris Agreement (Falkner 2016, Hale 2016, Jordan et al 2018). The PPCA stands out, however, because it aims to completely phase out a particular fossil fuel technology: coal-fired power plants. In that sense, it differs from initiatives seeking to put a price on carbon or promote the deployment of low-carbon technologies. By placing an outright ban on coal-fired power generation by 2050, the PPCA formulates and seeks to diffuse a new international norm—that is, a "standard of appropriate behaviour" (Finnemore and Sikkink 1998, 891). The PPCA illustrates the normative turn in climate action (Mitchell and Carpenter 2019), with new calls and initiatives seeking to phase out fossil fuels on ethical and moral grounds (Green 2018). This trend is exemplified by the rising number of moratoria on new oil and gas exploration (Piggot 2017), bans of internal combustion engines (Meckling and Nahm 2019), divestment from carbon-intensive assets (Gunningham 2017, Healy and Barry 2017), and fossil fuel subsidy reforms (Van de Graaf and Blondeel 2018).

The key question is whether the PPCA could evolve into a wider and more encompassing "global prohibition regime" (Nadelmann 1990) for coal, similar to prohibition regimes against ozone-depleting substances, tobacco, whaling, or mercury.[41] In that sense, a treaty covering the phase-out of coal for electricity generation could become part of an overarching international coal "non-proliferation agreement" (Christoff and Eckersley 2013, Newell and Simms 2019) or coal convention –analogous to the Chemical and Biological Weapons Conventions (Burke et al. 2016), that would ban the extraction, transport and consumption of coal (and even other fossil fuels) altogether (Asheim et al. 2019). However, to establish such a meaningful global regime requires the participation of the key stakeholders and actors. For now, the PPCA does not meet this condition. The majority of the 30 national governments that have thus far joined the PPCA have little or no coal use while large coal consumers such as China, Germany or the United States are conspicuously absent. This raises an important question: Why do countries join the PPCA?

To answer this question, we draw from the literature on norm diffusion in international governance, which advances two sets of expectations: one is based on a "logic of *consequence"*, where political actors act based on rational interest calculation, and another is based on the "logic of *appropriateness*", where legitimacy-based considerations are crucial to understanding political behaviour. More precisely, we advance four hypotheses that revolve around material costs, political economy,

[41] This refers to the 1987 Montreal Protocol, the 2003 WHO Framework Convention on Tobacco Control, the 1982 moratorium on commercial whaling adopted in the International Whaling Commission, and the 2013 Minamata Convention on Mercury.

feedback effects, and identity. Through a crisp set Qualitative Comparative Analysis (csQCA), we test which combination of variables explains our outcome of interest (state membership in the PPCA).

To establish and code the independent variables for our csQCA analysis, we relied on publicly available quantitative datasets (see Tables A1, A2, A3 in Appendix 1). To trace the history of the PPCA and to explore in-depth deviant cases, we also draw on data from nine semi-structured interviews with officials from both PPCA members and non-members, and with representatives from NGOs closely involved in its establishment. Since the interviews were granted on the condition of anonymity we refer to them in a non-attributable way. The interviews were conducted in two rounds, between September and November 2018 and in June 2019. In addition to these interviews, we rely on official policy documents (such as national laws, regulations and nationally determined contributions), as well as scholarly literature.

Recently, Jewell et al. (2019) also studied the PPCA. They examined how much CO2 emissions could be avoided from the premature retirement of power plants pledged by PPCA members as well as the prospects of additional countries joining the PPCA. Aside from the fact that a significant proportion of their article is devoted to an entirely different research question, our paper expands their approach beyond the emphasis on material factors, like the status of coal in the energy mix or the average age of coal power plants, as it also looks at ideational and normative factors that determine alliance participation. Moreover, they employ a multivariate logistic regression to explain membership in the PPCA, while we conduct a csQCA analysis, which allows us to capture multiple conjunctural causation. Finally, we do not just draw on pure quantitative data, but also on qualitative data gathered through expert interviews.

We find strong evidence that the momentum and effects of the PPCA are informed by the logic of consequence. Countries join the PPCA if they have a phase-out plan (or have already phased out coal) and are a climate leader, or do not have a strong coal industry. In cases where phasing out coal still incurs some (limited) material costs, such as the Netherlands, the PPCA can function as an external commitment device that locks in a domestic political consensus to move away from coal.

The remainder of this article proceeds as follows. First, we explore the origins and development of the PPCA. Second, we develop a framework and formulate expectations based on general theories on norm diffusion and regime membership. Third, through a qualitative comparative analysis, we identify the combinations of conditions that best explain PPCA (non-)membership for a selection of 38 countries, of

which 20 PPCA members and 18 non-members. We conclude our study with a reflection on our results and a discussion on what this means for the development of the PPCA.

2. Genesis and development of the PPCA

In recent years, multiple calls for an international move away from coal have been raised. The International Labour Organization, for example, has argued for a coal phase-out in light of a "just transition" toward a decarbonised economy (ILO 2008), while others have considered the idea of a "Coal Non-Proliferation treaty" (Eckersley and Christoff 2013). In 2015, the president of Kiribati, one of the most climate vulnerable countries, proposed a global moratorium on new coal mines and mine extensions (Blondeel and Van de Graaf 2018).

The idea of establishing an international coalition to phase out coal-fired power generation, however, can be traced back to around 2015 and the work on coal phase-outs by E3G, an environmental NGO (Interview #5, 5 October 2018). As a growing number of countries and sub-national governments were looking to develop domestic coal phase-out plans, E3G was the first to advocate for strengthened international cooperation (Littlecott and Webb 2017). As one British official noted, "A lot of work on the pushback on coal over the past six years was national, concerning in-country campaigns pushing back against specific coal plants […] where E3G found an opportunity was to focus on the international space" (Interview #4, 26 September 2018).

E3G sought to involve the British government in its efforts to internationalise phase-out attempts because it was among the first states in 2015 to announce a coal phase-out by 2025. In cooperation with E3G and with financial support from the European Climate Foundation and the Stanley Foundation, two philanthropic organisations, in September 2017 the British government organised an international meeting with stakeholders from national, regional and local governments, as well as non-state actors to facilitate international cooperation efforts on coal phase-out.

In the same month, Canada and the UK put a coal phase-out on the agenda during a bilateral summit. There, Prime Ministers Trudeau and May announced, "we have confirmed our joint commitment to supporting the global transition away from a reliance on coal as an energy source" (GOV.UK 2017). It was followed by a joint statement in October 2017 by Canada's Minister of Environment and Climate Change, Catherine McKenna, and UK's Minister for Climate Change and Industry, Claire Perry, declaring the formal establishment of "a global alliance on the transition from

unabated coal-fired electricity at next month's UN climate change meetings in Bonn, Germany" (Government of Canada 2017a; Interview #7, 1 November 2018).

The Powering Past Coal Alliance was officially launched during COP23 in November 2017 where the UK and Canada sought to convince other countries to sign onto the declaration (Interview #6, 29 October 2018). Canada and the UK have since co-chaired the Alliance. At its launch, the PPCA had 27 members, with an objective of doubling its membership within a year by the start of COP24. In December 2018, during COP24, the Alliance's membership grew to a total of 80 members, of which 30 national governments. Together, these countries accounted for only 7.2% of global CO_2 emissions from fossil fuels in 2017 (Global Carbon Atlas, 2018) and less than 3% of all operating coal-fired power capacity (Global Energy Monitor 2019). Figure 4 provides a timeline of the PPCA's development and evolution in membership.

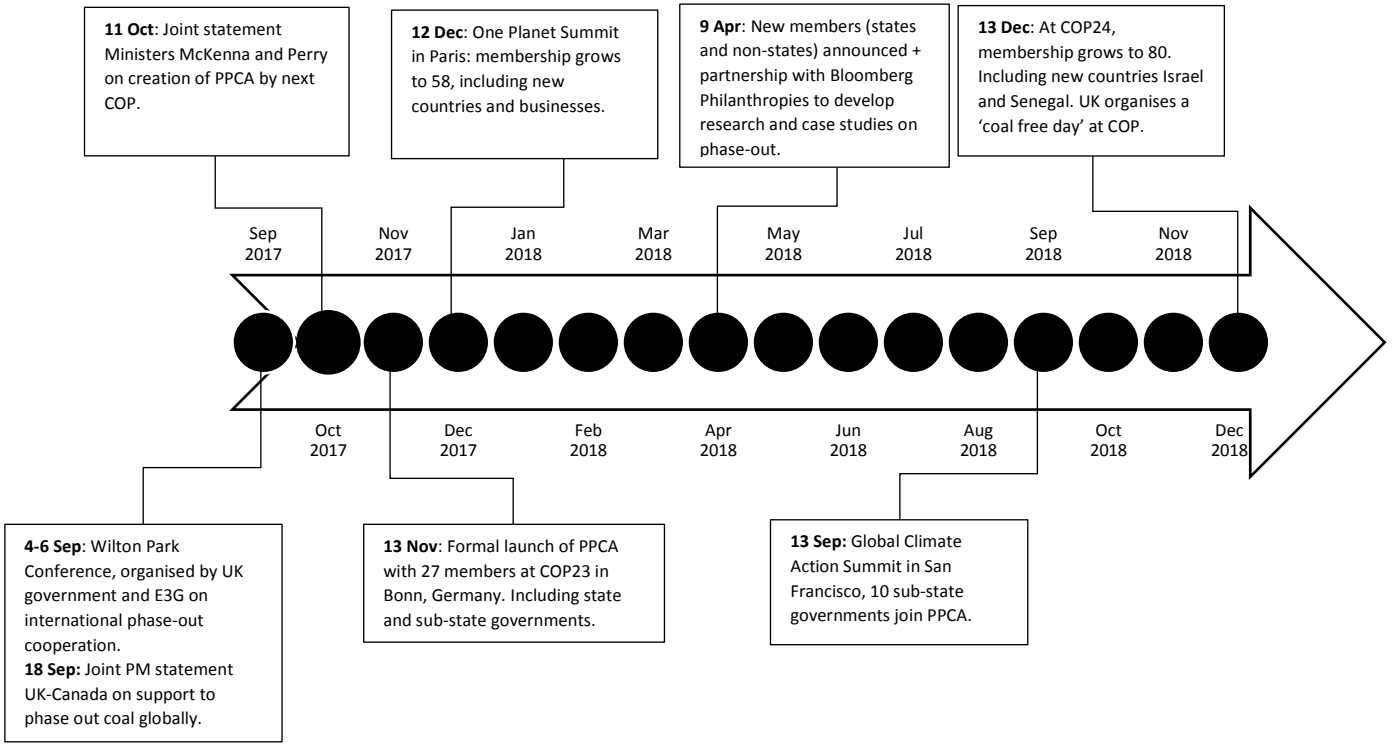
3. Theoretical framework and expectations

3.1. Theory

The PPCA essentially formulates and seeks to diffuse an international anti-fossil fuel norm (Green 2018). Like other international norms, anti-fossil fuel norms formulate "standards of appropriate behaviour for actors with a given identity" (Finnemore and Sikkink 1998, 891). Anti-fossil fuel norms refer to the prohibition of processes related to fossil fuel extraction and consumption. In the case of the PPCA, the behavioural prescriptions are that its members ought to close down all coal-fired power generation at home.

Although international norms are relevant to a variety of international actors (including multinational corporations and international organisations), the focus here is on state actors. For the purpose of this article, we conceptualise "the state" as a distinct agent that has the capacity to act through government or other institutions, while recognising that it also serves as a structural context in which interactions between individual persons take place. We also draw a distinction between a state's political elites, economic and business elites, and the wider public, mostly represented by civil society (Flockhart 2006, 92-93; Green 2018, 110-111).

Figure 4. PPCA timeline



A classic debate among those who study international norms revolves around the logic of action that drives norm-conforming behaviour (March and Olsen 1998). Scholars broadly distinguish between two such paradigms, or logics of action, often times considered to be mutually exclusive (Checkel 1998; March and Olsen 1998; Wunderlich 2013).

The first logic of action treats norms as emerging from actors' utility-based calculations. Here, authors refer to a *logic of consequence* to explain behavioural changes. They constrain the role of norms to the instrumental implementation of exogenous interests. Although rationalists concede that ideas and norms can constrain or influence actors' behaviour, in the end, their interests and identities are quasi fixed. In this interpretation, states (and other actors) follow norms because it is in their interest to do so (Wunderlich 2013, 21-22). In this interpretation, (material) interests, economic structures and political economic considerations play a primary role in explaining state behaviour.

The second logic of action focuses on the morality of norms. Authors in this research tradition link norms and changes in actors' behaviour to a *logic of appropriateness*. A sense of "oughtness" and legitimacy determines behaviour. Consequently, norms and identity are seen as causally prior to actors' interests. Norms thus have explanatory power as they influence both the formation of, and change in, interests and identities (see e.g. Finnemore and Sikkink 1998; Katzenstein 1996; Risse et al 1999).

Both logics of action ought to be considered as ideal types (Choi 2015; Collier and Venables 2014; Fearon and Wendt 2002). In practice, the logics of appropriateness and consequence are best placed at the extremes of a continuum, whereby a complex interaction between motivations for action does not necessarily pertain to either one of these extremes. We look at the interaction between cost–benefit calculation and moral or ideational considerations, and how they co-produce political behaviour (Choi 2015, 120). Such a position facilitates flexibility in the analysis of actors' motivations for adopting anti-fossil fuel norms, and for joining alliances that support or advocate such norms.

In support of this eclectic mode of analysis we advance two sets of expectations, each based on a particular logic of action, to explain why states join the PPCA.

3.2. Expectations

We build on and extend Green's (2018, 111) hypotheses on the motivations of a state to adopt an anti-fossil fuel norm in order to highlight the interplay between both logics of action. Green hypothesized that a state is more likely to adopt a norm if the

"perceived *material* costs" are low and if it "has an international identity or role conception linked to strong climate action." The former is linked to a logic of consequence, while the latter reflects a logic of appropriateness. Here, we provide a more detailed understanding of these hypotheses and categorize them according to their associated logic of action (cfr. Table 9).

First, in line with a logic of consequence, we expect *material cost-benefit calculations* to inform actors' position on the PPCA. While there is little to gain in material terms from joining a voluntary initiative such as the PPCA, an actor might incur financial losses. Economic costs associated with a coal phase-out are often considered to be important political barriers to a coal phase-out (Spencer et al 2018). The closure of coal-fired power stations can lead to a rise in unemployment levels (Burke et al 2019), or it risks creating stranded assets when plants have to close before the end of their expected economic lifetime (Pfeiffer 2018). We expect that the absence of such material costs will increase the propensity for states to join the PPCA. We operationalise this as follows: a country is more likely to join the alliance if the coal fleet has reached the end of its economic lifetime at the time of the phase-out deadline, i.e. 2030. According to the International Energy Agency (IEA), coal-fired power plants on average have an expected economic lifetime of 30 years (IEA 2013, 105). In this case, plants built after 2000 run the risk of becoming "stranded assets", because the operators and investors have not yet recovered their capital investments and the plants will have become uneconomic prior to the end of their expected economic lifetime. Hence, an expedited phase-out of plants before the end of their expected economic lifetime will almost certainly lead to financial losses and stranded assets.[42]

Second, more sophisticated *political economic theory* highlights the importance of the presence of a (strong) domestic coal industry in terms of political costs of a coal phase-out. Zhao and Alexandroff (2019) argue that when there is an integrated domestic coal market of both producers (i.e. coal mining) and consumers (i.e. power plants), governments not only face pressure from coal plant operators, but also from mining companies, other commercial affiliates and communities which the coal industry (in)directly supports. Strategic interaction, employment protection and government ownership translate into protection of uncompetitive domestic coal activities and assets through subsidies and vetoing (Leipprand and Flachsland 2018; Rentier et al.

[42] We considered taking into account two other determinants of material costs: the proportion of coal in national electricity generation and the absolute use of coal for electricity generation. Both determinants refer to the current reliance on coal for electricity generation. However, even in cases where there is still relatively high reliance on coal-fired power generation, material costs would be low, given that coal-fired power plants would have reached the end of their economic lifetime by 2030.

2019). Indeed, in cases where a historical corporate-state nexus has shaped energy policies largely in favour of coal, if coal starts being outcompeted by other resources, governments will face mounting political pressure and will be asked to roll back "hostile" coal policies and perhaps to undertake measures to support the industry against unfavourable market circumstances (Baer 2016). As such, the stronger a domestic coal mining industry, the greater its political influence and the less likely a country will rapidly phase out coal. We operationalise the strength of a domestic coal industry in terms of its annual coal production.

The third expectation is that states do not join the PPCA because they want to phase out coal; rather, it is the other way around: states want to join the PPCA because they have already decided to phase out coal. In that case, joining the PPCA does not incur any material costs, while it could bring reputational and other ancillary benefits. For instance, membership of the PPCA could function as a sort of "external commitment device" that locks in a domestic decision to phase out coal.[43] Green (2018) and others (see e.g., Roberts et al 2018) refer to the potential "*feedback effect*" in that such prior engagements, policies or even norms, both domestic or international, can create the normative and political circumstances in which future politics and policy outcomes are shaped. In other words, PPCA membership can reinforce the domestic coal phase-out plan and it could render it more difficult for (future) governments to reverse course, due to international and domestic pressures. Should, for example, a PPCA member country backtrack on its decision to phase out coal, a "boomerang pattern" of influence, characteristic of transnational networks may occur: domestic campaigners bypass their state and directly search out international allies (i.e. PPCA members) to try to bring pressure on their states from outside. States will have to spend considerable political and diplomatic capital to justify potential non-compliance to the normative commitments under the PPCA, which is consistent with earlier theorization on this matter (Keck and Sikkink 1998; Risse and Sikkink 1999). Once a state becomes part of such a regime, norm-violating behaviour can be pressured from above and below. In short, without a prior domestic phase-out plan or commitment states will be less inclined to join the Alliance. We operationalise this by examining if PPCA members first communicated domestic phase-out plans or policies, or had effectively phased out coal from their electricity mix prior to joining the Alliance.

[43] Similar to the Chinese accession to the World Trade Organization. Reformist Chinese leaders sought WTO membership in order to 'lock-in' on-going domestic economic liberalisation programmes (Feng 2005).

Next to these rational-utility considerations (linked to the logic of consequence), we also need to consider legitimacy-based considerations (linked to the logic of appropriateness). We know from the literature that in early stages, norm diffusion often occurs even in the absence of concrete material benefits or while there are still considerable material costs. In these cases, sensitivity to the norm and behavioural outcomes may be related to *identity-based considerations* (Katzenstein 1996; Johnston 2001, 501). This logic of appropriateness mainly refers to actors actively promoting and following a norm because they believe in the ideals and values embodied in it, even though norm adoption may have no effect on their [material] well-being (Finnemore and Sikkink 1998, 898). Hard evidence for ideational commitment would arise if a country joins the PPCA in spite of high material costs, and motivate its entry by referring to moral convictions. Accordingly, we would expect self-identification and being perceived by others as a "climate leader" to be potential drivers that may lead a state to seek PPCA membership. Indeed, a state may consider taking the international lead in coal phase-out as pivotal to their identity as a climate-progressive state. However, having a climate-progressive (self-)identity is not easy to operationalise, let alone to observe. We measure this condition primarily through international databases and rankings on climate commitments and performance, official statements and policy documents on climate change, as well as secondary academic scholarship on this topic (see Appendix 1, Table A2).

Table 9. Summarises our expectations.

Table 9. Causal mechanisms and formal expectations

Logic	Causal mechanism	Expectation
Logic of consequence	Material interests	Absence of material costs, in terms of potential "stranded assets", increases propensity of states to join.
	Political economy	Absence of (strong) domestic coal industry and integrated domestic coal market increases likelihood of states to join
	Feedback effects	Reform-oriented political actors might join the PPCA to lock-in a domestic consensus and 'bind' their successors.
Logic of appropriatenes	Ideational commitment & climate leadership	States with a strong identity as a climate leader or frontrunner in the energy transition are more likely to join the PPCA

4. Research design

Whether or not our theoretical framework explains membership in the PPCA is examined with crisp set Qualitative Comparative Analysis (csQCA). QCA allows to systematically compare an intermediate to large number of cases in order to draw conclusions on causal relations between a set of conditions, i.e. plausible causally relevant factors, and an outcome, i.e. the phenomenon under study. More specifically, the method can be used to identify minimally necessary disjunctions of minimally sufficient conditions, which according to regularity theories of causation contain the conditions that are causally relevant for an outcome (Baumgartner 2008). A condition or (combination of conditions) is sufficient if the outcome is always present when this condition (or combination) is present. Conversely, a condition or (disjunction of conditions) is necessary if it is always present when the outcome is present.

Necessity and sufficiency entail a complex form of causation, generally referred to as multiple conjunctural causation (Schneider and Wagemann 2012, 77). Conjunctural causation implies that causally relevant factors generally do not bring about their effects in isolation, but in combination with other factors. Multiple causation, or

equifinality, implies that there are generally several combinations of factors that cause the same effect. Whereas regressional analytic methods allow to assess the strength of a correlation between variables, QCA allows to identify the specific combinations of conditions that consistently lead to the presence of the outcome, as well as the combinations that lead to the outcome's absence (Thiem, Baumgartner and Bol 2016; Grofman and Schneider 2009).

In other words, QCA allows us to detect the different combinations of conditions that are sufficient for the outcome's presence and absence. The choice for QCA is driven by its ability to capture this complex form of causality, since membership in the PPCA can be expected to result from a complex interplay of conditions (cfr. supra, Schneider and Wagemann 2012, 77). The choice for QCA's crisp set variant is informed by the nature of the outcome, which presents itself in a dichotomous form and, therefore, cannot easily be integrated into the fuzzy set variant of QCA. A crucial last step of QCA is interpreting the results and relating them back to the cases. Within case analysis is an indispensable part of this step, both for gaining insights in specific country cases and explaining cases that could not be readily explained by our analysis (Schneider and Rohlfing 2013). Therefore, we conducted nine expert interviews to verify our conclusions, complement our analysis and explain deviant cases (Small 2011).

4.1. Case selection

The case selection was guided by the following criteria. First, as the principal objective of the PPCA is to "phase out existing unabated coal power generation and to put in place a moratorium on any new coal power stations", our focus is on *state* actors, not sub-state or non-state actors, because the responsibility to regulate coal plants and issue permits for their operation and construction resides mainly with them. Second, QCA requires cases to share enough background characteristics to constitute a homogeneous population. Therefore, we selected only countries that are member of the Organisation for Economic Co-operation and Development (OECD), set to become OECD member soon (Colombia) or currently engaged in accession talks with the OECD (Costa Rica). As a result, we conduct a study of 38 country cases. Importantly, OECD members also form the majority of PPCA state members and the Alliance declaration prescribes that OECD countries must phase out unabated coal-fired electricity generation no later than 2030, with a separate deadline for the rest of the world of no later than 2050. Applying these criteria gives us a sample of 20 PPCA members and 18 non-members for our study (see Table 10).

Table 10. Selected OECD country cases

PPCA members	Non-members
Austria, Belgium, Canada, Costa Rica, Denmark, Finland, France, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Portugal, Sweden, Switzerland, United Kingdom	Australia, Colombia, Czech Republic, Estonia, Germany, Greece, Hungary, Iceland, Japan, South Korea, Norway, Poland, Slovak Republic, Slovenia, Spain, Turkey, United States

The PPCA state members that are not studied in this article are: Angola, El Salvador, Ethiopia, Fiji, Liechtenstein, Marshall Islands, Niue, Senegal, Tuvalu, Vanuatu—none of which are a member of the OECD.

4.2. Measurement and dichotomisation

csQCA requires the cases to be dichotomised. A score of 1 indicates that a condition is present in a given case, a score of 0 that it is absent. The coding of *"Material Cost" (MC)* depends on the age of coal-fired power capacity of the cases. More specifically, whether cases are assigned a score of 1 or 0 is based on how much coal-fired power capacity has been built after the threshold year 2000. This is relevant since it refers to the *economic* lifetime of coal plants. The economic lifetime of coal-fired power plants is different from the technical lifetime. The latter refers to how long plants can operate technically before they must be replaced or updated with new technology. The IEA estimates the technical lifetime of coal plants on average to be 45 years (IEA 2008, 75). Consequently, the more capacity added after 2000, the more that would become stranded and the higher financial losses incurred in the case of a 2030 coal phase-out. Information on the cases' added coal capacity was retrieved from Global Energy Monitor, an independent NGO that tracks coal plants around the world (Global Energy Monitor 2019). Those countries that have added coal capacity after 2000 were assigned a score of 1, while other countries were assigned 0 (cfr. supra). The raw data and dichotomised values of this condition are presented in Table A1 in the online appendix.

The coding of "*Coal (Mining) Industry" (CI)* that can supply electricity generators will have a stronger incentive to keep coal plants open because of political economic considerations related to integration of a domestic coal market. Data on coal

production was gathered from the *Coal Information 2018* report (IEA 2018b).[44] The dichotomisation threshold was fixed at 1000 tonnes, in the significant gap in the raw data between Norway (131) and Japan (1322). Hereby, countries that have a coal industry that produces more than 1000 tonnes of coal are assigned a score of 1 (otherwise insignificant), those countries that produce less coal are assigned a score of 0. The raw data and dichotomized values of this condition are presented in Table A1 in the online appendix.[45]

The condition *"Phase-Out Plan" (PO)* signifies whether a country already had announced a coal phase-out by 2030 at the latest prior to joining the PPCA. We define this "plan" as an announcement or commitment made by the national government or coal plant operators to phase-out coal by the said deadline, regardless of whether the plan had already translated into official policies or legislation. Countries where such a plan was in place or that did not burn coal for electricity generation were assigned a score of 1, while countries without such a plan we assigned the score 0. Data collection for this condition was based on desk research and analysis of official policy and planning documents, statements and speeches by government officials or other relevant decision-makers for each of the 38 country cases. Table A3 in the appendix summarizes information on coal phase-out plans of the countries that we study.

Fourth, the coding of *"Climate Leadership" (CL)* depends on the "climate-progressive" identity of a country, which includes whether a country seeks to pursue a leading role on climate action internationally and whether it is perceived as a climate leader by other internationally relevant actors (such as other states, NGOs, and international organisations). To determine whether a country has a climate-progressive identity and is taking up an international climate leadership role, we consider four independent databases and rankings developed by research institutions and environmental NGOs that assess country performance and ambition on climate change action. Two focus exclusively on EU countries (Transport & Environment 2017; CAN Europe 2018). We cross-checked the EU-focused rankings with two international ones in order to contextualize climate-progressive identities of some countries that scored relatively low on the EU rankings (Germanwatch 2018; Climate Action Tracker 2019a). To take into account recent changes in government politics and fill in gaps in the data, these databases were cross-checked and supplemented with official statements and policy

[44] Importantly, in this IEA report coal comprises primary coals (anthracite, coking coal, other bituminous coal, sub-bituminous coal and lignite).

[45] To test the robustness of our results, the impact of changes in the dichotomization thresholds of the conditions Material Cost and Coal Industry on the results of the QCA was assessed. The results of these robustness checks are presented in appendix 2 .

documents on climate change, as well as secondary academic scholarship on this topic. Countries that discursively committed climate leadership or that scored high on these climate performance and ambition rankings were assigned a score of 1, while countries that lacked the ambition and scored low on these rankings were assigned a score of 0. A comprehensive discussion of the coding of this condition is presented in the online Appendix (Table A2).

5. Analytical results

The QCA-procedure proceeds in two main steps, which were carried out the with the QCA 3.3 package for R (Duşa 2018).[46] The first step involves the construction of a truth table, which is presented in Table 11. A truth table contains a row for every possible combination of conditions. Each case is assigned to the truth table row that corresponds to its specific combination. Generally, not all logically possible combinations of conditions correspond to empirical cases. In consequence, truth tables usually contain rows without empirical cases, which are referred to as logical remainders.

An outcome value is assigned to each row, depending on the degree to which a row corresponds to a sufficient combination for the outcome (or the outcome's absence). Rows 1 to 5 only contain cases in which the outcome is present, which indicates that the corresponding combinations of conditions consistently leads to the outcome. Rows 7 to 11 only contain cases in which the outcome is absent and are assigned a score of 0, indicating that these rows are fully sufficient for the outcome's absent. Row 6 and 7 are contradictory configurations, truth table rows that include both cases with a 0-outcome and cases with a 1-outcome. Given that the contradictory cases are best explained by case-specific, idiosyncratic, circumstances, which cannot be easily generalised beyond these cases (cfr. section 6. interpretation), the analysis was continued without resolving the contradictory configurations (Rihoux and De Meur 2009, 48-50, Schneider and Wagemann 2012, 122).

[46] R script is provided in "PPCA.R", replication data in "PPCA.csv".

Table 11. Truth Table

	Conditions				Consistency		Out-	
	PO	CL	CI	MC	PPCA	~PPCA	come	Cases
1	1	0	0	0	1	0	1	Austria, Belgium, Ireland, Israel
2	1	0	0	1	1	0	1	Italy
3	1	1	0	1	1	0	1	France, Netherlands
4	1	1	1	0	1	0	1	New Zealand, United Kingdom
5	1	1	1	1	1	0	1	Canada
6	1	1	0	0	0.82	0.18	1	Costa Rica, Denmark, Finland, *Iceland*, Latvia, Lithuania, Luxembourg, *Norway*, Portugal, Sweden, Switzerland
7	0	1	1	1	0.5	0.5	1/0	*Germany*, Mexico
8	0	0	0	0	0	1	0	*Estonia*
9	0	0	1	0	0	1	0	*Spain*
10	0	0	1	1	0	1	0	*Australia, Chile, Colombia, Czech Republic, Greece, Hungary, Japan, Poland, Slovenia, South Korea, Turkey, United States*
11	1	0	1	0	0	1	0	*Slovak Republic*

Note: PO: Phase-out plan; CL: Climate Leader; CI: Coal Industry, MC: Material Cost; PPCA: member PPCA; ~non-member PPCA; cases where the outcome is present are in regular font, cases where the outcome is absent are in italic.

In line with the recommendation of Schneider and Wagemann (2012, 122), we take into account the degree to which these contradictory rows deviate from perfect sufficiency. This is accomplished with the consistency parameter, which provides a descriptive measure of the extent to which the empirical data confirms sufficiency. Only two of the eleven cases contained in row 6 are characterised by the absence of the outcome (i.e. Norway and Iceland), resulting in the high consistency value of 0.82 for the outcome's presence. Hereby, the consistently value of this row far exceeds the minimum advisable consistency threshold of 0.75. In consequence, it is assigned a score of 1 (Schneider and Wagemann 2012, 279). Row 6 cannot be assigned an outcome-value of either 1 or 0. Its ambiguous consistency of 0.5 indicates that it is neither (almost) sufficient for the outcome's presence or absence.

The second step of QCA is the minimisation of the truth table. Depending on the remainders included in the process, minimisation results can result in different

formulas.[47] In this study, we focus on the parsimonious solution, which results if all remainders that lead to a less complex solution are included in the process. The parsimonious solution was preferred over alternative solutions because it is the only solution type that identifies the conditions that meet the regularity theoretical definition of causal relevance (Baumgartner 2015, 854). QCA results are expressed in a language that follows the conventions of set theory and Boolean Algebra. More specifically, logical AND is represented with [*] and indicates a conjunction of two conditions; the absence of a condition or outcome is indicated with a tilde [~]. The minimised formulas for the outcome's presence and absence are presented in Table 12 and Table 13, respectively.

The solution for the outcome's presence shows that there are two combinations of conditions that are almost sufficient for the outcome. First of all, countries join the PPCA if they have a phase-out plan (PO) and are a climate leader (CL). Second, countries with a phase-out plan (PO) also join the PPCA if they do not have a strong coal industry (~CI). The consistency of the disjunction of these two causal paths equals 0.91, which indicates that 91% of the cases that are covered by these paths joined the PPCA. There are two deviant cases consistency: Norway and Iceland correspond to these paths, but did not join the PPCA. The solution coverage, which shows the share of the cases of the presence of the outcome covered by formula, is 0.95. This indicates that 95% of the cases that joined the PPCA is explained by these two sufficient combination.

[47] For the presence of the outcome, the parsimonious solution is identical to the intermediate and conservative solution. For the absence of the outcome, the parsimonious solution is identical to the intermediate solution. Table A4 in the online appendix presents the conservative solution. There were no necessary conditions for the outcome's absence or presence.

Table 12. Solution PPCA

		Consis-tency	Coverage Raw	Unique	
1	PO*CL	0.875	0.700	0.150	Costa Rica, Denmark, Finland, France, Latvia, Lithuania, Luxembourg, Portugal, Sweden, Switzerland, Netherlands, New Zealand, United Kingdom, Canada, *Norway, Iceland*
2	PO*~CI	0.889	0.800	0.250	Austria, Belgium, Ireland, Israel, Luxembourg, Italy, Costa Rica, Denmark, Finland, France, Latvia, Lithuania, Portugal, Sweden, Switzerland, Netherlands, *Norway, Iceland*
	Solution	0.905	0.950		

Note: PO: Phase-out plan; CL: Climate Leader; CI: Coal Industry;[~] indicates the absence of a condition; cases where the outcome is present are in regular font, cases where the outcome is absent are in italic.

Only one country that joined the PPCA is not covered by this formula: Mexico. Conversely, the solution for the outcome's absence shows that countries do not join the PPCA if they are not a climate leader (~CL) and do not have a phase out plan (~PO) or if they are not a climate leader (~CL) and have a strong coal industry (CI).[48] The consistency of the solution for the outcome's absence equals 1, its coverage 0.83. All cases covered by this solution joined the PPCA. Three non-members are not explained by the solution: Iceland, Norway and Germany. The QCA-solutions, thus, present evidence for the causal relevance of three of our conditions: phase-out plan, strong coal industry and climate leader. Together, these three conditions explain the value of the outcome in 34 of our 38 cases. In contrast, there is no empirical evidence for the causal relevance of the fourth condition: high material cost.

[48] Two alternative models fared equally well in accounting for the absence of the outcome (cf. Baumgartner and Thiem (2015) on such model ambiguities). The presented model was selected because the alternatives included the absence of coal industry or the absence of material costs which are unlikely to account for the absence of the outcome (i.e. non-membership).

Table 13. Solution ~PPCA

		Consis-tency	Coverage Raw	Unique	
1	~CL*~PO	1	0.778	0.056	*Hungary, Spain, Australia, Chile, Colombia, Czech Republic, Greece, Japan, Poland, Slovenia, South Korea, Turkey, United States and Slovak Republic*
2	~CL*CI	1	0.778	0.056	*Estonia, Hungary, Spain, Australia, Chile, Colombia, Czech Republic, Greece, Japan, Poland, Slovenia, South Korea, Turkey, and United States*
	Solution	1	0.83		

Note: PO: Phase-out plan; CL: Climate Leader; CI: Coal Industry;[~] indicates the absence of a condition; cases where the outcome is present are in regular font, cases where the outcome is absent are in italic.

6. Interpretation

Arriving at minimal solutions is not the ultimate goals of QCA (Schneider and Wagemann 2012, 280). Instead, solutions must be related back to the cases and theoretical expectations (Rihoux and De Meur 2009, 65). The results of the QCA confirm that whether or not a country has a phase-out plan, is a climate leader and has a strong coal industry are vital for whether or not it joined the PPCA. In contrast, the results do not decisively demonstrate a link between material, financial interests and membership in the PPCA.

First of all, the results indicate that having a coal phase out plan is of the utmost importance for joining the PPCA. Both causal paths towards membership include this condition, suggesting that it is almost a necessary condition to explain the outcome. This confirms theoretical expectations regarding the importance of a prior domestic consensus for international norms to be able to take hold. The solutions for the presence of the outcome further confirm that climate leadership and the absence of a coal industry are also important conditions for explaining membership in the PPCA. In fact, having a prior phase-out plan is not sufficient on its own, but only resulted in membership in cases that are climate leaders and cases that do not have a strong coal industry. Moreover, the combination of the absence of a phase-out plan with the absence of climate leadership is sufficient for the outcome's absence. This confirms the expectations formulated by Green (2018) that, in practice, a mixture of the "ideal-type"

motivations for norm adoption (i.e. both logic of consequence and of appropriateness) typically occurs.

Case-based evidence further supports the importance of these conditions. *The Netherlands* is a noteworthy example. At the outset, one would expect the country *not* to become a member of the PPCA. In 2015 and 2016, the country brought online three coal plants with a combined capacity of 3.5 GW, significantly increasing the share of coal in the electricity mix to over 34% in 2016. With such high dependence and so much capacity only recently brought online, why did it nevertheless join the PPCA? Here, the prior domestic political decision to phase out coal, taken by a newly elected liberal-led government in October 2017, paved the way for Dutch membership. One Dutch official noted that the decision to join the PPCA was determined by the new coalition's domestic commitment to phase out coal by 2030. "If this were not the case", he noted, "the Netherlands would not have joined […] I do not think that countries join [at a COP] if they do not have domestic policies in place already. You just do not decide this in a week. You need time for it" (Interview #2, 20 September 2018). Consequently, in cases where phasing out coal still incurs material costs, such as for the Netherlands, membership was dependent on this prior domestic phase-out plan (Interview #1, 20 September 2018).

However, merely having a phase-out plan does not fully explain Dutch membership. The country also lacks a domestic coal industry that would be affected by an expedited coal phase-out. All of its coal for domestic use is imported (mainly from Russia) (CBS 2018). Moreover, its climate-progressive identity also played an important role. Prior to joining the Alliance, the incoming government in 2017 formulated a highly ambitious governing agreement with regard to its climate objectives, both domestically and internationally. It has set a target of 49% GHG emissions cuts by 2030, potentially raising this to 55% if other EU members also increase their commitments. Moreover, it has called for higher climate ambition in the EU, including for increasing the EU 2030 emission reduction target to 55% (CAN Europe 2018).

Our analysis further suggests that the existence of a phase-out plan and the lack of a coal industry (PO*~CI) also determined the membership of countries such as *Italy* and *Israel*. In Italy for example, despite having brought online over 2 GW of coal capacity since 2000 and a high relative dependence on coal (13.3% of electricity generation in 2016), the country joined the PPCA at its establishment in 2017. Two months earlier, the Italian government had decided to phase-out coal by 2025 as part of its National Energy Strategy. In Israel too, a domestic coal phase-out of the remaining two plants was announced in October 2018 *before* joining the Alliance (Ministry of Energy 2018).

Although both countries are not considered to be climate leaders, they lack a domestic coal industry that could form an obstacle to a coal phase-out. Furthermore, in Italy, the phase-out decision was taken at the end of the previous government's term (which ran from 2016 until 2018). The decision has not been reversed by the new government that that has been in office since March 2018. This could be considered as (limited) proof for the presence of a feedback effect.

Other case-based evidence further confirms the importance of the presence of a phase-out plan in combination with climate leader leadership (PO*CL), despite the presence of a coal industry. After the US announced its withdrawal from the Paris Agreement in June 2017, the EU and Canada confirmed their commitment to the Agreement and affirmed their leading global role—alongside China—on global climate action (Government of Canada 2017b). Indeed, the Trump Administration's decision to withdraw the US from the Paris Agreement may have galvanized more unified climate action and leadership by other countries, as one respondent noted (Interview #4, 26 September 2018). The same official noted that the *UK* government was convinced that setting up the Alliance was the "right thing to do", given the causal relation between coal combustion, CO_2 emissions and climate change and because it had a strong record on coal use reductions, even though "the [British] conservative government had taken the position that it would be a useful leadership position to take internationally […] climate was seen as something that was good to talk about." The strong normative inclinations and willingness to "champion a global alliance on the transition from unabated coal-fired electricity" becomes clear in the statements at the announcement of the PPCA (Government of Canada 2017a).

The *Slovak Republic* demonstrates that countries with a phase-out plan do not join the PPCA if they have a strong coal industry and are not climate leaders. At the One Planet summit in December 2017 in Paris, the Environment Minister already announced 2023 as the target year for Slovakia's coal phase-out in both the mining and power sectors, although it is unclear whether this was official government policy. In a joint statement in June 2019, the President and Prime Minister reiterated the commitment to stop burning coal to produce electricity by the end of 2023 (Europe Beyond Coal 2019). However, the country still has lignite mines concentrated in three regions. The government considers lignite mining for electricity and heating as an essential economic interest, and intends to keep the mines open—even though public finance to mining and coal plants has come under scrutiny (Slovak Ministry of the Economy 2018). In doing so, the country seeks to ensure a sufficient level of coal production,

security of electricity supply, lower energy dependence (it mainly imports coal from the Czech Republic), and employment levels in mining regions (Ibid.).

6.1. Deviant cases

There are four cases with surprising outcomes: Mexico, Germany, Norway and Iceland. The former is a member of the PPCA despite not having a domestic phase-out plan; the latter three are not members despite having strong climate leadership identities. We discuss each in turn.

Mexico is the only PPCA member that did not have a phase-out plan prior to joining the PPCA. This deviant case can be explained by interest-based considerations.[49] Although it can be considered to have a climate-progressive identity (Edwards and Roberts 2015; Averchenkova and Guzman Luna 2018), we did not find evidence that this played a role in explaining PPCA membership. Regarding interest-based considerations, importantly, in Mexico the coal industry is not considered a vital economic sector whose existence must be safeguarded by all means, unlike the oil and gas sectors. Natural gas is also the main competitor for coal in the country, while oil is a crucial component of Mexico's economy and earnings from the oil industry—through the national oil company PEMEX—accounted for about 32% of total government revenues in 2017 (export.gov 2018).

Moreover, since 2008, the country has taken a number of measures to implement Carbon, Capture, Use and Storage (CCUS) technologies, including for coal-fired power generation (Sener 2014, 2018a). Under the PPCA, coal-fired power plants equipped with CCUS technology would be catalogued as “abated” coal and would still be allowed after 2030. Even though the country is expected to still have coal in its electricity mix throughout 2030, a prior domestic decision to focus on CCUS deployment in electricity generation facilitated membership. Under the new government, which entered office in December 2018, Mexico is now further investing in coal plant “modernizations” to ensure electricity supply in 2030 and beyond (Climate Action Tracker 2019b). Mexico’s membership can thus be interpreted as a means for the government to strengthen its progressive identity with relatively low material costs.

Germany is widely considered to be a climate leader (Eckersley 2015, Tobin 2017), yet its domestic coal political economy explains non-membership. Due to the decision to phase out nuclear power plants, in 2018, hard coal and lignite still provided 37.5% of

[49] The robustness tests presented in appendix 2 also suggest that material interests explain why Mexico joined the PPCA and Germany did not join the PPCA.

the country's electricity (Fraunhofer ISE 2019), and since 2010 almost 10GW of new coal capacity has come into service (Global Energy Monitor 2019). Because of its *Energiewende,* it was impossible to phase out both coal and nuclear. To date, Germany remains the largest lignite producer in the world. Lignite in Germany is still competitive with alternative resources because it is mined in locations nearby the coal plants and therefore cheap to produce and use. With almost no running costs for fuel and operation, electricity from lignite is the only power from fossil fuel that is still profitable. Moreover, prices for emissions trading allowances under the European Emissions Trading Scheme are not high enough to push lignite out of the market (Appunn 2019). The continued importance of coal in its electricity mix and the concentration of lignite(-mining) jobs in economically fragile regions are important impediments for an expedited coal phase-out (Hockenos 2017). In January 2019, a multi-stakeholder "coal exit commission" suggested that coal-fired power generation should end in 2038, possibly being brought forward to 2035 if conditions allow it (BMWi 2019). The 2030 PPCA objective is too ambitious for Germany because of domestic political economic constraints, despite the climate-progressive identity of the country.

In *Norway*, the last remaining coal plant (with a capacity of 24MW) and mine are located in Svalbard. The 1920 Svalbard Treaty recognizes Norwegian sovereignty over the archipelago, although it is subject to certain stipulations. The treaty regulates the demilitarization of Svalbard and the signatories were given equal rights to engage in commercial activities -mainly coal mining. Both Russia and Norway have a coal mine and a coal-fired power station located in Svalbard. Despite high expected financial costs, the Norwegian coal plant could technically remain operational until 2038. After that, it could be replaced with LNG, in combination with hydrogen, solar, and wind energy. In January 2019, a new conservative coalition government was formed that agreed to a coal phase-out. Theoretically, the government could adopt legislate to close both remaining coal plants (including the Russian one) on Svalbard. However, they remain reluctant, as "they don't want to rock the boat, don't want to securitize the Arctic." (Interview #8, 24 June 2019). In other words, geopolitical sensitivities regarding Svalbard are currently impeding concrete actions. Recently, however, an internal memo has been circulated within different cabinets in Oslo that seeks to build a consensus around PPCA membership. A final decision is not expected until late-2019 (ibid.).

Iceland, as well, represents an intriguing case. When we contacted the Ministry of Foreign Affairs for information, they told us that they had never heard of the PPCA (Interview #9, 25 June 2019), which implies that there seems to be no clear policy

motivation behind its non-membership. However, our respondent did confirm that as a small country, they lack the staff and resources to join in too many of such voluntary initiatives. For example, in September 2018, the country joined the "Carbon Neutrality Coalition". Iceland's engagement within this coalition has been surprisingly demanding. Consequently, the Minister of Energy has demanded the administration of the Ministry of Foreign Affairs not to sign onto similar initiatives because it creates unanticipated "burdens" (Interview #9, 25 June 2019).

7. Conclusion

In this article, we have analyzed the factors that determine state membership of the Powering Past Coal Alliance (PPCA), a multi-stakeholder partnership that formulates an international norm against coal-fired electricity generation. The article points to the interplay of both rational interest and identity-based considerations in determining regime membership. These factors are consistent with earlier findings in international relations literature that the behavior of political actors, i.e. states, is constituted both by their interests, by which they evaluate the expected consequence, and by the norms and convictions embedded in their identities (March and Olsen 1998, 952; Finnemore and Sikkink 1998, 914).

More specifically, we find strong evidence that the momentum and effects of the PPCA are mostly informed by the logic of consequence. The results indicate that countries that have no coal in their electricity mix and that have adopted a phase-out plan are most likely to join the PPCA. There are two combinations of conditions almost always lead to the outcome: Countries join the PPCA if they have a phase-out plan and are a climate leader, or they have a phase-out plan and do not have a strong coal industry. Conversely, we find that countries do not join the PPCA if they are not a climate leader and do not have a phase-out plan or have a strong coal industry.

Jewell et al. (2019) recently found that PPCA members use and extract less coal than non-members, are wealthier, and have more transparent and independent governments (Jewell et al. 2019). Our findings add to theirs, in that we also find evidence that non-material factors—related to a climate leadership identity—help explain PPCA membership. Moreover, our results do not decisively demonstrate a link between material, financial interests (measured in terms of new capacity added after 2000) and PPCA membership. The reason is probably that, once a phase-out programme is negotiated at the domestic level, typically already includes provisions that allow for compensation schemes that can offset the projected financial losses for

utilities and employees. In short, our paper should be read as complementary to Jewell et al. (2019).

All in all, the method of QCA allows for systematic and reproducible research and parsimonious results, although there are certainly limitations involved, including the relatively small number of conditions that can be included (compared with, for example, large-*N* statistical inference), the difficulty in operationalising and dichotomising certain variables that were of interest like "climate leadership", or the fact that other potential conditions such as "framing", "protests" and "mobilisations" are difficult to capture in such a design. For example, our model did not include conditions of domestic, bottom-up mobilization by civil society. This is not to say that it did not play a role e.g. in crafting domestic phase-out plans (cfr. Germany, Leipprand and Flachsland 2018). Furthermore, the model also did not include a condition of "social pressure", the idea that, to the extent that more states join the initiative, pressure will mount on the outsiders to conform to the new social norm. This is due to the fact that the PPCA was established in 2017. Norm theory suggests that social pressure will likely occur in later stages of norm diffusion (Finnemore and Sikkink 1998). Lastly, case-specific, idiosyncratic circumstances, which a QCA analysis cannot always capture, proved to play an important role in four countries: Mexico, Germany, Iceland and Norway.

Coal-fired power generation rose 3% in 2018 and it remains in place as the world's largest source of power. That said, investment in coal-fired power declined by nearly 3% to the lowest level since 2004 and final investment decisions for new plants continue to decline. Members of the PPCA should seek to capitalize on this momentum. Rather than merely trying to expand its membership with countries that consume no, or only small quantities of coal for electricity generation, the PPCA could additionally focus on its efforts of technical diplomacy through its network of policy experts and energy specialists that exchange best practices and policy experiences in order to diffuse technical knowledge on domestic phase-outs, both with members and outsiders, while focusing on maintaining political momentum at high-level political events. In doing so, the PPCA could heed a growing number of international calls to integrate efforts of banning and prohibiting coal-related activities along the entire supply chain. If successful, the PPCA could then function as the precursor to the demand-side pillar of an all-encompassing international treaty or prohibition regime to ban the use and production of thermal coal altogether.

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Appendix 1 Supporting material QCA-analysis

Table A1: Coding Material Interests and Coal Industry

	Material Interests		Coal Industry	
Cases	CFP Capacity added after 2000[a]	Binary	Coal production[b]	Binary
Australia	3463	1	501056	1
Austria	0	0	0	0
Belgium	0	0	16	0
Canada	1071	1	61364	1
Chile	3137	1	2525 (2016)	1
Colombia	574	1	89439	1
Costa Rica	0	0	0	0
Czech Republic	1101	1	45013	1
Denmark	0	0	0	0
Estonia	0	0	0	0
Finland	0	0	0	0
France	151	1	0	0
Germany	10904	1	175122	1
Greece	330	1	37383	1
Hungary	80	0	7954	1
Iceland	0	0	0	0
Ireland	0	0	0	0
Israel	0	0	0	0
Italy	2406	1	0	0
Japan	13990	1	1322	1
Latvia	0	0	0	0
Lithuania	0	0	0	0
Luxembourg	0	0	0	0
Mexico	678	1	11776	1
Netherlands	3500	1	0	0
New Zealand	0	0	2941	1
Norway	0	0	131	0
Poland	3697	1	127045	1
Portugal	0	0	0	0

Slovak Republic	0	0	1836	1
Slovenia	600	1	3356	1
South Korea	23261	1	1486	1
Spain	0	0	2777	1
Sweden	0	0	0	0
Switzerland	0	0	0	0
Turkey	11977	1	76644	1
United Kingdom	0	0	3041	1
United States	23356	1	702268	1

[a] Megawatt; sources: Climate Analytics 2019; Global Energy Monitor 2019

[b] Kilotonnes; source: IEA 2018

Table A2: Coding Climate Leadership

Cases	Climate Change Performance Index	Climate Action Tracker	EU Climate leader board	Off Target	Score
Australia	very low	-	-	-	0
Austria	low	-	poor	poor	0
Belgium	*medium*	-	poor	poor	0
Canada	very low	highly insufficient <4°C	-	-	1*
Chile	-	highly insufficient <4°C	-	-	0
Colombia	-	-	-	-	0
Costa Rica	-	**2°C compatible**	-	-	1
Czech Republic	*medium*	-	very poor	poor	0
Denmark	**high**	-	poor	poor	1
Estonia	low	-	insufficient	very poor	0
Finland	**high**	-	poor	poor	1
France	*medium*	-	*moderate*	*moderate*	1
Germany	*medium*	-	*moderate*	poor	1
Greece	*medium*	-	poor	poor	0
Hungary	low	-	poor	poor	0
Iceland	-	-	-	-	1*
Ireland	very low	-	poor	very poor	0
Israel	-	-	-	-	0*
Italy	*medium*	-	very poor	poor	0
Japan	very low	highly insufficient <4°C	-	-	0
Latvia	**high**	-	very poor	poor	1
Lithuania	**high**	-	very poor	poor	1
Luxembourg	*medium*	-	insufficient	*moderate*	1
Mexico	*medium*	*insufficient <3°C*	-	-	1
Netherlands	*medium*	-	insufficient	*moderate*	1
New Zealand	low	*insufficient <3°C*	-	-	1*
Norway	**high**	*insufficient <3°C*	-	-	1
Poland	low	-	very poor	very poor	0
Portugal	**high**	-	insufficient	*moderate*	1

Slovak Republic	*medium*	-	insufficient	poor	0
Slovenia	low	-	poor	poor	0
South Korea	low	highly insufficient <4°C	-	-	0
Spain	low	-	very poor	poor	0
Sweden	**high**	-	**good**	**good**	1
Switzerland	**high**	*insufficient <3°C*	-	-	1
Turkey	very low	critically insufficient	-	-	0
United Kingdom	**high**	-	insufficient	poor	1
United States	very low	critically insufficient	-	-	0

The highest category of the indicators are marked in bold, the second highest category is marked in italic.
* indicates that the coding is based on case-based information.

The coding of **"Climate Leadership**" (CL) is based on four databases.

- First, Germanwatch's *Climate Change Performance Index*, ranks countries based on their aggregated performance on 14 indicators within the four categories greenhouse gas emissions, renewable energy, energy use, and climate policy. It evaluates 56 countries and the EU (Germanwatch 2018). Countries are categorised in five different groups, according to their performance: very high, high, medium, low, very low.
- Second, the Climate Action Tracker (CAT) tracks 32 countries and the EU, covering around 80% of global emissions. CAT rates (I)NDCs, 2020 pledges, long-term targets and current policies against whether they are consistent with a country's fair share effort to the Paris Agreement 1.5°C temperature goal (Climate Action Tracker 2019). Countries are divided into 5 categories: 1.5°C Paris Compatible; 2°C compatible; insufficient (<3°C); highly insufficient (<4°C); critically insufficient (+4°C).
- Third, Transport & Environment and Carbon Market Watch's *2017 EU Climate Leader Board* ranks 28 EU countries based on their commitment to and position towards the Effort Sharing Regulation (ESR) (Transport & Environment 2017). This ESR includes the binding GHG emissions targets for the period 2021-2030 for those sectors of the economy that fall outside the scope of the EU Emissions Trading Scheme. The ranking consists of a system of points based on the different elements of the proposal, which are weighted against their importance: (1) the starting point from which the emission reduction targets are applied (2) how carbon sinks in the land use and forestry sector are addressed (3) whether surplus permits from the EU Emission Trading System (ETS) can be used (4) the governance system to ensure countries comply with their targets and (5) whether the ambition level of the 2030 and long-term targets is compatible with the Paris Agreement objectives. There are six categories: excellent, good, moderate, insufficient, poor, very poor.
- Fourth, Can Europe's 2018 *Off Target* report also ranks 28 EU member states (CAN Europe 2018). Country performance and target-setting are divided into different indicators: 1) whether countries are on track to achieve 2020 targets; 2) how countries perform overall on number of climate and energy indicators; 3) domestic targets beyond those needed to be fulfilled at EU level; 4) support for higher ambition in legislation at the EU level; 5) support for more ambitious 2030/2050 EU targets. There are five categories: very good, good, moderate, poor, very poor.

Countries are assigned a score of 1 on “Climate Leadership” if they are located in the highest category that is represented in the dataset of at least one indicator or in the second highest category on at least two indicators. To take into account recent changes in government politics and fill in gaps in the data, these databases were cross-checked and supplemented with official statements and policy documents on climate change, as well as secondary academic scholarship on this topic.

Note that Iceland and Israel are not included in the databases. We consider Iceland to be a climate-progressive country and assigned it a score of 1. In 2018, the country announced a Climate Action Plan in which it develops measures to make the country carbon neutral by 2040. The Plan consists of 34 Government measures, ranging from an increase in reforestation to a ban on new registration of fossil fuel cars by 2030 (Ministry for the Environment and Natural Resources 2018). No such far-reaching action plans or climate strategies could be found for Israel, therefore it was assigned a score of 0.

Canada and New Zealand, in turn, are included in two databases, which denote these countries as climate laggards. However, case-based evidence suggests that these countries do have a climate-progressive identity. Under Prime Minister Justin Trudeau, Canada, developed a Pan-Canadian Framework on Clean Growth and Climate Change. In the plan, an entire section is dedicated to Canada’s attempts to take up an international leadership role on climate change (Environment and Climate Change Canada 2016). We do agree that Canada’s climate leadership on climate change in general remains largely rhetorical. Yet, on the issue of a coal phase-out it can be considered a “directional leader” (Gupta and Ringius 2001; Andresen and Agrawala 2002), through domestic implementation of an early phase-out plan, and the co-establishment of the PPCA, it attempts to show that a phase-out objective is achievable and seeks to shape how peers perceive the issue under consideration and think about solutions. A directional leader thus is not merely “ahead of the crowd” but also influences peer behaviour by demonstrating the feasibility, effectiveness or efficiency of a particular matter (i.e. coal phase-out), and can thus help change the perceptions and beliefs of others.

New Zealand, as well, was assigned a score of 1 because of its climate-progressive identity. The government, led by PM Jacinda Ardern, has declared climate action as one of its priorities. The Government also recently introduced a Climate Change Response (Zero Carbon) Amendment Bill to the Parliament in order to reduce net greenhouse gas emissions to zero by 2050 (Ministry for the Environment 2019). Furthermore, in 2018 the Government decided to no longer offer new licenses to allow offshore oil and gas

drilling within its territorial waters (Ainge Roy 2018). Further, it has also functioned as an international norm entrepreneur in other climate-related fields, such as the phase-out of fossil fuel subsidies by establishing the “Friends of Fossil Fuel Subsidies Reform” in 2010 (Rive 2018).

Table A3: Phase-out plans

PPCA members			Non-members		
Country	**Phase-out date**	**Commitment**	**Country**	**Phase-out date**	**Commitment**
Austria	2025	**November 2015**: The Austrian energy industry association announced that the last coal-fired power units will close by 2025. In May 2019 announced that closure will be expedited to 2020.	Australia	/	
Belgium	2016	Last plant closed in 2016.	Chile	2040	**June 2019**: Government announces it will close 28 coal plants by 2040.
Canada	2030	**November 2016**: National government announces coal phase-out by 2030. Existing legislation on CO_2 emissions from coal-fired generation was amended in February 2018.	Colombia	/	
Costa Rica		No coal	Czech Republic	/	
Denmark	2030	**November 2017:** Phase-out already decided in 2015, later revoked. At COP23, the Danish Minister for Energy declares Denmark's intention to be coal free by 2030.	Estonia		No coal

Finland	2030/2029	**November 2016**: The country announces coal-phase out by 2030 in the long-term Energy and Climate Strategy. Phase-out is proposed to be accelerated to 2029, possibly 2025, in April 2018.	Germany	2038	**February 2019**: "Coal commission" presents its final report which foresees a phase-out of coal in Germany by 2038, with the option of doing it in 2035.
France	2021	**November 2016**: President Macron already announced in his electoral programme to accelerate closure by 2021.	Greece	/	
Ireland	2025	**July 2017**: In the 2017 'National Development Plan 2018-2027' coal will be banned by 2025.	Hungary	/	
Israel	2030	**October 2018:** Minister of Energy presents plan that aims to shut down two remaining coal-fired power stations in the country.	Iceland		No coal
Italy	2025	**October 2017**: Government announces coal phase-out by 2025 in its 'National Energy Strategy'.	Japan	/	
Latvia		No coal	Korea	/	
Lithuania		No coal	Norway	/	
Luxembourg		No coal	Poland	/	
Mexico	/		Slovakia	2023	**June 2019:** The President and PM announce that the country will stop

				burning coal to produce electricity by the end of 2023.
Netherlands	2030	**October 2017**: Newly elected coalition decides coal phase-out by 2030 in its governing agreement.	Slovenia	/
New Zealand	2030	**August 2015**: Operator of last coal plant issued statement that it would close last operating units by December 2018. Pushed back decision to 2030 in early 2018.	Spain	/
Portugal	2030	**November 2016**: Minister of Environment announces that coal will be phase out by 2030. Commitment reaffirmed in October 2017 when launching the roadmap to 2050 carbon neutrality.	Turkey	/
Sweden	2022	**February 2017**: Last coal-fired power plant announces closure by 2022. June 2017, Sweden passes law to become carbon neutral by 2045.	US	/
Switzerland		No coal		
UK	2025	**November 2016**: National government announces coal phase-out by 2030. Existing legislation on CO_2 emissions from coal-fired generation was amended in February 2018.		

Table A4. Conservative solution absence outcome

		Consis-tency	Coverage Raw	Unique	
1	~PO*~CL*CI	1	0.722	0.611	Hungary, Spain; Australia, Chile, Colombia, Czech Republic, Greece, Japan, Poland, Slovenia, South Korea, Turkey, United States
2	~PO*~CL*~MC	1	0.167	0.056	Estonia; Hungary, Spain
3	~CL*CI*~MC	1	0.167	0.056	Hungary, Spain, Slovak Republic
	Solution	1	0.83		

Note: PO: Phase-out plan; CL: Climate Leader; CI: Coal Industry; MC: Material Cost; [~] indicates the absence of a condition;.

Appendix 2 Robustness tests QCA

This appendix presents the results of a series of robustness tests of our QCA-results. In line with Skaaning (2011), we test the impact of changes in the dichotomisation thresholds on the results. The dichotomisation of two conditions is based on continuous base variables: Material Costs (MC) and Coal Industry (CI). The following thresholds were used for the alternative dichotomisation of these conditions.

- The first alternative threshold for Material Cost [A1] was fixed at 1000, in the large gap in the raw data between Mexico (678) and Canada (1071). The second alternative threshold for Material Cost [A2] was fixed at 3000 , in the large gap in the raw data between Italy (2406) and Chile (3137).
- The first alternative threshold for Coal Industry [A1] was fixed at 0. In consequence, all cases that produce coal are assigned a score of 1. The second alternative threshold for Coal Industry [A2] was fixed at 50,000, in the large gap in the raw data between Canada (61,364) and Czech Republic (45,013).

Subsequently, the QCA R-software was used to run alternative models that combine the conditions as they are dichotomised in the paper with the conditions dichotomized with the alternative thresholds. This results in a total of seven alternative analyses. The results of the analyses are presented in Table A5. The rows represent the different combinations of original and alternative dichotomised data. [O] indicates that the condition was dichotomised with the original threshold, [A1] that the condition was calibrated with the first alternative threshold and [A2] that the condition was dichotomised with the second alternative threshold.

Table A5. Results Robustness Tests

	MC	CI	PPCA	Con.	Cov.	~PPCA	Con.	Cov.
1	O	O	PO*CL+PO*~CI	0.91	0.95	~CL*CI+~CL*~PO	1	0.83
2	A1	O	PO*CL+PO*~CI+ CL*~MC	0.91	1	~CL*CI+~CL*~PO+~PO*MC	1	0.89
3	A2	O	PO*~CI+CL*~MC	0.91	1	~CL*CI+~CL*~PO+~PO*MC	1	0.89
4	O	A1	PO*CL+PO*~CI	0.9	0.9	CL*~PO	1	0.78
5	O	A2	PO+CL*~CI	0.87	1	~CL*CI+~CL*~PO	1	0.83
6	A1	A1	PO*CL+PO*~CI+ CL*~MC	0.91	1	~CL*~PO+~PO*MC	1	0.83

7	A1	A2	PO*~CI+CL*~MC	0.91	0.95	~CL*~PO+~PO*MC	1	0.83
8	A2	A2	PO+CL*~CI	0.87	1	~PO*~CL+PO*~CI	1	0.83

Note: PO: Phase-out plan; CL: Climate Leader; CI: Coal Industry, MC: Material Cost; PPCA: member PPCA; ~non-member PPCA; O: original threshold; A1: alternative threshold 1; A2 Alternative threshold 2

The robustness tests confirm the conclusions of our analysis. First of all, the analyses of the outcome's presence and/or absence confirm the causal relevance of phase-out plan, climate leader and coal industry, irrespective of the dichotomisation of our conditions. Moreover, the impact of the conditions are consistently in line with theoretical expectations. Finally, the consistency and coverage values of our alternative analyses are consistently (far) above 0.75. Strikingly however, the models in which an alternative threshold is used for material cost suggest that the latter is relevant for the outcome. Closer inspection of the truth tables that include the alternatively dichotomized "Material Cost" suggests that it is included in the solutions because it is the minimum difference between PPCA-member Mexico and non-member Germany. Table A6, for example, presents the truth table of the second model, in which MC is operationalized with a slightly higher threshold. The main difference with the truth table of our original analysis is that the contradictory configuration that included both Germany and Mexico is resolved. With the higher threshold, Mexico is assigned a score of 0 and becomes a member of a new truth table row. Germany, with its high coal production of 175,122 kilo tonnes, is assigned a score of 1 on the condition and is the only member of row 8. In the resulting formula's, Germany and Mexico are the only cases that are uniquely covered by causal paths that include MC or ~MC. This confirms the argument on these deviant cases that is presented in the main text: Germany did not join the PPCA because of its strong material interests.

Table A6. Truth Table Model 2

	Conditions				Consistency		Out-come	Cases
	PO	CL	CI	MC	PPCA	~PPCA		
1	0	1	1	0	1	0	1	Mexico
2	1	0	0	0	1	0	1	Austria, Belgium, Ireland, Israel
3	1	0	0	1	1	0	1	Italy
4	1	1	0	1	1	0	1	Netherlands
5	1	1	1	0	1	0	1	New Zealand, United Kingdom
6	1	1	1	1	1	0	1	Canada
7	1	1	0	0	0.83	0.17	1	Costa Rica, Denmark, Finland, France, *Iceland*, Latvia, Lithuania, Luxembourg, *Norway*, Portugal, Sweden, Switzerland
8	0	1	1	1	0	1	0	*Germany*
9	0	0	0	0	0	1	0	*Estonia*
10	0	0	1	0	0	1	0	*Hungary, Spain, Colombia, Greece, Slovenia*
11	0	0	1	1	0	1	0	*Australia, Chile, Czech Republic, Japan, Poland, South Korea, Turkey, United States*
12	1	0	1	0	0	1	0	*Slovak Republic*

Note: PO: Phase-out plan; CL: Climate Leader; CI: Coal Industry, MC: Material Cost; PPCA: member PPCA; ~non-member PPCA; cases where the outcome is present are in regular font, cases where the outcome is absent are in italic.

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4.4. Taking Away a "Social Licence": Neo-Gramscian Perspectives on an International Fossil Fuel Divestment Norm.

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Abstract:

The international fossil fuel divestment norm formulates a standard of appropriate behaviour to withdraw investments from fossil fuel assets and reinvest them into climate-friendly solutions. Its ultimate objective is to take away the industry's "social licence to operate". In other words, the norm fundamentally questions the legitimacy of an industry because of its major impact on climate change. This paper offers a neo-Gramscian view as to how a radical divestment norm seeks to delegitimise the role of fossil fuels and the industry in society and how it only partly succeeds in doing so. This analytical interpretation of norm diffusion offers a rich understanding of the discursive and relational aspects of energy transitions and how societal consent to elite practices—and not just their coercive power—is pivotal in successfully maintaining or transitioning away from a fossil fuel-based society. I trace the origins and analyse the current state of the campaign and argue that four drivers are key to understanding norm diffusion: (legitimacy of) norm entrepreneurs; framing and discursive contestation; political opportunity structures; extant normative environment. I conclude that although there is certainly room for counter-hegemonic norm articulation, the constraining effects of a liberal social order, epitomised by liberal environmentalism, reduces its radical aspects to a passive revolution.

1. Introduction

In recent years, the beginning of a global normative turn against fossil fuels has been taking place. A variety of transnational campaigns are now formulating "anti-fossil fuel norms" that prescribe the phase-out and ultimate prohibition of practices and processes across the entire fossil fuel supply chain of financing, extraction, processing and consumption, based on moral and ethical grounds (Green 2018). Such a normative approach to climate action originates in criticism that long-time dominant consequentialist approach, which favours economic incentives and interest-based considerations, has largely failed to generate effective climate governance (Milkoreit 2015, Newell and Simms 2019, Mitchell and Carpenter 2019).

One such anti-fossil fuel norm in particular is fossil fuel divestment (FFD). The FFD norm—and the transnational campaign promoting it—calls upon investors to liquidate their stocks, bonds, and other investments from companies connected to the extraction of fossil fuels for both financial, environmental and ethical reasons. The norm originated at US college campuses around 2011 and was subsequently popularised and internationalised through a campaign of the NGO 350.org, led by Bill McKibben (Ayling and Gunningham 2017, McKibben 2012).[50] In December 2018, the campaign marked its 1000th divestment announcement, with a total of almost US$ 8 trillion in assets having been declared "fossil free".[51] It is the largest and fastest growing divestment campaign in history (Ansar et al. 2013). Today, the rapid diffusion of the FFD norm has even stirred debates in fossil fuel board rooms, with warnings that their "business model" is under threat from divestment campaigns (Raval 2018, Shell 2018). What then, determines the rapid emergence and diffusion of this norm, and what are its likely future prospects? In this paper, I bring together constructivist perspectives and neo-Gramscian theory on norm diffusion to address these questions.

To date, social science research on FFD mostly approaches the campaign from a social movement perspective, with an explicit focus on the energy and climate justice aspects and the effects so far of the (transnational) FFD movement. However, there is a clear research bias on this "activist branch" of the movement with 350.org and other grassroots campaigners as norm entrepreneurs, working at universities and other

[50] The overarching aim is to divest from the "Carbon Underground 200". These are the top 100 public coal companies globally and the top 100 public oil and gas companies globally, ranked by the potential carbon emissions content of their reported reserves (Gofossilfree.org 2019a).

[51] As of 11 October 2019, 1118 institutions, with an approximate value of US$ 11.48 trillion, have committed to divest (Gofossilfree.org 2019b). Note that the actual amount of direct divestment is far less than this.

mission-driven institutions, including charities and religious organisations (Ayling and Gunningham 2017, Healy and Debski 2017, Bergman 2018). However, if the FFD campaign is to have any real impact on the ground, other norm addressees (i.e. agents who are governed by a norm), such as institutional investors, banks, insurers and other financial institutions will have to accept the norm. These actors wield far more power and influence in the financial system and should be considered pivotal norm addressees (Harmes 1998, Christophers 2019, Duyck et al. 2019). This study prioritises the role and impact of these finance actors and their interaction with the FFD norm.

The FFD norm seeks to stigmatise and delegitimise the fossil fuel industry because of its historical responsibility in climate change (Ayling 2017). Essentially, its objective is to "take away the fossil fuel industry's social licence to operate" by addressing the financial streams that underpin them, in order to undermine the structural power that they wield and that allows them to continue their extractive operations (McKibben 2012, 2013). It also seeks to change the narrative about climate change, and is an example of what Reinsborough and Canning (2010) call "story-based strategy".[52] FFD was born out of the critique that the story that was told on climate change before tended to foreground individualistic solutions and techno-fixes to climate change. FFD challenges this narrative by pointing to the fossil fuel industry and their entanglement with financial and political actors, as the key driving force behind climate change.

Because of the campaign's strong focus on "social licence" and its roots in the climate justice movement, a neo-Gramscian addition to constructivist accounts of norm diffusion in International Relations (IR) is helpful in understanding its development and potential further impact. Unlike other Marxist perspectives, in a neo-Gramscian understanding ideas and norms are relevant because power is not exclusively coercive or economic, but also derives from institutional and discursive forces (Okereke 2008, 128). In essence, it argues that the hegemony of a dominant social group, is grounded in its discursive, organisational and material power. This theory thus posits that broad-based societal legitimacy, alongside coercion, is key to the perpetuated social status quo in which political and economic elites maintain their dominance, or hegemony (Day 2016, Anderson 2017). In turn, this means that processes of delegitimation, e.g. through the formulation of AFFNs, can be key to achieving social and normative change that is associated with a global energy transformation (Green 2018, Newell 2019).

I argue that the FFD originated as a radical "counter-hegemonic" norm. The FFD norm firmly went against established (neo)liberal market norms that prioritise profit over

[52] I thank an anonymous reviewer for bringing this to my attention.

normative and moral considerations. Paradoxically, however, the FFD norm will likely diffuse further when norm proponents can convince relevant norm addressees (i.e. institutional investors) of the positive material effects of divestment, that is if it maximises profits and minimises investment risks. In other words, the FFD norm operates within the boundaries permissible of the social order that grants primacy to those norms that do not go against the normative objectives of dominant norm addressees. In such a case, the counter-hegemonic norm, and the campaign that promotes the norm, becomes subject to a process of passive revolution—or, "reforms from above"—where a dominant group implements supposed concessions in an effort to preserve the essentials of the existing social structure.

The remainder of this article is structured as follows. First, I discuss how a synthesis of constructivist and neo-Gramscian approaches can contribute to the theoretical understanding of international norm diffusion processes. After a short note on method and data collection, in the empirical part of the paper, I provide an in-depth and theoretically informed discussion on the main influencing factors for norm diffusion: (the legitimacy of) norm entrepreneurs, framing strategies and discursive contestation, political opportunity structures, and, most importantly, the constraining effects of the extant liberal social structure. In a last section, I reflect on the findings and formulate some theoretical and empirical impacts of this exercise.

2. Bridging agency-centred and structural accounts of norm diffusion

2.1. Constructivist views on norm diffusion

Like other international norms, anti-fossil fuel norms formulate "standards of appropriate behaviour for actors with a given identity" (Finnemore and Sikkink 1998, 891). AFFNs formulate behavioural standards for actors concerned with the effect of fossil fuels on climate change, and they prescribe the phase-out and ultimate prohibition of practices and processes across the entire fossil fuel supply chain of financing, extraction, processing and consumption. The behavioural prescriptions emanating from this specific FFD norm are that investors can no longer be involved in fossil fuel financing activities, including loans, underwriting or (re)insurance, buying stocks and bonds, etc. The FFD norm also has explicit moral aspirations. The original rallying cry "if it's wrong to wreck the planet, it is wrong to profit from this wreckage" exemplifies these ethical considerations (McKibben 2013). Other AFFNs that have emerged recently e.g. articulated bans on new oil and gas exploration (Piggot 2017), fossil fuel subsidy reform (Van de Graaf and Blondeel 2018), or the phase-out of internal combustion engine vehicles (Meckling and Nahm 2019).

At the outset of the constructivist turn in IR, scholarship on norms sought to establish that they have independent causal effect in international politics and it established theories on norm diffusion through processes of socialisation that eventually could lead to "norm institutionalisation" (see e.g. Finnemore and Sikkink 1998).[53] However, this scholarship was quickly criticised for its lack of a theory of agency. It overemphasised the role of social structures and political opportunity structures at the expense of the agents who help create and promote them in the first place (Checkel 1998).[54] Moreover, it treated norms as stable and constant phenomena, leaving only marginal space for the mutually constitutive effect of agency on norm dynamics (Wunderlich 2013, 24).

Subsequent research thus shifted the focus to understanding norms as products of strategic social construction and to the identification of agency-centred mechanisms that help explain norm diffusion and institutionalisation, including the role of norm entrepreneurs, discursive contestation, legitimacy, etc. (see e.g. Krook and True 2010, Wunderlich 2013, Bloomfield 2016). This new wave of norm research granted primacy to agency-oriented factors over structural ones. In the end, it was argued, structures only provide windows of opportunity and "agency [i.e., norm entrepreneurs] is essential for norm change to take place" (Wunderlich 2013, 30; see also Finnemore and Sikkink 1998, 897). The most persuasive norm entrepreneurs are those able to "frame" normative ideas in such a way that they "resonate" with relevant audiences.

The question then is: Why are some frames more persuasive than others? Here, the constructivist literature provides only a partial answer: because some frames fit well with already accepted norms, or in other words, the "normative environment" (see e.g. Busby 2010, 55 for an overview; Florini 1996). But in the end, this raises the question of what exactly this normative environment—or social structure—looks like and what norms, ideas and interests constitute it.

2.2. Toward a neo-Gramscian understanding of norm diffusion

A focus on the extant social and normative structures offers a much richer perspective on why certain norms matter more than others, or how norms interact with other

[53] "Norm institutionalisation" refers to the degree to which a norm is discursively embraced and accepted by the relevant norm addressees. Evidence of discursive acceptance can be found in treaties and conventions, agreements, rules and standards established by states and international organizations, resolutions, communiqués and declarations (Bernstein 2001, 30).

[54] Finnemore and Sikkink refer to this as "world-time context", while others have used the terms "critical conjunctures" (Collier and Collier 1991, 29), "triggering events" (Sandholtz and Stiles 2009, 325), or "extrinsic events" (Wunderlich 2013, 30).

factors, such as material interests and power. Hence, in order to complement the agency-centred constructivist scholarship on norms, one needs to look at theoretical frameworks that highlight the interplay between norms and structure, especially the normative underpinnings of dominant political economic forces (Bernstein 2001). Here, a neo-Gramscian approach offers a good extension of such agency-centred accounts because of its extensive conceptualisation of what such a normative environment looks like.

A neo-Gramscian account not only sheds light on the drivers of norm diffusion and institutionalisation, it also offers an in-depth understanding of how ideas and norms interact with the broader economic structure and associated constellations of power. *Hegemony* is a key notion here. It refers to the persistence of specific social and economic structures that systematically advantage certain social groups, the so-called "historical bloc" (Cox 1983). Crucially, hegemony is contingent on coercive control by elites, as well as on political and ideational accommodation by other social groups. As Cox (1983, 137) notes, "Hegemony is expressed in universal norms, institutions, and mechanisms which lay down general rules of behaviour for states, and for those forces of civil society that act across national boundaries." An idea is hegemonic once it has won legitimacy over alternative ways of looking at society and broadly sets limits on what are considered acceptable ways of addressing social challenges faced by society.

Norms thus form a crucial part of the basis through which non-elites authorise and legitimate the dominant positions of certain social groups. For Gramsci, the disagreements, concessions and alliances inherent to political struggles are generally negotiated against a backdrop of broad-based societal consent to and acceptance of hegemonic ideas (Okereke 2008). In other words, hegemony is ultimately contingent on popular consent and legitimacy and can be destabilised by "counter-hegemonic" strategies. Such strategies entail the development of ideas, norms and discourse to challenge dominant assumptions, beliefs and established patterns of behaviour (Cox and Schilthuis 2012).[55] If one manages to change prevailing norms and cultural preferences, e.g. about flying, eating meat or fossil fuel investments, one can indirectly undermine the respective aviation, meat and fossil fuel industries' social licence to operate, and therefore the hegemonic position of these actors that form a historical bloc.

[55] The radical anti-globalisation protests of the late 1990s – early 2000s are an example of such a counter-hegemony. Its focus was to challenge the policies, norms and discourses around the "Washington Consensus" of a neoliberal one-size-fits-all economic policy for the developing world (Cox and Schilthuis 2012).

In this neo-Gramscian understanding of norms, existing constellations of power and the associated hegemonic ideas and norms privilege certain newly formulated norms over others. This sets limits to what is politically achievable within a particular social order, meaning that there is no such thing as "unconstrained agency" (Ford 2003, Levy and Newell 2002). According to Bernstein (2001, 179) (environmental) norm entrepreneurs will be most successful if they nest norms into the broader international social structure", of "liberal environmentalism" (Bernstein 2001). This would result in what Gramsci has dubbed a "passive revolution", where the initial counter-hegemonic initiative or norm is hampered by a process of reformist changes by hegemonic groups, without any fundamental concessions in an effort to preserve the essential aspects of social structure'' (Levy and Egan 2003).

A holistic approach that combines new insights from agency-centred constructivist accounts and those from more structural neo-Gramscian accounts will therefore allow for a deep understanding of the drivers behind the uptake and diffusion of the FFD norm, as well as both the promise and limits of FFD in a structurally constrained normative environment. In the next section I therefore put forward four factors, based on the extant literature on norm diffusion, that likely have an effect on the emergence and diffusion of the FFD norm. First, I start with the importance of the (legitimacy) of norm entrepreneurs and their discursive framing strategies, as important agency-centred drivers of norm diffusion. Subsequently, I highlight the relevance of political opportunity structures for norm entrepreneurs to capitalise on. Lastly, I discuss the constraining effects of a prevailing liberal economic order. In line with Bernstein (2001) and Okereke (2008), this analysis grants primacy to the "ideational hegemony within particular world orders," especially the hegemony of liberal economic ideas and structures.

Table 14. Driving and constraining forces behind FFD norm emergence and diffusion

Structure	Agency
Political opportunity structures	(Legitimacy of) norm entrepreneurs
Normative environment	Framing and discursive contestation

3. Method and data

I conduct a disciplined-configurative case study (Eckstein 1975) through a theory-testing process-tracing analysis of the FFD norm (Beach and Pedersen 2013, 14-16). This type of case study involves the application to a case, or cases, of a pre-established

framework for analysis. The aim is to "interpret or explain an event by applying a known theory to new terrain" (Odell 2001, 163). I follow a theory-first path that tests different drivers of norm diffusion and their associated mechanisms to see whether they can provide a sufficient explanation for the development of the FFD norm. By tracing the process of FFD norm development, the main claims add to a theoretical synthesis between neo-Gramscian and constructivist account of norm diffusion.

Within-case evidence was collected from primary and secondary sources through document analysis, expert interviews and participant observation. Secondary data comes from the growing body of academic literature and journalistic accounts that exist on the origins and development of the FFD movement. For primary data collection, I identified and consulted relevant open-source material, including position statements, official documents and reports of relevant actors (FFD campaigners, financial industry and fossil fuel industry). I also conducted expert interviews with leading divestment campaigners and financial experts working in the United Kingdom and Belgium. To compensate for the absence of interviews with fossil fuel companies, I examined publicly available statements from members and representatives of the industry, which can easily be accessed, e.g. through the website divestmentfacts.com, a project of the Independent Petroleum Association of America, or in media reporting on FFD.

I also relied on the method of participant observation (Uldam and McCurdy 2013), as I was personally involved in fossil fuel divestment campaigns at several universities in Belgium, notably those at Ghent University and the KU Leuven, between September 2016 and October 2018. I participated in public recruitment events, panel discussions, or roundtables organised by local chapters of the "Fossil Free" campaign. The informal discussions that I had with participants, activists, and panel members from the finance industry or asset managers of the universities themselves, throughout these events, are also used to complement the study of evidence. These experiences were mostly used for background information and to fill gaps in the sequence of events. I do not claim to come to this from an uninfluenced perspective. Nonetheless, I balanced this potential personal bias through data triangulation with other primary research and a survey of the literature on divestment..

4. Drivers of norm diffusion

4.1 (Legitimacy of) norm entrepreneurs and leaders

In line with previous norm scholarship, the diffusion of international norms is partly determined by norm entrepreneurs' stature and legitimacy among relevant norm

addressees and the broader relevant political economic actors (see e.g. Franck 1988, Barnett 1997, Finnemore and Sikkink 1998, Florini 1996, Okereke 2008).

Finnemore and Sikkink (1998, 906) emphasise that norm influence in world politics is contingent on the quality—or prominence—of the actors promoting it. First, materially powerful actors have advantages if they want to promote a new norm, simply because they have more opportunities "to persuade others of the rightness of their views" (Florini 1996, 375). Second, however, norm entrepreneurs can also be seen as successful and desirable models for others to follow, without having to tap into traditional material power resources. Scandinavian countries in world politics, for example, have functioned as norm entrepreneurs in promotion of environmental and security norms "precisely because of [their] limited material capabilities" (Ingebritsen 2002).

The perception of a norm entrepreneur's prominence, refers to what Buchanan and Keohane (2006, 405) dubbed their "sociological legitimacy", or the acceptance of the rule-making authority [of norm entrepreneurs] among norm addressees.[56] Likewise, Barnett's (1997) conceptualisation of "procedural legitimacy", referring to who created the norm and the stature of those advocating it, also underscores the importance of real or perceived prominence of norm entrepreneurs and leaders.

Now, who have been the norm entrepreneurs associated with the FFD norm and what has their impact been? Starting around 2011, the FFD norm was grafted onto the global political agenda thanks largely to the work of several NGOs, acting as norm entrepreneurs. In 2011, a student group at Swarthmore College in Pennsylvania launched the first campaign for divestment from fossil fuels (coal in particular) in US higher education. In several other colleges and universities divestment campaigns started. Student activists were subsequently joined by a campaign, spearheaded by climate activist Bill McKibben and 350.org, an NGO he founded a few years before.

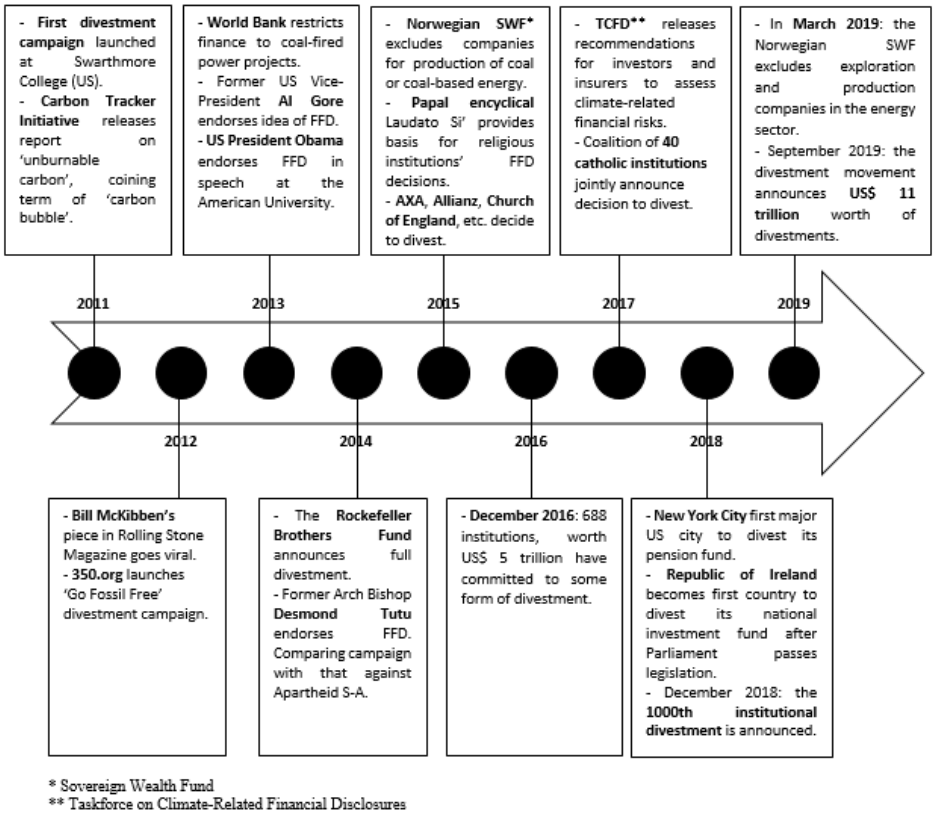
In a viral *Rolling Stone Magazine* article, McKibben (2012) popularised the idea that the world was carrying a "carbon bubble", similar to the "housing" and "dotcom" bubbles that led to severe economic turmoil in 2008. He adopted the idea from a report by the Carbon Tracker Initiative (CTI), a London-based financial think tank. In this 2011 report, CTI had argued that the financial prospects of fossil fuel investments were in peril and

[56] According to Buchanan and Keohane (2006, 405), "legitimacy" has both a normative and sociological meaning. To say an actor has normative legitimacy, is to assert that is *has* the right to develop rules. If an actor possesses sociological legitimacy, it is *believed* to have the right to develop rules. For a brief overview of differences between these two types of legitimacy, see Bäckstrand et al. (2018).

that fossil fuel assets risked becoming “stranded” as the shift to a low-carbon economy was accelerating (CTI 2011).

From the US, the primarily student- and youth-led movement quickly expanded to campuses around the world and expanded to include supporters among other mission-driven investors, such as religious groups, local councils, universities and philanthropic foundations. Through its 2015 “Keep it in the ground” campaign, the British newspaper The Guardian gave the campaign a high amplitude loudspeaker to get is message out. And in just four years, the transnational campaign grew from US$ 52 billion of assets declared fossil free to almost US$ 8 trillion. 350.org keeps track of divestment pledges and policies around the world: In December 2018, the 1000th divestment commitment since the beginning of the campaign was announced. Figure 5 highlights the most notable institutional commitments and endorsements by high-level individuals thus far.

Figure 5. High-level FFD commitments and endorsements: timetable



* Sovereign Wealth Fund
** Taskforce on Climate-Related Financial Disclosures

Source: Own creation, based on Gofossilfree.org (2019b)

In the first phase, the most prominent norm entrepreneur of the FFD norm was 350.org, as the organisation that set up the "Go Fossil Free" campaign and that orchestrates local campaigns at mission-driven institutions (Gunningham 2017). As a grassroots NGO, they are arguable most influential in these circles. According to their website, Gofossilfree.org, the vast majority of divestment decisions come from these organisations, accounting for roughly 4/5 of all commitments. Other commitments can be attributed to pension funds and for-profit corporations, mainly insurance companies (Gofossilfree.org, 2019b).

According to one interviewee, a financial analyst in the City and currently working at CTI, these grassroots campaigners function best as norm entrepreneurs that appeal to mission-driven institutions, because of their moral objectives (Personal interview #1, 2018). However, as these institutions essentially hold only a small part of all fossil fuel assets, they are not the only norm addressees to address. Ansar et al. (2013, 56) calculate that all university endowments worldwide represent just under US$ 450 billion of assets under management, out of a total of a US$ 212 trillion global financial stock. This of course is a negligible amount. Hansen and Pollin (2018) found that currently assets committed to divestment are at about US$ 36 billion while total global private fossil fuel assets stand at US$ 4.9 trillion.

Consequently, the norm will also have to speak to a finance audience, including bankers, insurers, asset managers, financial advisers etc. However, given original confrontational and moral approach, the message of FFD campaigners can be more easily delegitimised by these profit-focussed actors. For example, asset managers and other agents argue that they are bound by a "fiduciary duty" in order to dismiss moral pressures to divest (Foley 2016). And even for those that choose to (partly) divest, it remains very unclear to what extent the decision is causally linked to grassroots campaigners that operate under the umbrella of the campaigning platforms of 350.org.

That is why CTI, as a financial think tank, enhances the legitimacy and impact of the normative campaign among these more profit-driven norm addressees. Bernstein and Cashore (2007, 360) note that enlisting such business or finance-grounded organisations increases the credibility of a normative campaign among norm addressees and "opens space for shared norms to emerge". A respondent at CTI observed that "the financial audience are […] the people that we need to persuade, they are the people with the money and those who lie at the heart of the capitalist system" (Personal interview #1, 2018). Consequently, in order to increase its legitimacy among these actors, CTI reports on the financial aspects related to energy transitions to help the investment community better understand the financial implications of

tackling climate change. Other research organisations such as Bloomberg New Energy Finance and the Institute for Energy Economics and Financial Analysis also fulfil such a role. I will come back to what the promotion of a finance narrative by these actors means for the norm's diffusion in the following section.

On top of this norm entrepreneurship, the early and enthusiastic support of important, materially powerful norm leaders is also critical for the further diffusion of the norm (Finnemore and Sikkink 1998, 895). Hence, norm diffusion received a proverbial shot in the arm with a pivotal speech made by Bank of England Governor Mark Carney's on climate change and financial stability in 2015 (Carney 2015). There, Carney asserted that investors were at risk of significant exposure to stranded assets and that frameworks to disclose and manage these climate-related risks were to be developed. In the years prior, he had met on several occasions with the people at CTI, as one person noted, "He went on to make his own speech on 'unburnable carbon' a phrase taken straight from our first report" (Personal interview #2, 2018). The sociological legitimacy among an audience of investors, insurers and central bankers of the Governor of the Bank of England could hardly be underestimated.

Together with the rise and diffusion of neoliberal globalisation, institutional investors' role in global financial markets has also been growing, to the point that they now also exercise great influence on financial decision-making regarding environmental and social performance of firms they invest in (Harmes 1998, Duyck et al. 2019). A case in point is the March 2019 decision of the Norwegian Government Pension Fund to divest its holdings in extraction and production companies in the energy sector. Although this decision affects US$ 8 billion worth of shares in 134 companies—about 1.2% of the fund's stock holdings (Government.no 2019)—if such a large institutional investor divests from specific sectors of industries, this is bound to alert other investors and the industry itself, much more than if a group of grassroots campaigners succeeds in convincing a college to divest its endowment, as a respondent at CTI suggested.

However, the source of a norm is not the only agency-centred factor that impacts norm diffusion, the force of articulation also matters. In the next section, I explore this in terms of the different strategic frames that are employed to promote the fossil fuel divestment norm.

4.2. Framing strategies and discursive contestation

Finnemore and Sikkink (1998, 897) assert that "the construction of [cognitive] frames is an essential component of norm entrepreneurs' political strategies." In a context of norm-building and diffusion, "Frames provide a singular interpretation of a particular

situation and then indicate appropriate behaviour for that context" (Payne 2001, 39)." Accordingly, frames have a dual quality of both interpreting a problem in a distinctive way and articulating potential solutions in order to solve that particular problem. The most persuasive and successful norm entrepreneurs are those that are able to frame normative ideas in such a way that they resonate with the norm addressees (i.e. those to be governed by a norm). I prioritise financial actors are the primary norm addressees, including pension funds, hedge funds, endowments, other institutional investors, asset managers, financiers or insurers.

In constructing their frames, norm entrepreneurs face opposition from firmly embedded norms and frames that create alternative perceptions of both appropriateness and interest (external contestation). There can also be contestation among the supporters of the norm themselves (internal contestation), often on matters of definition (Krook and True 2012). Here I argue that through the different framing strategies and the variety of means to implement the norm, FFD appeals to a large group of actors, which in turn helps expedite the diffusion process.

Broadly four frames of FFD can be distinguished (Mangat et al. 2018). First, a "war and enemy" frame is mostly dominant in grassroots activist circles and depicts the fossil fuel industry as "enemies" that have to be fought (Mangat and Dalby 2018). Second, a "moral" frame denounces fossil fuel incumbents' immoral behaviour regarding their historic responsibility in climate change and their continued search for profits. This is epitomised by the rallying cry, "if it's wrong to wreck the planet, it's wrong to profit from this wreckage". A third frame is that of (climate) justice (Bratman et al 2016; Healy and Barry 2017). This frame situates fossil fuels in relation to the unequal impacts of climate change. Climate change is happening everywhere, but it is negatively affecting certain groups disproportionately: poor people and ethnic minorities in developed economies, as well as developing countries in the Global South in general. A fourth, "finance" frame, is substantively less related to the other three, and refers to the beneficial economic effects on financial portfolios of divestment.

A major element of the first three frames is the explicit focus on undermining the moral legitimacy of the fossil fuel industry's position of power. These frames are also mostly employed in divestment campaigns directed at mission-driven institutions because they are considered to be more susceptible to such non-financial arguments. Other types of investors are more susceptible to the finance frame (Mangat et al. 2018). This frame actually merits greater attention than it is often attributed in academic literature on FFD (see e.g. Gunningham 2017). As the former CEO of CTI, observed, "most investment mandates would not permit exclusion of a sector on purely ethical grounds"

(Leaton 2014). For example, the Norwegian national pension fund referred to climate change as an "important financial risk factor" rather than a moral incentive when it announced that it would divest from exploration and production companies in the energy sector. The divestment decision was taken to help to ensure the fund's would not increase the country's exposure to future fluctuating oil prices.

Carney's 2015 speech strengthened the financial frame for FFD, as it linked traditional financial concepts of risk management, portfolio diversification, and stranded assets to climate change. Stranded assets are fossil fuel supply assets (reserves, pipelines, refineries, power plants, etc.) that become uneconomic prior to the end of their expected economic life, mainly due to climate policy (regulatory stranding), competition from renewables (economic stranding) or environmental risks (physical stranding). Consequently, these assets are currently overvalued and could generate a "carbon bubble", similar to the historical housing or dotcom bubbles that, when they burst, led to economic recession (CTI 2011, 2013).

This finance frame therefore has two main advantages. As I noted in section 4.1., it raises the issue of divestment within a group of norm leaders and addressees that, in general, tend to be less concerned with climate change, or more broadly, ethical issues in general: the "finance actors", including large asset owners, for-profit corporations, asset managers, and financial advisors. For the first time, a divestment campaign does not need to solely advance its message through moral outrage Apfel 2016), but it can employ financial metaphors and arguments to "appeal to the self-interest of investors" (Mangat et al 2018, 198). Although there is still no conclusive evidence that fossil fuel divestment leads to improved financial outcomes (Henriques and Sadorsky 2017, Ritchie and Dowlatabadi 2014, Trinks et al 2017), institutional investors are increasingly aware of the financial uncertainties associated with energy transition and have already started to alter their risk preferences in fossil fuel projects (Buckley 2019; Fattouh et al 2019).

A second advantage of such a finance frame is that it can lead to institutional engagement with finance strategies that address the issue of climate change, without necessarily having to invoke the principle of divestment. In 2015, the G20 Finance Ministers asked the Financial Stability Board, which Mark Carney chaired at the time, to consider how the financial sector could take account of the risks climate change poses to our financial system. Large financial institutions soon followed suit. Actors such as HSBC, Goldman Sachs, Citigroup and others have since issued reports on how to manage climate-related financial risks, both with regard to their own fossil fuel investments or assets managed for third parties (Goldman Sachs 2018). In the

slipstream of the divestment campaign, Follow This, a Netherlands-based group of activist shareholders has convinced some oil majors to increase climate disclosure. Instead of selling shares, these campaigners actually buy them to exert pressure on corporate management (Neville et al. 2019). Importantly, shareholder activism and divestment need not be mutually exclusive, as shareholder activists have noted that fossil fuel divestment could be used as a measure of last resort should their strategy of engagement fail (Raval and Mooney 2018).

These different frames also lead to a variety of practical implementations of the FFD norm. Table 15 gives an overview of different implementation strategies. Because norm addressees can choose between a variety of strategies, ranging from very radical interpretations of divestment to less stringent measures that include only the biggest "polluters" being shunned, this can expedite the norm's diffusion.

Table 15. Variety of divestment strategies

Exclusion target or objective	Implementation strategy	Examples
All fossil fuels	- Exclusion of all companies involved in the extraction of coal, oil and gas.	- Edinburgh University; Church of Sweden
Coal	- Exclusion of companies deriving certain percentage of their revenue from coal operations. - Halting financing or underwriting of coal-fired power plants	- Norwegian pension fund; Axa Group - World Bank; EBRD
"Extreme" fossil fuels	- Exclusion of companies that engage in deep water drilling, oil extraction from tar sands, or fracking of shale oil and gas.	- Georgetown University; Oxford University
"Carbon Underground 200"	- Exclusion of the top 200 coal, oil and gas reserve owners in the world	- Ghent University
Non-alignment with Paris Agreement	- Exclusion of companies whose strategies are not aligned with the Paris Agreement (i.e. >2°C).	- Church of England
Portfolio Decarbonisation	- Reduce carbon-intensity of investments or assets under management. Or, reduce the carbon footprint per Euro/Dollar invested.	- University of Ottawa

Author's creation, based on Finley-Brook and Holloman (2016) and Gofossilfree.org (2019b)

The observation at the outset of this section that framing strategies have a dual quality of both interpreting a problem in a distinctive way and articulating potential solutions in order to solve the identified social issue, applies to this finance frame as well. It interprets climate change and the role of fossil fuel companies as a financial risk of

stranded assets and fiduciary duty, rather than as a normative or moral issue, which in turn requires classic financial tools and solutions such as asset and risk diversification.

In doing so, the finance frame in itself already alters the content and outcomes of the norm. Arguably, this frame causes norm change because it undermines the initial counter-hegemonic nature of the FFD norm (i.e. delegitimation of the fossil fuel industry), in that it considers fossil fuel assets as toxic investments, rather than considering the normative and moral responsibility of the fossil fuel industry in creating climate change. I now turn to structural factors that provide a full account of the uptake and diffusion of the FFD norm in order to explain where this financial framing strategy originates and how it is impacted by the extant normative environment.

4.3. Political Opportunity Structures

Norm entrepreneurs and leaders do not exist in a vacuum, but instead operate in shifting structural contexts. Not only do they engage with other actors, they also propose norms in specific social structures that have their own, independent impact on norm diffusion. Such contextual factors are captured by the term "political opportunity structures", which can be understood as the specific configuration of resources, institutional arrangements and historical precedents that are external to norm entrepreneurs and that facilitate the development of norms in some instances or constrain them in others (Kitschelt 1986, 58).[57] They typically include crises or focussing events, but are not limited to that. Crises can occur in the problem stream, through e.g. technological (r)evolutions, oil price shocks, environmental catastrophes; or in the political stream, e.g. failure of existing policies, political stalemate, or the election of a new political leader (Kingdon 1995). Crisis situations can lead policy-makers to question conventional policy wisdom that norm entrepreneurs can capitalise on by framing the policy issue at hand in a new way in order to open a window of opportunity for new policy ideas.

Fossil fuel divestment was already a topic of concern within the insurance industry as early as the 1990s. Greenpeace attempted—but failed—to convince the insurance industry that climate change threatened its profitability and that it should switch its investments away from fossil fuels towards renewable energy (Leggett 1993, Paterson

[57] In their seminal article on the international dynamics of norms, Finnemore and Sikkink (1998, 909) refer to this as the "world time-context" that can be structurally conducive to norm diffusion. In their understanding, such "[world] historical events such as wars or major depressions in the international system can lead to a search for new ideas and norms." Other authors use terms such as "critical junctures" (Collier and Collier 1991, 29), while Sandholtz and Stiles (2009, 325) refer to "triggering events".

2001).[58] Political opportunity structures is probably what earlier attempts focus on fossil fuel divestment missed in order to convince norm addressees. The reason why the divestment movement only really gained traction in the past few years could be that the political context, scientific knowledge, and public awareness of climate change have altered substantially compared to the 1990s.

First, an increased sense of urgency around climate change among norm entrepreneurs and leaders provided a conducive context for the diffusion of the divestment. McKibben (2012) referred to the increase in natural disasters that were linked to climate change to advocate for FFD. Moreover, the first CTI reports built on the work around the "carbon budget" to frame its concept of the "carbon bubble": the total amount of carbon dioxide the earth's atmosphere can absorb before the 1.5-2°C temperature goals (around which political minds were converging) are breached. Growing evidence that the effects of climate change were already being felt at the time of establishing the campaign provided further impetus to the divestment campaign.

Second, political stalemate, both domestically (in the US, where the FFD norm originated) and internationally, further proved advantageous for the establishment of the FFD campaign, as it grew from a general sense of frustration with conventional political approach to climate change. The failure of the 2009 Copenhagen Climate Summit, at which a successive agreement to the Kyoto Protocol was to be agreed on, exemplified the deadlock of traditional multilateral climate negotiations. This was due to the competition between great powers there (especially the US and China), as well as the inert nature of negotiations within the context of Conferences of the Parties (COPs). Domestically, in the US, disappointment with climate policies under the Obama administration, as well as the 2009 failure of the Waxman-Markey bill that was to impose a nationwide carbon cap-and-trade system in the US, made campaigners look for an activist strategy outside the classic political lobbying strategy.[59]

Third, the failure of conventional climate campaigning also proved a crisis situation on which norm entrepreneurs could capitalise. As McKibben (2012) noted, "Green groups […]have spent a lot of time trying to change individual lifestyles." He argued that this approach of individual culpability alienated the public because "people perceive –

[58] [58] There was another precursor to the current FFD campaign. In 2000 Ozone Action targeted companies that were part of the Global Climate Coalition, a group of large energy companies that opposed climate action. This campaign (helped) lead to the dissolution of this organisation (Mayes et al 2017).

[59] McKibben's criticism on the domestic level climate policy-making was not only directed at the US but other countries as well, including Canada for the development of tar sands, and other countries where fossil fuel reserves are mostly held by the state (such as Venezuela).

correctly – that their individual actions will not make a decisive difference in the atmospheric concentration of CO_2." Consequently, McKibben argued, a divest campaign that laid the blame with the fossil fuel industry rather than with individual behaviour, could help reignite climate activism. After all, FFD is the exact opposite of the typical climate strategy of controlling the consumption of fossil fuels by a large number of consumers through e.g. efficiency measures.

These different external factors: the increased urgency of the "climate crisis", domestic and international political stalemate, and the failure of conventional climate campaigning proved fruitful political opportunities for norm entrepreneurs to frame the FFD norm. Lastly, I will focus on the importance of a normative "fit" with the extant social structure as the decisive factor for a norm to take root and diffuse.

4.4. Constraining effects of a liberal normative environment

The role of the extant normative environment and social structure on the uptake and diffusion of norms has been dealt with extensively in norm scholarship (Krook and True 2010, Florini 1996). Indeed, ideas and norms are most likely to be successfully diffused when norm and policy entrepreneurs frame them in such a way that they fit into the broader international social structure. The social structure can be defined as the "broader sets of institutionalised norms that are already accepted as legitimate bases of governance in the international system" (Bernstein 2002, 8).

But what does this structure look like, and how does this affect counter-hegemonic norms that are articulated? As Okereke (2008, 42) suggests, the viability of norms in the end depends on the extent to which they remain "within the boundaries permissible by the dominant liberal economic order." This adherence to the hegemonic liberal economic order is the decisive factor that shapes a norm's successful diffusion within the international system. This section therefore broadly draws on Okereke (2008) and Bernstein's (2001, 2002) perspectives on norm dynamics. Bernstein (2001) has dubbed the existing liberal social order "liberal environmentalism". In his understanding, international norms are more likely be institutionalised and implemented if they are predicated on the maintenance of fundamental liberal market norms of free trade, open markets, or the support of market instruments over regulatory mechanisms and government intervention.

The focus on the integral interaction between (neo-)liberal ideas, norms and social structure owes intellectual debt to a Gramscian understanding of political change. This means that norms that radically going against hegemonic ideas and norms that held by dominant social groups in society can of course be formulated, yet they will find it much

more difficult to diffuse among norm addressees that form part of a specific historical bloc. Moreover, through a process of passive revolution, the counter-hegemonic norm, as it was originally articulated, is translated into reformist changes, without any fundamental concessions in an effort to preserve the essential aspects of social structure. How then, did the FFD norm originally challenge these ideas, and what impedes the development of its radical, counter-hegemonic components?

As I noted in section 4.2. on framing strategies, the "war and enemy" frame, the "moral" frame, and the "climate justice" frame, all three actually firmly contest the social norms associated with an existing liberal order that prioritises considerations of risk minimisation, profit maximisation and fiduciary duty toward asset owners. As such, undermining the social licence of the fossil fuel industry was the central objective of the norm. In that sense, the FFD norm was decisively counter-hegemonic in nature.

Throughout the process of norm articulation and diffusion, however, some developments have shown that a liberal normative environment has actually severely constrained the development of the radical aspects of the FFD norm. In addition to that, the tactics and frames that are used by norm proponents to make the norm "fit" with the objectives of norm addressees, undermine the counter-hegemonic character of the FFD norm.

In his first call for divestment in 2012, McKibben already signalled a general discontent with the political inaction regarding the traditional regulative and policy-making approach to climate change. After all, a divestment argument essentially entails that an industry's stigmatisation, and ultimately its phase-out, depends on a "market strategy" of wielding the financial power of investors. The market, in other words, is considered the primary venue to fight the fossil fuel industry. That is, institutional investors have gained such a prominent and important position in the global economy that their financial behaviour—through divestment—ultimately can have a more beneficial political impact than government action.

Their economic power should therefore be used in order to induce political change. This is a clear endorsement of a fundamental aspect of liberal environmentalism, namely that market strategies are favoured over direct government regulations or other interventions (Bernstein 2002, 4). The FFD norm and the campaign's embrace of an approach that targets market actors instead of governments "reflects a disillusionment with the capacities [and willingness] of states to engage seriously with major environmental problems" (Gunningham 2017, 375). In other words, market

actors (i.e. investors, asset managers, financial advisers etc.) are as seen as the legitimate actors to promote and ultimately adopt the norm.

Indeed, there is a lack of serious engagement with governments and the formulation of exact policy recommendations, but contrary to what some have argued this certainly does not inhibit further norm diffusion (Gunningham 2017, Cheon and Urpelainen 2018). Consider the counter-factual of campaigning for government-imposed restrictions on fossil fuel finance. Such a denial of the market norm of "free movement of capital" would surely be met with considerable contestation and would inhibit norm acceptance by the said norm addressees. In a televised debate in Belgium, the leader of the Green Party was accused of "promoting communism" by the leader of the Conservative party for suggesting that the government could impose restrictions on (private) banks' fossil fuel finance activities (Ter Zake 2019).

The FFD norm thus feeds into the normative development under liberal environmentalism whereby social and political issues are subject to a process of "marketisation" (Soederberg 2009). It builds on a commonly held and dominant belief that social change can most effectively, and profitably, be achieved through market mechanisms, as opposed to state-based rules placed on corporate behaviour. In three interviews with leading FFD campaigners in Belgium, they acknowledged that eventually, governments must be made to legislate against the fossil fuel industry. However, this is arguably much less the case for norm addressees such as large investors and asset managers. Essentially, the norm resonates with them because, once "rebranded" as an issue of corporate social responsibility (CSR), governments can be prevented from imposing stricter legal action (Newell and Paterson 2010). This feeds into the normative conviction of liberal environmentalism that the market works more effectively to solve social issues.

Granted, this does not mean that finance actors are not susceptible to moral arguments. Both do not have to be mutually exclusive. Rather, it means that moral arguments are embedded within a liberal logic whereby social, moral and political issues are reframed as financial issues. This becomes apparent from the experiences of FFD campaigners. Even at mission-driven institutions such as universities, as much as there was support for the moral arguments, FFD discussions mostly centred around investment returns and risk spreading.

For Ghent University, with an investment portfolio of around €250 million, the internal divestment recommendation memo notes, "the purpose is not to actively invest in sustainable sectors. The University chooses to invest in funds that guarantee a spread

of ongoing investments and that do not significantly increase the risk profile of investments […] The aim of the portfolio remains achieving the best possible returns" (Ghent University 2018). In the end, moral concerns are trumped by investment objectives and in during discussions in the divestment process, discussions centred around technical and financial issue always (Personal Interview, 2019). According to that same interviewee, labour union representatives involved in the divestment discussions tended to highlight the need for continued returns, given the material stake of the pension fund in the fossil fuel economy.

Likewise, experiences of Harvard, Stanford, and Brown University, in the United States reflect the conflict between moral and economic concerns (Blondeel et al. 2019). The Harvard board considered the endowment an economic resource and not an instrument to impel social or political change, Brown University remained unconvinced that the social harm inflicted by the fossil fuel industry outweighs its social and economic benefits, and although Stanford University decided in 2014 to divest from coal, it rejected a request to divest its entire endowment from the fossil fuel industry altogether in 2016 on similar grounds as Brown.

All in all, this means that even if (mission-driven) institutions consider divestment, discussions mostly focus interest-based considerations of risk management, profit/return maximisation and fiduciary duty. In other words, the very same technocratic debates that are criticised by formulating an FFD norm, are what underpin discussions among campaigners and decision-makers. This implies that the counter-hegemonic characteristics of the norm as it was originally articulated are left behind. The norm becomes subject to a process of passive revolution of small, incremental concessions in order to constrain as much as possible the radical potential of the norm and its proponents..

5. Conclusion: Implications for anti-fossil fuel norms

In this paper I discussed the drivers and constraints of a norm diffusion. I applied this to the recent emergence of anti-fossil fuel norms, more specifically that of fossil fuel divestment. I argued that four factors are pivotal to understanding a norm's successful uptake and diffusion among norm addressees: (legitimacy of) norm entrepreneurs, framing strategies and discursive contestation, political opportunity structures, and the normative fit with the extant liberal social structure. The first two factors highlight the importance of agency in norm dynamics and reflect the recent turn in norm scholarship toward a more agency-centred approach (Wunderlich 2013). The other two factors provide insights into the structural context in which norms are formulated and diffused.

It urges norm scholars to consider structural factors that can inhibit or facilitate norm diffusion. Norm entrepreneurs and norm leaders' framing strategies are in the first place facilitated by political opportunity structures that they capitalise on. Most importantly, however, these factors are contingent on whether a norm "fits" with the essential normative foundations of the extant (neo-)liberal economic structure. The newly formulated FFD norm must thus speak to the fundamental market norms of deregulation, privatisation and liberalisation. Consequently, the hegemonic normative and ideational environment that underpins the (neo)liberal social structure sets limits on what are considered acceptable ways of addressing social challenges faced by society.

Hence, a norm will likely be more successful if it acknowledges the primacy of the market over that of the political realm (or "the state"). That is, if a norm seeks to achieve social change through the market the likelihood of successful diffusion increases, since markets are considered more effective, efficient and profitable. This follows the growing importance of markets as institutions in the global political economy. The above analysis agrees with Bernstein's observation that specific environmental concerns will gain legitimacy if they are compatible with the kind of economic order dominant at any given time (Bernstein 2001, 2002). Therefore, the constructivist notion of "unconstrained agency" in processes of norm dynamics is not applicable to the emergence and diffusion of the FFD norm. FFD rather becomes an investment strategy because of negative economic prospects of a fossil fuel industry, rather than a political strategy to delegitimise the power and practices of immoral actors.

However, as I have outlined above, there is some space for critical ideas and norms to take root, even in an environment where framing strategies are employed that must resonate with a conventional finance audience and that feed into dominant normative underpinnings of the liberal economic order. After all, if the FFD norm continues to be diffused and succeeds in widespread institutionalisation, it will contribute to a change in the collective standards of what is considered appropriate investment behaviour. This in itself would represent a cognitive shift in the minds of a set of crucial actors within the international political economy of the energy system, and would be a sign of success for the FFD norm.

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PART V. Conclusions

5.1. Summary of the dissertation

The central objective of this dissertation was to explain the international emergence and diffusion of anti-fossil fuel norms (AFFNs). I situated these norms within broader calls to prioritise normative approaches to climate action, given the documented failure of long-time dominant interest-based and economic approaches. More specifically, this dissertation laid bare the drivers and constraints that determine the articulation and diffusion of such AFFNs through disciplined configurative case studies of four exemplary cases: fossil fuel subsidy reform, global coal mining moratorium, coal-fired power phase-out, and fossil fuel divestment.

I developed an analytical framework on AFFN "life cycles" that offers a step-by-step overview of how such AFFNs emerge, diffuse, and eventually (could) become internalised by relevant actors within the international system. This framework was inspired by Finnemore and Sikkink (1998) and has been systematically applied throughout the different articles of part IV. Moreover, each of the articles focussed on a specific AFFN case, posed (a) particular research question(s), and explained different instances and aspects of this life cycle.

The first article discussed the puzzling question of the emergence and (limited) diffusion of fossil fuel subsidy reform (FFSR), thus focussing on the two first stages of the AFFN life cycle. I found that three elements are important to tracing and explaining this process. First, the analysis revealed that the initial articulation of the norm can be clearly linked to specific *norm entrepreneurs*, even though not all of them have had a similar impact. Contrary to theoretical expectations with regard to early phases of norm articulation, the United States government under President Obama played a key entrepreneurial role, and not (just) NGOs or civil society organisations operating through transnational networks "from the bottom up". This has to do with the second factor, *political opportunity structures*.[60] Agents do not exist in a vacuum but instead operate in shifting contexts. An important instance in the process of FFSR norm institutionalisation was the 2009 G20 pledge to "rationalise and phase out inefficient fossil fuel subsidies" (G20 2009). The summit was organised in the midst of a global financial and economic meltdown and primarily addressed the critical transition from global crisis to recovery. In this context, the United States saw an opportunity to link the issue of climate change with the financial and fiscal issues at the core of the G20. Another contextual factor, however, is currently impeding widespread norm

[60] Which is an example of what I have dubbed "extrinsic events" in the AFFN life cycle framework.

implementation, namely oil prices and shocks. In a context of rising oil prices, consumer subsidies are far more difficult to phase out, as politician and policy makers risk agitating constituents. Third, the norm is also characterised by *internal and external contestation* in the form of discursive cleavages among norm proponents internally, but also with those opposing FFSR. For example, on a domestic level, implementation of the FFSR norm is hampered because it is strongly contested by domestic norms which shape such subsidies as an essential part of the "social contract" between governments and their constituents.

The second article examined whether temporary coal mining bans and restrictions in the United States and China (the largest coal producers in the world) reflect the existence of a global AFFN to keep coal under the ground. It essentially looked at the implementation aspect of the AFFN life cycle since it examined coal extraction policies in key producer states. To that end, we conducted a comparative analysis of coal mining policies in the United States, China, Australia and India based on a classic political economic analytical framework of ideas, interests and institutions. The article found that the norm of keeping coal in the ground remains essentially contested. Even in those countries that have introduced some form of a coal mining moratorium, the ban has already been reversed. The analysis further shows that climate change considerations are not (yet) factored into coal extraction policies. Even in China and the United States, countries that have or had temporary bans on new coal mines, climate considerations played second fiddle and there is little to no evidence that normative ideas regarding coal extraction have shifted, assisting in the emergence of a global anti-coal mining norm. Instead, the Chinese and US coal extraction policies are explained as strategic moves that protected the industry from the headwinds it was facing. These particular national cases demonstrate that national circumstances and sensitivities are key in debates about (curbing) coal extraction. In short, the emerging anti-coal extraction norm struggles to gain political traction due to firmly entrenched material interests, political constellations, beliefs and institutions.

In the third article, we analysed the factors that determine state membership of the Powering Past Coal Alliance (PPCA), a multi-stakeholder international partnership that formulates an international norm against coal-fired power generation. As such, this article focusses on two aspects of AFFN diffusion: institutionalisation and implementation. The article found that the momentum and effects of the PPCA are mostly informed by a "logic of consequence", and that a "logic of appropriateness" and identity-related factors play second fiddle in determining membership. The results indicated that countries that have no coal in their electricity mix and that have adopted

a phase-out plan are most likely to join the PPCA. Another interest-based driver that impacts PPCA membership is the lack of a strong coal industry. It is also apparent, however, that especially countries that have taken up a "climate leadership" identity become member. This means that the logic of appropriateness also plays a role.

The fourth and final article discussed the determinants of success for fossil fuel divestment as an international norm. As in the first article, I discuss the same drivers and constraints for the norm's emergence and diffusion, thereby focussing on the first two stages of the AFFN life cycle, emergence and diffusion. The first set of factors is related to agency, and it includes the (legitimacy) of norm entrepreneurs, framing strategies and the associated discursive contestation. A second set of factors is related to structural determinants. Political opportunity structures lead norm entrepreneurs to question conventional wisdom in the first stage of norm emergence. In the end, however, the viability of the FFD norm depends on the extent to which they remain within the boundaries that are set by the dominant liberal economic order. Adherence to hegemonic liberal norms is a crucial factor to understand the success or failure of such a norm's diffusion among relevant norm addressees. This means that an initial counter-hegemonic campaign will most likely strand into a passive revolution of small, incremental changes from above, which have no significant impact on fundamental norms underpinning the existing social order.

This dissertation laid bare the drivers and constraints that determine the articulation and diffusion of such AFFNs. Similar to what previous research has found, the structural factors that influence norm emergence and diffusion are extrinsic events and the extant normative environment. Agentic factors that play a role are norm agents (norm entrepreneurs, antipreneurs and addressees), framing, and material power. In addition to that, I find that norms are continuously subject to internal and external processes of contestation, which play out both discursively and behaviourally.

Table 16. Drivers and constraints of norm emergence and diffusion

Structural factors	Agency-based factors
Extant normative environment	Norm agents
Extrinsic events	Framing (discursive power)
	Material power
	Contestation

In the next section, I discuss how the study of these four cases has broadened the empirical and theoretical understanding of AFFNs. It is followed by a discussion of

potential future research avenues. I conclude the dissertation with some recommendations relevant to anti-fossil fuel campaigners and policy makers.

5.2. Key takeaways and contributions

What lessons can we learn from this study about the drivers and constraints behind AFFNs? I discern six overarching insights from the preceding articles, which explain how and why certain AFFNs succeed in diffusion while other lag behind or are eventually subject to backsliding and failure. These findings are, of course, relevant for future AFFN research. Moreover, other interested scholars may also seek to generalise these findings to other fields of study in IR where norms have already been proven to play an important role in determining (changes in) political behaviour.

> 1. Extrinsic events create the space for norm articulation as well as further norm diffusion.
> 2. An international liberal social order associated with liberal environmentalism, constrains the successful institutionalisation of counter-hegemonic AFFNs. Implementation is also impacted by local or domestic norms and ideas.
> 3. AFFNs are likely to be more successful when framing strategies (also) emphasise non-climate issues.
> 4. The power of AFFNs to speak to (perceived) material interests emphasises the impact and relevance of logic of consequence for their development.
> 5. Agency is attributed to multiple types of actors, not just norm entrepreneurs, in the AFFN life cycle. This agency plays out in the form of internal and external contestation.
> 6. Norm diffusion processes—i.e. institutionalisation and implementation—do not always occur sequentially. Instead, they can occur the other way around, simultaneously or independently from one another.

1. Extrinsic events create the space for norm articulation as well as further norm diffusion

Extrinsic events—in the form of political windows of opportunities, crisis situations, or focussing events—are often cited as important structural conditions in early stages of norm development. As Finnemore and Sikkink (1998, 909) wrote, “events such as wars or major depressions in the international system can lead to a search for new ideas and norms.” This study has additionally shown that extrinsic events continue to play a key

structural role in secondary stages of the AFFN life cycle, namely both in the process of norm institutionalisation, as well as that of implementation.

The institutionalisation of the FFSR norm, for example, received the proverbial shot in the arm when it was written into the G20 communiqué in 2009 in the midst of the global financial crisis. In addition to this decisive structural condition, oil price fluctuations in particular, have further impacted its widespread implementation. Consumer subsidies remain prevalent precisely because of growth in oil prices in 2017 and 2018. In both years, the absolute amount of fossil fuel subsidies went up again on the back of rising oil prices. Even though high prices implicate that public expenditure increases, politicians will be reluctant to engage in reforms because consumers—i.e. constituents—can be dependent on artificially low oil prices for their livelihood. Contrarily, a downward oil price shock could help policy makers ease the way for the implementation of FFSR. In the current context, however, high prices hamper reform. Yet, there is also evidence that policy-makers' perceptions of their interests have changed sufficiently to make the norm durable, given that the 15 percent rise in subsidies in 2017 was considerably less than the 25 percent rise in oil prices (IEA 2018, 111). Similar extrinsic events, in the form of low prices that were hitting the industry, also triggered the implementation of restrictive coal mining policies in China. Mainly as an attempt to protect its domestic coal mining sector, the country issued a temporary ban on the opening of new coal mines as an instance of industrial policy.

This finding is an important addition to the current understanding of how such extrinsic events contribute to norm development, especially in secondary stages of norm development. With this in mind, norm entrepreneurs and other proponents can continue to capitalise on these structural conditions in further stages of norm diffusion. Likewise, it also means that the agency of these actors remains constrained when specific structural circumstances are unfavourable for the spread of their ideas.

2. **An international liberal social order, associated with *liberal environmentalism*, constrains the successful institutionalisation of counter-hegemonic AFFNs. Implementation is also further impacted by local or domestic norms and ideas.**

Norms that "fit" within the broader social structure and do not undermine existing norms, ideas and cultural values that underpin the existing social order are more likely to become successful. This has been extensively proven in previous norm scholarship. But what does this extant normative environment look like? Just like norms in the field of environmental governance speaking to *liberal environmentalism* (Bernstein 2001),

AFFNs will more likely be institutionalised and implemented if they are predicated on the maintenance of fundamental liberal market norms of free trade, open markets, or the support of market instruments over regulatory mechanisms and government intervention. Note that this fit with a liberal order is mostly associated with norm institutionalisation in *international* agreements and communiqués. Once an AFFN is to be implemented on a *national* level, the fit with domestic or local norms and ideas may become of primary importance.

The FFSR norm is a case in point. This AFFN neatly fits with some of the core values, ideas and norms that underpin the extant international normative environment of liberal environmentalism. Especially in the 1980s, when the norm was first articulated within IOs such as the IMF and the World Bank—in an international normative context of "Washington Consensus"—this proved important. Even today, this is still relevant, as FFSR fits with ideas around fiscal prudence, promotion of free market (doing away with subsidies as price distortions), and that of "small government" (by reducing public expenditure). However, at the level of implementation, there is often tension between international liberal environmentalism and domestic norms and ideas. For example, in many countries, fossil fuel subsidies remain part of the "social contract" between governments and their constituents. Their reform and phase-out, in turn, therefore firmly goes against this contract, which problematises the implementation of the norm.

This is not to say that there is no room for more radical norms that formulate "counter-hegemonic" standards of behaviour. Such AFFNs fundamentally question—or even undermine—this existing normative environment. The FFD norm seeks to undermine the "societal consent" granted to the fossil fuel industry by problematising the financial streams that underpin its dominant economic position. As it was originally formulated, the FFD norm firmly went against established (neo)liberal market norms that prioritise profit over normative and moral considerations. Paradoxically, however, the FFD norm will likely diffuse further when norm proponents can convince relevant norm addressees (i.e. institutional investors) of the positive material effects of divestment, that is, if it maximises profits and minimises investment risks. In other words, the FFD norm operates within the boundaries permissible of the social order that grants primacy to those norms that do not go against the normative objectives of norm addressees. In such a case, the counter-hegemonic norm, and the campaign that promotes the norm, becomes subject to a process of passive revolution (or, "reforms from above") where a dominant group implements supposed concessions in an effort to preserve the essentials of the existing social structure.

Here, the addition of neo-Gramscian theory broadened the understanding of both what the international normative environment looks like and the extent to which newly formulated AFFNs can question and undermine the hegemonic ideas and norms that are associated with this social order.

3. **AFFNs are likely to be more successful when framing strategies (also) emphasise non-climate issues.**

In a context of norm development, the most persuasive norm entrepreneurs are those that succeed in making a newly formulated norm "resonate" with relevant audiences. This occurs through the process of framing. Frames, in other words, create issues by using language that names, interprets, and dramatises them. Framing has long been considered an important aspect of making norm successful (Finnemore and Sikkink 1998, Payne 2001). This study finds that framing is a key aspect of both the emergence *and* diffusion of AFFNs. AFFNs are not just framed in terms of "climate change", but rather they are discursively linked to a variety of other issues—mostly pressing political and economic ones—in order to expand the coalition of supportive actors. More importantly, in some cases, framing is also used to make the AFFN explicitly *not* speak to the issue of climate change. This is actually quite surprising, as AFFNs are of course initially articulated as standards of appropriate behaviour that question the impact of fossil fuel production and consumption on climate change.

The FFSR norm has been framed as solving additional problems, other than climate change, including mostly economic and fiscal ones. Moreover, when FFSR was first formulated in the 1980s, initial studies on energy subsidies emphasised their macroeconomic, fiscal and public revenue effects. The environmental externalities of fossil fuel subsidies were not a major driver of the push for their reform. Although later on, norm entrepreneurs explicitly started calling for FFSR on climate change (and environmental) grounds, this study found that supporters of FFSR mostly point to the fiscal, economic, environmental and distributional costs of fossil fuel subsidies to strengthen their advocacy for reform; and not (just) climate change.

The same can be said about FFD. Although norm entrepreneurs originally articulated the norm because of moral concerns about the entanglement between the financial sector and the fossil fuel industry, and how this affects climate change, they have used different frames, to a varying degree of success, to make this AFFN resonate with the relevant norm entrepreneurs. Moral arguments alone do not suffice to convince investors, financial institutions or banks to divest. Instead the norm is framed in such a

way that it speaks to other pressing concerns of the norm addressees, including risk minimising and profit maximisation.

An AFFN that formulates the phase-out of coal-fired power generation is also best framed in such a way that it speaks to problems beyond climate change. The founding declaration of the PPCA notes that burning coal for electricity not only is a leading contributor to climate change, but also that it has significant health effects, creates air pollution and causes "massive costs in both human and economic terms". Moreover, from our analysis, it became clear that the logic of consequence, which emphasises interest-based calculations, is a key driver for PPCA (non-)membership. This means that such an AFFN is best framed in such a way that it promotes interest-based factors, such as economic development, employment or risks associated with stranded assets.

Lastly, our study of coal mining moratoria actually expands the understanding of how framing is and can be used for the promotion of AFFNs. When the United States and China imposed their (temporary) bans, they were explicitly not framed as climate policies because this proved to be too controversial. Instead, the actions undertaken by the United States and China were framed in terms of fiscal (in the case of United States) or industrial (China) policy. Moreover, India and Australia actually explicitly denounce the frame of climate change when talking about coal extraction, and instead focus on issues related to economic development, employment, and—in the case of India—poverty reduction. Indeed, especially in those countries associated with strong coal production, the norm has to be framed so that it does *not* refer to climate change, but instead to completely different ones.

Although this finding confirms earlier theoretical understanding of framing strategies, it adds a new dimension. AFFNs often times are also explicitly framed in non-climate terms. As paradoxical as they may sound, this may positively affect the perspectives of successful emergence and diffusion of such norms.

We have found elsewhere that the use of "problem linkages" can be useful here (Blondeel et al. 2019). Problem linkages make norms and frames more persuasive as norm campaigns are more likely to succeed when the actions they prescribe can be used to solve additional problems that are of immediate importance to the norm addressees, beyond the 'good cause' that originally motivated norm entrepreneurs. This can be achieved through a deliberate framing strategy geared at establishing linkages between the proposed norm and the salient problems that norm addressees face. Linkages can occur at the discursive level when a norm is formulated and codified

in treaties and agreements, as well as at the policy-implementing level whereby norms are presented as solutions to the acute problems of the day, usually economic ones.

4. **The importance of (perceived) material interests elevates the impact and relevance of the logic of consequence for AFFN development.**

Logics of action—the logic of appropriateness and the logic of consequence—are what determine the behaviour of political actors (Finnemore and Sikkink 1998). However, subsequent research largely sought to emphasise the role of the logic of appropriateness, which resulted in a research bias toward this specific logic of action. In this study, I have found that throughout the entire AFFN life cycle, the selection and diffusion of a norm is actually strongly affected by a logic of consequence, and that it is often clearly dominant and trumps the logic of appropriateness. Especially throughout key phases of norm diffusion, interest-based motivations, and in particular the *material* interests of policy makers, business actors, or other interest groups and constituents, are key to understanding the acceptance of an AFFN. Consequently—as I already hinted at in the discussion of the third takeaway—norm proponents best frame a norm in such a way that it speaks in particular to the material interests of relevant norm addressees.

For governments, FFSR is seen as a way of lowering public expenditure and searching for fiscal balance. This factor, of course, induces them to accept and institutionalise the AFFB. On the contrary, the implementation of e.g. fossil fuel consumer subsidies in a context of developing countries is impeded because the abolishment of the said subsidies often has a direct impact on constituents' real or perceived material interests. Because of this, norm entrepreneurs link the issue of reform with that of social development and redistribution. The financial resources that are freed up can be used directly for other, more sustainable, development investments such as education, infrastructure works or financial transfers to poorer segments of the population.

The use of frames that speak to the direct material interests of governments, constituents, firms and other types of actors and organisations for the other AFFNs that I discussed, further reveals the importance of the logic of consequence. A moratorium on coal mining is less likely in those countries that consider the coal industry to play a key role for their economic development, may it be in terms of poverty alleviation in the case of India, or for employment and export revenues in the case of Australia. With regard to fossil fuel divestment, I emphasised that material interests will be the most dominant motivation (not) to divest. If too many financial issues are at stake, investors simply will not proceed with divestment, even if they concede to the moral arguments about climate change. Lastly, the same goes for the phase-out of coal-fired power

generation. States are likely to adopt the norm if frames are employed that speak directly to material interests, namely those of stranded assets, employment and economic development.

All in all, it is important to emphasise here that both logics of action can be at play throughout the different stages of the AFFN life cycle. Yet what is interesting here, is that in many cases, the norm would be unlikely to diffuse if the "material power" of an AFFN—measured in terms of the ability to speak to material interests of norm addressees—would not be significant. Hence, when I note that a logic of consequence is dominant within the stage of diffusion, this means that this is mostly formulated in terms of the material motivations.

5. **Agency is attributed to multiple types of actors, not just norm entrepreneurs, in the AFFN life cycle and plays out in the form of both internal and external contestation.**

Norm entrepreneurs have long been considered as key actors for norm development, especially in the early stage of norm articulation, as they identify new ideas as problem-solving devices (Wunderlich 2013, 28; but see also Nadelmann 1990, Finnemore and Sikkink 1998). Only in later stages of norm research was the role of norm addressees and antipreneurs also considered (Bloomfield 2016, Bloomfield and Scott 2017). I have found that for AFFNs, these norm entrepreneurs indeed play a pivotal role in determining their uptake. However, what is important here, is that norm addressees ought not merely be reduced to passive actors who either accept or reject an AFFN, but are also actively involved in the process of norm development, mainly through contestation. In doing so, they act as agents who are involved in the process of (re)shaping the content and objectives of a norm.

In the case of FFSR for example, when this AFFN was institutionalised at G20 level, this could only happen if all 20 states—who are, evidently, also the eventual norm addressees—agreed on the wording of the norm. Hence, the BRICs group, with India as their agent, succeeded in including the word 'rationalise' in the commitment. Saudi Arabia, on the other hand, was less successful when it tried to replace the term 'fossil fuel subsidies' with the more generic 'energy subsidies', thus targeting, among other things, subsidies for biofuels. Moreover, not only norm addressees quarrel over the definition of subsidies. Within the community of norm proponents, internal contestation exists around whether or not externalities ought to be included in subsidies calculation, or what exactly constitutes a *producer* subsidy.

For FFD this is also the case. Although institutional investors, who mainly function as norm addressees, do not actively resist the said norm, the types of divestment they implement, and the way in which they interpret and frame their divestment, affects the objectives and scope of the norm. For instance, the Norwegian pension fund divests away from the coal industry and companies that explore or extract oil and natural gas fields. It frames the divestment decision as a policy to avert exposure to oil price shocks. This should not be considered as active contestation of the norm, yet it only problematises certain aspects of the fossil fuel supply chain, while the rationale behind the norm weakens the potential counter-hegemonic character of the norm. As such, norm addressees have altered the initial "counter-hegemonic" content of the norm and its scope to problematise the social licence of the entire fossil fuel industry.

AFFN contestation should, therefore, be understood as a continuous process with discursive and behavioural components. This conforms some very recent research on international norms (Stimmer and Wisken 2019). Discursive contestation refers to discussions over definition, content or legitimacy of an AFFN and can both occur internally among norm proponents, and externally between norm proponents and other actors, including norm addressees and norm entrepreneurs. The second type of behavioural contestation indeed refers to behavioural practices that go against previous discursive acceptance of the norm. For example, a state may have accepted the norm at the G20 but it may continue to provide lavish fiscal support to fossil fuels.

6. **Norm diffusion processes—i.e. institutionalisation and implementation—do not always occur sequentially. Instead, they can happen the other way around, simultaneously or independently from one another.**

In some of the classic models on norm dynamics, norm diffusion was primarily measured in terms of institutionalisation, mostly followed by a stage of norm internalisation, when it takes a collective status of being "taken for granted". In line with some recent findings (Betts and Orchard 2014), I opted to add a dimension of "implementation" to this process of norm diffusion. I did this in order to emphasise that there is, of course, an important behavioural component to norm diffusion and to adequately determine what "norm success" actually constitutes. In addition to that, in this study I found that norm institutionalisation does not always have to precede implementation by a norm addressee (whether this is domestic in the case where states act as norm addressees, or at a firm or organisation level when companies or other organisations act as the main norm addressees). These processes can also take place simultaneously or independently from one another. The double arrow in figure 6 below highlights this complex relation between both processes.

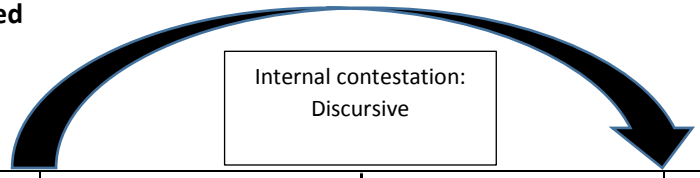
The FFSR norm shows how a classic pattern of norm diffusion works. The norm is first formulated, then discursively accepted in international agreements and communiqués, and subsequently translated in policies, regulations or legislation. Although FFSR institutionalisation is widespread, implementation is still hampered at the domestic level.

For the norm on the phase-out of coal-fired power generation, however, a different pattern can be distinguished. We found that states will discursively accept the norm by signing on to the declaration of the Powering Past Coal Alliance (and thus become a member) if they have already phased out coal from their electricity grid, or if they have already agreed nationally to phase it out. In other words, institutionalisation follows implementation of the norm. For the AFFN on coal mining, this is also the case, as the United States and China implemented temporary bans without there being international agreements in place to phase out coal extraction (Burke et al. 2016) and independent from other calls for a global coal mining moratorium.

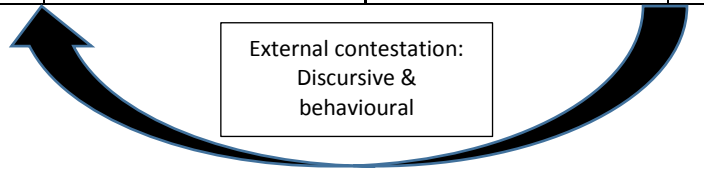
This is an important addition to earlier findings (Clapp and Swanston 2009) that norms can emerge and diffuse without first having to be articulated by norm entrepreneurs and subsequently spread through organised transnational campaigns. Instead, norm entrepreneurs can actively seek to promote normative aspects of climate action that has been implemented beforehand, as the cases of the PPCA and a global coal mining moratorium show.

Figure 6 shows an updated AFFN life cycle framework, based on the discussion of the overarching findings.

Figure 6. The AFFN life cycle: updated



Stage / Mechanism	1. Emergence: Articulation	2.1. Diffusion: Institutionalisation	2.2. Diffusion: Implementation	3. Internalisation: "taken-for-granted" status.
Structural drivers & constraints	Extrinsic events	Extrinsic events International normative environment	Extrinsic events (Inter)national normative environment	
Agency-oriented drivers & constraints	Norm entrepreneurs Framing	Norm entrepreneurs, addressees Framing Material power	Norm addressees Framing Material power	Norm addressees
Logic of action	*Appropriateness*	*Consequence (& Appropriateness)*	*Consequence (& Appropriateness)*	*Appropriateness*
Action	Normative campaigns	Intl. agreements, resolutions, treaties, declarations & statements	legislation, regulations, policies, behavioural change	Cognitive changes



5.3. Future research agenda

This project was limited to the study of four cases. In the future, much more work can be done to study the nature and effects of AFFNs. After all, many developments "on the ground" have been taking place in recent years. Ever since I first embarked on this research project in January 2016, new norms have been articulated, existing ones are further diffusing through the international system, while others are implemented in the form of binding legislation, regulations and policies. Moreover, many new normative *campaigns* have seen the light of day.

Take the example of *flygskam*, which I discussed in the very beginning of this dissertation. It was first articulated in Sweden in 2015. Although prominent international climate campaigners—including Greta Thunberg and Anuna De Wever of the School Strike movement in Europe, or Alexandra Ocasio-Cortez in the United States—have since publicly endorsed this emerging norm, it is still fairly new and has only recently started receiving international media and political attention. Today, the first calls are heard to impose stricter taxes on flights, or even to prohibit certain domestic and/or short-haul flights.[61] Moreover, in 2018, Sweden introduced an aviation tax that charges airlines flying from, or going to, Swedish airports. France as well, is set to introduce an eco-tax on airlines flying out of the country. As such, a promising avenue for research would be to examine to what extent these policies are inspired by normative convictions that target flying for its negative impact on climate change. In the future, scholars might be interested how this AFFN, and others, develop.

Another normative movement, *Extinction Rebellion*, was even more recently founded, in May 2018. It aims to "use civil disobedience and nonviolent resistance to protest against climate breakdown, biodiversity loss, and the risk of social and ecological collapse" (xrebellion.org 2018). What is interesting in this case is that it could be useful to study not just the norms that it promotes, but also the campaign in itself, given its specific tactics of *civil disobedience* and its particular demands to install *citizens' assemblies* to deliberate and make recommendations on an issue of public concern. In that sense, norms and norm campaigns, movements, or simply the entrepreneurs that advocate social change should not be considered different entities and can—or *should* be—studied holistically.

[61] Noack, Rick. *Should short-haul flights be banned? Climate change is a major issue in elections in Europe and Australia*. Washington Post, May 17, 2019.

This brings me to another point of potential future research. In his seminal article on AFFNs, Green (2018) discerned two important processes of norm development. The first, international socialisation, refers to how states are persuaded to follow an international norm on an inter-state level. The second, domestic political mobilisation, is referred to as pressure by a domestic civil society on the state within which it operates (Ibid., 107). Even though the norm they promote can have an international character, the core focus is on bringing about social and normative change at the national level. This domestic mobilisation will likely become increasingly important within the architecture of the Paris Agreement (Falkner 2016). A key mechanism on which the Agreement's review system relies is "naming, blaming and shaming" by civil society. Governments will face their scrutiny when reporting on their national emissions and implementation of international pledges. Much of this scrutiny happens in a domestic context, but it is also exercised by NGOs operating transnationally. Hence, it would be especially relevant to examine the extent to which both processes—international socialisation and domestic mobilisation—play out simultaneously, contrarily, or feed into one another.

Another future research avenue could be to examine linkages between different AFFN campaigns. Beside the fact that I did not conduct comparative studies of different AFFNs, I also did not examine the extent to which they are potentially linked with one another. Consequently, a particularly promising avenue of future research would be to conduct network analyses of the linkages between norm entrepreneurs of different AFFNs. At the heart of such a study would be the *financiers* behind these normative campaigns. Of course, these financiers have their own ideational frameworks, political objectives or normative convictions. It would be interesting to analyse how this affects the scope and objective of the campaigns that they finance and how *material* power impacts the overall breadth and reach of normative campaigns. Second, this focus would also take into account the *organisational* power of these campaigns, and the extent to which they seek to build networks transnationally, but also with other actors and stakeholders involved in the process of norm development.

In the early stages of norm development, i.e. norm emergence, organisational power can play an important role. The more organisational linkages that norm entrepreneurs are able to build, the larger the coalition of norm proponents and adopters becomes, and the more easily an AFFN can further diffuse. Indeed, norm entrepreneurs with a wider (transnational) network will likely be more successful. However, bringing together a broad coalition of norm supporters also implies bringing together a variety of perceptions of interests, normative convictions and ideational commitments. This,

in turn, risks creating tensions and "internal contestation" on the meaning and legitimacy of the said norm.

The note on norm contestation brings me to a last topic that bears great potential for further research on AFFNs. That is, the role of norm *antipreneurs* (Bloomfield 2016, Bloomfield and Scott 2017). In other words, who are the actors that actively work and organise *against* the emergence and diffusion of AFFNs, what are their tactics and why do they act the way they act? The notion of *external contestation* indirectly refers to the way in which an emerging AFFN can be contended, yet this only reveals a part of the overall contestation picture. Some interesting work has been done on (business) coalitions (Meckling 2011; Downie 2017, 2019) seeking to work against the implementation of climate-related policies and legislation, both on an international and domestic level. Haas (2019) discussed the contestation against climate-progressive policies in the European Union from a neo-Gramscian perspective. In the future, a promising research avenue would be to further explore how such coalitions work against the emergence and diffusion of AFFNs. This could also strengthen the scholarly understanding of organisational power of the norm entrepreneurs (most notably the fossil fuel industry itself).

5.4. Recommendations

There are some notable highlights that could be relevant for AFFN campaigners and activists alike. First, it has become clear that norms do not spread solely based on a logic of "appropriateness", but that a logic of "consequence" is highly relevant as well. This means that proposed norms ought to speak to the interests of relevant norm addressees—may they be states or other actors. Many of these norm campaigns will not succeed in convincing the wider public if they only focus on the moral aspects of climate change, such as environmental justice, equity, and other ethical considerations. Indeed, these problems will have to be linked to other salient problems of norm addressees through framing strategies (see also Blondeel et al. 2019).

Second, these salient problems differ from one norm addressee to another, but generally refer to interest-based considerations situated in the economic realm. Once norm campaigners recognise this difficulty, their chances of success could significantly increase. Indeed, multiple frames will always have to be employed to convince the largest possible coalition of actors eventually supporting a norm. It is of the utmost importance to tie the normative story of climate change to one that equally underscores the material impact it can generate. As the political debate has shifted,

away from whether climate change is “real” or “man-made” to one on “how are we going to pay for all of this” in recent years, the linkages between these two logics of action, and in particular that between norms and economics will be crucial to bring about the required transformation.

A third observation that is of relevance to norm campaigners and activists is that the work does not end once relevant norm addressees rhetorically embrace a norm, even at the highest possible international political levels. Most of the work is arguably still to be done from that point onwards. Moreover, the norm will remain essentially contested and continuous work will be necessary to ensure the survival of the norm, both rhetorically and in practice. After all, the most important standard of success for these AFFNs is to which extent they succeed in convincing the world to aggressively reduce emissions from the extraction and consumption of fossil fuels.

A final observation is that recent developments in global climate governance highlight a “(re)turn to the state”. The 2015 Paris Agreement institutionalised the logic of domestically driven climate action through voluntary nationally determined contributions. The domestic sphere has become the primary institutional setting where relevant political actors interact, contest, negotiate and bargain on climate-related political issues. AFFN campaigners have to recognise this and should not lose sight of the fact that “the state” remains a key actor in the international system. Within the Paris architecture they remain primary norm addressees. Consequently, campaigners should focus on legislation, regulation and other forms of direct government intervention to help institutionalise and implement anti-fossil fuel norms.

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Appendices

Appendix 1. Contributions in co-authored articles

Title	Contributions
1. Fossil Fuel Subsidy Reform. An International Norm Perspective. (with Thijs Van de Graaf)	This article was co-authored with Thijs Van de Graaf. We both contributed equally to the paper that was eventually published in an edited volume *The Politics of Fossil Fuel Subsidies and their Reform* (edited by Jakob Skovgaard and Harro van Asselt, Cambridge: CUP). For this article, I did an extensive literature study of the existing constructivist scholarship on norms and norm diffusion, which was included in the analytical framework centred around norm entrepreneurs, political opportunity structures, and contestation. I was also involved in documentary research to trace the process of the historical development of FFSR as an international norm. For this, I mainly relied on official documents, policy papers and research that had been conducted before on FFSR within several relevant international organisations. Lastly, Prof. Van de Graaf and I jointly conducted interviews in a first round, both in person and via telephone. Prof. Van de Graaf did a second round of interviews in Washington DC, United States. Prof. Van de Graaf was also responsible for editing and spell-checking. An early draft was presented by Prof. Van de Graaf in June 2016 at the Lund University and SEI workshop on "The Politics of Fossil Fuel Subsidies and Their Reform," Stockholm, Sweden. As a follow-up, I presented an early draft at the ECPR General Conference, September 2016, Prague, Czech Republic. Thijs Van de Graaf is listed as first author of this publication. As per article 7 of the Doctoral Regulations, I have asked his formal approval to include this article in the dissertation. The e-mail exchange is available upon request.
2. Toward a global coal mining moratorium? A comparative analysis of coal	This article was also co-authored with Thijs Van de Graaf. Even though I am listed as first author in the published version (DOI: 10.1007/s10584-017-2135-5), we both contributed equally to the development of this article. For example, it was Prof. Van de Graaf who suggested the comparative analytical

mining policies in the USA, China, India and Australia. (with Thijs Van de Graaf)	framework for the paper, based on ideas, interests and institutions. I was responsible for most of the documentary research necessary to describe and evaluate coal extraction policies in the four respective countries that we examined. The comparative analysis itself was the fruit of both our intellectual labour. In terms of data collection, I conducted the interviews with relevant actors. I presented a first draft of this paper in September 2016 at the International Conference on Fossil Fuel Supply and Climate Change Policy, Queen's College, Oxford. I was subsequently invited to discuss this paper at the headquarters of the Environmental Defense Fund in New York during a workshop on "The economics of controlling the extraction and consumption of fossil fuels as part of climate change strategy".
3. Moving beyond coal: Exploring and explaining the Powering Past Coal Alliance. (with Thijs Van de Graaf and Tim Haesebrouck)	This article was co-authored with Thijs Van de Graaf and Tim Haesebrouck. Dr. Haesebrouck was brought on board after a first submission of the article to the journal *Energy Research and Social Science*. Based on the extensive critiques, suggestions and remarks, Prof. Van de Graaf and I decided to invite him as a co-author since he has deep knowledge of the technique of Qualitative Comparative Analysis (QCA) and has been the prime author for the methods section of the article, while Prof. Van de Graaf and I developed the analytical framework. I was responsible for authoring descriptive section on the genesis of the Powering Past Coal Alliance. I was also the main author for the sections interpreting the results and on deepening our understanding of deviant cases. I also conducted the first round of interviews in September – November 2018, while Prof. Van de Graaf conducted the second round of additional interviews in June 2019. I presented a draft of this paper at the ECPR General Conference in September 2018, Hamburg, Germany.

Appendix 2. List of interviews

Function	Date
Trade Policy Analyst, Organization for Economic Cooperation and Development (OECD)	June 2016
Specialist - International Energy Agency (IEA), Energy Supply Outlook Division	September 2016
Trade Policy Analyst, OECD	September 2016
Senior Economist - IMF, Fiscal Affairs Department	October 2016
Employee – The Australia Institute	August 2017
Employee - Ministry of Economic Affairs and Climate Policy, Netherlands	September 2018
Employee - Ministry of Economic Affairs and Climate Policy, Netherlands	September 2018
Climate Policy Analyst - Climate Analytics	September 2018
Employee - Department for Business, Energy & Industrial Strategy (UK)	September 2018
Employee - Institut du Développement Durable et des Relations Internationales (IDDRI), Paris, France	October 2018
Employee - FPS Health Environment, Belgium	October 2018
Employee - Climate Finance and Partnerships, International Affairs Branch, Environment and Climate Change Canada	November 2018
Employee - Section for Energy and Climate, Ministry of Foreign Affairs, Government of Norway	June 2019
Employee - Ministry for Foreign Affairs, Iceland	June 2019
Academic researcher – University of California, San Francisco	April 2018

Director – Carbon Tracker Initiative	September 2018
Energy Strategist - Carbon Tracker Initiative	September 2018
Campaign leader – Fossil Free Leuven	August 2019
Campaign leader – Fossil Free Ghent	August 2019
Divestment campaign leader – Greenpeace Belgium	August 2019
Manager - Corporate Sustainability and Responsibility KBC Group	September 2019
Manager - Corporate Sustainability and Responsibility KBC Group	September 2019