Big Business, Big Impact?

The case of offshore oil and gas' free permits in the EU Emissions Trading System (EU ETS)

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Summary

The EU Emissions Trading System (EU ETS) is the EU's climate flagship for cutting industry emissions. In the early phases of EU ETS (2005-2012), industries were mostly allocated free emissions allowances. For phase 3 (2013-2020) and the recently negotiated phase 4 (2021-2030), industries are allocated allowances through auctioning as the principal rule. However, some sectors are still granted free allocations since they are deemed to be exposed to so-called 'carbon leakage'; risk of industrial relocation to non-mitigating countries due to ETS costs.

This thesis investigates why the offshore oil and gas sector receives free allowances in the EU ETS, during phases 3 and 4. From the outset, free allocation has not only been undermining the environmental effectiveness of the ETS, few arguments supported that the offshore oil and gas production was exposed to carbon leakage. Although, the rational for free allocation is questionable, the offshore sectors continue to emit for free in phase 3 and partly until 2030. The continuation of free allocation is explained by theoretical frameworks from historical institutionalism and policy entrepreneurship. Historical institutionalism emphasises how the carbon leakage risk generated self-reinforcing negative feedbacks, prolonging the free allocation trajectory. Policy entrepreneurship explains how the continuation was a result of oil industry's savvy strategies aimed at EU policymakers. In-depth interviews with 20 informants and process-tracing from 2006-2017 supports mostly the institutional explanation.

In the phase 3 revision process in 2006-2008, the offshore industry's strategies made small impact on the policy-process. Instead, the establishment of severe carbon leakage risk and the alliance of energy-intensive industries pressured EU policymakers to continue free allocation. During the phase 4 revision between 2014-2017, the negative feedbacks on carbon leakage risk convincingly explains why oil extraction gets prolonged free allocation. Yet the oil industry's 'failed entrepreneurship' flopped in reversing the rules that blocked free allocation to gas extraction and electricity production on offshore platforms. Low institutional support and environmental consciousness amplified by the Paris Climate Summit constrained the offshore industry's political impact. These findings suggest that business power in climate policy is facilitated by institutional perceptions, and less so by the industry's own strategies. This indicates that global corporations cannot just 'set the rules' in international climate policy. Instead, policymakers mediate and restrain the political influence of big businesses.

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Any mistakes and inaccuracies are mine alone.

Lysaker, 22.05.2018

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List of Abbreviations

BOE	Barrels of oil equivalent
BP	British Petroleum
CCC	Climate Change Committee
CCS	Carbon Capture and Storage
CDM	Clean Development Mechanism
CO_2	Carbon Dioxide
Commission	European Commission
Council	Council of Ministers
DG	Directorate-General (within the European Commission)
DG CLIMA	Directorate-General Climate Action (European Commission)
EEA	European Economic Area
EFTA	European Free Trade Association
ENVI	European Parliament's Committee on Environment, Public Health and Food Safety
ETS	Emissions Trading Scheme
EU	European Union
EU ETS	European Union Emissions Trading System
GDP	Gross Domestic Product
GGG	Green Growth Group
GHG	Greenhouse Gases
IETA	The International Emissions Trading Association
IOGP	The International Association of Oil & Gas Producers
ITRE	European Parliament's Committee on Industry, Research and Energy
LRF	Linear Reduction Factor
MEP	Member of the European Parliament
MSR	The Market Stability Reserve
NGO	Non-Governmental Organisation
Parliament	European Parliament
UK	United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wildlife Fund

1 Introduction

The multi-national oil and gas industry comprises not only some of the world's largest corporations, but is also a major contributor to today's climate crisis. From controlling global supply chains, jobs, investments and technology, oil companies have been 'greasing the wheels' of the world economy for a long time. Proportionately, 29 of the world's 50 largest fossil fuels companies are oil and gas firms, which account for a third of global industrial emissions (CDP 2017). Many scholars of international politics would accordingly assume that such large corporations hold substantial business power for 'setting the rules' in climate policy (Finger 2013:297; Korten 2015; Strange 1996).

States are normally the subject of political analysis in international politics. Presently, however, the literature lacks a clear understanding of how and why major corporations affect policymaking on climate change**.** In general, the literature of big business influence on policymaking has long been the neglected 'stepchild' of political sciences (Coen et al. 2010:9; Mikler 2018). In the context of the escalating effects of global warming, improved understanding of major corporations' impact on climate policy is strongly called for. Turning to the global oil industry, consisting of top Fortune 500 oil majors, this thesis will contribute to more research on how big business influences climate policy.

As a case, the influence of oil majors on EU's well-trusted climate flagship for reducing industrial emissions, the EU Emissions Trading System (EU ETS), is selected. EU ETS is the largest emissions trading system of its kind and covers half of EU CO_2 emissions. It allows more than 12,000 industrial installations to trade emissions allowances in a market with a fixed cap of total emissions. This creates a price on carbon emissions intended to induce low-carbon solutions and cost-efficient emissions cuts among industries. While many sectors are imposed carbon costs, oil and gas production currently enjoys free emissions allowances.

This brings us to one of the main struggels in the EU ETS: Who should pay and who should receive emissions allowances free of charge, known as free allocation. Free allocation reduces the EU ETS's ability to decarbonise Europe as it gives industries less incentives to reduce

emissions. Yet free allocation is strongly preferred by companies worried about the additional costs associated with the ETS ruining their international competitiveness. They fear so-called 'carbon leakage', where costs induced from climate policy force businesses to relocate to where such constrains are not imposed. In theory, when climate regulations are tougher in Europe than in the US or China, this increases incentives for industries to relocate productions to such regions with less stringent policies. This may again increase global emissions as polluting gets cheaper. Hence, free allocation is believed to protect against carbon leakage.

In phases 1 and 2 of EU ETS (2005-2012), most allocations were generously handed out free of charge to installations, including the oil industry. But due to the plummeting carbon price and insufficiencies to drive actual decarbonisation in Europe, harmonised and stricter rules for free allocation were adopted in 2008 for the revision on phase 3 (2013-2020). Since the 2008-revision, the principle is that installations should pay for all or an increasing amount of allowances, eventually reaching a full auction-based system. Nevertheless, many industries have successfully convinced EU policymakers to provide them 100 per cent free allocations in phase 3 and for the recently negotiated phase 4 (2021-2030) due to the risk of carbon leakage. More interestingly, the offshore oil and gas industry somehow ended up with continuing free allocation in phases 3 and 4.

This is puzzling considering at least three reasons. Firstly, by following the EU favoured principle of 'polluter pays', many believe that auctioning will reward early action, drive innovation, secure efficiency, transparency and simplicity towards decarbonisation. Free allocation to fossil fuel production would rather stall the energy transition in Europe. Second, multi-national oil companies generate some of the world's highest revenues and should afford paying for allocations, especially after the carbon price remained much lower than expected. Finally, but most importantly, several EU reports since 2006 have confirmed that ETS-induced carbon leakage risk and relocation for sectors such as the offshore oil and gas industry is exaggerated (DG ECFIN 2007; European Commission 2006, 2015a). Even the offshore company Statoil[1] has stated that free allocation is unwarranted because, in practice, 'upstream oil and gas assets cannot be moved to new locations' (DG CLIMA 2014a). Nevertheless, the *major* oil companies have repeatedly underlined a strong need for free allocation to offshore

[1] Statoil changed their name to Equinor in May 2018. Here, Statoil will be used.

platforms. All in all, this makes it reasonable to assume that the oil industry used its influence on EU policymakers to get free allocation.

Thus, the thesis' research question runs as follows:

What explains the continuation of offshore oil and gas extraction's free allocation in EU ETS phase 3 and phase 4?

Accordingly, the thesis will explain why free allocation was prolonged to the offshore sectors in two phases of the EU ETS: phases 3 (2013-2020) and 4 (2021-2030). These rules were revised and agreed upon several years before the phases commenced, respectively between 2006-2008 for phase 3 and 2014-2017 for phase 4. Two sub-research questions will be answered.

First, between 2006-2008, the EU prolonged free allocation to offshore oil and gas extraction in phase 3 (2013-2020). This happened only after three years of experience with the EU ETS, creating uncertainy about actual implications of ETS, free allocation and carbon leakage. The lack of stringency had clearly failed to drive effective decarbonisation and innovation amongst industries. The globally competing energy-intensive industries nevertheless feared that a reformed ETS would impose new costs and ruin their global competetiveness because no comparable climate policies were adopted in competing regions. Hence, 100 per cent free allocation was justified to counteract carbon leakage and industrial relocation. Yet no empirical evidence of carbon leakage convinsignly warrented free allocation to sectors like offshore oil and gas beween 2006-2008 (DG ECFIN 2007). This leads to sub-reasearch question 1.1:

1.1 Why did free allocation to oil and gas extraction get prolonged for EU ETS phase 3 (2013-2020)?

Second, between 2014-2017, tighter rules for phase 4 (2021-2030) were agreed upon to improve EU ETS. Somewhat surpprisingly, gas extraction will lose its free allocation (European Commission 2018). This was triggered after Eurostat updated its classification system seperating oil and gas into two sectors. However, notwithstanding negative experiences and piling documentation showing no clear evidence of carbon leakage during EU ETS' first two phases (ECORYS 2013), most of the large emitters will continue to get free allocation

until 2030. Moreover, regions worldwide increasingly undertaking carbon mitigations (e.g., the Chinese ETS) should diminish the threat of carbon leakage. Environmental groups have therefore strongly critisiced free allocation usage and labeled carbon leakage as a 'red herring'; a distraction from effective climate action. Despite these factors, the offshore *oil sector* continues its free allocation, altough barely meeting the criteria for being deemed as carbon leakage exposed (European Commission 2015a). This leads to sub-research question 1.2:

1.2 Why did free allocation to oil extraction get prolonged for EU ETS phase 4 (2021-2030)?

These questions will be analysed as a within-case study using a process-tracing approach, following the developments on the free allocation trajectory between 2006-2017. Empirical data consists of new observations from in-depth interviews with 20 informants, seven of them from the oil industry, in addition to written documents.

To help explain these developments, the thesis draws on theoretical contributions from Historical institutionalism (Pierson 2004; Thelen 1999) and Policy entrepreneurship (Boasson and Huitema 2017). These approaches give an institutional-based and an actors-based explanation to the status quo outcomes. The former perspective will emphasise how negative cognitive feedbacks due to carbon leakage fear maintained free allocation to the offshore sectors. Policy entrepreneurship expects that the oil industry adopted structural and cultural strategies to influence EU policymakers for preserving offshore's free allocation.

Surprisingly, the empirical process-tracing reveals that the offshore sector's influence in the EU ETS is more limited than expected. What was assumed to be a typical case of mobilised business power in climate policy turned into a deviant case during the research process, showing an unexpected outcome (Seawright and Gerring 2008). The study argues that it is first and foremost an institutionally embedded fear of carbon leakage that has prolonged free allocation to industries, including the offshore sector. In contrast, the oil industry's power for 'setting the rules' in the EU ETS is politically constrained. This was demonstrated explicitly by the campaigns that flopped between 2014-2017 for increased free allocation in phase 4, providing a case of 'failed entrepreneurship'. This suggests that big business's ability to shape climate policy depends more on institutional dynamic and support, not on financial gravity.

1.1 Backdrop of existing research

The selected case about the offshore oil industry in the EU ETS builds on mainly three topical branches within the political sciences: business power, oil industry in climate policy and EU ETS research. The following literature review will indicate some research gaps that the thesis aspires to fill.

First and foremost, this case has been selected for expanding our knowledge on big business' impact on climate policy**.** Table 1 illustrates how multi-national oil companies are some of the world's highest revenue-generating and carbon emitting corporations.

Company name	***Rank Fortune 500***	***Revenue US$ million***	***Rank top 50 emitting fossil fuel firms***[2]
Royal Dutch Shell	5	$272,156	11
Exxon Mobil	6	$246,204	9
BP	10	$225,982	14
Total	24	$143,421	29
Chevron	31	$131,118	20
Petrobras	58	$97,314	19
Eni	65	$92,985	36
Petronas	125	$63,455	24
Statoil	145	$59,895	34

Source: CDP (2017); Fortune (2016).
Table 1 Major multi-national oil companies' annual revenues and emissions in 2015.

Some scholars have put forward the view that markets and big companies are key drivers of politics, not states and governments, meaning that corporations can basically 'rule the world' because of their capital and scope of operations (Korten 2015). After the 1970's idea of 'limits to growth' was replaced by 'sustainable development', which later transformed into 'green growth' and enabled a positive outlook for emitting businesses, there is no doubt that that global corporations are important players in international climate policy (Finger 2013: 293). Conversely, others have adopted a more nuanced view on the role of corporations as political actors with complex roles and identities. In the end, global corporations are influential to the extent that states, shareholders and consumers grant them the opportunities to be (Mikler 2018:140).

[2] Carbon Disclosure Project's Carbon Majors Database of largest emitting global fossil fuels producers by operational and product emissions for 2015.

It is therefore a need to better understand the way and to what degree business power influences policy, a research field that according to Culpepper is 'currently more neglected than it has been for the last half century' (2011:185). While there exists a broad literature on corporate lobbying (Greenwood 2011; Mahoney 2008), the ability of businesses to exercise structural, not only instrumental power, such as lobbying and campaigning, is often neglected as a 'background condition' in the literature of corporate political power (Culpepper and Reinke 2014). Moreover, scholars who only focus on lobbying fails to acknowledge how material and institutional dynamics may mediate or restrain business power (Bell 2013). More recently, we have also seen that instead of only lobbying or opposing policy, multinational firms often seek to *shape* policy. One example is the role of the Global Climate Coalition, which comprised of producers and users of fossil fuels including global oil companies. Among their strategies, one was the funding of studies that provided doubt to climate change science between 1990-2002 to repel progress on international agreements for reducing GHG emissions (Finger 2013; Mikler 2018:40; Orsini 2011). Another example was the international promotion of carbon markets made by major oil firms who advocated emissions trading as the preferable mechanism for meeting climate obligations (Meckling 2011).

As a field of study in political science, climate policy is just in its 'infancy', evidently in need of more academic attention (Boasson 2015:6). Answering scholars call for a broader political analysis of business power and climate policy, this thesis will contribute to further knowledge on how some of the world's largest oil and gas corporations have shaped the EU's climate flagship. In general, studying oil companies in the field of climate politics, enables new insights on the scope and limitations of business power because of the obvious conflict between abatement targets and industrial growth.

Secondly, the case will provide better understanding of how the oil industry more specifically influences climate policy. To the oil industry, international climate policy may solely serve as a threat to financial prosperity, but it also drives political responses to climate policymaking. For instance, during the Rio-summit and Kyoto-negotiations in the Climate Change Regime (UNFCCC) in the 1990's, BP and Shell managed to exercise business power. Fossil fuel companies' control of finances, investments and technology forced states to consider the economic implications of climate regulations upon industry (Faulkner 2010). Interestingly, the literature on oil companies shows striking differences between European and American firms in terms of adopting corporate climate strategies. One key factor here seems to be the domestic

context of the home-base country of that company (Rowlands 2000; Skjærseth and Skodvin 2003). Within the European oil industry, Shell has claimed that climate change is the most important societal challenge (Boasson et al. 2006). In relation to carbon markets, BP and Shell's positive experience with adopting internal emissions trading schemes made emissions trading a sought-after policy in Europe (Meckling 2011; Victor and House 2006). US-based Exxon, in contrast, has been more reluctant towards EU ETS (Skjærseth 2013). Exxon has traditionally expressed scientific doubt about global warming to the public, while internally treated the climate issue as a potential business threat (Supran and Oreskes 2017). Thus, we see that the global oil industry's *responses* to climate policy have received some attention. How the oil industry *affects* climate policy is yet to be better understood academically, to which this thesis seeks to make theoretical and empirical contributions.

Thirdly, the thesis builds on existing research regarding industrial influence upon the EU ETS. Generally, three strands of the EU ETS literature exist: context and history, policy effectiveness and policy design (Convery 2009). This study's attention to the allocation mechanism builds on the latter category. In the EU ETS phase 3 revision between 2006-2008, Gullberg (2010) found that while environmental groups helped raise the overall ambition levels, it was the industries that were mostly considered in designing specific measures and implementation, such as allocations. This is likely due to the EU ETS' highly technical features (Skjærseth and Wettestad 2008). Among the industrial sectors, energy-intensive industries including the oil industry had more success in the shaping of the policy than power producers (A. T. Gullberg 2008). Wettestad (2009) found that The Alliance of Energy-Intensive Industries were evidently well-coordinated between 2006-2008, giving energy-intensive companies more influence than in previous negotiations. Additionally, policymakers' awareness about power producers' unintended profits from the ETS and energy-intensive industries' carbon leakage risk due to the laxed global climate regime, strengthened the energy-intensive industries' case for free allocation. In the 2008-negotiations on distributing free allocations, Skodvin et al. (2010) indicate that industry target groups successfully constrained the possible use of auctioning due to credible threats of industries relocating, with help from veto-players on EU member-state levels. This again may have limited the agenda-setting role of the more environmentally progressive Directorate-General Climate Action in the Commission. Powerful member-states such as Germany and Italy also pushed for increased protection of energy-intensive industries through free allocation (Eikeland 2014). After phase 3 revision, business positions have largely remained stable. Energy-intensive industries opposing stricter allocation rules has continued

preceding and during the phase 4 processes (Wettestad and Jevnaker 2016). What impact different industries made during the recent phase 4 revision from 2014-2017, is nevertheless very open for investigation. This study will contribute with new empirical details on what mechanisms that mediate and constrain the role of industries in the negotiations for phases 3 and 4.

In relation to the oil industry's actions in the EU ETS, Skjærseth (2013) has explained how the European oil *refinery sector* has gradually transitioned from adopting reactive to proactive strategies towards ETS regulations. Generally, major oil companies are still reluctant towards stricter regulations because of the refinery sector's exposure to international competition and lack of a global level playing field, even after the 2015 Paris climate agreement (Eikeland and Skjærseth, forthcoming). Yet the role of the oil industry's *offshore sector* is largely overlooked in the EU ETS literature. Specifically, neither how the phase 3 negotiation provided offshore oil and gas free allocation nor the recent phase 4 revision split oil and gas' free allocation, appear to have been studied. Generally, a larger, systematic attention to the global oil industry and big business impact on EU ETS has not been found during the research process. Overall, the literature is still in need of deeper analysis of which factors, internal or external, that are shaping the design of the EU ETS (Wettestad and Jevnaker 2016, 2018). Moreover, much of the literature on emissions trading tend to adopt macro-perspectives (Knox-Hayes 2016;Wettestad and Guldbrandsen 2018). Zooming in on the micro-levels of policymaking may reveal important lessons of how market-based climate policy is made. In sum, this enlightens dark spots in the EU ETS literature with new insights on the offshore sector's internal influence on EU ETS, namely the free allocation mechanism. Generally, findings may say something about big business impact on international climate policy.

1.2 Research strategy

The thesis' dependent variable is *the continuation of free allocation to offshore oil and gas in phases 3 and 4*, which is summarised in table 2:

Free allocation	**Phase 1 (2005-2008)**	**Phase 2 (2008-2012)**	**Phase 3 (2013-2020)**	**Phase 4 (2021-2030)**
Oil production	Yes	Yes	Yes	Yes
Gas production	Yes	Yes	Yes	No

Table 2 Free allocation to offshore oil and gas production in EU ETS.

Two well-fitted theoretical approaches, historical institutionalism and policy entrepreneurship, are employed for understanding this development. These serve as independent variables; explanations of the continuations. Both expect the same outcome but point to different mechanisms and configurations for the dependant variable, together allowing a broader investigation of business power.

Historical institutionalism focuses on how institutional dynamics ascribed support to the offshore sector. This approach is especially beneficial for assessing how institutional path-dependency and ideas either constrain or enhance the political power of business actors. How power structures affect policymaking has been overlooked in historical institutionalism and will be highlighted in the case of the offshore sector's free allocation (Culpepper 2016). Next, *policy entrepreneurship* is well-suited to trace strategic actor's ability to change policy or preserve the status quo. This perspective helps studying how strategic actors with political savvy influenced policymaking to preserve certain privileges (Boasson and Huitema 2017). More specifically, it focuses on strategies consisting of coalition-building, networking, lobbying and policy framing helping the offshore industry to continue its free allocation. As the process-tracing shows in chapters five and six, the oil industry adopted strategies that failed to change policy for phase 4. Nevertheless, 'understanding why entrepreneurs are more successful in some cases than in other requires the study of unsuccessful cases as well' (Boasson and Huitema 2017:9). Thus, this study contributes to insights on the concept of 'failed entrepreneurship' and under what context this occurs, which is yet to be further explored theoretically (Green 2017).

In combining an actor-based approach with an institutional framework, this study explores a wider set of options for big business to influence climate policy. The theoeries are used complementary to each other, which is especially beneficial when studying complex EU policymaking involving numerous factors and actors working on multiple levels (Wettestad and Jevnaker 2018). This brings us closer to the understanding the reality of policymaking.

A sequential within-case design and process-tracing are suitable as research design. Generally, a case study design allows deep understanding of an 'instance of some phenomenon' that shed light on a larger class of cases (Gerring 2007; Thomas 2011). The case of offshore's free allocation was strategically chosen as a 'typical case' believed to be representative for studying big business impact on climate policy. Instead, it showed surprising findings on business policy

impact, therefore better chategorised as a deviant case (Seawright and Gerring 2008). Moreover, process-tracing is employed for empirically reconstructing the causal steps in the decision-making processes and explore multiple explanations for the outcomes. Inferences drawn from such a research design provides high validity (Levy 2008). The process-tracing timeline from 2006-2017 includes the revision process resulting in the December 2008 ETS decision on phase 3 (2013-2020) and the following policymaking developments finally leading to the November 2017 deal for phase 4 (2021-2030). While this enables some comparison across the timeline, the intention is mainly to trace institutional dynamics over time in one sequence.

The empirical information has been collected through semi-structured interviews and written documents. In-depth interviews with 20 informants in Brussels and Oslo within the EU ETS policy sphere were conducted, including off-the-record talks with seven key representatives from the oil industry in the EU. Here, the International Association of Oil and Gas Producers (IOGP) and the companies Shell and Statoil have been given extra attention as representatives for the offshore sector in Brussels. IOGP is recognised as the offshore oil industry's voice, while Shell and Statoil are both very active companies in the EU with a global offshore portfolio and headquarters in the UK/Netherlands and Norway, states with a significant offshore sector. They however differ in company size, revenues, organisation profile and diverging views on free allocation. Statoil is alone in being against free allocation to offshore, while Shell and the rest of the oil industry support it. This allows a more fine-grained observation of the offshore sector's role in the EU ETS. Additionally, multiple stakeholder consultations found on the Commission's websites, annual company reports, EU ETS studies, existing research and media articles have been used for triangulating and cross-checking information from the interviews. This enhances the reliability of the study's inferences (Mosley 2013).

1.2.1 Further delineations

'Offshore' is here understood as synonymous with upstream oil and gas activities at sea, which concerns the exploration and extraction of petroleum products. The oil industry's downstream sectors in the EU ETS, such as the refinery and chemical sector, has been ruled out because it has already received some academic attention. Also, the downstream sectors hold a substantially forefront position in the EU, at least compared to the more 'muted' offshore sector, which we know less about.

Moreover, the case of 'free allocation' is one of several adjustable policy mechanisms in the EU ETS. It is the process of distributiting emissions allowances to company installations free of charge instead of payment (auctioning) with the intention of shielding industries against extra costs and carbon leakage (Skjærseth and Wettestad 2010:103).

Lobbying can be understood quite differently in the political sciences. Applied here is the EU inter-institutional lobbying definition involving 'activites […] carried out with the objective of directly or indirectly influencing the formulation or implementation of policy and the decision-making process of the EU institutions' (OJEU 2011:30). Yet this thesis does not study the oil industry's lobbying per se. In contrast, the adopted theories enable a broader perspective on how corporations impact policymaking, where one of the ways can be lobbying policymakers.

Finally, EU policy development involves numerous actors and decision-making levels, making it important to delineate aspects of the policy-development. Here, actors within and related to the offshore oil industry are the primary focus. Focusing on the offshore oil industry rules out many member-states which have no offshore sector. It does however make it relevant to include Norway and UK who have interests in the European offshore oil industry. The Norwegian government is particularly interesting to study because of its opposition to free allocation for the offshore sector. In the European Commission and the European Parliament, Directorate-General Climate Action (DG CLIMA) and the Environmental Committee (ENVI) have received most attention.

1.3 Thesis structure

The thesis started with a short introduction to the overall content, empirical and theoretical backdrops, and research design.

Next is a chapter presenting theoretical approaches that will help us to understand the empirical data. Here, operationalised mechanisms and configurations from the litterature on historical intuitionalism and policy entrepreneurship are derived into two case expectations.

The third chapter explains methodological considerations that were made to sufficiently answer the research question. The chosen research design is a sequential within-case study and process-tracing. Twenty semi-structured interviews and document analysis were conducted for gathering new empirical data. Moreover, the chapter discusses sampling strategies, selection of informants and interview style.

Chapter four, five and six present the thesis' empirical data. Chapter four gives a background introduction about the evolution of EU ETS, the practice of free allocation, carbon leakage and the role of the oil industry in the EU ETS. A closer inspection of the International Association of Oil and Gas Producers (IOGP), Shell and Statoil encloses the background chapter.

Chapter five and six present the collected data from interviews and documents in form of process-tracing from 2006-2017, which is dived into two chapters. Chapter five comprises the revision processes 2006-2008 leading to phase 3 rules and implementation afterplay betewen 2009-2014. Chapter six focuses on the review process for phase 4 between 2014-2017. The timeline lays out observations on why offshore sector gets free allocation after 2012.

Chapter seven analyses why the offshore sectors receive free allocation in the EU ETS in phases 3 and 4 in light of expectations, mechanisms and configurations derived in the theory chapter. Subsequently, recapitulation, equifinality and the research design's shortcomings are addressed.

Finally, a conclusion highlights this thesis main findings and suggests some theoretical and empirical implications of this study.

2 Theory: Explaining status quo

This chapter lays out two theoretical approaches for explaining the research question: *What explains the continuation of offshore oil and gas extraction's free allocation in EU ETS phase 3 and phase 4?* These are historical institutionalism and political entrepreneurship. Both theories can be used to formulate a set of expectations on the relationship between the *explanandum,* the phenomena that we want to explain, and the *explanans*, the factor(s) that explains it (Knill and Tosun 2012:70). Explanandum, the continuation of free allocation to the offshore sector after 2012, illustrates a status quo situation where certain provisions for industries such as oil and gas production are maintained. Moreover, the explanandum is mainly stable and not undergoing major changes during the selected timeframe, besides in phase 4 when gas production loses its free allocation because of Eurostat's sectoral update.

In this chapter, two different theoretical frameworks will provide predicting mechanisms that help to explain the case. In the analysis chapter, these will together provide a broader understanding of business power in climate policymaking. In sum, historical institutionalism will expect institutional perceptions and stability to maintain the privileges for the offshore sectors (Thelen 1999; Pierson 2000), whereas policy entrepreneurship will expect that skilled 'status quo entrepreneurs' made the continuations of free allocation possible, despite institutional constraints (Boasson and Huitema 2017).

The objective here is not theory-testing per se, but rather a complementary use of theories. This is beneficial to this case for several reasons. Both theories are chosen because of their ability to explain how and why a policy maintains the status quo and suppresses efforts of policy change. Moreover, EU policymaking is a complex matter, which normally needs more than one theory to grasp how an outcome occurred (Wettestad and Jevnaker 2018). Dominant EU theories such as Liberal intergovernmentalism or Multi-level governance could have highlighted respectively the role of member-states (Moravcsik 1993) and policy networks, supranational or sub-national authorities in EU policymaking (Hooghe and Marks 2001). Here, such perspectives are not completely ruled out. Yet offshore appears to be a less prominent sector for the EU except for the UK and the non-member Norway. Historical institutionalism

is instead employed to investigate the dynamic interplay between industries and the EU institutions, particularly the European Commission and the Parliament, over time. Policy entrepreneurship concentrates on actor's political actions, making it a useful approach for a closer inspection of the oil industry's adopted strategies. Highlighting institutional and actor-based explanations further enable an assessment of the relative importance of the two approaches, providing a closer analysis of the reality of policymaking. Two contrasting approaches also provide explanatory variation and structure for making a more dynamic analysis (Schimmelfennig 2015:103). Finally, the complementary use of theories suggests in this chapter a practical conceptualizing of how to understand status quo policymaking. This answers Wettestad and Jevnaker's (2018) call for better understanding of internal and external factors shaping the EU ETS.

What follows is an introduction to key theoretical concepts in historical institutionalism and policy entrepreneurship. These will in turn be deducted into two empirical expectations**.** Last section combines the theories into a framework for understanding status quo policymaking helped by specified mechanisms and contextual configurating factors.

2.1 Historical institutionalism

Institutional theory aims to explain how institutions determine social and political outcomes. Hall and Taylor define institutions as 'the formal or informal procedures, routines, norms and conventions embedded in the organisational structure of the polity or political economy' (1996:938). Here, the institution is the free allocation policy within the EU ETS polity. Historical institutionalism, one of the branches within New Institutionalism, focuses on the causal relationship between institutions and individual actions, and how associated power between the actors in the institution is asymmetric. Moreover, historical institutionalism strongly emphasises *path-dependency* as an explaining and constraining factor in policy development (Hall and Taylor 1996). In the following, two key theoretical concepts within historical institutionalism are elaborated: cognitive feedback and path-dependency.

2.2 Cognitive feedback and path-dependency

Path-dependency is understood as how 'institutions continue to evolve in response to changing environmental conditions and ongoing political manoeuvring but in ways that are constrained

by past trajectories' (Thelen 1999:387). Therefore, previous decisions, institutional culture and historical events reproduce patterns that shape the course of the institution and influence outcomes of political processes and actor's responses to new challenges (Thelen 1999; Hall & Taylor 1996).

Path-dependency is maintained and self-reinforced by institutional feedbacks, which are mechanisms 'that increase the relative attractiveness of that path for the next round' (Pierson 2004:18). Existing literature tend to focus on positive feedback effects. Positive feedback from a political decision or change amplifies future changes along that same direction. Yet insights on negative feedback are just as important to understand why change does *not* occur, for instance in climate policy (Jordan and Matt 2014). *Negative feedback* are backlash dynamics which 'maintains stability in a system, somewhat like a thermostat maintains constant temperature in a room' (True, Jones, and Baumgartner 2007:160). Indeed, the chosen case explores non-change in phase 3 and small incremental change for phase 4, where the policy did generally prolong the original procedure of free allocation to the offshore sectors.

When accumulating, policy feedbacks will gradually make institutional actors' logic or worldview more aligned with the most dominant path(s) and subsequently endure policy developments in a certain way. For instance, EU member-states frequently implementing and supporting new ETS developments through revision and adjustment creates *positive* feedback to the EU ETS system as the EU climate flagship. However, *negative* feedback effects may limit or oppose positive feedbacks and institutional change. Negative feedbacks may over time counteract positive effects and return parts of the whole system to something close to the policy's original design (Jervis 1997:125). In fact, negative feedback from actions on the overall policy can cause system effects and 'amplify the problem the actions are intended to solve' (Jervis 2012:393). For instance, the very same implementation of EU ETS may spur such negative responses that reinforce fundamental sub-trajectory policies over time, such as the free allocation mechanism. In turn, this specific sub-trajectory becomes increasingly change-resistant and continues to undermine the effectiveness of the overall EU ETS.

The case of the European oil industry's gradual acceptance of EU ETS as climate policy provides an example. The industry started out as very reluctant towards EU ETS in its initial phase since they believed ETS regulations did not provide an international level playing field. However, during the 2008 revision for phase 3, a promise of a substantial amount of free

allocation aligned the industry's position with the EU ETS proponents (Skjærseth 2013). Later, such conditional support of the system has not only been reflected in the oil industry's strategies, but also reinforced through the revised directives and the policy debates in the EU ETS. When this balance between policy targets and concessions (in the form of free allocation to industries) are repeated, it reinforces the logic of how the system should work, making it path-dependent (Thelen 1999).

The feedback literature does however tend to be unclear on how feedback effects stimulate specific patterns (e.g., see Jordan and Matt 2014). Answering policy scholars call for improved insights on how feedback effects produce path-dependency, a specified cognitive feedback is employed.

Because actor's need to interpret information, risks and complex situations, they are subject to 'cognitive feedback'. In complex policymaking, actors are biased towards filtering information through 'mental maps', which are sustained by interaction and repetition (Pierson 2004:39). Policymakers frequently digest incomplete information that must be processed through mentally constructed maps, which also may lead policy down inefficient directions (North 1990:20). Repeated contextual understandings, ideas or expectations of the world, for instance through debates, policy adoptions or legislative implementation, can be viewed as feedback effects re-confirming the cognitive conventions. Occurring on group-level, such conventions can reinforce into expectations or even norms (Pierson 2004).

In institutions, cognitive policy feedbacks play a role in shaping a pattern of power relations. Because institutions empower certain groups while marginalizing others, they hence facilitate asymmetric power-patterns over time. Thus, the relative cognitive dominance in a policy can be understood as a reflection of the distribution of institutional power (Thelen 1999:394). Over time, this helps to reinforce policy paths that block or even cut-off the less desired cognitive directions. As more and more actors adapt and support the institution, the dominant cognitive beliefs become even harder to reverse. The change-resistant features of institutions due to uncertainty of alternatives to the status quo also gives inducements to continue that institution (Pierson 2000:262).

The specific cognitive feedback from the EU ETS that is studied here is the broadly accepted understanding of the carbon leakage risk due to lack of comparable climate regulations in competing regions. This feedback manifested itself through rounds of policymaking, for instance in the 2006-2008 negotiations for phase 3 and later in 2014 when member-states launched the phase 4 guidelines for EU climate policy (European Council 2014). Path-dependency analysis can nevertheless become descriptive of 'how' something happened, instead of explaining 'why'. Therefore, by specifying the self-reinforcing negative feedback mechanisms in relation to cognitive perceptions about carbon leakage risk, we get closer to explaining why a historical trajectory can reproduce similar outcomes (Pierson 2004:49). Applied to the selected case, we expect that the continuation of offshore's free allocation in phases 3 and 4 can be explained by negative cognitive feedbacks from a dominant cognitive belief in severe carbon leakage risk due to an uneven playing field. This is summarised in theoretical expectation 1:

Theoretical expectation 1:

1.1. Repeated perceptions of severe carbon leakage risk generated negative cogntive feedbacks in the EU ETS policymaking. These feedbacks preserved the instituional trajectory that prolonged free allocation for the offshore oil and gas sector into phase 3 and for oil extraction in phase 4.

1.2. Since negative feedback effects will self-reinforce over time, they are expected to have been more effective during the negotiations of phase 4 compared to those for phase 3.

The following causal effect of negative cognitive feedback is expected in each round of policymaking:

Policymaking 2006-2008 for phase 3	**Policymaking 2014-2017 for phase 4**
Some feedback effect	Strong feedback effect

2.3 Policy entrepreneurship

While institutional theory focuses on how persistent institutions causally lead to outcomes, the policy entrepreneurship literature lends focus to how strategic actors manage to shape policy (Boasson and Huitema 2017). Concerning policy entrepreneurship, scholars have provided new and important insights on both the preservation and evolution of policy.

A policy entrepreneur is a 'persistent and skilled actor who launch original ideas, create new alliances, work efficiently or otherwise seek to 'punch above their weight'' (Boasson and Huitema 2017:2). Entrepreneurship is ascribed to highly skilled actors with the resources and ability to 'innovate, propagate and organize' strategic actions to affect policy (Fligstein and McAdam 2012:4). Kingdon (2003) lists a set of qualities that entrepreneurs usually possess. Such actors should have some claim to a hearing, providing some sort of technical expertise, speaking on the behalf of others or hold a formal decision-making position. Additionally, entrepreneurs should be able to draw on connections, negotiating skills and persistency. It also helps to use lobby offices, finances, data material and other political resources. Naturally, possessing resources such as finances, lobbyist and data material surely help policy entrepreneurs. The oil industry ticks all these qualities.

While these qualities provide descriptions of political entrepreneurs, they are less useful for investigating causal inferences. Instead, distinguishing the entrepreneur's employed strategies is a fruitful operationalisation of policy entrepreneurship to trace the relation between an entrepreneur and the policy outcome. Then the strategy becomes the value that varies, not the actor adopting it (Green 2017:1473). If multiple strategies are reduced into to one variable, *the* entrepreneur, instead of several strategies, we cannot grasp which of the strategies that were influential and bias inferences. Thus, operationalising entrepreneurship into employed strategies let us better understand the causal relationship between entrepreneur's action and outcome, and to what extent entrepreneurship was the independent variable in policymaking.

While the literature often implicitly assumes that actors must drive change to qualify as policy entrepreneurship (Green 2017), actors can also exercise 'status quo entrepreneurship' or strategic blocking. Moreover, this study disagrees with Green (2017) and aligns with Boasson and Huitema (2017) on the claim that actor's strategies can qualify as entrepreneurship even if their strategies are unsuccessful. If a strategy fails, unsuccessful actors could still have been

punching above their weight and conducting policy entrepreneurship (Boasson & Huitema 2017). This is also an advantageous approach for using policy entrepreneurship on this case for the examination of both the phases 3 and 4 of the EU ETS. Through this approach, policy entrepreneurship can explain why the oil industry succeed to maintain free allocation to oil and gas production in phase 3 in addition to explain why the same industry failed to make gas eligible for free allocation in phase 4.

Furthermore, because policy development normally is a function of actor's entrepreneurial efforts and other institutional or societal factors, it is difficult to know whether to ascribe more importance to the seemingly successful actor or the intervening factors (Boasson 2015:64). Therefore, by removing the criteria of success, we can still analyse if actors performed entrepreneurially or simply undertook 'business as usual' when they participated in policymaking.

It is reasonable to believe that the oil industry practiced some kind of status quo entrepreneurship to prolong its sector's privileges in the EU ETS. However, under certain circumstances, structural or cultural institutional features or factors may be the real suppressor of change, making 'status quo entrepreneurship' unwarranted (Boasson and Huitema 2017:11). In relation to the more recent phase 4 revision, there are strong indications of the oil industry acting as policy entrepreneurs, although unsuccessfully. The selected case for this thesis might therefore provide new insights on so-called 'failed entrepreneurship', which is an understudied phenomenon of policy entrepreneurship (Green 2017:1478). Again, one way to investigate the entrepreneurial effect thoroughly is to focus on the industry's adopted *strategies* and *actual actions* prior and during the policy process (Boasson & Huitema 2017:5). What follows are two strategy categories which serves as mechanisms for policy entrepreneurship: structural strategies and culture strategies.

2.4 Structural and cultural entrepreneurship

Structural entrepreneurship consists of actor's adopted strategies aimed at overcoming the structural barriers of authority distribution and available information to enhance policy influence (Boasson 2015:66). Strategic actions including networking, lobbying, use of decision-making venues, tactics and control of information can successfully alter the distribution of authority and use of information to increase an actor's influence (Boasson and

Huitema 2017:5-6). Actor's authority relates to communication and is built when others perceive the actor to be reasonable and corresponding with their values. Moreover, authority can easily be transferred into power, and vice versa (Bachrach and Baratz 1970:33–35).

Oil companies communicating climate leadership and engagement in collaboration with policymakers and NGOs may enhance institutional authority. To overcome information problems in policy-processes, business associations acting on behalf of oil companies can be especially helpful by strategically providing technical solutions, drafts and industrial expertise (Boasson and Huitema 2017:6-7). The EU ETS is very much a technical policy, potentially making it sensitive for an interest group's influence (Culpepper 2011; Skjærseth and Wettestad 2008). Moreover, global companies involved in international policymaking are empowered by their in-depth knowledge of markets and ability to operate in several regions (Mikler 2018:129). These descriptions are perceived to closely fit the profile of the oil industry. This makes it reasonable to assume that actors from the oil industry could draw on information and resources to build authority to overcome structural barriers in the EU ETS.

Structural entrepreneurship can be combined with cultural strategies. *Cultural entrepreneurship* involves actor's strategic use of positive and negative framing to alter people's perceptions, logics and preferences. This elevates the actor's solution as the most attractive alternative, thus marginalising competing views (Boasson & Huitema 2017). Positive or negative issue framing helps to underpin or undermine 'certain ways of understanding and interpreting information and events' (Boasson & Huitema 2017:7). The risk of carbon leakage and industrial relocation is a negative framing on climate regulations. The word 'leakage' itself underpins an unintentional but natural consequence for industries, left with no other choice than to relocate.

In addition to negatively highlighting carbon leakage, the oil industry has positively framed gas production as a well-fitted and 'green solution' to replace 'dirty coal' in the EU. Oil companies are therefore eager to support a tighter cap and price mechanisms to drive up the carbon price in the ETS (Interviews 2018). Thus, the art of persuasion, argumentation and appealing to identities and interests are embedded in cultural entrepreneurship (Boasson 2015:68).

To distinguish the entrepreneurship mechanisms even further, structural entrepreneurship addresses strategies aimed at enhancing the relative structural position of actors, while cultural entrepreneurship strategies take aim at affecting actors' world-view and framing of identities, solutions or issues. As policymakers had less experience with the EU ETS during the 2006-2008 revision, we can assume that the effect from policy entrepreneurs were higher between 2006-2008 than in 2014-2017. By drawing on this backdrop, we can expect that the following took place:

Theoretical expectation 2:

2.1. Adopted structural strategies such as networking, coalition-building and strategic use of information enhanced the oil industry's authority and altered the information distribution in the EU ETS. Additionally, they used cultural strategies combining positive and negative framing; While supporting progressive targets, they simultaneusly emphasised severe carbon leakage risk. These strategies prolonged free allocation to the offshore oil and gas sector for phase 3 and to oil for phase 4.

2.2. The political effect of policy entrepreneurship was substantally higher during the revision for phase 3 than the revision for phase 4. This is due to less institutional awareness about actual carbon leakage risk and EU ETS performance in 2008, providing more space for policy entrepreneurs.

The following causal effect of policy entrepreneurship is expected in each round of policymaking:

Policymaking 2006-2008 for phase 3	**Policymaking 2014-2017 for phase 4**
Strong entrepreneurship	Some entrepreneurship

2.5 Conditions for feedback and entrepreneurship

This section specifies three factors that can mediate negative cognitive feedback and policy entrepreneurs' causal effect in preserving the status quo in policy. The factors are understood as configurations obtained from the literature on policy feedback (Jordan and Matt 2014), policy entrepreneurship (Boasson and Huitema 2017) and business power (Culepper 2011). These contributions share some overlapping insights on explaining what foster or constrain policy development. Causal configurations are understood as complex interactions of two or more factors that have accelerating causal power through their co-existence, usually working

in a specific context (Blatter and Blume 2008:332). The operationalised negative cognitive feedbacks and actor's strategies are understood as 'mechanisms' that triggers effects or actions (Gerring 2007:73; Blatter and Blume 2008:332). In example, the lack of an effective global climate regime and a powerful industrial coalition opposing strong climate regulation makes a configuration for practicing free allocation in the EU ETS. Configurations are here used to explain what foster the causal effect from negative feedbacks and entrepreneurship strategies in preserving the status quo in the EU ETS.

2.5.1 Specified configurations: coalitions, external conditions, complexity

Jordan and Matt (2014:237) suggest a set of internal and external factors that allow feedback to endure policy design. These include a powerful and expanding coalition supporting the policy, stable exogenous conditions and incapability to monitor lapses in policy performance. Boasson and Huitema (2017:12-15) discusses how very similar factors are contributing to entrepreneurial success for either changing or preserving policy, including weak opposition, external impulses and policy complexity. Culpepper (2011) also holds that high level of policy complexity is further expected to increase business power. Drawing on these contributions, the factors 'powerful coalition', 'stable external conditions' and 'policy complexity' are expected to configurate the causal effect from negative feedbacks and entrepreneurial strategies.

Firstly, there is broad institutional understanding of the carbon leakage risk in the EU ETS. When a powerful block repeatedly supports policy continuation and more actors adopt that policy, path-dependency is an inevitable outcome (Pierson 2000; Jordan and Matt 2014). Moreover, if entrepreneurs should challenge powerful institutional segments, it seems logical to expect a low chance for success. In contrast, when opposition is weak, the chances for entrepreneurial influence should be higher (Boasson and Huitema 2017).

Thus, *a powerful coalition for free allocation is therefore expected to configurate negative feedback and entrepreneurial impact on the EU ETS policy.*

Secondly, many actors in the EU ETS perceive the risk of carbon leakage in relation to the lack of comparable climate regulations elsewhere. Thus, they perceive it as a constant exogenous condition affecting their international competitiveness (Wettestad and Jevnaker 2016). This condition is also established as a prerequisite for free allocation in the ETS directives (OJEU

2009). How the 2015 Paris Climate agreement will level the playing field for EU industries remains to be seen (Eikeland and Skjærseth, forthcoming). But when political motion happens in the global climate change regime, European policymakers may accordingly feel obligated to respond with pro-active changes. Until then, stable exogenous conditions will facilitate the feedbacks that endure policy (Jordan and Matt 2014:237). For policy entrepreneurs, external factors such as motion in the global climate change regime can influence strategy choice and the chances for entrepreneurial success in changing policy. International impulses or the lack of it may nevertheless be exploited as an opportunity to maintain policy (Boasson and Huitema 2017).

Thus, *stable exogenous factors are expected to provide better conditions for negative feedback and strategic actor's impact in preserving the status quo.*

Thirdly, policymakers' incapability for understanding policy performance and unwanted effects will likely endure policy and suppress efforts for change. In the EU ETS, policymakers seem to struggle with monitoring and knowing the exact implications of their decision-making on carbon leakage due to technical and complex features of EU ETS politics (A. T. Gullberg 2010; Skjærseth and Wettestad 2008). Generally, high level of complexity in policymaking is advantageous for actors occupying information and technical expertise, improving industries ability to successfully define policy (Culpepper 2011; A. T. Gullberg 2010). Culpepper points out that when political salience is low, and complexity is high, politicians are more prone to accept and rely on the expertise of companies (2011). EU policymakers certainly cannot possess complete information nor grasp the full extent of their policies, especially as decisions get intermeshed in policy package deals. EU ETS literature further shows that interest groups are active suppliers of technical expertise, reports on policy implications and democratic legitimacy to policymakers (Gullberg 2011). Their relevance is emphasised by the understaffed Commission, making the Commission dependent on industries and interest groups to function on a daily basis (Gullberg 2010).

It is therefore likely that *high policy complexity facilitated the negative cognitive effects on continuing free allocation. We can also assume that complexity increased the relevance of industrial input, hence enabling the oil industry's entrepreneurial strategies to impact free allocation rules.*

2.6 Causal model and theory summarised

The beforementioned factors configurates the extent to which negative policy feedback helps to entrench policy, and policy entrepreneurs succeed in preserving the status quo. Currently, the entrepreneurship literature is unclear on whether such factors are more likely to develop policy change or status quo outcomes. Also, entrepreneurship can be one of many sources of institutional change or the status quo. This case study will contribute to insights on how institutional and external factors configurates an entrepreneur's ability to preserve the status quo. Moreover, negative feedback is also used to explain how cognitive convictions may prolong policy. Complementing feedback theory with policy entrepreneurship enable to study how feedbacks play together with policy entrepreneurs in affecting policy. Figure 1 illustrates a simplified causal model on how historical institutionalism and policy entrepreneurship can be used in one single framework. Both actor's strategies and negative cognitive feedbacks' effect on the outcome (non-change) are contingent by internal and external factors configuring their causal intensity. Such factors may also impact an entrepreneur's strategy choice, although this is not directly communicated by the simplified model.

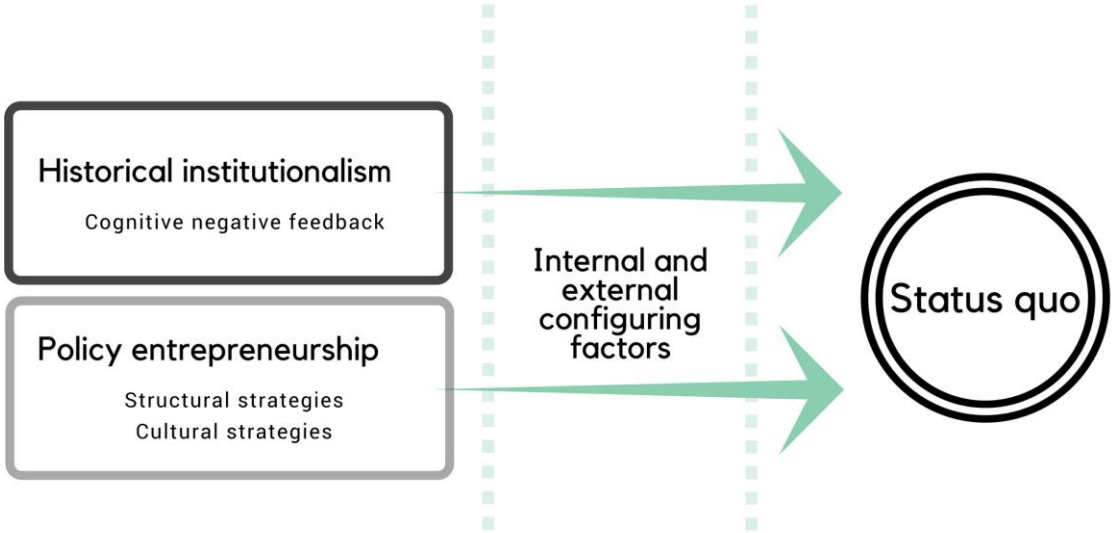


Figure 1 Causal model of framework used to explain status quo outcomes.

Process-tracing is later used to reveal the interactions of the mechanisms and their configurations. A resistant cognitive support for carbon leakage, stable exogenous conditions and policy complexity configures negative feedback effect on prolonging the use of free

allocation. The same configurations are likely to mediate the causal influence from the oil industry's adopted strategies on the revisions processes.

Table 3 summarises the theoretically deducted mechanisms, their configurations and theories' expected effect in prolonging free allocation to the offshore sector in phases 3 and 4. These are revisited in the analysis.

	Mechanisms	***Configurations***	***Policymaking 2006-2008 for phase 3***	***Policymaking 2014-2017 for phase 4***
Historical institutionalism	Cognitive negative feedback	Powerful coalition stable external conditions policy complexity	Some feedback	Strong feedback
Policy entreprenurship	Strucutral and cultural strategies		Strong entrepreneurship	Some entrepreneurship

Table 3 *Theoretical operationalisations, configurations and expected effect on policymaking.*

3 Methodology

This chapter presents the methods used for answering the thesis' research question. Twenty in-depth interviews were conducted, seven of them with oil industry informants with detailed knowledge on the EU offshore oil and gas sector. A suitable choice of research design is a qualitative within-case study and process-tracing, which will be deliberated in the following. Methodological choices related to research design, data collection through semi-structured interviews and sampling, in addition to how validity and reliability are preserved, are all addressed here. This study's collection of personal information (such as name, title and organisation) is approved by the Norwegian Centre for Research Data (NSD), reference number 56938.

3.1 Within-case study design

The methodological frame for this thesis is a sequential within-case study design (Jacobs 2015:61). Generally, a case study is an 'intensive study of a single case where the purpose of that study is – at least in part – to shed light on a larger class of cases (a population)' (Gerring 2007:20). Moreover, a case study can be understood as an 'instance of some phenomenon', meaning that the case is comprised by a greater class of cases – its universe (George and Bennett 2005:69; Thomas 2011:512). A single case usually consists of few units, several variables and spans in a limited time and space and may be any phenomenon as long as the boundaries and the object of the study are identifiable (Gerring 2007:19). Specifically, the design here uses within-case evidence from a temporal, spatial and topical domain understood as the case (Bennett and Checkel 2015:8). Although case designs hold great advantages in exploratory research and theory development, the goal is to connect X with Y in a plausible fashion by investigating causal mechanisms and configurations (Gerring 2007:44).

More distinctively, the chosen research design is a sequential analysis of steps within a single decision-making process (Jacobs 2015:61). In the following, observations, events and developments along the timeline of the negotiations of EU ETS phases 3 and 4 are analysed. The timeline starts with the phase 3 revision process in 2006-2008, followed by the

intermediate developments of the EU ETS between 2009-2014, closing with the phase 4 revision between 2015-2017. This allows us to study the relative role of different actors, external and internal factors at different times and venues during the development of the free allocation policy (Jacobs 2015). This is what Thomas (2011) define as the 'subject' of the case study; the decision-making processes of free allocation for the offshore industry in phases 3 and 4. This is distinguished from the case's 'object', which is the analytical frame in which the subject is viewed. Thus, the subject constitutes an example of the object (Thomas 2011:515).

3.1.1 What this is a case of

This brings us to *the* question case-study researchers ask themselves: 'what is this a case of' (Levy 2008:2). As mentioned in the introduction chapter, this study builds on the backdrop of previous research within three fields in political sciences: Business power, climate policy, and the EU ETS literature. This is first a case of big business impact on climate policy, but also of how big business impact EU policy. Generally, the oil industry comprises some of the world's largest corporations and polluters, thus they have an interest to respond to climate policy that will affect their operations in the EU. Not only will it demonstrate how the major oil companies gain influence in climate policy, the case also shows how EU policymakers responds to corporate pressure.

In the last decades there has been a growing public and academic interest in climate politics, in line with the need for global warming to stay well below the two-degree target. Often considered as a climate frontrunner, the EU makes climate policy decisions on behalf of European states and sends accordingly strong policy signals to climate policymaking in other regions (Knox-Hayes 2016). Emissions trading is the most trusted tool for securing climate targets by the EU and therefore deserves critical attention. This case selection also responds to calls raised by scholars such as Culpepper (2011, 2016) and Mikler (2018) for more research on business power within political institutions. In historical institutionalism specifically, Culpepper (2016) argues that the role of corporations has been ignored. Mikler (2018) has further challenged the perception of profit-maximizing corporations in global politics and underlined the lack of understanding of *how* they fulfil their interests. This thesis will contribute to the understanding of political business power, but also their shortcomings in influencing climate policy.

Moreover, the scholars on emissions trading usually adopt macro perspectives, while micro-levels of policymaking can also reveal important lessons on how climate policy is made (E.g. Knox-Hayes 2016; Wettestad and Guldbrandsen 2018). This thesis seeks to fill one of these undiscovered vacuums of policymaking in the EU ETS. Thus, the case represents an outcome within a climate policy that may demonstrate important lessons for both scholars of public climate policy and business power, and policymakers in general.

The case has also been selected for theoretical reasons. The subject and the object of the selected case fit the typology *of theory-guided idiographic research design,* which aims 'to describe, explain, or interpret a particular "case"' in time and space (Levy 2008:3). But while Levy notes that this type of case design can either be inductive or theory-guided, this study aspires to do some of both. First, the research questions have guided the selection of the theoretical frameworks, namely historical institutionalism and policy entrepreneurship. These frameworks focus on specific but different elements of the empirical reality, namely cognitive structures and policy entrepreneurship. Second, the selected case further enables explorative and descriptive features that may give implications for the adopted theoretical framework and the empirical understanding of EU ETS.

Finally, what was assumed to be a 'typical case' of business power influncing climate policy turned into better fit the 'deviant case' cathegory. A deviant case demonstrates a surprising value to a thoretical context (Seawright and Gerring 2008:302), here, the policy entrepreneurship framework. As the process-tracing shows, institutional configurations and cogntive structures seem to be more influential in providing free allocation to offshore industry than the offshore industry itself. Exploring deviant cases probe for new explanations and theoretical and empirical lessons about corporate influence.

3.2 Process-tracing

Process-tracing was deployed to identify causal explanations for the case. Process-tracing is advantageous for its close inspection of individuals, groups, institutions, perceptions and the general decision-making environment in the EU ETS that is relevant for explaining the outcomes (Levy 2008:11). It enables analysis of processes, sequences and events within the selected case 'for the purposes of either developing or testing hypotheses about causal mechanisms that might causally explain the case' (Bennet and Checkel 2015:7). This method

helped to understand why and how the outcome occurred by using multiple types of evidence to verify a single causal outcome in relations to the derived expectations in the theory chapter. The researcher is not only studying the X – Y relationship, but also the intermedia cause(s), possibly serving as causal configuration(s) or mechanism(s) structured along a timeline (Gerring 2007:212–16).

This technique was used to generate causal process observations (CPOs). CPOs provide 'information about context, process or mechanism, and that contributes distinctive leverage in causal inference' (Brady and Collier 2004:277). Ultimately, the goal is to find the 'smoking gun' and point to the most convincing causal observation(s) producing the outcome (Blatter and Blume 2008:323). Here, these can either be mechanisms or configurations as mentioned in the theory chapter. These are respectively causal 'triggers' or 'contextual interactions' of influential factors (Blatter and Blume 2008:322).

More importantly, the process-tracing design enabled a valid and thorough employment of the theoretical framework. Historical institutionalism's attention to earlier decision-making and feedback effects was well-documented along a timeline of events, actions and negotiations. Process-tracing did further discover at what time entrepreneurial strategies were adopted and how it impacted the policymaking. Moreover, process-tracing structured the data, facilitated theoretical comparison, complementation and enlightened dark-spots indicating that other factors should be accounted for. Overall, process-tracing was deployed to make precise measurement of timing and tipping points in the processes, thus a suitable choice for the adopted theoretical framework (Bennett and Checkel 2015; Levy 2008:12).

One key feature of process-tracing has impacted the research design. The method rethinks epistemological boundaries of deductive and inductive research. While deeply rooted in operational mechanisms derived from theory to guide and to test on the case, parts of the research process consisted of 'soaking and poking' within the EU ETS institution (Bennett and Checkel 2015:273–74). Such openness to inductive discoveries were especially useful during the field research, data collection and informant interviews. This further helped specifying theoretical expectations and revising the research design to better fit the empirical reality of EU ETS and answering the research questions.

3.3 Challenges related to process-tracing

Among the observational research methods, process-tracing occupies a unique position in its potential of maximizing internal validity for making causal interpretations of inferences (Schimmelfennig 2015). Some implications should anyway be addressed.

First, the sequential aspect of process-tracing demands a long timeline of units and observations. It therefore requires large amounts of information taking up time and space for a complete investigation (George and Bennett 2005:223). Furthermore, one never really knows when investigations and data collection creates a sufficient process-tracing or when the causal path is established (Schimmelfennig 2015:102). For handling the problem of resources and measure-of-fit, this process-tracing has let theories and mechanisms guide the case specifications, data collection and informant sampling. This helped narrowing the process-tracing in time and space, and the relevant data needed to assess the specified mechanisms (Schimmelfennig 2015:108).

It is also relatively easy to make stories convincing by selecting certain observations but excluding others to arrange a desired narrative that seem plausible. Drawing on Popper, Schimmelfennig claims that humans tend to have an 'innate propensity not only for seeing patterns and regularities […], but also for constructing and telling coherent stories' (2015:103). Again, letting the theoretical derived mechanisms steer what to look for within the EU ETS processes, instead of exploring the story without a frame, has been a robust and reliable research approach. A diagram in the theory and the analytical chapter has further contributed to the precise use mechanisms on the case, safeguarding against plain storytelling (Gerring 2007:181).

Critics often believe single case studies show poor potential for generalisation. In contrast, adherents of process-tracing firmly hold that generalisations can be drawn beyond the conclusions from the analysed case (George and Bennett 2005:17). Here, it is important to acknowledge that quantitative and qualitative research follow different aspirations. Instead of statistical generalisations, case studies rely on 'analytic generalisation' where theory rather than units are the ultimate object for generalisation (Yin 2009:43). Findings from this process-tracing study does not solely provide support for a new theory but may refine, bolster or give theoretical implications. Eventually, such support may come from accumulation of similar

studies using similar theoretical framework. Lincoln and Guba (1985) have further argued that thick description in case studies can compensate for the lack of transferability, because rich and detailed accounts in one case can contribute to make judgements about cases in other contexts. This case can share empirical and theoretical insights on climate policymaking, EU and business power in general, hence applicable to research of many types of governance.

Finally, it is the theoretical inferences drawn from qualitative data that can be understood as analytic generalisation (Bryman 2016:399; Yin 2009). To enable analytical generalisation, two methods of making contingent generalisations from a single process-tracing case to a broader set of cases are employed: historical contingency and multi-component contingency. Historical contingency holds that a CPOs may depend on historical features such as time and specific context, whereas the multi-component contingency suggests that several CPOs were in play simultaneously producing the outcome (Blatter and Blume 2008:338–339). These types of generalisations are enabled by empirical specifications of space and time or context specific configurations founded in the process-tracing. These can be inductively discovered by exploring for contextual configurations through the data collection or by drawing on multiple theoretical frameworks. This study has done both to ensure such generalisations. Thus, by adopting these approaches, we widen the scope of what case-study design contributes to in political sciences (Blatter and Blume 2008). Moreover, by asserting contingency, we can lend more confidence into the generalisations.

One more issue that process-tracing enables to take into account is *equifinality*. That is, 'to consider the alternative paths through which the outcome could have occurred', while it also suggests potential causal paths that are consistent with the outcome (George and Bennett 2005:207). Process-tracing is well-suited for both addressing and testing rival theories when multiple variables may explain an outcome. This is because the empirical tracing of observations forces the researcher to consider and mapping out alternative paths that can be linked to several explanations (George and Bennet 2005:206-207). Also, the method investigates rival causal mechanisms to eliminate. In such a way, process-tracing overcomes challenges in making inferences helped by empirical 'thick descriptions' and internal validity of the case study design (Yin 2009:42). Thus, process-tracing contributes to both the testing and development of theories and identification of omitted variables (George and Bennett 2005:215-217; Gerring 2007:43).

Confidence in causal inferences nevertheless hinges on a contextual understanding that is prominently important in process-tracing. Furthermore, process-tracing depends heavily on general world assumptions and common sense. Every observation must be evaluated and assessed in light of context, theoretical operationalisation and general assumption about that institution. This demands a certain level of empirical knowledge (Gerring 2007:180-181). This got even more complicated by the complexity and technical level of the EU ETS policy, which risked producing a messy process-tracing.

For instance, EU policymaking may often be affected by policy interaction (Boasson and Wettestad 2013). By isolating one mechanism, namely the system for free allocation, within a broad ETS policy with numerous mechanisms, one runs the risk of ignoring the impact made by the overall negotiations of the EU ETS. Moreover, one policy outcome can likely be affected by related policy processes. For instance, chances for policy interaction effects were high in the 2008 'climate and energy package' negotiations, where EU ETS was one of four policies (Boasson and Wettestad 2013:66). External factors such as the global climate regime and events like the Climate Summit in Copenhagen 2009 and the Paris 2015 agreement have further indirectly influenced the EU ETS and free allocation (Wettestad and Jevnaker 2018; Interviews 2018).

To account for this challenge, in-depth interviews with informants have provided first-hand accounts giving quite consistent information highlighting what was essential in the case. Moreover, the theory chapter suggested several configurations that were in play and may nuance or widen the explanations of the adopted theories. While it is impossible to exhaustively examine every variable, it is important to let theoretical importance, original objectives and common sense guide the energy spent on each observation (Gerring 2007:184; Yin 2009:130).

This again may create confirmation bias**.** Since researchers may lend more attention to empirical indications of the expectations that interests them than to the indications of alternative ones, drawn inferences might be overstated. When testing theories, one should therefore not only look for 'proof', but also look for indications that argue against the expectations. Inconsistency among informants' accounts, data shortcomings or unreliable observations for producing sufficient inferences may be such indications. By employing rival theoretical perspectives, the risk of confirmation bias was reduced by spending approximately equal amounts of energy on each perspective. Instances of doubt, missing data or possible

alternative explanations are referred to in the process-tracing chapters and the analysis (George and Bennett 2005:217–18).

3.4 Data collection

For enabling a valid process-tracing, two data collection methods have been used. The thesis data mainly consist of empirical information gathered from 20 qualitative in-depth interviews with 'elite informants'. These are persons with authority and expertise on the topic subjective to examination (Leech et al. 2013:210). In addition, publicly available documents, such as stakeholder consultations and existing research has been analysed. Whereas documents provided descriptive information on official statements and political positions, informants interviews were crucial for obtaining a more complete processual understanding, especially concerning questions such as whom, where, when, how and why. A triangulation of different sources of data, has provided a broader set of observations and bolstered the understanding of the case (Adcock and Collier 2001:540). The combination of data collection methods further strengthens the study's validity and reliability, as they together provide increased consistency and verification of empirical arguments.

This section devotes most attention to choices related to data from interviewing informants, which accounted for the study's most valuable observations. In a positivist tradition, interview data was partly analysed as objective information that could help falsifying, testing or strengthening theoretical expectations in the theory chapter. Additionally, an interpretivist approach was essential for sampling and interviewing for reflecting upon from whom, how and under what context information was generated. More generally, interpretation of accessed data was necessary to select what was and was not relevant information. Such interpretations will again affect the data selection, which may have implications for the analysis and drawn inferences (Mosley 2013:10). In summary, this thesis takes the middle-road within the positivist-interpretivist discussion, regarding the information as factual but only to the extent that the context under which it was acquired is considered.

3.5 Sampling strategies and selection of informants

Sampling is the selection of a subset of elements from the universe one is studying (Lynch, 2013:38). In process-tracing, a non-random sampling strategy of informants and documents was called for due to theoretical and practical reasons (Lynch, 2013; Mosley, 2013). Of

theoretical reasons, the selection of informants had first-hand insights on oil industries actions in the EU ETS with potential 'smoking gun' observations of the policy-processes. These includes representatives from the oil companies, association groups, members of the European Parliament (MEPs), the European Commission and government officials. The sample's shared characteristic is insights on the role of the oil industry in the EU ETS. Theoretically motivated sampling of documents has largely consisted of several rounds of stakeholder consultations on EU ETS revisions, to where the oil industry has issued positions on free allocation and the EU ETS policy. Such documents are accessible through the European Commission's online archives. Using documents issued in the past have provided important indications of context, process and order of occurring events along the timeline. This also enabled temporal comparison from accumulating observations that may indicate trends or inferences about the puzzle, especially from analysing written sources with interview data (Bratberg 2014:133-136). Additionally, written documents such as political statements, drafts, directives, corporate reports, media articles, existing research and media articles were analysed. Analysing previous research on EU ETS and public documents were advantageous as parts of the studied timeline happened more than a decade ago. Political documents have further compensated for some informants' memory loss and enhanced the general credibility of the study.

Practically, time, financial resources and thesis limitations constrained the research and extent of data collection. Nevertheless, thanks to financial support from the University of Oslo and Fridtjof Nansen Institute, Brussel-based informants from three large European oil companies, namely Statoil, Shell and Eni, and one from the International Association of Oil and Gas Producers (IOGP) were interviewed. Additionally, one officer from the relevant Directorate General in the Commission, DG Climate Action (DG CLIMA), and two informants from the European Parliament shared a combination of first-hand and second-hand knowledge of the processes. Interviewing these informants, and expert policy observers closely following the ETS, such as informants from Point Carbon, Carbon Market Watch and WWF with seemly different views or agenda from the oil industry, enabled a cross-check of data given by the oil industry. Cross-checking validates specific observations of causality and gives more confidence to trust those sources providing data (Leech et al. 2013:215).

Moreover, selecting a sample based on different types of actors relevant in the policymaking provided more balanced and nuanced information (Bleich and Pekkanen 2013:90). Data reliability was further enhanced by interviewing informants from Statoil and then Shell and

Eni, companies in outspoken disagreement on the free allocation issue. Here, two people were interviewed from each oil company, which provided some variation and increased the robustness of their answers (Gallagher 2013:192). The informants from Shell and Eni were however interviewed together, which was not ideal as it likely restricted their ability to speak freely. This drawback was counterbalanced by allowing the informants to supplement each other with relevant information. Government informants form the offshore-state Norway have also contributed to observations of the offshore sector and cross-checking of data, in addition to sharing processual information about the ETS.

In tracking down the most relevant and representative informants from the oil industry, a 'snowball strategy' and a 'purposive sampling strategy' were adopted. *Snowball strategy* is a tool for 'gradually accumulating respondents in a sample based on recommendations from earlier interviewees' (Lynch, 2013:41-42). This method helped getting access to informants one otherwise would not be able to reach. 'Snowballing' successfully accumulated a list of names within the oil industry in Brussels, policymakers, government officials and observers that later became valuable informants. At the end of every interview the informant was asked who they believed had valuable information for this research purpose, which kept the 'snowball' rolling. Some names got mentioned multiple times, which indicated the importance of this person. Also, the screening of EU documents, position papers and news articles collected several names. This was a helpful way of providing surrogate sources when interview requests got declined, or when interviews resulted in less useful information. As a result, almost every informant was a result of snowballing.

Purposive sampling is a non-random sampling method used to select entities 'according to specific characteristics deemed relevant to the analysis' (Lynch 2013:41). This strategy requires some overview of the population and knowledge on what is achievable to accomplish in terms of available resources and informants. Purposive sampling helped picking the relevant companies, organisations and institutions, whereas snowballing guided the selection of informants to interview.

It was expected that some representatives from the oil industry would decline to interview due to not wanting to expose their political strategies. Access to deep strategy documents was never expected. The majority of the large multi-national oil companies in Brussels, such as Exxon and Chevron, were contacted but never found time or declined interviewing. However, six

informants from three relevant firms did agree to be interviewed on certain premises (see under). Of most importance, was the access to informants in Shell, Statoil and IOGP for exploring the role of the offshore sector. Introductions to these actors are presented in the empirical background chapter. In brief, IOGP was an obvious organisation to interview, as it lobbies on behalf of offshore in the EU and represents some of the largest multinational oil companies in the world. Choosing to focus on Shell and Statoil were based on several characteristics and arguments that provided company variation:

Firstly, both companies are amongst the largest fossil fuels companies globally, but also the most emitting entities in the world – in a longer time frame and annually (CDP 2017; Fortune 2016). This gives them a strong incentive to influence policymakers on emissions regulations. Secondly, Shell and Statoil have some of the largest offshore portfolios relative to other oil companies active in Europe. Based on offshore-production, Statoil is one of the largest oil and gas producers to the EU (Statoil 2016). Shell is on the other hand a fully-integrated oil company, including a large refinery and chemical portfolio (Shell 2016). Thirdly, they seem to differ in visibility in the EU. Shell is evidently one of the most active lobbying oil companies in the EU, while Statoil is reportedly less visible (CEO 2016; Interviews 2018). Fourthly, they are headquartered in European countries with significant offshore sectors but have different access to the EU. UK and Norway are recognised as the active offshore states in the EU and account for the majority of Europe's offshore industry (Interviews 2018). While the UK has been an active EU member, Norway only participates indirectly in policymaking through the EEA-agreement. On state-level, this may give variation in terms of influence on behalf the offshore sector.

Fourthly, both Statoil and Shell have traditionally held relatively proactive positions towards climate change compared to other large multinational oil companies like Exxon (Skjærseth and Skodvin 2003; Interviews 2018). However, the two companies have outwardly stated different views on the question of free allocation, which made it interesting to study whether this made any impact on the oil industry's strategies in the EU ETS. Lastly, both companies vary in size, corporate characteristics, strategies and management model. These may be important aspects to include in an analysis of the overall oil industry. Representatives from other major oil and gas companies, such as Exxon, were contacted but many declined to be interviewed. However, the role of Exxon in climate policy has already been covered by other researchers (Skjærseth and Skodvin 2003; Skjærseth 2013). Informants from the Italian company Eni, which is less

concerned with the upstream sector but more focused on downstream activities in the EU, further nuanced the profile of the European oil industry.

3.6 Semi-structured interviews

Twenty qualitative, semi-structured interviews, with a large amount of background off-the-record conversations, were conducted. This approach was crucial for maximizing detailed and credible information about the oil industry's actions and strategies. In general, qualitative interviews help researches to interact directly with the individuals who populate the models of our theories enabling a deeper understanding of the individual's actions and attitudes. It identifies unobservable causal mechanisms that help explaining political outcomes (Mosley 2013:2-5).

Semi-structured interviews had two important qualities. First, the flexible format allowed informants to talk freely and made room for critical follow-up questions. Second, following questions form an interview guide made it possible to compare answers across the informants, keeping track during interviews and compare the credibility of the answers. Asking many open-ended questions gave the informants further leeway to elaborate and provided thick processual descriptions (Leech et al. 2013:210).

During the interviews, the most useful information came from follow-up questions and conversation, making several of the interviews substantially more unstructured than expected. The research objective was to a lesser extent comparison of answers, but rather gathering of processual empirical clues. Thus, it was helpful to adopt a freer interview style and use the interview guide as a check list rather than a compulsory list of questions. This was particularly useful when interviewing oil industry informants. The order of questions was not of high importance. Yet a chronological order of questions did help to structure and conduct the interview efficiently, and chronology helped the informant to go back to 'the beginning' and guide her through the process (Beckmann and Hall 2013:201–5).

Questions focused mostly on gaining unobservable information that could not be found publicly, such as behaviour, strategy, motivation and logics. Questions asking for information on behaviour and actions – 'what happened' questions – are often more fruitful than asking the informant for explanations – 'why' it happened (Mosley 2013:21). Informants self-assessments

will most likely lead to over- or underestimation of the effects of their actions, generating unreliable answers (Beckmann and Hall 2013:197–98). Therefore, the interview guide contained questions providing mostly descriptive data. This was especially useful with the entrepreneurship framework, which needs observations on strategic actions adopted by the oil industry to make a valid analysis. Asking for information on who was involved in the decision-making, what their motivations were and how the events unfolded, is especially useful for process-tracing (Lynch 2013:36). Questions providing this type of data provided indications of several CPOs, which were useful in a historical institutional framework. In such a way, adopted questions manged to make theories operational for capturing relevant observations ensuring measurement validity (Adcock and Collier 2001:592). Pre-tests and feedback from testing the interview guide also made sure that the theoretical concepts could be measured through the questions (Mosley 2013:21). After interview data started to accumulate, questions switched focus to what was still unclear and to validate previously provided information. Besides this, no major changes of the interview guide were made.

Interviews with key informants were conducted off-the-record. This data was meant as background information, meaning that the interview was not recorded, and the gained information could not be directly referred to the source nor its organisation. Most of the informants were given permission to speak off-the-record, a common strategy for making elite-informants speak freely about sensitive issues (Mosley 2013:25).

More recorded interviews would nonetheless have ensured accuracy, correct collection of information, illustrative quotations and freeing the researcher from transcribing, enabling active listening for follow-up question (Beckmann and Hall 2013:203). However, recording is not always the best nor possible option. While several informants had no problem being recorded, it was not the case of informants within the oil industry, DG CLIMA and informants from the European Parliament, who made it a condition for interview. Although problematic in terms of transparency, reliability and replicability, there were several positive trade-offs to this approach. First, the possibility to speak freely and honestly about the policy-processes reduced the fear of potential social or professional sanctions from publication. Off-the-record talks further enabled access to key informants and their first-hand knowledge of the process. Consent for participation was reached more easily by providing some level of confidentiality, promises on how the information would be used and withdrawal possibilities. Second, the information given during off-the-record interviews were mostly fast-typed on computer and

subsequently transcribed right after the interview session. This provided a great registration of details and reduced measurement errors. The certainty of the data gathered from one talk was later compared to information from other informants and other written material, increasing the general confidence in data. In terms of replicability, almost every interviewee agreed to be listed by name, position and organisation in the research publication as long as the information was not linked to the source. This provides transparency to the research while guaranteeing informants confidentiality getting shielded from any social or professional sanctions from participation (Mosley 2013:16-25).

Doing off-the-record interviews with governmental representatives, experts and NGOs could have revealed even deeper details about the offshore industry. However, several of these informants were in large providers of technical and contextual data which was important for a correct understanding of the EU ETS field. Thus, these interviews were conducted on-the-record. Solely doing off-the-record interviews could have generated excessive amounts of information or even speculations, potentially stealing focus from the relevant pieces of information. In summary, the purposive use of on- and off-the-record interviews generated various, valuable and reliable data on the EU ETS processes.

3.7 Challenges related to interview data

Some problems may occur when analysing interview data. Firstly, while the majority of the informants had insights on both ETS revision processes (2006-2008 and 2014-2017) from personally engaging in the policymaking, some did only follow the recent phase 4 revision. Nevertheless, these informants could share second-hand knowledge from the inherent information within the company or about the EU ETS. Furthermore, important events in the case happened several years ago, meaning that some information had to be carefully assessed due to potential memory-loss. Also, informants may strategically deceive or hide information, but this was believed to only explicitly occur a few times in the research. Enabling background talks, cross-checking of interview data with other sources and explicitly stating the lack of validity in the empirical chapter will be weighing up for such reliability issues (Mosley 2013:22-25). Existing literature on the oil industry (e.g. Skjærseth 2013) was further helpful to understand context and strategies adopted over ten years ago.

Secondly, 9 of 20 of the informants are Norwegians or occupy a Norwegian perspective, which may create bias (see Informant Interview Scheme, Appendix 1). Many of the Norwegian informants' main function has been to provide insights on institutional developments and technical issues in the EU ETS, which are also relevant for the offshore industry. Some also shared specific information on the offshore sector in the EU. Interviewing many Norwegian government informants is further relevant due to the oil industry's strong presence in Norway. Nevertheless, these informants have in large been complementary sources to the oil industry's informants.

Thirdly, 20 informants were interviewed. Yet is never easy to estimate when to stop interviewing. As a rule of thumb, the sample size should depend on achieving data saturation, which is when there is a reliable sense of achieved variability and thematic exhaustion in the collected data (Bryman 2016:417). For instance, informants within a policy network who restate the same casual observations and do not reveal any significant new information would indicate high saturation (Bleich and Pekkanen 2013:91). The informant interview scheme, included as Appendix 1, indicates the level of saturation contributed by each informant in terms of data exhaustion. The scheme shows that many of the informants provided rich information, especially informants from the oil industry and the Norwegian government. Saturation was further attained by using secondary sources and written material. Data saturation provided by informants within DG CLIMA and the Parliament was appropriate although somewhat limited, which can be explained by few informants, recollection issues and few observations on the role of the oil industry.

Lastly, the sampling strategies may provide bias. *Snowball sampling* invokes a possibility of bias as one can get trapped within a network of respondents with the same worldview (Bleich and Pekkanen 2013:87). Although snowballing helpfully revealed several potential candidates, selecting informants was performed in line with what was *purposive* in terms of representative variation, first-hand insights and positions in EU ETS. Also, reflecting critically on why the referrals were made and under which context one is snowballing, helped balance the sample of informants.

4 Background: EU ETS, Free allocation and the Oil Industry

This background section will present a brief overview of the evolution of the EU ETS, an introduction to the design of the free allocation mechanism and carbon leakage assessment, and the oil industry's position with respect to the EU ETS. Here, special attention is given to the companies Shell and Statoil and the International Association of Oil and Gas Producers (IOGP) as representatives for the offshore oil and gas industry.

4.1 EU ETS overview

The European Union Emissions Trading System (EU ETS) is covering approximately half of EU CO_2 emissions, enabling the trade of emissions allowances between 12,000 industrial installations within a common market. The main sectors covered by EU ETS are electric power, cement, steel, pulp and paper, and petroleum (Skjærseth and Eikeland 2013:2). One allowance equals one ton of CO_2, and in 'cap and trade systems' such as the EU ETS, a fixed cap limits the number of allowances which are either traded, purchased or allocated for free to installations in terms of historical levels of emissions. The demand for allowances creates a price of carbon, with the intent that scarcity drives prices up and increases the incentives to execute abatement efforts, technology innovation and energy efficiency (Meckling 2011; Wettestad 2009:309). For businesses, the ETS can be perceived as a threat to economic prosperity and industrial survival or an opportunity to innovate and increase future competitiveness. The actions and responses by private sectors, corporations and emitting industries towards EU ETS is therefore important to study as they are key components in a decarbonised Europe. Of particular interest is whether they influence EU ETS in a more ambitious direction or attempt to undermine it. Moreover, precisely the lack of stringency was seen as a main reason for low innovation effects in the early phases (Skjærseth and Eikeland 2013:3-11). A simple overview of how the EU ETS has evolved and tackled its problems since its commencement is described in the following.

The Kyoto protocol in 1997 established emissions trading as one of three key flexible mechanisms for reducing emissions. Here, the European Commission officials acted as policy

entrepreneurs in terms of initiating, establishing and developing knowledge and support for the ETS among stakeholders (Skjærseth & Wettestad 2008:86). This development was further enhanced by the US withdrawal from the Kyoto Protocol in 2001, convincing both sceptics and supporters of ETS to fast-track implementation and exert global climate leadership (Boasson and Wettestad 2013:56).

The first ETS Directive was adopted in 2003 and was in 2004 linked to the Kyoto Protocol flexibility mechanisms, and became the first large-scale international cap and trade system (Skjærseth and Wettestad 2010). The 2003-Directive covered the pilot phase (2005-2007) and the second Kyoto commitment-phase (2008-2012). Although the pilot phase demonstrated that emissions trading was indeed possible, the carbon price was highly unstable, dropped to near zero in 2007, and did not sufficiently drive decarbonisation (Wettestad & Jevnaker 2018:32). Therefore, in January 2008, the European Commission proposed the first major ETS reform. This included a centralised system with a common cap instead of the previous system of various national allocation plans, allowances to be auctioned as the general principle, and a reduction of the emissions cap by 1.74 per cent annually and restrictive rules on import of credits from third states. After thorough negotiations, amplified by the urgency of the run-up to the 2009 Copenhagen climate summit, the Parliament and heads of state agreed to adopt a modified version of the Directive in December 2008 as a part of the 'EU Climate and Energy package' for 2020. In January 2009, the revised ETS was finally published as Directive 2009/29/EC entailing a framework for the third phase (2013-2020) (Wettestad and Jevnaker 2018).

Everything was however far from fixed. Again, in 2011-2012, the carbon price plummeted – not giving the necessary signal for decarbonisation. This was mainly due to the 2008 financial crisis, where reduced economic activity caused a surplus in allowances, plus the rush to use banned CDM credits before phase 3 restrictions started. After several rounds of negotiations, new market management tools for strengthening the carbon price have been adopted, such as the Market Stability Reserve (MSR) to start in 2019. Deliberations for the next ETS reform with a revised framework for phase 4 (2021-2030) was agreed on in November 2017 and formally approved by The Council 27 February 2018 (Council of the European Union 2018b). Although the carbon price has taken a positive turn passing 10 euro per allowance in winter 2018, NGOs and experts still question if the EU ETS carbon price will offer sufficient incentive to drive innovation and societal transition and not only emissions cuts.

4.2 The free allocation mechanism

Emissions trading systems consist of numerous design mechanisms and adjustable features which are open to corporate negotiation and influence. Key features are the cap level, rules for allocating allowances, sectors included, market stability mechanisms and benchmarks, all of which are important to provide incentives to reduce emissions (Wettestad and Guldbrandsen 2018). This study focuses on the mechanism of allocating allowances, which is defined as the 'process of distributing and differentiating allowances to installations/companies (for free, for payment, or a combination) and industrial sectors' (Skjærseth and Wettestad 2010:103), and more specifically why free allowances have been handed out to the offshore sectors.

Globally competing energy-intensive industries' fear of an uneven playing field compared to regions without similar climate regulation, contributed significantly to the widespread practice of handing out allowances free of charge in the first ETS 2003-Directive (Wettestad & Jevnaker 2018:37). Later, this fear has been translated into the so-called 'carbon leakage risk'. Carbon leakage is understood as 'the part of emissions reductions in abating countries that may be offset by an increase of the emissions in the non-abating countries' (Paroussos et al. 2015:204). The leakage effect depends on the magnitude of the emissions abatement actions, exposure to international competition, countermeasures to adverse effects on foreign competition and the size of the abating countries in terms of GHG emissions and GDP (Paroussos et al. 2015:204-205). In carbon leakage debates, objectives of climate ambitions and industrial competitiveness clashes.

The 2003 ETS Directive set the rules for free allocation for phases 1 and 2 (2005-2012). Then, allowances were mostly handed out for free by member-states (95-90 per cent). In phases 3 (2013-2020) and 4 (2021-2030), auctioning of allowances is the default method, although free allocation to industries has continued based on three general categorisations. First, power production is not deemed to be at carbon leakage risk since they can easily pass on added carbon costs from the ETS to consumers. Therefore, these installations are not eligible for free allocation, only auctioning. Second, sectors with installations deemed to be exposed to significant competition or cannot easily transfer costs to consumers, can be included on the carbon leakage list getting 100 per cent of allocation for free. Third, the rest of the sectors receive a decreasing amount of free allocation through the phases, with an ambition of eventually reaching zero. Additionally, from phase 3, all installations eligible for any type of

free allocation must meet a fixed benchmark level (Council of the European Union 2018a; Jørgen. Wettestad and Jevnaker 2018). This is summarised in Table 4:

	Phase 1 (2005-2007)	**Phase 2 (2008-2012)**	**Phase 3 (2013-2020)**	**Phase 4 (2021-2030)**
Total share of free allowances	95 %	90 %	43 %	43-46 %
Group 1: Power producers	Mainly free allocation	Mainly free allocation	Full auctioning	Full auctioning
Group 2: Sectors on carbon leakage list	Not applied	Not applied	100 % free allocation if emission intensity[3] *or* trade intensity[4] exceeds 30 %	100 % free allocation if emission intensity multiplied by trade intensity exceeds 0.2
Group 3: Other sectors	Mainly free allocation	Mainly free allocation	80 % in 2013 to be decreased to 30 % in 2020	30 % until 2025, linear reduction from 2026 to 0 % in 2030

Table 4 Free allocation rules for ETS industries.
Source: OJEU (2009); Council of the European Union (2018a).

In the policymaking for phase 3, the carbon leakage list sectors were selected on assessments of product's *trade intensity* or *emission intensity.* Trade intensity is a factor based on the product's trade with third countries outside the Community while emission intensity is related to potentially increase in product costs due to ETS implementation. In practice, installations meeting its benchmark and one of the carbon leakage criteria would be eligible for 100 per cent free allowances (OJEU 2009).

For phase 4, many the same principles for free allocation is continued, although somewhat tightened. Sectors on the carbon leakage list qualified for 100 per cent free allocation after 2020 will be selected differently. Sectors now have to exceed a score of 0.2 from *multiplying* the product's emission intensity *by* the level of trade intensity. Without clarifying in detail why the Commission decided on the threshold of 0.2 in its directive proposal, the intention was to substantially reduce the current list. This was later accepted by legislators (Council of the European Union 2018a). The first carbon leakage list (2010-2014) included 164 sectors which

[3] Emission intensity is measured in kg CO_2 divided by their gross value added,

[4] Trade intensity is defined as 'the ratio between the total value of exports to third countries plus the value of imports from third countries and the total market size for the European Economic Area (annual turnover plus total imports from third countries)' (Council of the European Union 2018a).

increased to 177 in the second list (2015-2019). In between 2021-2030, the list will likely contain 44 sectors (European Commission 2018). However, the emissions from the list's sector will probably still account for 90 per cent of EU industrial emissions, down from currently 97 per cent, meaning that the large emitters are ensured free allowances (Erbach 2017; Interviews 2018).

4.3 Carbon leakage: real threat or 'red herring'?

While ETS has delivered emissions reduction, many questions whether transition and investments towards decarbonisation of the EU must be ascribed to other policies than ETS. In this regard, free allocation has been singled out in consultation hearings by NGOs and experts as one of the main hurdles to progress transitioning, not giving the right signal and prompting unintended consequences (Climate Action Network 2014; DG CLIMA 2014a). Furthermore, the advanced technical level in the development of the ETS rules are considerable, making the Commission unable to design it without the assistance from industry federations, underlining severe carbon leakage risk (Interviews 2018).

Many studies concerning carbon leakage indicate that the risk may have been exaggerated. For instance, the Commission's own 'Carbon Leakage Evidence Project' found no suggestion of carbon leakage due to production relocation between 2005-2012 (ECORYS 2013). Instead, many industrial sectors have and probably will continue gaining windfall profits – unintended revenues – from free emissions permits in the EU ETS (de Bruyn 2010; Thomson Reuters Point Carbon 2016). But as the process-tracing shows in the next chapter, such documentation have had little effect on policymakers.

Figure 2 shows the European Commission's assessment of ETS sectors carbon leakage risk based on 2009-2011 production data. 'Extraction of crude petroleum' has a very high trade intensity (50.1 %), but relatively low emissions intensity (1.3 %) meaning low induced costs (gross value added). Thanks to the global oil market and high trade intensity, the sector barely meets the criteria for free allocation. However, the more regionally traded 'extraction of natural gas' sector has an estimated trade intensity of 41.6 per cent and emission intensity of 0.3 per cent, and is not included in the figure and the carbon leakage list in phase 4 (European Commission 2014, 2015a).

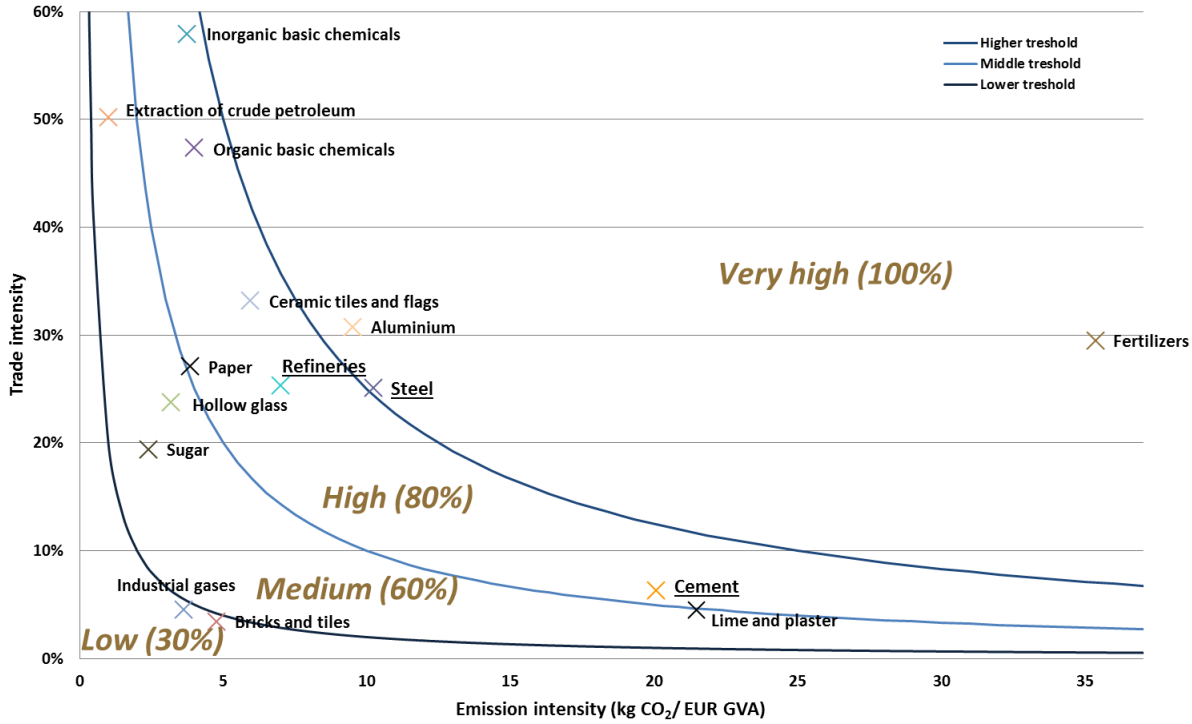


Figure 2 Estimated sector risk of carbon leakage. 'Extraction of crude petroleum' is placed in the upper left corner, while gas extraction is excluded for phase 4. Retrieved from the European Commission's Impact Assessment (European Commission 2015a:172).

Oil companies often respond to the lack of clear carbon leakage evidence by pointing at the system's successful protection against it by the free allocation mechanism itself. One cannot know whether the abandonment of free allocation would have created carbon leakage. Nevertheless, the European Commission has pointed to studies indicating that free allocation has prevented carbon leakage form happening. Among the energy-intensive industries, many believe that 'you will see the effects of leakage 10 years after it's started, and you will not know it when it's started' (Politico 2015).

In stark contrast, particularly the representatives from the civil society and NGOs believes the carbon leakage argument is used by industries as a 'red herring', a diversion of stricter climate obligations. They claim that free allocation is way too generous and in practice subsidizing pollution, prolonging fossil energy use and reducing revenues to state budgets (DG CLIMA 2015; Interviews 2018). Paradoxically, by postponing auctioning, it can rather increase future costs for emissions reduction, therefore complicate future climate action and making the EU ETS less effective. Thus, industries accepting costs and undertaking early emissions reduction measures could be better off financially in the long run, especially if stricter climate targets will be adopted (Gullberg 2010:52). The practice of handing out allowances free of charge

could also be copied to other carbon markets, who very much look to the EU for inspiration (Knox-Hayes 2016), potentially negatively influencing global climate ambitions.

Also, Paroussos et al. (2015) demonstrated how the leakage risk is dramatically reduced when China undertakes similar mitigation efforts. States adopting mitigation instruments in accordance with the 2015 Paris climate agreement, such as the launching of the national Chinese ETS in 2017, should also reduce concerns about lacking comparable mitigation policies in competing markets. Also, geographical or regional conditions may lower the actual likelihood of industrial relocation. For instance, investing in certain oil exporting countries without climate regulation can instead involve severe political risk and expropriation (Carbon Trust 2008). To sum up, although the argument of carbon leakage can be accepted to some extent, it is safe to say that it should be treated critically.

4.4 The oil industry in the EU ETS

The oil industry in the EU ETS includes large multi-national oil and gas companies such as Shell, Eni, Total, Exxon and BP. Here, the oil industry active in EU will be understood as a transnational business coalition. These coalitions are 'sets of actors linked across country boundaries who coordinate shared strategies or sets of tactics to publicly influence social change' (Khagram, Riker, and Sikkink 2002:7). Being transnational by nature, the oil industry may coordinate its campaigns with other business actors, NGOs or states sharing similar interests. The relevance of such coalitions is enhanced by politicians' demand for legitimacy and input by including stakeholders and organisations in the decision-making. Firms and business associations are usually the drives of transnational business coalitions (Meckling 2011:28).

The global oil industry comprises firms along the industrial value chain, such as producers, manufacturers, refineries, networks, lobbyists and member-states officials working for the interests of producing and trading petroleum products, such as oil and gas. In the EU, the oil industry is recognised as an energy-intensive industry accompanied with cement, steel, pulp and paper, and other sectors of consuming relatively high amounts of energy for their production (Skjærseth 2013). The two first carbon leakage lists of sectors being eligible for 100 per cent free allocation include 'extraction of crude petroleum' and 'extraction of natural gas'. However, after Eurostat updated its classification system splitting oil and gas extraction

into two sectors, gas extraction will no longer meet the carbon leakage criteria while oil extraction will continue with free allocation in phase 4 (European Commission 2018).

Production of oil and gas in Europe is concentrated in the North Sea and the Adriatic basin. Oil and gas are normally extracted simultaneously, while oil is exported across the world and gas is more regionally traded (DG CLIMA 2013a). The drilling of wells, extraction of oil and gas, and preliminary treatment and purification of petroleum products are termed *upstream activities* and are mostly undertaken offshore in Europe. Refineries, the *downstream sector*, manufacture transformed crude petroleum products into usable products, including motor fuel, oils, petrochemical products and other refined petroleum goods (Eurostat 2008). The extraction of oil and gas sectors are subjected to fuel and heat benchmarks for emissions of combustion of gas and diesel (DG CLIMA 2015). Emissions from electricity production on offshore is not eligible to free allocation, only auctioning. According to IOGP, 50 per cent of the upstream sector's emissions stems from electricity production on offshore platforms. (DG CLIMA 2014a).

The oil majors do both upstream and downstream operations, but the downstream sector is most prominent in the EU ETS. Refining is the major source of oil industry's emissions covered by the EU ETS (Skjærseth 2013:100). However, by classifying emissions from upstream and downstream activities, 29 oil and gas companies, including Exxon, Shell, BP and Statoil, are among the global top 50 fossil fuels companies accountable for the highest cumulative emissions during the years 1988-2015 (CDP 2017). While 90 per cent of petroleum emissions occur downstream through combustion of fuels, the upstream activities contribute to significant emissions levels in oil and gas producing countries. For instance, 27 per cent of Norway's domestic GHG emissions in 2016 came from upstream oil and gas production on the Norwegian continental shelf (Gavenas, Rosendahl and Skjerpen 2015; SSB 2017). However, the oil and gas extraction industry in the EU and Norway considers itself to be at front in energy-efficiency. According to IOGP, on average, EU and Norway produce 82 kg CO_2 per tonne oil and gas produced versus 136 kg CO_2 on world average (IOGP 2018b).

Since most of European upstream facilities are concentrated on the Norwegian or the British continent shelves, Norway and United Kingdom are usually the states flagging offshores interests in the EU ETS. However, informants indicate that offshore receives little attention compared to other sectors in the EU ETS. The refinery sector, a very essential component of

the EU economy and transportation, has been more prominent in discussions about the general oil industry (Skjærseth 2013:100; EEA 2017).

In the EU ETS lifespan, the oil industry has slowly accepted carbon pricing in their future outlooks and strategies, which made oil industry transitioning from being very sceptical to proactive towards carbon trading (Skjærseth 2013). Nevertheless, as the ETS regulation evolves, the petroleum industry comes off less proactive than for instance the power industry (Eikeland and Skjærseth, Forthcoming n.d.).

Here follows a short introduction to Shell and Statoil, two companies which represent slightly different perspectives on free allocation within the oil industry, and the voice for the offshore sector, the International Association of Oil and Gas Producers (IOGP). These have been selected for a closer inspection as representatives for upstream oil industry in the EU ETS. Oil companies in the EU sphere with upstream and downstream installations are nevertheless usually members of several industry associations, prominently FuelsEurope, IOGP, BusinessEurope and Cefic. FuelsEurope (previously named Europia) covers the downstream sector, while IOGP attends to the upstream sector. The European oil industry is also represented by cross-sectoral associations such as BusinessEurope, the EU umbrella employer's organisation, and Cefic for chemical industry. The members are funding and shaping the organisation's position on various policies. In the EU ETS, FuelsEurope is considered to be significantly more active than IOGP, which can be explained by the downstream sector's larger economic relevance to the EU. IOGP and FuelsEurope, and to some extent BusinessEurope and Cefic, often seek consistent strategies on many issues due to their overlapping objectives (Interviews 2018). By studying Shell and Statoil and one offshore lobby group, it will be possible to obtain an aggregated understanding of the variance of the industry's actions and strategies (Skjærseth and Eikeland 2013:14).

4.4.1 Shell

Royal Dutch Shell operates in more than 70 countries and is a public company registered in England, Wales and headquartered in the Netherlands. Shell's integrated value-chain portfolio includes upstream and downstream facilities, as well as chemical installations. In 2016, Shell produced 2,784 thousand barrels of oil equivalent (BOE) per day - and increased its natural gas production by 15 per cent compared with 2015, earning a total revenue of USD 32,900 million

in the upstream segment. Substantially higher revenue stems from the downstream segment, which was USD 203,550 million (Shell 2016). Shell is one of the world's largest oil and gas companies in terms of petroleum production and operating cash flow. It considers Europe as a key region where they explore, produce and refine oil and gas.

Shell is in favour of a strong EU ETS, but is at the same time very much concerned about carbon leakage (DG CLIMA 2015; Shell 2012). It is thus an important proponent for free allocations to the oil sectors and is reported by informants as being possibly the most active oil company in the EU ETS (Interviews 2018). For instance, during policymaking between 2014-2016, Shell met the most times with EU Commissionaire Miguel Arias Cañete (CEO 2016). Shell is a member of leading EU business associations for the petroleum industry such as IOGP, FuelsEurope, BusinessEuriope and Cefic. Shell also participates actively in the International Emissions Trading Association (IETA), which promotes emissions trading around the world, by currently having its chief climate change advisor as board member. Shell holds the chair of IOGP's Management Committee and has occupied several chief positions in FuelsEurope (FuelsEurope 2010).

In phases 3 and 4, Shell has been increasingly positive towards a stringent ETS. For instance, Shell has supported phase 3 benchmark rules, which will add costs to low-efficient installations but will do little harm to Shell's installations as these will probably qualify for the most efficient installations (Skjærseth 2013:113). Compared to other major oil companies, such as Exxon, Shell is considered as an 'early mover' and has taken on several proactive measures and abatement programmes to meet ETS obligations (Skjærseth 2013:114). Although they are deeply concerned about climate leakage, their proactive approach to the ETS and reduced allocations has also given them allies within environment groups, the Commission and policy observers (Interviews 2018).

4.4.2 Statoil

Statoil (from 2018 named Equinor) is headquartered in Norway, the Norwegian Government being the largest shareholder with an ownership interest of 67 per cent and has oil and gas operations in over 30 countries. Production on the Norwegian Continent Shelf accounts for two thirds of Statoil's equity production in 2016. Statoil is a large seller of crude oil and the second largest supplier of natural gas to Europe, while refining and renewable installations accounts

for a smaller share of the operations. In 2016, Statoil's equity oil and gas production was 1,978 thousand BOE per day and total revenues USD 45,873 million (Statoil 2016). Although it continues to have the largest upstream production in Europe, Statoil also is concerned about its credibility wanting to be perceived as a diverse 'energy company' (Interviews 2018).

Statoil is a member of FuelsEurope, BusinessEurope, Cefic and IOPG where Statoil is currently chairing the EU Committee. In the EU ETS, it relies heavily on positions of other business associations and larger oil companies, such as Shell, except on specific parts such as free allocation. Therefore, Statoil has been pushing for more ambitious positions in the associations and is solely *against* free allocation to offshore in the IOGP. Furthermore, in Statoil's internal policy reference group, there has been critical discussions of whether EU ETS delivers decarbonisation in the EU. Although Statoil has raised debates on these issues within the oil industry and public consultations, Statoil has kept a low profile on these issues externally, and only met a few times with the Commission and MEPs to discuss ETS. In line with most of the industry, it is concerned for carbon leakage risk for refineries and has lobbied against multiple climate targets, such as renewable and energy-efficiency targets. Instead, Statoil has wanted an efficient and lean EU ETS for driving up the carbon price to advance gas and phase out coal (Interviews 2018).

An important reason for Statoil being willing to pay for offshore allocations is due to Norway's history with high domestic cost in the oil sector. In 1991, Norway was one of the first countries to adopt a CO_2 tax for the offshore industry, which has been an important policy to dampen Norway's overall emissions and drive innovation in the petroleum industry (KonKraft 2009). Since 2008, oil companies have been exposed to both EU ETS and carbon tax, but only the latter has made a considerable impact on costs (Meld. St. 21 (2011–2012)).

4.4.3 IOGP

International Association of Oil and Gas Producers (IOGP) is the global voice of the oil and gas production sector. It currently represents 57 petroleum companies and 18 other oil and gas associations and holds offices in Houston, London and Brussels (IOGP 2018a). Just like other business associations, it provides a forum for smaller and major oil companies and sub-associations to share information and strategy coordination. In the beginning of EU ETS, IOGP held a more background position, whereas FuelsEurope acted more vocally on behalf of the

multinational oil companies (Interviews 2018). IOGP has argued against EU adopting significantly higher climate targets compared to other regions, multiple climate targets for renewable, energy-efficiency and emissions levels, underlining a single emissions target and the EU ETS as the main tool for reaching it. According to the EU Transparency Register, IOGP used 1.8 million euro lobbying with seven lobbyist with European Parliament access in 2014 (Fagan-Watson, Elliot, and Watson 2015).

The organisation's EU Committee has increasingly been engaging in the EU ETS policymaking over the years, especially in submitting position papers to the Commission and lobbying politicians. The members of the EU Committee make non-binding recommendations to the higher-level Management Committee, now chaired by Shell, who draw out the final positions for IOGP members to adopt (Interviews 2018). Divergence of attitudes can be drawn between the American and European companies. Traditionally, US-based Exxon, Chevron and ConocoPhillips reportedly have a big say in the IOGP and have in principle viewed EU ETS as a form of taxation. European companies, like Shell, Eni and BP, have been more pragmatic in relation to EU ETS. Exxon is said to be the leader of the American companies underscoring economic logic and has traditionally been highly critical of most climate regulations, including emissions trading (Skjærseth 2013). The American companies has also been actively chairing important task forces and committees, which provides some institutional sway (Interviews 2018). A second line can also be drawn between Norwegian Statoil and 'the rest'. This is most evident concerning the question of carbon leakage risk, where Statoil alone holds the view that offshore and extraction is not exposed to carbon leakage and should not be eligible to free allowances (DG CLIMA 2013a; Interviews 2018).

Summing up, the oil industry has gradually accepted and supported a stronger EU ETS. The oil industry however firmly holds that free allocation to upstream productions is necessary due to carbon leakage, with Statoil as the exemption. Thus, free allocation continues to be priority for IOGP and the oil majors.

5 Process-tracing I: Towards phase 3

In this and the next chapter, new empirical data collected from 20 informant interviews together with documents and previous research have been structured into a process-tracing. This provides a review of the empirical events and observations that has contributed to free allocation for the offshore industry after 2012. Since the pilot phase started in 2005, the offshore sector has received free allowances for oil and gas extraction activities. However, in phase 4, starting in 2021, extraction of gas will be removed from the carbon leakage list. The continuation of free allocation for offshore oil and gas sectors after 2012, the explanandum, is summarised in the following table:

Free allocation	**Phase 1 (2005-2008)**	**Phase 2 (2008-2012)**	**Phase 3 (2013-2020)**	**Phase 4 (2021-2030)**
Oil production	Yes	Yes	Yes	Yes
Gas production	Yes	Yes	Yes	No

The following process-tracing will explain these developments. This chapter contains the phase 3 review processes between the policymaking 2006-2008 leading to the Phase 3 Directive and the subsequent ETS implementation and political after-play. Chapter six proceeds with the policymaking 2014-2017, including the phase 4 revision resulting in a final agreement November 2017. The timeline suggests empirically what events, strategies and processes that can be understood as casual mechanisms and configurations leading to the prolonged free allocation for the offshore sectors.

5.1 2006-2008: broad support for free allocation

Debates during the phases 1 and 2 of EU ETS, national states discussed whether allocation to installations should be for free or through auctions. Striking the right balance between these two paths would later become a key discussion in the EU ETS revision for phase 3, as the pilot phase demonstrated insufficiencies and saw the carbon price drop almost to zero. Already in 2005, network meetings between energy-intensive industries, member-states and DG Enterprise frequently discussed two directions of allocation to industries: The increased

auctioning route, which would foreseeably have a larger impact upon profits, and the free allocation route, which considered competitive disadvantages as important (Boasson and Wettestad 2013:73). Most of the industries were in favour of continued free allocation, underlining the need for protection against international competitors, a factor which was strongly restated during the 2006/2007 stakeholder consultations for the post-2012 changes (A. T. Gullberg 2008). This included the oil industry and FuelsEurope, traditionally being sceptical of the EU adopting ambitious targets without an equal response in competing markets such as the US, China and India (A. T. Gullberg 2010:49).

In March 2007, the European Council approved the 20-20-20 climate goals: Emissions were to be reduced by 20 per cent in 2020 and the EU ETS was to be the cornerstone and the most important policy for meeting obligations after 2012. Moreover, the EU was to take the lead on global climate action (European Council 2007:12). In January 2008, the Commission proposed a centralised EU ETS including rules for allocation and to exercise the principle of 'polluter pays' to a larger extent. The Commission suggested a gradual escalation from 20 to 100 per cent auctioning in 2020 for most industries because it wanted to reward early action and turn EU ETS into an efficient, simple and transparent system (European Commission 2008:7). The ambition was also to auction two thirds of all allowances in 2013. However, the Commission explicitly recognised the possibility of large emitting states outside of the EU like China and India not adopting commitments in the global climate change regime. Thus, it reassured that sectors meeting the relevant criteria for significant risk of carbon leakage would get up to 100 per cent allocation free of charge.

In contrast, for the power sector, auctioning was to be the main rule in phase 3 (DG CLIMA 2011). While the regionally-based power producers could easily transfer added costs on to the consumers, it was assumed that energy-intensive industries competing globally lacked that same ability. Thus, in the absence of insufficient global climate regulations, the energy-intensive sectors were assumed to be more exposed to carbon leakage than regional based power producers (Wettestad 2009). Thus, an important principle for picking the carbon leakage sectors was the 'inability to pass through the cost of required allowances in product prices without significant loss of market share to installations outside the EU not taking comparable action to reduce emissions.' (European Commission 2008:17).

Although the Commission acknowledged carbon leakage risk, the energy-intensive industries were still concerned about restrictions of free allocation. In its January 2008 proposal, the Commission stated it would identify those specific sectors before 30 June 2010 but without specifying how these sectors should be identified (European Commission 2008:8). The specification of a carbon leakage list was to be finalised *after* the Copenhagen Summit in 2009 in case the new climate regime would improve conditions for European industries (Skjærseth and Wettestad 2010:118). However, not keen on paying for allowances, energy-intensive industries decided to exploit this opening and initiated a lobbying rush to make sure to get on what was soon to be the carbon leakage list. An extensive push made by a broad range of sectors towards leaders of the Commission was fronted by Business Europe, The Alliance of Energy-Intensive industries and the European Roundtable of Industrialists - all demanded free allowances to industries exposed to international competition.

IOGP lobbied for continued free allowances to offshore until a worldwide carbon market emerged. The oil industry warned against reduced investments in the EU if free allocations were to be stopped and that the extraction activities did not offer major mitigation potential (IOGP 2007:1). A similar position was issued by FuelsEurope (FuelsEurope 2007). Both associations for the oil industry argued that a strict system would not only increase costs and destroy businesses, but also increase total CO_2 emissions.

One important move was accomplished by the refinery sector lobbying. The Commission first suggested to identify oil and gas production as an 'energy sector'. However, according to Skjærseth (2013), FuelsEurope managed to convince the Commission to rebrand the oil industry sectors, including extraction activities, as 'energy-intensive sectors'. Accordingly, this change would provide substantially better conditions in phase 3 in terms of free allocation (Skjærseth 2013).

Germany, Italy and other powerful EU members firmly supported the energy-intensive sector's position (Gullberg 2010:51). Protecting energy-intensive industries against carbon leakage via free allocation received broad support from the politically elected members of the European Parliament (MEPs), who are highly dependent on local constituencies. As one NGO-observer put it: 'For most MEPs, job losses is a red alert. It doesn't matter if it's grounded in evidence or not' (Interviews 2018).

5.2 New generous criteria in 2008: changing 'and' to 'or'

The possibility of global carbon leakage due to the lack of international climate agreement and a 'level playing field' for energy-intensive industries dominated the phase 3 discussions among member-states. Moreover, many were worried about which industries were to be on the carbon leakage list, which was to be finalised after the phase 3 Directive were negotiated. However, the *methodology* for assessing significant carbon leakage risk was included in the proposed directive.

According to most Brussels informants, this was the critical question for energy-intensive industries to ensure themselves free allocation. The oil companies, like other industries, hired consultants to assess where the line would be drawn for being carbon leakage exposed or not (Interviews 2018). Lobbying on the technical criteria setting for carbon leakage risk (article 10a) was largely delegated to industry associations. Here, the multinational oil companies trusted FuelsEurope and BusinessEurope with much responsibility (Interviews 2018). FuelsEurope, often referred to as a climate laggard and only officially accepting the EU ETS for the first time in 2008 (Eikeland og Skjærseth, forthcoming), was probably the leading actor for the oil industry in the phase 3 revisions.

During the final negotiations between the Council and the Parliament in December 2008, a decisive amendment in the criteria for carbon leakage risk was accepted on member-state level under the French leadership (Interviews 2018). In article 10a, between paragraph 16a and 16b, the word 'and' was replaced by 'or' between two sub-paragraphs containing the two criteria for carbon leakage risk. Sectors were now exposed to carbon leakage either due to (a) emission intensity *or* (b) trade intensity, extensively widening the list of applicable sectors that could receive free allocation. Several informants have confirmed this and referred to the amendment as critical for the composition of carbon leakage sectors. Brussels informants noted that many industries opposed accumulative 'and-rules' because installations varied in ways of being exposed to carbon leakage. The amendment also benefited the offshore oil industry as emission intensity criteria did no longer pose a risk of limiting free allocation to the oil and gas sector. Now, they were guaranteed free allocation because of only high trade intensity. However, neither interviews and documents show any indication of the oil industry playing a decisive role here. Brussels informants today remember the process in 2008 as unproblematic and highly predictable, not concerned for being subjected to auctioning (Interviews 2018).

Finally, after hasty negotiations in the trialogue between the Commission, Parliament and the Council**,** it was decided on 17 December 2008 to give 100 per cent of allowances for free to sectors based trade intensity *or* emissions intensity. This extensively widened the criteria for industries from the January proposal. These would make up a list of specific sectors in a subsequent process in 2009. Also, the goal of reaching full auctioning in 2020 was postponed (OJEU 2009).

One year later, on 24 December 2009, the first carbon leakage list of 164 sector for 2013-2014 was published, which contained few surprises for the industries. As mentioned over, the crucial time for influencing EU-policymakers was in 2008 on the carbon leakage criteria. According to most interviewees among the oil industry today, it is unclear at what time they understood that the offshore sector would continue to receive free allowances. However, informants in the oil industry indicate that offshore did not experience obstacles for getting onto the carbon leakage list for phase 3.

> 'The outcome was very much thanks to other industries. It was a massive push from heavy industries, with BusinessEurope in front. I think we perceived free allowances in phase 3 as given. We fought very little' (Interview 2018).

The industry's strategy for free allocation was seemingly relaxed in 2008. Moreover, the oil industry's focus on carbon leakage in stakeholder hearings was on non-abating countries outside of the EU. Indeed, after the Commission's January-proposal, Shell and IOGP no longer mentioned free allocations as a priority; instead they underlined the importance of comparative emissions reduction in competing regions. IOGP also stated this as the best countermeasure against carbon leakage, although also mentioning that free allocation should be considered (DG CLIMA 2008). This, however, does not mean that they did not care about free allocation. Shell, for instance, relied heavily on the work of FuelsEurope for holding industry benchmarks for free allocation at a manageable level after 2009 (Interviews 2018). Prior to phase 3, Shell's position was always a strong proponent for continuation of free allocation to sectors with risk of carbon leakage (DG CLIMA 2013b).

The opposition against free allocation to the offshore sector were nevertheless barely noticeable. Statoil, however, did not support free allowances to the offshore sector, backed by the offshore-state Norway. According to informants within the oil industry, Norway and Statoil's stances have particularly been related to reputation and credibility, and to achieve a

simple and effective system driving up the carbon price. As one informant in the Norwegian offshore industry ironically noted: ‘When you advocate for a strong ETS, it is difficult to also advocate for free allowances to offshore. […] Frankly, it is somewhat challenging to relocate oil fields’ (Interviews 2018). For critics of free allocation, namely NGOs and experts, it was also easier to attack oil refineries as these were larger emitters on the carbon leakage list, the offshore sectors being insignificant in comparison. Overall, offshore seemed to be operating in the background of other industries and indirectly through the larger oil industry in the EU ETS (interviews 2018).

5.3 Phases 1 and 2 carbon leakage lessons

In the summer of 2013, DG CLIMA conducted new stakeholder consultations on the second carbon leakage list. The list would apply for the years 2015-2019. The carbon leakage list did also undergo tiny adjustments in 2011, 2012 and 2013 mainly adding a few extra sectors. In 2013, the associations IOGP and FuelsEurope highlighted how free allocation had protected industries in previous phases. Both raised concerns about increasing risk of carbon leakage risk, IOGP sounding significantly more worried than in 2008. A key message was that little progress towards a global carbon market was to the disfavour of EU industries contra those outside. IOGP underlined the declining production in the North Sea and the Adriatic Basin creating increasingly higher cost per unit of production, especially in the UK. Some competitive pressure was also imposed on Adriatic offshore by imports from Eastern Europe countries outside of the EU (DG CLIMA 2013a).

Such worries were countered by NGOs and others referring to a lack of convincing evidence of carbon leakage, undermining the case for free allocation. In discussions about free allocation, the diverging perspectives on whether carbon leakage is real or a ‘myth’ become evident. The energy-intensive industries are convinced that their installations will certainly suffer from carbon leakage, pointing to ex-ante studies based on forecasts. By contrast, the majority of experts and NGOs beg to differ, especially after the culmination of the empirical ex-post studies, based on actual findings, showing low risk of carbon leakage due to EU ETS and surpluses of allowances generating windfall profits (DG CLIMA 2014b). Informants across the EU-institutions confirmed that free allocation is indeed a monetary issue and has not necessarily been constituted on fear of relocation, but also profits. As told by one Brussels-informant closely following the industries ETS-lobbying: ‘Of course it is a monetary issue.

Everybody wants more free allocation if they can get it. If you can have higher profits, you go for that' (Interviews 2018).

In 2013, the 'Carbon Leakage Evidence Project' was commissioned by the European Commission to study whether carbon leakage occurred in the first two phases of the ETS (2005-2012) (ECORYS 2013). It found no evidence for industrial carbon leakage due to EU ETS costs in terms of production relocation. In sectors which experienced decreasing exports or increasing imports, other drivers seemed to be explanatory factors. For instance, the refinery sector experienced decreasing *demands* in the EU for fossil fuels. The study concluded that extra costs on major EU industries were minor and 'did not constitute a driver for relocation'. In contrast, due to the accumulation of free allowances amplified by the financial crisis, many energy-intensive industries benefited from EU ETS (European Commission 2014). The Evidence Project's conclusions were however problematic to apply for future projections as earlier free allocation rules were less stringent than after 2012.

Moreover, energy-intensive industries typically claim that the carbon leakage effect will first be visible many years after penalizing regulations are adopted, making it impossible to trace historically (Politico 2015). The industrial pressure makes it difficult for the Commission to draw a line on evidences of Carbon Leakage. In principle, when no evidence of risk is put forward, sectors are not eligible. Otherwise they are given the benefit of the doubt to be accepted on the list (Interviews 2018).

5.4 2013-2014: internal murmuring

Like the Commission, the MEPs and the member-states tend to employ a middle-position on carbon leakage. In 2014, national experts from all member-states in the Climate Change Committee (CCC) gave a positive opinion to the proposed carbon leakage list for 2015-2019. The CCC discusses and endorses the Commission's proposal on climate issues like EU ETS. Before the Commission could adopt the new list, it was subjected to scrutiny by the European Parliament and the Council (Climate Change Committee 2014). Generally, the oil industry supported most of the methodology behind assessing carbon leakage risk for 2015-2019. This included support for the sectors covered, criteria thresholds and the assumed carbon price for calculating carbon leakage risk for sectors to be 30 Euro/Tonne CO_2.

These assumptions were heavily criticised by experts and NGOs like WWF and Carbon Market Watch for making unrealistic and skewed assessments of actual carbon leakage risk. The clearest example being the carbon price used to estimate risk which was floating around 4 euros at the time of the 2013-consultations. This was 85-90 per cent lower than the assumed price of 30 euro per tonne of CO_2, which was used for selecting sectors for *all* of the carbon leakage lists in phase 3 (DG CLIMA 2013a; OJEU 2014). Furthermore, the carbon leakage impact assessment for 2015-2019 indicated clearly that the carbon leakage list was based on unrealistic assumptions at that time (European Commission 2014). This was backed by hired consultants from Ecofys and Öko-Institute who argued against an inflated list and recommended a new price projection. However, this was ignored by the Commission (ENDS 2014a).

This also led to a debate in the Parliament's Environmental Committee (ENVI) about vetoing the Commission's proposal for carbon leakage list for 2015-2019. Many companies argued heavily against this, pushing MEPs to accept the 30-euro projection. Finally, the list was accepted without any changes (ENDS 2014b; Interviews 2018). Observers describe the situation of evaluating carbon risk as a combination of using impact assessment reports and employing subjective perceptions of how competitive regions are adopting similar measures:

> 'In the end, it all comes down to how you understand carbon leakage risk and what's going on in other parts of the world. The accuracy of these assessments is obviously questionable. […] Lobbyists and industrial experts therefore usually provide a lot of information and technical sector expertise that the Commission don't possess' (Interview 2018).

Despite IOGP, Shell and other major oil companies' increasing concerns about offshore carbon leakage risk, Statoil and Norway has consequently disagreed with the oil industry. While Statoil reportedly fought battles internally in the IOGP, Norway, whose largest domestic emissions stem from the offshore sector, worked through the implementation channels to restrict free allocation offshore. Norway implemented EU ETS in 2008, and prior to 2013, Norwegian representatives met frequently with the Commission to continue its domestic tradition prior to 2013 of *auctioning* allowances to the oil industry. In the technical implementation discussions between 2009-2011, Norwegian officials managed to convince UK to agree on making only offshore 'safety flaring' of production waste gases deemed for free allocation, instead of just routine flaring. This reduced the scope of offshore free allocation also after 2012 (OJEU 2011). However, the harmonisation of the ETS entitled the petroleum industry to free allocations in phase 3, and the Commission rejected any further exceptions distorting competition among companies (Interviews 2018). In a joint decision, Norway and other EFTA-countries continue to refer to an earlier request to increase the amount of

auctioning and reduce free allowances (OJEU 2012: preamble 18). Nevertheless, after the harmonisation, the Norwegian government has given up fighting against free allowances offshore, but has prioritised overall reduction mechanisms and a tightening of the carbon leakage list (Sundtoft 2015; Interviews 2018).

In several stakeholder consultations Statoil has stated that 'extraction of oil and gas should not be eligible for emission allowances' (DG CLIMA, 2014). In IOGP, the large American oil companies such as Exxon, Chevron and ConocoPhillips – as well as Shell and Total – have been powerful proponents for continued free allocation to all its installations, including offshore. Here, Statoil has been the only company openly against free allocation to offshore platforms. However, aside from internal debates in IOGP, and in coordination with the Norwegian government, Statoil have been muted in their opposition against offshore allowances in the EU ETS. This is confirmed by informants from competing oil companies and observers being unaware of this nuance within the industry (Interviews 2018). Somewhat inconsistently, Statoil however supports free allowances to refineries and believed in 2013 that the length of the list was reasonable (DG CLIMA 2013a). Moreover, Statoil has in practice exploited being eligible for free allocations. When the Norwegian offshore sector got entitled to free allocation from 2013, Statoil did apply for free allocation. Statoil even filed a complaint to the Norwegian government arguing for a larger amount of free allocation, which they later got. This resulted in 300,000 new free allowances to all offshore operators on the Norwegian continent shelf (Simenstad 2014). Since it is not mandatory for companies to apply, this indicates that Statoil evidently have financial interests for free allocation despite their opposition, which was also noted by Brussels informants (Interviews 2018).

5.5 Problem emerges: Eurostat's classification system

In stakeholder consultations between 2013-2015, IOGP raised new concerns for how the EU statistical Directorate-General Eurostat had classified the offshore sector in its revision of the industrial classification codes. The oil industry wanted calculations based on the old classification system which managed extraction of crude oil and natural gas as one sector in the EU ETS, instead of two separate sectors like in the new system (DG CLIMA 2013a). Since gas products have a lower trade intensity, as it is normally traded regionally in contrast to globally traded crude oil, gas came at risk for no longer being deemed to be exposed to carbon leakage. Grouping the products would however allocate more free allowances to offshore

installations. The oil industry was right about their concerns about the revised system, as this classification did certainly become a challenge for the offshore sector during the phase 4 revision.

6 Process-tracing II: Towards phase 4

6.1 Strategy from 2013: 'green gas' versus 'dirty coal'

The oil industry embraced the EU ETS debates with vigour after 2013. In phases 1 and 2, the oil sectors were generally reluctant to an ambitious EU ETS (Skjærseth 2013). After 2013, some of the big oil companies, particularly Shell, actively advocated for mechanisms that would drive carbon prices up, such as the Market Stability Reserve (MSR), the Linear Reduction Factor (LRF) and a lower cap.

This is explained by the fundamental strategy for using EU ETS to push out coal and to improve oil and especially gas markets (Interviews 2018). A tightened EU ETS that would drive prices up, such as a low cap and reduction mechanisms, would help getting rid of 'dirty coal' and advancing gas as the lower-emitting 'green alternative' in the EU. This would also legitimise continued oil production as oil and gas are produced in tandem. Many of the large oil firms in Brussels have increasingly participated in and hosted events to raise discussions of how to increase the carbon price to advance gas markets. They have also worked against renewable and energy-efficiency targets, as this would not boost oil and gas, instead arguing for a strong one-target climate policy. For offshore, EU ETS would be the 'perfect middle ground' for improving gas and fight coal (Interviews 2018). The general gas industry spent over 100 million euro in 2016 on lobbying for a greater commitment on gas in the EU, according to Corporate Europe Observatory (CEO 2017).

By adopting a relatively environmentally progressive stance on overall EU ETS, they earned friends in many corners including NGOs, DG CLIMA and in the Parliament. They also participate in networks such as the Zero Emissions Platform for CCS and with EU member-states in the Green Growth Group through Shell's membership. As one observer described the industry: 'They want to be viewed as a part of the solution, not the problem' (Interviews 2018).

While oil companies actively supported a tighter EU ETS, they have nevertheless increasingly emphasised in almost every stakeholder hearing the need to protect offshore against carbon

leakage. Moreover, they have lobbied against rules that could cancel free allocation to its sectors. This double-strategy did not seem to be as evident in phase 3 as it became preceding phase 4 negotiations. Shell was an evident example. Between 2014-2016, Shell had the most officially registered meetings with the Climate and Energy Commissioners than any other company or trade association, according to public records (CEO 2016). Furthermore, most Brussels informants point to Shell as a leading proponent for the global oil and gas industry in the EU. It is often perceived as a constructive player in terms of both advocating for carbon leakage protection as well as a stronger EU ETS. Furthermore, Shell were active in assisting member-states and MEPs with reports and data material in the phase 4 revision process. Some observers saw them as collaborative and progressive, thus difficult to shame, while others saw them as 'green-washers' and 'dressed-up' (Interviews 2018).

6.2 2014 Council conclusions and Paris summit

Two important events facilitated the oil industry's double-edged image prior to and during phase 4 negotiations. First, the October 2014 Council conclusions, which was unusually descriptive on EU ETS. This document largely framed how the policy would turn out after 2020, reducing the Commission's manoeuvring in drafting a new directive (Interviews 2014). The conclusions set reduction targets for 2030, but more importantly, heads of state explicitly declared that free allocation would continue, and carbon leakage was still a risk for European industries:

> 'Free allocation will not expire; existing measures will continue after 2020 to prevent the risk of carbon leakage due to climate policy, as long as no comparable efforts are undertaken in other major economies, with the objective of providing appropriate levels of support for sectors at risk of losing international competitiveness. [...] In order to maintain international competitiveness, the most efficient installations in these sectors should not face undue carbon costs leading to carbon leakage' (European Council 2014:2).

This meant that free allocation was going to be handed out to sectors until competing markets adopted comparable policies. Free allocation was very much expected to continue, yet the conclusions signalled that European competitiveness was just as important as climate targets for the EU leaders. Second, the context prior and during the 2015 Paris climate summit allowed a specific conversation about ambitious target setting, which Shell and other oil companies capitalised on to strengthen their arguments for a tighter cap, especially when meeting MEPs (Interviews 2018). The oil industry position was generally welcomed, the most significant resistance came against the oil refinery sector's for previously being oversupplied with free allowances leading to windfall profits. Offshore was kept in the background – for a while.

6.3 2014-2015: carbon leakage consultations for phase 4

During summer 2014 and winter 2015, many oil companies participated in new stakeholder consultations on carbon leakage and EU ETS post-2020 provisions. On carbon leakage provisions, around 90 per cent of all industries believed free allocation was driving innovation and that it sufficiently ensured competitiveness, which was endorsed by most participating governments. However, a majority (61 per cent) of NGOs, academics and research groups viewed the use of free allocation as problematic (DG CLIMA 2014b).

For the oil companies, carbon leakage was still a crucial issue for the offshore sectors. This time, the associations IOGP and FuelsEurope wanted *enhanced* free allocation to sectors on the carbon leakage list in the absence of a global climate agreement. The industry further argued against reduction mechanisms on free allowances and any form of tiered carbon leakage approach; This would place sectors into differentiated categories of risk, as was later suggested by the Commission, France and the UK. Furthermore, the oil companies argued that additional targets and overlapping climate policies were weakening the carbon price and killing the incentives for decarbonisation (DG CLIMA 2014a, 2015).

Moreover, IOGP, Statoil, Shell and FuelsEurope reported that free allocation induced emissions abatement and innovation. IOGP stated that free allocation did not impact the supply and demand balance, nor the carbon price or innovation, but was mostly designed to address carbon leakage risk, not to drive innovation (DG CLIMA 2014a). Offshore companies strongly emphasised that searching for proof of carbon leakage, such as relocation in the past, was meaningless. Instead, only future assessments of the carbon price were valid estimations because carbon leakage was instead about investment decisions, which was part of the 'investment leakage' narrative stemming from BusinessEurope. According to NGOs, this framing was constructed to compensate for the lack of empirical leakage evidence in previous phases. Again, Statoil supported free allocation to refineries, but clearly stated that 'upstream oil and gas assets cannot be moved to new locations', therefore not eligible for free allowances (DG CLIMA 2014a, 2015; Interviews 2018). However, as before, this nuance was not effectively communicated.

In contrast to the revision of phase 3, the free allocation issue was no longer a priority for the Norwegian industry associations nor Norway. As the Norwegian government wanted a reduced

list and stricter rules, key officials did reportedly mention the issue of generous criteria in meetings with rapporteurs or the Council's working Party on the Environment. However, offshore was not a topic of discussion in particular (Sundtoft 2015; Interviews 2018). Instead, Norway followed suit the common position of countries in the Green Growth Group (GGG[5]). Their position on free allocation was to improve its fit to actual production levels, while also addressing concerns for EU industrial competitiveness and continue supporting sectors at 'genuine risk of carbon leakage' (Green Growth Group 2014, 2015; Interviews 2018). The GGG's key objective was to strengthen the carbon price, while the composition of sectors on the carbon leakage list was less debated, according to participants. Some of the GGG-states, such as Germany and the UK, signalled stronger concerns for carbon leakage exposure for their industries in comparison to other member-states (Interviews 2018).

6.4 2015 ETS-proposal: intensified industry conflict

In the revision for phase 4, the distribution of the share of free allowances was expected to be a big fight, specifically which sectors that would be included on the carbon leakage list, benchmark rules and criteria for assessing carbon leakage. Back in 2008, getting offshore sectors on the carbon leakage list in phase 3 was seemingly unproblematic. However, after 2013, for many industries, including oil and gas production, lobbying for phase 4 (2021-2030) turned out to be substantially messier and challenging. As the pie of allowances got smaller, it sharpened the debate on free allocations, which increased the tension among sectors. Prior to phase 3, energy-intensive industries shared many of the same goals, for instance the widening of the carbon leakage criteria, making the lobbying in 2008 more straightforward (Interviews 2018).

In July 2015, the Commission launched its proposal for EU ETS phase 4. The Commission signalled that free allocation had to be targeted more sufficiently for phase 4 and given to installations with 'genuine risk for carbon leakage', which was directly echoed by the GGG. Many of the same principles from phase 3 would be prolonged with certain adjustments (European Commission 2015b). Most importantly in terms of free allocation, the proposal included a new methodology of multiplying emissions intensity by trade intensity, which would result in a reduction of sectors on the carbon leakage list (European Commission 2018).

[5] Current members of the ministerial Green Growth Group: Belgium, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Slovenia, UK.

The Commission's proposal intensified confrontation between industries. Even companies within the same industries had conflicting views on specifics and mechanisms, such as carbon leakage criteria and benchmarks (Interviews 2018). The lowering of the cap, the reduction of the carbon leakage list and the aim to set a fixed amount of free allocation in the proposed directive ignited the tug-of-war for free allowances across the sectors. The leading voice for EU industries, BusinessEurope, labelled the proposition as a 'make or break' deal for EU competitiveness, strongly advocating for safeguarding EU industry against global competitors through stable and sufficient free allocation volumes (BusinessEurope 2015). Turning to the European Parliament, BusinessEurope and The Alliance of Energy-intensive industries, the latter representing over 30,000 EU companies, including the oil industry, now framed the EU ETS as a potential driver of 'investment leakage' (BusinessEurope et al. 2016). This was in stark contrast to NGOs like WWF who believed the Commission's proposal would let large polluters get away with paying a low price for emissions, and generally reducing the effectiveness of EU climate policy (Carbon Pulse 2015).

6.5 2015-2017: offshore forced to fight

The Commission's proposal in July 2015 also raised the stakes for the oil and gas industry. Indeed, as offshore feared during previous consultations, the July 2015 proposal would treat oil and gas production separately. Instead of being eligible for free allocation by only meeting *one* of the criteria as in phase 3, sector's emissions *and* trade intensity were now to be multiplied and pass a threshold score of 0.2 to be deemed to carbon leakage risk. After Eurostat revised its industry classification system, oil production would be on the upcoming carbon leakage list, while provisional analysis showed that gas extraction would most certainly not be included (IOGP 2016). Thus, new costs would be imposed on *gas* production.

In practice, gas and oil are produced simultaneously, although gas and oil are traded on different markets, giving oil a higher trade intensity with third countries. Outraged by what the oil companies saw as illogical methodology, the oil industry started to exert pressure on MEPs and member-states to treat oil and gas as one sector, retrieving gas back on the list. Here, the oil industry underlined how gas now was an increasingly global commodity and that increased gas exports could lead to lower emissions, therefore not be subjected to auctioning. Here, IOGP lobbied most intensively for the offshore industry, supported by the majors Shell, BP, Eni and

Exxon. Statoil were also unhappy with the 'split', maintaining in parallel their stance against free allocation to offshore oil and gas extraction (DG CLIMA 2014a; Interviews 2018).

After the Commission's proposal, the offshore industry's attention was aimed at the Parliament and the Environmental Committee (ENVI), the latter being the designated body for managing the ETS in cooperation with the Industry Committee (ITRE). While ITRE was delegated certain responsibilities of the ETS review, ENVI had to approve everything before it was sent to the Parliament. In ENVI, some of the MEPs are traditionally more conscious of how the specific ETS mechanisms work compared to the rest of the Parliament, which led to debates on the scope of the carbon leakage list in 2013. For instance, the second largest group in the Parliament, the Socialist & Democrats, signalled the need for a targeted approach for free allocation for those sectors who were genuinely affected (Interviews 2018). Furthermore, the Greens, often perceived as the environmentally progressive party, strongly criticised the 2015 Commission proposal for failing to 'correct the overly generous carbon leakage criteria', underlining the lack of supporting evidence (Carbon Pulse 2015).

Other MEPs were more willing to protect industries, including the conservative ENVI rapporteur Ian Duncan, who managed the EU ETS file. Duncan was described as an outspoken friend of the offshore sector and 'a good listener' towards the oil industry. Informants mentioned that the oil and gas sectors were cooperative, particularly Shell. The oil industry anyway articulated strong concerns for international competition to the MEPs and the rapporteur. Although the oil industry worked for all its sectors, informants closely following the ENVI committee remember how the gas-issue got raised distinctively on occasion. Moreover, oil industry informants told they worked especially hard to convince the rapporteur and his shadow rapporteurs about prolonging free allocation to gas production. They also met with energy-politicians in ENVI, energy-coordinators and party group-leaders in the Parliament to support their case (Interviews 2018).

The rapporteur, his shadow rapporteurs and assistants led negotiations on technical and political levels, where free allocation was one of the primary discussions. However, with the limited data and facts available to the MEPs, it was challenging to debate and completely understand how the carbon leakage list would turn out in practice. The sectors nevertheless closely followed and commented on the debates. They made assessments of what implications phase 4 would bring and actively shared this information with politicians and member-states.

On the offshore gas-issue, some within the rapporteur-team did understand the technical explanations served by oil lobbyists. Other ENVI members were on the other hand very sceptical (Interviews 2018).

After working with MEPs, some policy influence was further aimed at member-states. This happened particularly through the contact between local oil installations and liaisons meeting with national governments, for instance in Germany. Also, advisors to the member-states representatives were lobbied. Commission officials were additionally met with prior to and after the 2015 proposal. However, according to informants from oil companies, the Commission was very defensive and showed little understanding for the offshore industry's arguments about gas and oil being produced simultaneously (Interviews 2018).

In addition to getting gas back on the carbon leakage list, another campaign was flagged by the IOGP and later elevated by the rapporteur Ian Duncan, which manifested the ties between the conservative MEP and the oil industry. The issue was related to the cost of offshore electricity production on platforms being subjected to 100 per cent auctioning. According to IOGP, electricity production on offshore platforms accounts for 50 per cent of the sector emissions (DG CLIMA 2014a). The general rule in the ETS is to make power production subject to auctioning because costs could be passed on to consumers. However, the oil industry believed this rule should not apply on offshore platforms with no grid connection to land. Duncan was very sympathetic towards the offshore industry's situation and promised to change what he described as a 'loophole' in the ETS legislation. This loophole-filling, providing free allocation to electricity production, was apparently worth 171 million euro per year for North Sea firms (Liddle 2016; Interviews 2018). The major companies Shell, Eni and BP, and most evidently IOGP, frequently repeated this legislative 'anomaly' in their consultations to the Commission. (DG CLIMA 2014a, 2015). Statoil disapproved, at least outwardly. The discussions on free allocation to offshore electricity production were further raised among member-states, but eventually the Commission disapproved strongly. Furthermore, the profitable offshore industry had problems justifying extra subsidies, according to observers (Interviews 2018).

In the end, the decisive resistance against the offshore industry was political and came from the ENVI committee. Neither the offshore gas question nor the electricity production subsidy proposition survived. In ENVI, several MEPs did not buy the co-production argument related to gas production and insisted on not rewarding offshore fossil fuel combustion with further

free allocation, especially considering the Paris-obligations. Moreover, the EU ETS' strong divide between electricity production and manufacturing of products stood in the way for offshore. To the oil industry, the unsuccessful campaign for gas was considered as a surprising defeat. Finally, as one informant from the oil industry concluded, 'We didn't manage to convince policymakers with our arguments' (Interviews 2018).

6.6 2017: the final agreement for phase 4

In January 2017, the European Parliament agreed on a compromise watering out certain changes adopted by ENVI. However, the criteria set by the Commission for deeming carbon leakage survived. Then, after over two years of policy negotiations, the Parliament and Council finally agreed on phase 4 rules on 9 November 2017. On 27 February 2018, the EU ETS reform for 2021-2030 was formally approved by the Council.

The EU ETS reform continues to reflect the balance between industry protection and climate ambitions. For phase 4, market mechanisms such as the LRF and MSR will be strengthened and the free allocation rules are also more targeted for sectors at 'genuine' carbon leakage risk. Benchmark rules will additionally be updated twice during the phase and better reflect production performances to avoid skewed allocations. All sectors on the carbon leakage list meeting benchmark will continue to receive 100 per cent free allocation (Council of the European Union 2018b). Furthermore, the methodology and the criteria for getting on the Carbon Leakage list has reduced the list down to 44 sectors, although it is mostly small emitters that are cut off, leading to only a seven per cent reduction of industrial emissions stemming from the carbon leakage sectors (Erbach 2017). For the offshore industry, only extraction of oil will be on the list, not the gas sector (European Commission 2018).

7 Analysing stability: Carbon leakage fear or status quo entrepreneurs?

This chapter seeks to investigate which events in the continuation of free allocation to the offshore oil industry can be understood as historical institutionalism, and which should rather be ascribed to policy entrepreneurship. The following research questions are discussed:

1.1 *why is free allocation to offshore oil and gas production prolonged for phase 3 (2013-2020)?*
1.2 *why is free allocation to offshore oil production prolonged for phase 4 (2021-2030)?*

The process-tracing in the previous chapters shows how the oil industry made several efforts to influence the free allocation rules in the EU ETS between 2006-2017. While efforts on influencing ETS policy had various level of success, institutional factors such as acknowledged threat of carbon leakage helped the case for the offshore sectors. Structuring the analysis of these effects are the theoretical expectations derived in the theory chapter:

	1.1. Policymaking 2006-2008 for phase 3	**1.2. Policymaking 2014-2017 for phase 4**
Historical institutionalism	Some feedback	Strong feedback
Political entreprenurship	Strong entrepreneurship	Some entrepreneurship

In the first section, these expectations are discussed and reviewed in turn for each round of policymaking. Subsequently, the role of configurating factors are addressed. Finally, complementary use of theories, equifinality and the research design's shortcomings are discussed.

7.1 Historical institutionalism: negative feedbacks prolonging free allocation?

The lenses of historical institutionalism enable the discovery of how conventions, decisions and implementations of the EU ETS can transform an actor's future actions, logics and positions in preserving policy design (Thelen 1999; Pierson 2004). The mechanism negative cognitive feedback is selected to assess whether carbon leakage fear and path-dependency prolonged offshore's free allocation during the negotiations in 2006-2008 for phase 3 and 2014-2017 for phase 4, as specified in theoretical expectation 1:

1.1. Repeated perceptions of severe carbon leakage risk generated negative cogntive feedbacks in the EU ETS policymaking. These feedbacks preserved the instituional trajectory that prolonged free allocation for the offshore oil and gas sector into phase 3 and for oil extraction in phase 4.

1.2. Since negative feedback effects will self-reinforce over time, they are expected to have been more effective during the negotiations of phase 4 compared to those for phase 3.

Phase 3 policymaking: 2006-2008

Between 2006-2008, negative feedbacks may have affected several events reinforcing the practice of free allocation to the offshore sector. Already during the earlier network discussions among energy-intensive industries and DG Enterprise, and the following stakeholder consultations, free allocation was recalled as the preferred way to allocate allowances. This was further enhanced by the Commission's 2008 January proposal for phase 3, where continued free allocation to exposed industries was suggested explicitly in the text. Negotiations between the Parliament, Council and Commission ending in the final Directive for phase 3 substantially expanded the initial proposal on free allocation. All these events echoed the energy-intensive industry's perception of carbon leakage and industrial relocation risk because of EU ETS regulations. The energy-intensive industries, supported by powerful member-states, accomplished to build an expanding coalition wanting more free allocation than was initially planned by the Commission, successfully cutting of competing perspectives.

We can therefore trace negative feedback effects towards increased regulations spurred by the carbon leakage threat. These can also stem from path-dependency found in the negotiations of

the very first ETS Directive in 2003. Back then, the free allocation was crucial for gaining energy-intensive industries approval. However, these feedback effects should not have been very strong. Carbon leakage as an intellectual phenomenon was slowly emerging among policymakers, but also countered by reports, environmental NGOs and experts stating that carbon leakage would not hurt European competitiveness significantly. Thus, with only a few years of experience with ETS, the phase 3 revision entailed high uncertainty to what EU ETS would bring between 2013-2020. Nevertheless, the feedback effects got nurtured by uncertainty and lack of a global climate regime. More importantly, industry lobbying in 2008 played an important role, which is addressed later.

The institutional power-dynamic related to free allocation was further amplified by the cognitive understanding of industrial carbon leakage risk. Feedbacks and institutional power distribution may have further empowered the oil industry. For instance, the offshore sector managed to gain inclusion among energy-intensive industries and would later be eligible for continued free allocation in phase 3 by being on the carbon leakage list. This indicates that the oil companies held some institutional power in the EU. Nevertheless, process-tracing also suggests that the oil companies institutional power should be viewed considering the dominant role of the energy-intensive industry in the EU ETS.

According to historical institutionalism, feedback effects get stronger as they accumulate over time. Thus, the phase 3 process leading to 2008 can perhaps best be understood as a formative phase of the trajectory of providing free allocation to industries such as the offshore sectors. Nevertheless, also between 2006-2008 we see that the expectation of climate regulations leading to carbon leakage was frequently repeated and eventually stated directly in the proposition and the final Directive for phase 3. We therefore find some cognitive feedback effects helping prolonging offshore's free allocation to phase 3.

After the rules for phase 3 were set in 2008-2009, we start to see implementation of the revised Directive potentially reinforcing free allocation for the offshore sectors. The implementation included the composition of the first carbon leakage list of exposed sectors and the decision-making on specific rules for free allocation, as well as benchmarks for every sector. This started a technical procedure and framework of distributing free allocations lasting until 2020. By accepting, participating and complying with such a regime, the routine of free allocation is withheld and expected to self-reinforce. Moreover, national experts in the Climate Change

Committee (CCC) approved the carbon leakage list update for further continuation during 2015-2019. In fact, the CCC agreed to extend the list of sectors, followed by the Parliament's adoption of that list. Some NGOs and internal murmuring in the Parliament Environment Committee (ENVI) created awareness about reported deficiencies in the Commission's assessment of carbon leakage risk. But all in all, these implementation processes helped to reinforce the cognitive legitimacy in distributing free allocation. This provided a robust foundation for the phase 4 negotiations.

Phase 4 policymaking: 2014-2017

The conclusions of the European Council in October 2014 included a surprisingly strong emphasis on the carbon leakage risk, which largely framed the following Commission 2015 Directive proposal for phase 4. The following negotiations in the Parliament echoed member-states concerns showing a broad propensity towards continuing free allocation among EU policymakers. Even after the 2015 Paris-agreement and piling internal and external reports underlining low risk of carbon leakage, the perception of industrial relocation due to lack of comparable climate policies was largely un-eroded.

Furthermore, the continued use of trade and emissions intensity as carbon leakage criteria gained approval. As a response to earlier criticism about inflated carbon leakage lists, the Commission somewhat tightened the criteria which shrunk the list from 177 sectors to 44 in phase 4. Yet sectors removed from the list were mainly small emitters, and many large emitting sectors remained to continue to enjoy 100 per cent free allocation. This validation of the same criteria and continued free allocation to large emitters indicate cognitive feedback effects from the phase 3 Directive.

We also see incidents of incremental acceptance of political realities and pragmatism in relation to free allocation from previously more critical actors. Norway's aligning with the GGG, NGOs support to oil companies and Statoil's application for free allocation in phase 3, generated renewed support to the free allocation procedure. Interestingly, the fact that the lobbying for phase 4 did not seem just as intense as in the phase 3 revision, imply that free allocation to energy-intensive industries were almost taken for granted. Therefore, in the 2014-2017 policymaking, repeated carbon leakage feedback effects appeared to play an important role in prolonging free allocation to the oil sector in phase 4.

Yet the cognitive feedbacks about carbon leakage and institutional stability only explains why offshore oil production continues free allocation. Negative feedback fails to explain how the newly classified gas sector was removed from the carbon leakage list in the policymaking for phase 4. According to historical institutionalism, actors supporting free allocation would have resisted change of rules and stopped the removal. Here, policy entrepreneurship offers better explanations.

To summarise: Expectation 1.1. was correct. Negative feedbacks spurred by carbon leakage risk and earlier EU ETS commitments contributed to the continuation of free allocation to offshore oil and gas production in phase 3 and oil production in phase 4. It is largely the case that both ETS Directives for phases 3 and 4 were results of compromises between ambitious target setting and industrial protection against a lack of a binding global climate agreement. Over time, negative cognitive feedbacks repeatedly reinforced the carbon leakage rules, thus providing free allocation to the offshore sectors. Since feedbacks from repeated ETS implementation recalled the carbon leakage fear, it simultaneously gave support to preserving the sub-trajectory of free allocation. Stated more boldly, actions aimed at reducing total European emissions, also lead to actions that kept undermining the same mitigating actions, namely the use of free allocation causing stalled decarbonisation (Jervis 2012). Such institutional interplay of higher target setting and industry exempting, can be spotted during both policymaking periods. In line with historical institutionalism, this contrasting interplay with target-setting and exemptions continued from 2014, in particular after the 2014 Council conclusions which set the tone for phase 4 negotiations. Expectation 1.2 about self-reinforcing effects on policy trajectory over time was thus correct. Although the free allocation rules got somewhat tightened between 2014-2017, the trajectory was largely maintained.

7.2 Entrepreneurial success and later failure?

Policy entrepreneurship gives attention to actor's ability to change or preserve the status quo through adopting clever strategies to 'punch above their weight' in policymaking (Boasson and Huitema 2017:2). In this case, the oil industry's structural and cultural strategies have been selected as mechanisms for policy entrepreneurship, as specified into expectation 2:

2.1. Adopted structural strategies such as networking, coalition-building and strategic use of information enhanced the oil industry's authority and altered the information distribution in the EU ETS. Additionally, they used cultural strategies combining positive and negative framing; While supporting progressive targets, they simultaneusly emphasised severe carbon leakage risk. These strategies prolonged free allocation to the offshore oil and gas sector for phase 3 and to oil for phase 4.

2.2. The political effect of policy entrepreneurship was substantally higher during the revision for phase 3 than the revision for phase 4. This is due to less institutional awareness about actual carbon leakage risk and EU ETS performance in 2008, providing more space for policy entrepreneurs.

Phase 3 policymaking: 2006-2008

During the phase 3 revision, process-tracing finds some empirical support for strategic behaviour out of the ordinary for the offshore industry. However, while most of the energy-intensive sectors were very active, the offshore oil and gas sector seemingly adopted only a few significant strategies compared to the other industries. Instead, it blended perfectly in the alliance of energy-intensive industries. Some strategies can nevertheless be understood as policy entrepreneurship that may have helped to prolong offshore's free allocation.

Regarding structural strategies, the oil industry contributed to the energy-intensive industry coalition's strong push for the generous carbon leakage criteria between 2006-2008. It used consultancies to assess the carbon leakage criteria, acceptable benchmark levels and provided information about the industry's outlook with new EU ETS regulations. These are observations of efforts aimed at altering the information distribution for overcoming structural barriers. However, the change of the accumulating *and*-criteria to the more laxed *or*-criteria in the phase 3 Directive was not done by the oil industry alone. Process-tracing shows that the offshore sector mostly hid in the background, having other industries like the refinery sector do most of the political work. This suggests that status quo entrepreneurship is less warranted. Instead, some strategists within the broader alliance of energy-intensive industries are more rightful holders of the policy entrepreneurship description.

Moving on to cultural strategies, the oil industry reportedly lobbied for framing its industries as being 'energy-intensive sectors' instead of 'energy sectors'. Here, FuelsEurope and the oil refinery sector were especially active in providing better conditions for the overall oil industry (Skjærseth 2013). This strategy succeeded and brought the oil and gas extraction sector on the

carbon leakage list ensuring substantially more free allocation from 2013. Additionally, the energy-intensive industries, together with the oil industry, successfully established carbon leakage as a real threat in the consultations, negotiations, the Commission's 2008 proposal and the revised Directive. Their mantra was that carbon leakage served as severe threat to European competitiveness because of competing regions lack of similar regulations, which persuaded policymakers to adopt a 'fair' ETS. This debate was amplified by insecurity attached to whether a global climate regime would be improved after the 2009 Copenhagen summit, which were to happen after the phase 3 Directive was finalised.

IOGP, FuelsEurope and oil companies contributed actively to this narrative. Yet again, process-tracing demonstrates that this accomplishment should not solely be ascribed to the oil industry. Thus, there are few indications of the oil and gas industry 'punching above their weight' in 2006-2008, except from getting identified as 'energy-intensive'. Nevertheless, perhaps subtler structural and cultural entrepreneurial strategies were adopted, yet the interview data has not found observations of such. Therefore, their 'success' in preserving the status quo for phase 3 should only partly be ascribed to policy entrepreneurship.

Phase 4 policymaking: 2014-2017

We find significantly stronger indications of the oil industry adopting structural and cultural strategies during the phase 4 process. Shell and IOGP were active lobbyists, having frequent contact with policymakers. In particular, IOGP is identified as a policy entrepreneur between 2014-2017, adopting strategies that sought to induce improved conditions for the offshore sector. These entailed preserving free allocation to oil and gas production as well as changing policy rules for distributing free allowances to offshore platforms' electricity production.

Yet these strategies did have a seemingly minimal or non-triggering effect in prolonging free allocation to the offshore sectors. However, as 'success' is not adopted as a criterion for policy entrepreneurship, rather the strategies employed, the entrepreneurship framework has enabled to study the non-causal effect of actor's actions for preserving and changing policy.

Regarding structural strategies, the oil industry gained institutional credibility and allies by adopting progressive targets and positions. Moreover, they provided technical information, insights and data, meanwhile establishing good relations with key MEPs, rapporteurs, member-

states, Commission officers and NGOs. In particular, Shell stood out as a relatively progressive company. From being perceived as collaborative, we can assume that the offshore industry increased its authority, probably lowering some institutional barriers for influence.

This was helped by adopting cultural strategies. The oil industry positively framed how a lower cap and increased gas production would drive out coal, further fostering the oil industry's 'green' image and as providers of low carbon solutions. At the same time, in political meetings and stakeholder consultations, they underlined their carbon leakage risk, evidently stating that free allocation was necessary with a stricter EU ETS. Thus, they did something 'good' to allow them doing something 'bad'. Their middle-position between supporting ambitious targets and strongly emphasising carbon leakage risk got approval from the member-states legitimising free allocation in the 2014 Council conclusions.

Moreover, regarding the carbon leakage threat, BusinessEurope and IOGP reframed the risk to entail 'investment leakage', since in practice it was the investments that would be relocated from Europe to non-abating regions. Therefore, only ex-ante prospects of the European market were valid 'evidence' on which free allocation decisions should be made, not ex-post reports. These strategies also made some impact, as the investment leakage framing was recalled in proposals, amendments and the final Directive for phase 4. However, the strategies failed to convince enough members in ENVI to change the policy for the offshore sector. Here, political unwillingness, commission's rejection and external factors such as the Paris Climate Summit were important barriers. These configurations will be discussed in the next section.

Thus, the theoretical expectation 2.1 seem nevertheless to be wrong based upon the phase 4 outcome. Process-tracing finds no significant indication that the oil industry's strategies caused oil production's free allocation to continue. This is logical since the oil industry already knew, from calculations based on the rules set out in the Commission's Directive proposal in 2015, that the oil sector's free allocation was ensured for phase 4. Moreover, informants within the oil industry confirmed that their focus between 2014-2017 in terms of free allocation was on the gas sector and the electricity-issue. The claim about low or non-effect from policy entrepreneurship between 2014-2017 is further strengthened by the fact that the campaign for the gas sector and electricity production failed. Since the oil industry appeared to lack the power and skills to set and reverse the rules for these two issues, it seems unlikely that policy entrepreneurship helped them succeed with the oil production's free allocation. Here,

institutional explanations seem to better explain the outcome for the *oil* sector in phase 4. However, the possibility of entrepreneurial success in the 2006-2008 policymaking, which set the main rules for carbon leakage also for phase 4, may have provided some affect to the continuation of oil production's free allocation.

Summing up, expectation 2.1 was partly wrong. The result of continued free allocation to the offshore oil and gas sector for phase 3 and oil sector in phase 4 was to a less degree results of policy entrepreneurship. However, the oil industry successfully framed the offshore sector as 'energy-intensive', making it eligible for substantially higher amounts of free allocation. This gives some support to the cultural entrepreneurship mechanism. In the phase 4 revision, we see significantly clearer examples of adopted policy entrepreneurship by the oil industry. However, while the cooperativeness and emphasis on carbon or investment leakage risk might have helped to legitimise the prolonging of free allocation to *oil production*, it unlikely caused it. Instead, the framework set out in the Commission's Directive proposition and its following institutional support ensured the continuation, making successful status quo entrepreneurship between 2014-2017 unwarranted. Moreover, structural and cultural strategies failed to convince policymakers to change the rules for providing free allocation to the gas sector and electricity production offshore. The oil industry's actions during policymaking 2014-2017 can therefore be understood as 'failed entrepreneurship'. Thus, expectation 2.2 was somewhat right because the *causal effect* from policy entrepreneurship was probably higher during policymaking 2006-2008 than between 2014-2017, when it had low or non-effect. Yet the expectation was partly incorrect as the entrepreneurial activity actually increased in the policymaking for phase 4. This is explained by the fact that the oil industry faced more challenges (e.g., the gas-issue) in the latter round of policymaking, whereas the alliance of energy-intensive industries did most of the heavy policy-work during the revision for phase 3.

Table 5 sums up theoretical expectations with the empirical findings:

Expectations	Policymaking 2006-2008 for phase 3	Policymaking 2014-2017 for phase 4
Historical institutionalism	Some feedback	Strong feedback
Political entreprenurship	Strong entrepreneurship	Some entrepreneurship

Findings		
Historical institutionalism	Some feedback	Strong feedback
Political entreprenurship	Some entrepreneurship	Failed entrepreneurship

Table 5 Theoretical expectations versus empirical findings.

7.3 Configurations

Then, what configurated the prolonging of free allocation to the offshore sectors in each round of policymaking? This section builds on the work by Jordan and Matt (2014), Boasson and Huitema (2017) and Culpepper's (2011) factors on what configurates negative feedback effects and business status quo entrepreneurs' chances for making policy stick. Three configurations are addressed: institutional support, exogenous impulses and policy complexity.

7.3.1 Powerful coalition: good conditions for the status quo?

Low institutional resistance suppressed by powerful coalitions are expected to enable negative feedback effects and entrepreneurial success, enabling policy to 'stick' with the status quo (Jordan and Matt 2014; Boasson and Huitema 2017).

During the phase 3 revision, the energy-intensive industries coordination fiercely acted-out their concerns for imposed cost from the EU ETS and managed to mobilise a spectre of European industries. This force was enhanced by their strong ties to key EU member-states and support for divisions within the Commission, such as DG Enterprise. Thus, a powerful coalition between heavy industrial actors, central governments and EU officials preserved a deep institutional concern for carbon leakage risk to European industries. The opposition against free allocation was seemingly weak, as illustrated by the 2008 industrial lobbying which effectively widened the Commission's suggested rules for free allocation.

Between 2014-2017, the concern for carbon leakage due to EU ETS was further entrenched among industries, the Commission, member-states and MEPs. Moreover, the forces *against*

free allocation to offshore, namely Statoil and Norway, ceased after the harmonisation of EU ETS in phase 3. Environmental NGOs supporting oil companies' progressive stances further enforced the coalition for continued free allocation. True, the need for a strengthened system and fewer free allowances somewhat dissolved the unity among industries, creating a messier lobbying environment compared to the phase 3 revision. Increased acknowledgement of unfit carbon leakage rules, the Paris-agreement climate obligations and more emissions trading experience also contributed to a critical view on free allocation. However, in sum, the large emitting sectors were maintained on the carbon leakage list for phase 4 under many of the same principles set out in the phase 3 Directive, indicating a strong and resilient coalition for preserving free allocation in the EU ETS.

Against this backdrop, it is sensible to state that the level of institutional resistance against the continuation of free allocation rules has been low throughout the EU ETS lifespan. Accordingly, this has provided advantageous conditions for negative feedback and policy entrepreneurship for preserving the status quo. While it configurated negative feedbacks in both revision processes, it nevertheless seemed to only provide configurative effect to the oil industry's policy entrepreneurship between 2006-2008, probably owed to the alliance of energy-intensive industries. During the phase 4 revision, the very lack of institutional support to the offshore sector specifically made the oil industry unsuccessful entrepreneurs, losing free allocation to the gas sector and for electricity production.

This suggests that even some of most the profitable industries depend on a significant level of institutional support to impact policymaking. Big business' strategies appear significantly more effective as part of alliances with other industries and have a lower chance of success when acting alone. When controlling for a broader industrial backing, of which the comparison of the policymaking for phases 3 and 4 enables, the process-tracing indicates that the oil industry cannot depend solely on its economic significance and expect to influence policy. This finding should be understood considering offshore sector's low industrial attention and relevance in the EU ETS, only getting championed by a few MEPs and states. The powerful coalition factor helps to explain why the adopted policy entrepreneurship on gas and electricity production between 2014-2017 failed. This backdrop supports the theoretical contributions on powerful coalitions and suggest the following:

A powerful coalition helps configurating negative cognitive feedback to constrain policy change. The success of actor's status quo policy entrepreneurship does also depend on whether a powerful coalition supports the entrepreneur's objective.

7.3.2 Stable exogenous factors, more status quo?

However, the powerful coalition did not configurate such conditions alone. Stable exogenous factors are also expected to enhance negative feedback effects and help policy entrepreneurs in prolonging the status quo (Jordan and Matt 2014; Boasson and Huitema 2017).

In the EU ETS, the global climate regime has impacted the formulation of the free allocation rules for phases 3 and 4. For instance, US drawback from the Kyoto-protocol and general impasse in climate policy, legitimised concerns for the damages stringent EU-rules would impose on European industries. Furthermore, the pessimistic outlook after the Copenhagen climate summit in 2009 made the Commission leave the specification of the carbon leakage list to be completed after the top meeting. The intention for this was to see whether the international community would adopt higher climate ambitions, which would reduce carbon leakage risk in the EU. However, the international climate regime, or the perceived lack of it, was used frequently as an argument to prolong free allocation both before and after the Copenhagen summit. In the phase 4 negotiations, arguments about insufficient climate regimes outside the EU continued in a similar manner. Even after the Paris agreement in 2015 some of the industries still view this external factor as relatively stable.

Therefore, perhaps the most effective external factor for configurating continued free allocation to offshore and other sectors was the failure in establishing a global climate regime, and not imposing comparable emissions restrictions in countries such as India, China or the US. This framing was clearly successful between 2006-2008 during which it was incorporated in the phase 3 Directive. After 2009, the framing continued, and so did the negative cognitive feedbacks, only now with more effect. Thus, the successful framing of carbon leakage during the phase 3 revision may have enhanced the effect from institutional feedbacks as carbon leakage got increasingly embedded and implemented in the policy over time.

The loss of gas production's free allocation can also be explained by changes externally, namely the new version of Eurostat's classification system. The updated classifications

differentiated between oil and gas extraction and created new calculations for gas production's carbon leakage exposure. This gave the gas sector a score too low to meet the threshold for free allocation. Thus, we see that an *unstable* exogenous factor reduced the 'stickiness' of the free allocation trajectory. When the oil industry adopted entrepreneurial strategies aimed at reversing this technical implication they experienced political resistance. Neither the Commission, the MEPs nor the member-states wanted to give the offshore gas sector special treatment. The argument against this was based on the momentum from the Paris agreement and need for effective climate action.

Thus, the climate regime was viewed as a relatively stable exogenous factor strengthening the negative feedbacks, which configurated prolongations of free allocation in both phases. The same world-view facilitated leverage for entrepreneurs' framing strategies between 2006-2008. However, changes in two exogenous factors, namely the updated Eurostat's system and momentum from the Paris-agreement, constrained the oil industry's influence as entrepreneurs in policymaking for phase 4. In line with what was expected, we can suggest the following:

> *Stable external factors enable negative feedback effects and policy entrepreneurs in maintaining policy status quo. Contrastingly, motions in external factors on global level or indirect policy systems reduce the mechanisms' entrenchment effects.*

7.3.3 Policy complexity: more power to industry?

High complexity in policymaking should enhance business power in prolonging the status quo (Culpepper 2011). The EU ETS and the carbon leakage risk are complex and technical issues that depend upon industrial input, making policymakers vulnerable for corporate influence (Gullberg 2011).

In its first phases, policymakers in the EU ETS exerted a learning by doing approach. Neither the actual risk of carbon leakage nor how the EU ETS performed in terms of decarbonisation were easy to grasp. For instance, auctioning was imposed on the power sector since they evidently profited from free allocations because they could easily pass-on ETS costs to consumers. The same tendency of gaining windfall profits has been reported among several energy-intensive sectors too, indicating an abundance of free allocations. Another example of

policy lapses was the inflated list of carbon leakage sectors in phase 3 that will be reduced for phase 4.

Since 2013, there have been indications of more conscious decision-making in the ENVI and the Commission. Yet expert reports and ex-post studies suggesting policy flaws on carbon leakage appear to have only made a small impact on policymakers. Furthermore, industries pushing sector prognoses based on their own data and theoretical assumptions are difficult for policymakers to critically asses. Regarding the policymaking and policy outcomes, process-tracing imply that policymakers appear to rely more on industrial input than reports criticising carbon leakage risk in the decision-making. The technical nature of the EU ETS therefore does seem to favour the energy-intensive industries, including the offshore oil and gas sector.

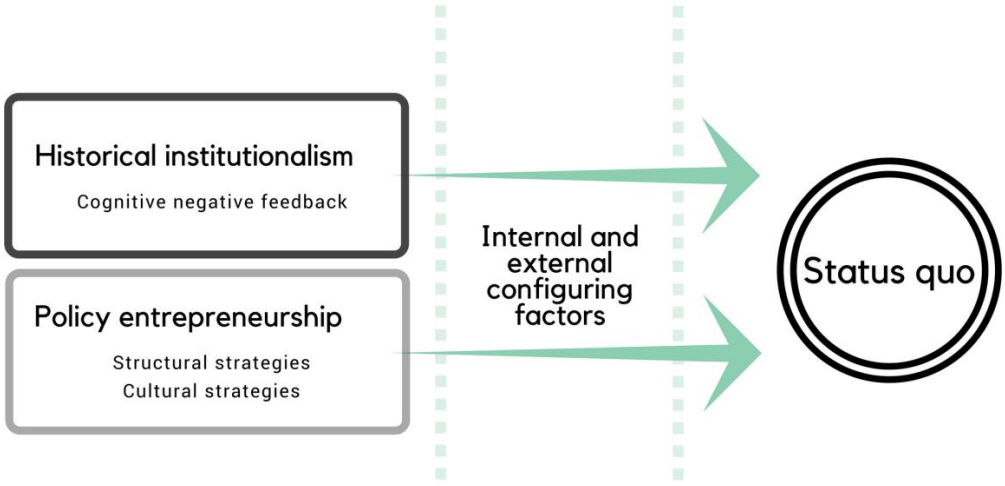
In negotiating phases 3 and 4, policy complexity did likely enhance the effect of negative policy feedback and policy entrepreneurs targeting free allocation because it was difficult for policymakers to convincingly argue against industries' expertise. However, technical complexity also contributed to restricting the free allocation to the offshore sector between 2014-2017. The outsets for the gas-issue and electricity-issue came from a technical implication, not intentional policymaking. Later, when these issues got politicised in the Parliament, there was little will to provide special assistance to the offshore sector. While the arguments against helping the oil industry were political, technical features of the EU ETS created the problem in the first place. Therefore, while complexity can be helpful to businesses, it can apparently backfire. When problems due to complex policymaking arises, businesses must therefore depend on institutional support to overcome it. This case shows that the oil industry was unable to reverse the rules alone and lacked support to do so. Culpepper's claim that complexity automatically increases business power are therefore flawed. Against this backdrop, the following finding is suggested:

> *While complexity can enhance the causal effect of negative feedback and business strategies in policymaking, complexity can also cause unintended blockage. When such problems occur, actors need political support from governing bodies to overcome barriers for reversing policy.*

7.4 Recap, complementary use of theories and equifinality

The analysis has sufficiently answered the research question: Negative cognitive feedbacks about carbon leakage appear to have had strong effects in prolonging free allocation to the offshore sectors in phases 3 and 4. The oil industry's adopted entrepreneurial strategies might have played some causal role during the 2006-2008 policymaking of the EU ETS, but largely failed to impact the recent phase 4 negotiations. Hence, the carbon leakage fear withheld and embedded in the policy seems to be the main driver of the continuation of the oil industry' free allocation, not the oil industry itself.

Supporting coalitions, stable exogenous conditions and policy complexity did further help configuring these developments. Powerful coalitions help negative cognitive feedbacks maintaining policy, while the lack of it seems to limit its chances in preserving the status quo. Stable external factors are also important, as seen with the global climate regime and impulses from Eurostat. Motions externally did constrain status quo entrepreneurs and negative feedback effects. Additionally, the complexity of EU ETS reduced the resistance for prolonging oil sector's free allocation to phase 4, but also blocked efforts for reversing specific rules on the gas sector and electricity production offshore. Policy complexity may therefore serve as beneficent *and* disadvantageous for business actors. However, more research on these configuring factors ability to mediate policy preservation is needed to confirm such findings.
In sum, the causal model derived in the theory chapter seem to illustrate the case:



The institutional perspective seems to provide a more valid explanation for research question 1.1 on prolonging oil and gas' free allocation to phase 3 and 1.2 on the prolonging of oil production's free allocation to phase 4, in contrast to the entrepreneurship perspective. True, earlier adopted entrepreneurial strategies helping locking-in specifications such as the trade intensity criteria in 2008, may have contributed to the outcome for phase 4. This is not unlikely as the rules set out in the phase 3 Directive largely continued in the phase 4 Directive. Yet process-tracing does only find some observations of the oil industry's entrepreneurship between 2006-2008 and emphasises more the push from the overall energy-intensive industries. Thus, the offshore sector's maintained free allocation is mostly due to the fear of carbon leakage and alliance of energy-intensive industries, not the oil industry.

The complementary framework can provide some confusion about how carbon leakage shaped the institution of EU ETS. Was it the institution itself that generated carbon leakage fear, or energy-intensive industries who effectively framed the problem and the agenda for free allocation? Boasson and Wettestad suggest that the lack of comparable climate policies elsewhere was employed as a cultural strategy by industries to enhance carbon leakage fear and convince member-states, the Commission and the Parliament to continue free allocation (2013:75-76). This thesis' process-tracing shows clear observations of similar framing strategies for phases 3 and 4. For instance, the fierce lobbying from the alliance of energy-intensive industries provided policymakers carbon leakage arguments that possibly nurtured the negative cognitive feedback. Another argument used for the same objective between 2006-2008 was about industries' ability of passing-through cost to consumers. While the power-producers evidently could do this, the globally competing industries were assumed to not have that option, which validated their continuation of free allocation. Later, however, several energy-intensive industries have been able to pass-on costs gaining extra profits from selling unused allocations. This indicates that industries successfully convinced policymakers in 2006-2008 to give them better conditions than was necessary.

Thus, we can say that the industries' strategic use of framing helped to embed the carbon leakage fear in the EU ETS in 2006-2008. While the continuous need for reform induces a tighter system, the cognitive perception of carbon leakage has also been reinforced over time. In the policymaking 2014-2017, we see strong negative feedbacks from previous decision-making, policy formalisation and implementation. These feedbacks in the phase 4 negotiations

were further withheld by the new framing of 'investment leakage', together with the configuring factors supporting coalition, stable external conditions and policy complexity.

Thus, policy entrepreneurship and institutional theory can explain at different temporal stages why carbon leakage became embedded and maintained the use of free allocation in the EU ETS. Yet again, the role of the oil industry besides from contributing to these framing is still unclear. While we find some observations of the oil industry' effective entrepreneurship in 2006-2008, the two unsuccessful campaigns in the phase 4 negotiations suggests that their political capacity to impact policymaking is even lower. Moreover, through the lenses of historical institutionalism, entrepreneurs aiming to preserve policy should have found it *easier* to influence policymaking in 2014-2017 since policy-developments become increasingly path-dependent over time. Thus, the oil industry should have had better conditions as status quo entrepreneurs. However, policy entrepreneurship failed. The failed entrepreneurship on the gas-issue is even more unexpected than the electricity question. Because policy change on electricity production rules would interfere with the firm principle of dividing power producers and consuming energy-intensive industries, it would have been more complicated to water out. The gas-issue on the other hand occurred more randomly due to an unrelated revision from another Directorate-General, Eurostat, and should be easier to argue against as it was a minor question about sector definitions. Nevertheless, institutional features constrained status quo entrepreneurship. Complexity, motion externally and low institutional support further configurated failure.

Equifinality and shortcomings

These findings are contingent by the research design and adopted theories highlighting specific aspects in the policy-processes. Other theories and methodological considerations could have resulted in other findings.

Employing Liberal intergovernmentalism's emphasis on member-state relations (Moravcsik 1993) could have better investigated the ties between oil industry, the offshore sector and EU member-states. The lobbying force during the phase 3 revision was enhanced by strong ties to powerful member-states such as Germany and Italy (Skodvin et al. 2010). Also, the 2014 Council conclusions lay out important directions enabling free allocation to continue in phase 4, which the states in the GGG further supported. Yet only the UK and Norway are reportedly

most concerned with the offshore sector in the EU. However, by interviewing officials from non-member Norway, the impression is that the offshore sector is not particularly pampered in the ETS. After all, Norway wanted to *reduce* the offshore sector's free allocation for phase 3. True, interviews with officials from the UK, Germany or other states with industrial connections to the global oil industry could have given better insights on how member-states championed specific petroleum sectors. Thus, this perspective would provide better insights on whether ties to member-states enable more business power in the EU.

The dynamic within the DGs in the Commission, Parliament committees and ties to private actors or sub-regions could have been better investigated through multi-level governance perspectives (Hooghe and Marks 2001). These can help analysing policy networks and the relative importance of actors connected to the policymaking. For instance, branches within the Commission are proposing frameworks and coordinating the free allocation policy, having a big say on that development. Moreover, actors within the Commission did earlier adopted an entrepreneurial role in reassembling stakeholder support to initiate EU ETS (Skjærseth and Wettestad 2008:86). Snowball sampling and 20 in-depth interviews, some of them with key actors having insights on the oil industry's role in the EU ETS, provided nevertheless important observations on the relative importance of the oil industry, the Commission and the Parliament. Also, the role of the oil industry versus the broader group of energy-intensive industry has been discussed. Moreover, policy entrepreneurship allowed analytic concentration on the oil industry's contact with the EU institutions, which was important in terms of assessing business power. Historical institutionalism did fruitfully complement the actor-perspective by looking at the role of DG CLIMA, ENVI committee and some member-states. However, a deeper investigation of different DGs or committees, such as DG Enterprise and the Parliament industry committee (ITRE), could have emphasised observations that this study might have given less attention to.

A third alternative could be using an economic-material perspective highlighting the oil industry as a global actor and impact of the EU ETS on forecasts and corporate strategies. After falling oil prices, increased competition from renewables and changed demands of fossil fuels, the oil industry should view free allocation preservation as crucial. Such a perspective would explain how material and economic factors caused the oil industry to work for free allocations. Yet we also see that the allocation question for the offshore industry has been treated partly differently, exemplified with Statoil and Norway, indicating that a straightforward profit-

maximizing perspective could make skewed assessments. The European companies Shell and Statoil received special attention here. Some empirical variation of the industry was further captured by including the IOGP, where American oil companies traditionally hold a big say. Interviewing informants from non-European oil majors and adopting a material perspective could have provided more nuances. Generally, more research on the diversity and drivers within oil companies considering emerging challenges such as climate policies are needed.

One should also take into account how many informants had better knowledge about the recent phase 4 negotiations compared to the 2006-2008 process. Theoretical and empirical limitations might have contributed to some missing data about actual oil industry strategies and influence at different stages in the EU ETS. Nevertheless, a thorough process-tracing and off-the-record conversations with key informants holding contrasting views on the policy-process have enabled exploration of possible explanations and shortcomings, providing confidence in the drawn findings.

8 Conclusion

This thesis has sought to answer why the offshore oil and gas sector continues receiving free allocation in the EU Emissions Trading System' (EU ETS), specifically for oil and gas production in phase 3 (2013-2020) and for oil production in phase 4 (2021-2030). This practice is maintained despite the principle of 'polluter pays', the oil industry's financial capacities and the seemingly exaggerated carbon leakage risk. Free allocation to the gas sector will stop in phase 4 due to Eurostat's new classification of sectors. Historical institutionalism and policy entrepreneurship framework were used to explain why the preservation of a specific policy trajectory in the EU ETS was possible. A sequential within-case study design with process-tracing between 2006-2017 was employed to thoroughly illuminate causal process observations for answering the research questions. The most crucial data came from twenty informants.

8.1 Main findings

This thesis finds that the oil industry's ability to directly impact the EU ETS is limited. Instead, it is the institutional dynamic and other industries that has provided free emissions allowances to the offshore sectors, not the oil industry itself. In fact, when the oil industry actively adopted strategies to transform the policy between 2014-2017, they largely failed. This indicates that the some of the world's largest corporations cannot just 'set the rules' in climate policy.

Historical institutionalism expected the preserved policy to be explained by path-dependency created by repeated negative cognitive feedbacks from the perceived severe carbon leakage risk in EU ETS policymaking. In the 2006-2008 policymaking for phase 3, we find some indications of cognitive feedback effects prolonging the free allocations. In line with historical institutionalism, these feedbacks got self-reinforced after rounds of decision-making, policy formalisation and implementation. Thus, these effects were significantly stronger during the 2014-2017 policymaking for phase 4.

In contrast, policy entrepreneurship underlined the causal role of the oil industry's adopted strategies for influencing policy. In the phase 3 revision 2006-2008, policy entrepreneurship expected that the oil industry adopted structural and cultural strategies that resulted in continued free permits. This thesis suggests the opposite: The oil industry made only small efforts to influence policymakers, and their adopted strategies caused only some effect. Most importantly, the oil industry successfully managed to change the identity of the offshore 'energy' sector to 'energy-intensive', getting eligible for more free allocation in phase 3. Otherwise, they had the large alliance of energy-intensive industries do the tougher lobby-work, which ensured the offshore sectors free allocation in phase 3.

In revising EU ETS for phase 4 between 2014-2017, the oil industry adopted more numerate strategies that clearly qualify as policy entrepreneurship. However, these had little or no effect in prolonging oil production's free allocation because much of this policy was continued from the phase 3 Directive, which guaranteed oil sector's free allocation in phase 4. Other entrepreneurial strategies were ineffective at directly impacting policy: The oil industry failed first to reverse rules that cancelled free allocation for offshore gas production because of Eurostat's new sector classification, and second to make offshore platforms' electricity production eligible for free permits.

Overall, this study finds few strong indications of policy entrepreneurship strategies leading to continued free allocation to the offshore sectors. Instead, historical institutionalism and embedded perceptions of industrial carbon leakage seems to better explain the prolongations.

A complementary use of the theoretical frameworks has provided close investigations of big business impact on climate policymaking. It further highlighted the relative causal effects of institutional dynamic and financially strong actors in creating political status quo outcomes. Together, the framework demonstrated how factors such as institutional power distribution, external impulses and policy complexity configurated the mediation of negative feedbacks and policy entrepreneurial success in preserving policy design. Furthermore, policy entrepreneurship was useful to study the role of actors' strategies even if they failed to change or influence policy. Here, historical institutionalism and policy entrepreneurship further helped to understand why internal and external factors configurated status quo outcomes.

For instance, in phase 4, oil production continues with free allocation, while gas production does not. Here, lack of political support, motions in the external climate regime, a revised Eurostat classification system and policy complexity restricted the oil industry's intent to reverse the rules that cut off free allocation to the gas sector. In contrast, broad support of energy-intensive industries, perceived stable carbon leakage risk and policy complexity facilitated the continued free allocation to the oil sector. Thus, institutional support and stable external factors seem to enhance negative feedbacks and entrepreneurial strategies maintaining the status quo. Policy complexity, which was expected to enhance business power, can play both ways. More research on political business power and entrepreneurship is needed to confirm these findings.

The offshore sector's seemingly effortless placement on the list of sectors eligible for free allocation from phase 3 indicates some degree of institutional power in the EU ETS. However, this success was very much thanks to the energy-intensive industries. Moreover, the failed efforts for maintaining the free allocation for gas production and failure in changing the allocation rules for electricity production offshore for phase 4, indicate that the major oil companies' capacity to impact policy alone is rather limited. Accordingly, this thesis suggests that oil industry policy breakthrough in the EU ETS depends on backing from the larger group of energy-intensive industries.

These findings hinge on the theoretical concepts and research strategy employed here. Perspectives rather focusing on member-states could instead have enlightened other aspects. Moreover, informants from other companies than Shell, Statoil and Eni, MEPs from other Committees in the European Parliament or staff-members from other departments in the European Commission, such as DG Enterprise, might have given adjusted findings. Nevertheless, the process-tracing technique, rich accounts from informants and written sources helped assessing equifinality and provided robust conclusions.

8.2 Theoretical and empirical implications

This case study of the global oil industry's strategies and influence on the EU ETS make contributions to the literature on political business power, oil industry's impact on climate policy and the role of industries in the EU ETS. As a single case study, the ability to generalise this thesis' findings to similar cases are reduced. However, theoretical and contingent

generalisations, in addition to empirical lessons learned from this case, provide contributions to further research on business power, oil industry and EU ETS.

Firstly, this thesis finds that big business cannot automatically 'set the rules' in international climate policy, neither structurally or instrumentally, despite what scholars have indicated (Finger 2013; Korten 2015). Instead, the analysis confirms literature stating that in the end it is up to politicians and governing bodies to approve or disapprove of corporations' desires, not vice-versa. It is fairly safe to state that industries are integrated deeply or even key players in climate politics. As shown in the selected case, the institutional embedded understanding of carbon leakage as a threat to industries in the EU ETS are very much thanks to the industries. But while big businesses can evidently set the agenda, their instrumental power on policy is also conditional depending on political allies within governments (Mikler 2018). Interdependency between regional industries, MEPs and member-states further explains some of the power held by energy-intensive industries while the offshore sector seems to be comparatively weak in the EU ETS. In addition to institutional supporting coalitions, the external conditions and policy complexity seem to impact the chances of industrial direct impact on policymaking. More research on what factors mediates status quo entrepreneurship is suggested to give better understanding of when and how actors 'punch above their weight' in blocking policy change for climate policy. The framework used here offers a starting point.

Secondly, this case study exemplifies how major oil companies responds strategically to climate policy. Instead of lobbying against ambitious climate policy, the oil industry rather seeks to *shape* it. This is in line with scholars of business power's conclusions (Finger 2013; Mikler 2018). In EU ETS, we see that the major oil companies adopt strategies that champion progressive targets for building authority and later to gain advantageous exemptions, such as free allowances. By acting as team players, they also distance themselves from perceived climate laggards and coal companies, gaining leverage to shape policy formulation and implementation. This again may undermine the climate effectiveness, illustrated with the free allocation procedure in EU ETS continuously postponing decarbonisation. While the strategies are perceived as constructive, more integration of collaborative companies can also water down much-needed climate action. Yet again, deep integration with industries might possibly be the best way of getting stakeholders on board for committing to carbon mitigation. Scholars have earlier studied climate responses within the oil industry (Rowlands 2000; Skjærseth and Skodvin 2003; Skjærseth 2013), but the field of climate politics evolves quickly. Therefore,

systematic and updated research on what type of strategies fossil fuels companies adopt to get access in international climate policymaking after the 2015 Paris-agreement, and whether adopted strategies water out or rather result in progressive action plans, should be considered as future research subjects. Comparative case studies on global businesses impacting climate policy in different contexts or regions could generate interesting insights on these matters.

Thirdly, besides belonging to some of the world's largest corporations, the study finds that the offshore oil and gas sectors are a relatively irrelevant sector in the EU ETS. From being identified as an energy-intensive sector it certainly benefits from the institutional strong belief in carbon leakage risk, providing oil companies some institutional power. This study supports findings from Skodvin et al. (2010) on carbon leakage being used as credible threats by industries and member-states during the phase 4 revision. In this thesis, the member-state level received less attention, which gives opportunities for future research to closely trace the cognitive understanding of current carbon leakage threat among member-state officials during the recent phase 4 revision. For instance, how the more progressive states in the GGG coordinated and accepted a middle-position on carbon leakage could serve as case. Moreover, how carbon leakage is comparatively perceived across the Commission's Directorate-Generals could also enlighten important implications about EU climate policy propositioning and implementation.

Fourthly, this study concludes that the political power of major oil and gas firms on climate policy is complex and conditional. Findings here indicate that the offshore industry benefited politically from being among the energy-intensive industries. What is still questionable is whether the offshore oil industry just made few strategic efforts or worked more silently in formulating policy strategy in company with the other industries. Exploration on the inter-sectoral dynamics within the coordinated energy-intensive industries would be an interesting research topic to pursue.

Finally, in a climate perspective, this case demonstrates how cognitive perceptions can stall climate action. However, EU ETS is slowly moving in the right direction and emissions targets are being achieved. Positive signals further came after the recent round of phase 4 negotiations driving up the carbon price, currently floating around 14 euro (May 2018). The rules on free allocation are also tightened. Yet institutional embedded world-views keep postponing decarbonisation, withheld by the industries protecting its free allocation, which gives long-term

implications for the green transitioning of European industries. How long it will take until EU policymakers withdraw free allocation as a means of strengthening the EU ETS is a reasonable question to ask. Any time before phase 4 expires in 2030 is nevertheless unlikely.

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Appendix 1: Informant Interview Scheme

Name and type of organisation	Name	Position	Date	Place	Length	Type	Confidentiality level	Recorded or written notes	Transcribed	Saturation
Statoil, oil company	Simone Rossi	Head of Oil Policy and Regulatory Affairs	23.02.2018	Brussels	1 hour	Face-to-face	Background talk	Noted on computer	Yes	High
Shell, oil company	Confidential	Confidential	20.02.2018	Brussels	45 minutes	Group interview	Background talk	Noted on computer	Yes	Medium
Shell, oil company	Confidential	Confidential	20.02.2018	Brussels	45 minutes	Group Interview	Background talk	Noted on computer	Yes	Medium
Eni, oil company	Vincenzo Conforti	EU Government Affairs Manager	27.02.2018	Brussels	45 minutes	Group Interview	Background talk	Noted on computer	Yes	High
Eni, oil company	Renato De Filippo	Climate Change and Market Mechanisms Manager	27.02.2018	Brussels	45 minutes	Group Interview	Background talk	Noted on computer	Yes	High
IOGP, Oil and gas Association / Statoil, company	Olav Aamlid Syversen	Chair of IOGP EU Committee / Deputy Head - Statoil EU Affairs Office	27.02.2018	Brussels	1 hour	Face-to-face	Background talk	Noted on paper	Yes	High
Norwegian oil and gas, association	Trym Edvardsson	Head of climate and environment	02.03.2018	Oslo	1 hour	Face-to-face	Background talk	Noted on computer	Yes	Low
The oil industry in sum										**High**
European Commission, DG Climate Action (CLIMA)	Heiko Kunst	Head of Sector 'EU ETS Free Allocation to Industry', DG Climate Action Unit B2	15.02.2018	Brussels	30 minutes	Face-to-face	Background talk	Noted on computer	Yes	Medium
European Parliament, ENVI	Jytte Guteland	Shadow rapporteur EU ETS phase 4 revision and MEP	26.02.2018	Brussels	30 minutes	On phone	Background talk	Noted on computer	Yes	Medium
European Parliament, ENVI	Ross McKenzie	Assistant to rapporteur Ian Duncan EU ETS phase 4 revision	02.03.2018	Oslo	40 minutes	On phone	Background talk	Noted on computer	Yes	High
The EU institutions in sum										**Medium**

Thompson Reuters Point Carbon	Hæge Fjellheim	Associate Director	14.02.2018	Oslo	45 minutes	Face-to-face	No direct quotation	Recorded	Yes	Medium
WWF EU	Sam van den Plads	Senior Policy Officer, Climate & Energy	19.02.2018	Brussels	1 hour	Face-to-face	No direct quotation	Recorded	Yes	Medium
Carbon Market Watch	Femke de Jong	Policy officer, previous assistant to the Green	21.02.2018	Brussels	50 minutes	Face-to-face	No direct quotation	Recorded	Yes	High
Corporate European Observatory	Belen Balanya	Researcher and campaigner	19.02.2018	Brussels	50 minutes	Face-to-face	No direct quotation	Recorded	Yes	Medium
BusinessEurope / Confederation of Norwegian Enterprise (NHO)	Per Anker-Nilssen	Member of Energy and Climate Working Group BusinessEurope / Senior advios public affairs, NHO	06.02.2018	Oslo	1 hour	Face-to-face	No direct quotation	Recorded	Yes	Medium
Experts and observers in sum										**Medium**
Norwegian Ministry of Climate and Environment	Dag Svarstad	Senior advisor	29.01.2018	Oslo	45 minutes	Face-to-face	No direct quotation	Recorded	Yes	High
Norwegian Ministry of Oil and Energy	Confidential	Confidential	09.02.2018	Oslo	45 minutes	Group interview	Background talk	Noted on paper	Yes	Low
Norwegian Ministry of Oil and Energy	Confidential	Confidential	09.02.2018	Oslo	45 minutes	Group interview	Background talk	Noted on paper	Yes	Low
Norwegian Environment Agency	Trine Berntzen	Chief Engineer, section on ETS	02.02.2018	Oslo	45 minutes	Face-to-face	No direct quotation	Recorded	Yes	High
Norway's mission to EU	Stine Svarva	Counsellor for environment	23.02.2018	Brussels	45 minutes	Face-to-face	Background talk	Noted on computer	Yes	High
Norweigan government officials in sum										**High**

Appendix 2: Interview guide

BASIC INFORMATION ON THE INTERVIEW AND INFORMANT

Name of informant:
Name of organisation:
Organisational position at time of interview:
Organisational position during the ETS revision:
Date of interview:
Place of interview:
Time used interviewing:
General quality of the interview (See form):

PRELIMINARY REMARK

Thank you very much for meeting with me today. I am conducting interview for a project about the oil industry and the EU Emissions Trading System both for a project for the Fridtjof Nansen Institute and as my master thesis at the University of Oslo.
Specifically, I study the role of the offshore oil industry in phase 3 and phase 4 and focus on the topic of free allowances as a countermeasure to carbon leakage. As I am sure you already know, the offshore oil industry sector consists of oil and gas extraction is on the carbon leakage list.

This talk or interview is a part of my data collection, which also includes documenters, previous research etc.

Before we start:
ON / OFF THE RECORD:
A) This conversation is considered as background talk,
B) I would prefer to record this interview. You may also request to switch the recorder off.

And all given information will be treated confidential and unanimously. Is that fine by you?
OFF/ ON RECORD.

If it is alright with you, I would also like list you as one of multiple informants to this project in the appendix, to say that I have been talking to you. Is this okay? YES / NO

Do you have any other questions before we get started?

BACKGROUND

1. Could you start by giving a short description of what role you have had in the of EU ETS?

2. What has been your position on free allowances to the oil and gas offshore sectors?
    a. TO OIL INFORMANTS: What was your highest priority in the revision for phases 3? What about phase 4?

3. GRAND TOUR: I would like to go back to the revision of phase 3, although these processes happened for quite some time ago. In your opinion, when were the key processes that lead to the free allowances for offshore sectors in 2008?
    a. PROBE: Prior to Commission proposal 2008, stakeholder consultations, the trialogue Parliament/Council/Commission, later discussions of the carbon leakage list?

OVERALL PROCESS

4. At what time did it become clear that oil and gas would receive free allowances in EU ETS?
    a. FOLLOW-UP: What will you say was decisive for making oil and gas eligible for free allowances in the EU ETS?

5. In the 2009-directive, some criteria were set out for which sectors that were deemed to be exposed to carbon leakage; Trade intensity and emissions intensity.
    a. What led to these criteria and thresholds being selected as carbon leakage criteria?
    b. Was there some kind of political pressure for including/not including specific sectors, such as offshore?
    c. PROBE: Any political pressure before phase 3 started or after

6. Turning to phase 4 revision, how was the political process leading to the phase 4 Directive in comparison to the phase 3 processes in terms of carbon leakage debate and free allocation to the offshore sector?

THE ROLE OF OFFSHORE OIL AND GAS

7. How coordinated will you say that oil industry and the offshore sector has been in the EU ETS?
    a. FOLLOW-UP: Some stakeholder submissions seem to be very coordinated, some parts are identical – is that common?
    b. FOLLOW-UP: To what extent did you experience any differences in the industry's opinion on free allocations to their installations?
        i. PROBE: Statoil vs. IOGP, Shell, FuelsEurope

8. Now I would like to know more about what type of contact [YOUR ORGANISATION] have had in the EU ETS processes.
    a. What types of political **meetings** would you say were most helpful for you?
    b. What **groups or actors (networks)** have been important for you in the ETS?

i. What contact did you have with other **oil companies**?
ii. What support did you get from the associations FuelsEurope and IOGP?
iii. Was there some kind of network or collaboration that occurred?

c. Did you made any effort to use the **media** in some way?
d. To what degree did the oil industry/your positions on free allowances get **contested** by the Commission, the Parliament or the member-states?

9. Did anything **surprise** you during the negotiations of free allocation rules in the recent negotiations? What about the phase 3 revision?

10. IOGP has emphasised the need to get free allowances to electricity production on oil platforms for phase 4, described as a sort of loop-hole in the ETS. The rapporteur Ian Duncan has supported this.
    c. How important was this issue for in the oil industry?
    d. How much attention did this issue get during the revision of phase 4?
    e. Why did it not succeed in the end?

11. In consultations about carbon leakage rules, **Statoil has been against free allowances to upstream extraction of oil and gas** – in contrast to most other oil companies. They believe the free allocation is unwarranted.
    a. Has this nuance among the oil companies been communicated effectively?

12. Who has been the **proponent** for the oil and gas industry in the EU ETS, in your opinion?
    f. PROBE: Oil companies? Industry association? MEPs? Member-states?
    g. FOLLOW-UP: In what way would you say that [ACTOR] has been actively engaging in the EU ETS?
    b. To what extent is the free allocation to the oil and gas offshore sector challenged in ETS?

13. If you were to compare the phases 3 and 4, how did the oil industry engage in the two negotiations?
    h. PROBE: Different priorities? Focus?

14. How worried is the oil industry in the EU about the risk of carbon leakage for its sectors?
    c. TO OIL: How do you relate to reports saying that the evidence for carbon leakage threat is rather low for some sectors?

CONCLUSION:

Is there anything else that you believe we should discuss or would like to comment on here?

Could you suggest someone else with insights on these matters that I could contact?