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Reframing Petroleum

Policy frames on the Norwegian petroleum policies in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021

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M.Sc. International Environmental Studies

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by

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Declaration

I, Anne Kragh Kjos, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature  .....

Date 15.08.2022.....

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Abstract

With the indisputable significance of the petroleum industry and the Norwegian petroleum policies' on the high share of government revenues, industrial activity, and public welfare, the oil revenues are the winning argument when environmental advocates call for reduced activity on the Norwegian continental shelf. The economic arguments are however being increasingly challenged. Questions have been raised of the economic risks of continued production, and the dependency of the Norwegian economy on one industry that may steadily, or *rapidly*, loose its significance in the coming decades. In addition, economic and policy analysis are advocating a shift from demand side measures in climate policies, to supply side climate policies, and the restrictions on production of fossil fuels.

Considering Norway's continued efforts to maintain high activity on the NCS and claim its title as an international climate pioneer, and the growing uncertainties of the future of the petroleum industry in a changing climate, it is important to analyse the way this paradox is framed. The objective of this thesis was to identify the policy frames on the Norwegian petroleum policies employed in the Long-term Perspective Norwegian Economy from 2001 to 2021, and how these frames have diachronically changed.

Analysing a sample of six Long-term Perspective Norwegian Economy from 2001 to 2021, I identified nine frames: the 'growth, welfare, and synergies' frame; the 'gas is the better fossil fuel' frame; the 'un-extracted resources' frame; the 'common good' frame, the 'competences of the petroleum industry' frame, the 'world needs oil' frame, the 'future generations' frame, the 'lack of competitive alternatives' frame; and the 'environmentally friendly extraction' frame.

The findings show that the economic and environmental critiques have been incorporated into the already existing frames and led to reframing's of the of the economic and environmental frames on the need for continued high extraction rates and meeting the demand for gas and oil, and the economic framings of the stability and flexibility of the Norwegian economic and fiscal policies. As such, the frames have been defending the policy position to stabilize the credibility of the framings in the light of the 'crisis' of climate policies.

Contents

Abbreviations

CCS	Carbon Capture and Storage
CIT	General Corporate Income Tax
EU	The European Union
EU-ETS	European emissions trading system
GPFG	Norwegian Government Pension Fund Global
MCE	Norwegian Ministry of Climate and Environment
MOF	Norwegian Ministry of Finance
MPE	Norwegian Ministry of Petroleum and Energy
NCS	Norwegian Continental Shelf
NPD	Norwegian Petroleum Directorate
SDFI	State Direct Financial Interest
SPT	Special Petroleum Tax

In the 50 years since the start of Norway's petroleum activities, about 50 percent of the estimated total recoverable resources on the continental shelf have been produced and sold. This indicates that there is also potential for a high activity level on the shelf for the coming 50 years.

The Norwegian Ministry of Petroleum and Energy and the Norwegian Petroleum Directorate on the production forecasts of the Norwegian continental shelf, 2022.

1. INTRODUCTION

With its role as an international climate 'pioneer' (Anker, 2018) combined with being among the largest energy exporters in the world (IEA, 2021), Norway represents a paradoxical case in energy transitions (Normann, 2017). A paradox, in which Norwegian climate mitigation has revolved around how to reduce emissions by combining climate policies with energy policies (Eckersley, 2013; Aasen, 2015). At home, Norway struggles with an intense political competition over the politics of public revenues and welfare benefits, and the following up of the sustainability agenda (Lafferty et al., 2007). This contestation is manifested both between political parties and in government coalitions, and the result has been a lack of political will to follow up on its climate promises (Lafferty et al., 2007).

The petroleum industry and the Norwegian petroleum policies' significant impact on the high share of government revenues, industrial activity, and public welfare, is indisputable (Lahn, 2019; Lie, 2018; Ryggvik, 2015). With crude oil and natural gas accounting for 50 percent of the total revenues from Norwegian exports of goods in 2021 (Norsk Petroleum, 2022b) at 491 billion NOK (Johansen, 2022), the petroleum activities account for 21 percent of the Norwegian GDP, 20 percent of total state revenues, and 18 percent of total investments (Norsk Petroleum, 2022b).

In 2021 Norwegian oil production continued to increase (Norwegian Petroleum, 2022c). Only half the petroleum resources on the NDC have been extracted till now (Norwegian Petroleum, 2022c). The Ministry of Petroleum and Energy (MPE) and Petroleum Directorate (NPD) therefore concludes, that there is potential for high activity on the Norwegian continental shelf (NCS) for 50 years to come (Norwegian Petroleum, 2022c).

When argued that the activity on the NCS must be reduced in the name of sustainability; the oil revenues are the winning argument (Sæther, 2017). The economic arguments are however being increasingly challenged. Questions have been raised of the economic risks of continued production, and the dependency of the Norwegian economy on one industry that may steadily, or *rapidly*, loose its significance in the coming decades (Bang & Lahn, 2020; Teknologirådet, 2014). In addition, economic and policy analysis are advocating a shift from demand side measures in climate policies, to supply side climate policies, and the restrictions on production of fossil fuels (Lahn, 2019).

1.1 Objectives and research questions

The exploration of the ways certain issues enter, emerge, and are transformed within particular settings, is crucial in the study of policy issues (Asdal, 2014). Considering Norway's continued efforts to maintain high activity on the NCS and claim its title as an international climate pioneer, and the growing uncertainties of the future of the petroleum industry in a changing climate, I find it important to analyse the way this paradox is framed. The objective of this thesis is therefore to identify the policy frames on the Norwegian petroleum policies employed in the Long-term Perspective Norwegian Economy from 2001 to 2021.

I will apply a framing analysis, in a qualitative case study approach. The thesis aims to make the policy frames in the Long-term perspectives on the Norwegian Economy from 2001 to 2021 explicit, and thus to make the Norwegian Government's framing of the Norwegian petroleum policies, comprehensible.

The thesis will examine the following research questions:

(1) *What policy frames on the Norwegian petroleum policies can be identified in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021* And (2) *how have these frames diachronically changed?*

1.2 Why study policy frames on the Norwegian petroleum policies in the Long-term Perspectives on the Norwegian Economy?

Previous literature on the discourses and framing of the Norwegian petroleum policies have mainly focused on framings employed by the Norwegian oil industry (Dahl & Fløttum, 2019; Ihlen, 2009) and the state-owned company Statoil (Kapranov, 2018), as well as the discourses employed in party manifestos (Båtstrand, 2014) and in the Norwegian climate and petroleum policies (Skeie, 2018; Slee, 2015).

The Long-term Perspective on the Norwegian Economy is however a government communication that shows the Government's four-year long-term programme assessment of the outlooks of the Norwegian economy, public finances, and the management of the public welfare schemes in a long-term perspective (Ministry of Finance, 2021; Minsitry of Finance, 2019). Although the Long-term Perspective does not include specific policy proposals, the assessments of the outlooks are highly relevant in the different government's general political position, produced by the Norwegian Ministry of Finance (MOF) in cooperation with the other ministries (Minsitry of Finance, 2019). As the Long-term Perspective is a generally economic

view of the future (Teknologirådet, 2014); I consider this to be a crucial policy document in the analysis of the Norwegian Governments' framing of the petroleum policies.

In their report on perceptions on the future from 2014, Teknologirådet found that the Long-term Perspective is a potentially important, but limited document of representations and perceptions of the future, which provides consistency while closing the debate (Teknologirådet, 2014). In his analysis of the 2013 Long-term Perspective, Bjørnstad (2014) finds that the risks of the downsizing of the oil industry, seldom communicated and moderated (found in Teknologirådet 2014). Additionally, he finds that with its focus on public finances, the Long-term Perspective fails to mention crucial risk factors such as the private sectors dependency on the petroleum industry which is prominent in the Norwegian market (Bjørnstad, 2014 found in Teknologirådet 2014).

In this thesis, I wish to contribute to the study of the Norwegian Government's perceptions and representations of the Norwegian petroleum policies. With the examination of what policy frames on the Norwegian petroleum policies that can be identified in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021, I thus seek to contribute to the knowledge debate with the theoretical concepts of policy frames in a systematic and comprehensive diachronic study of the framings of the petroleum policies. Similar studies have not been made for the length of this period. I consider the extended and updated analysis of the Government's perceptions and representations in the Long-term Perspective, in combination with the theoretical framework of policy frames, to be my main contributions.

Although produced by the MOF, I follow the findings of the structural approach to political-administrative relations (Jacobsen, 2006), that the formal structure defines the division between the branches. As the MOF works with issues of high political salience, I assume the relationship to reflect high levels of interaction between the Government and the MOF.

1.3 Structure of the thesis

In *Chapter 2* I present the theoretical framework of the thesis. I start by presenting the conceptual framework with the key concept of the thesis: *policy frames*. Next, I examine central literature on discourse, the role of institutions, and frames in discourse, and theories explaining the choice of policy frames in public policies. Finally, I present a brief examination of the background of the Norwegian petroleum policies.

The research design is presented and discussed in *Chapter 3.* The overall aim of the thesis is to examine the policy frames on the Norwegian petroleum policies that can be identified in the Long-term Perspective on the Norwegian Economy from 2001 to 2021. To answer the research questions, I apply a qualitative case study, looking for qualitative empirical evidence. *Chapter 4* consists of the analyses, which consist of the presentation of the policy frames identified and the concluding summary and discussion of the empirical analysis. *Chapter 6* provides the concluding remarks, and suggestions for future research on the framing of the Norwegian petroleum policies.

2. THEORETICAL FRAMEWORK

In this chapter I present the theoretical framework of the thesis. I start by presenting some key concepts, before reviewing central literature on discourse, the role of institutions, the employment of frames, and the choice of policy frames in public policies, in addition to a brief examination of the background of the Norwegian petroleum policies.

2.1 Conceptual framework

2.1.1 What are policy frames?

"Policy frames" are the frames employed in the formulation of policy issues in policy processes (Schön & Rein, 1994; van Hulst & Yanow, 2016). The concept of policy frames derives from the tradition of *frames* and *frame analysis*, and is widely applied in public policy studies (van Hulst & Yanow, 2016). The notion of the frame can be traced back to Goffman (1974), who defined the concepts in terms of a principle of organization 'which governs the subjective meaning we assign to social events' (Goffman, 1974, 10-11) (Fischer, 2003).

The broader literature on the concepts interprets frames or framing as a dynamic ongoing process, where deliberate and intentional conceptualization of reality in social interaction that actors employ in their communication (Bacchi, 2009; Chaney, 2014; Chong & Druckman, 2007; Falchetti et al., 2022; Goffman, 1974; Haunss, 2007; Nelson & Oxley, 1999; Persson, 2019; van Hulst & Yanow, 2016). Frames influence opinions by validating specific values, facts, problem definitions and causal interpretation of issues (Chaney, 2014; Chong & Druckman, 2007; Goffman, 1974; Nelson & Oxley, 1999; Persson, 2019; van Hulst & Yanow, 2016). Frames are also understood as a strategic activity involving selection and salience (Hänggli & Kriesi, 2010; Ravazzani & Maier, 2017), where the intention is to mobilize support, influence political debate and decision making, and to restrict the possibility of change (Bacchi, 2009; Falchetti et al., 2022). This makes it relevant for legitimacy statements, legitimacy building and the legitimization of actions (Benford & Snow, 2000; Haunss, 2007; Ravazzani & Maier, 2017).

2.2 Discourse, institutions, and the employment of frames

2.2.1 The discourse

In general, discourses can be understood as controlled strategic activities (Otal Campo, 2008), that function epistemically at the cultural level, shaping the basic organizing structures of social action (Fischer, 2003). Approaches of discourse analysis is concerned with all these structures, as an analysis of language, cognition, interaction, society, and culture (Dijk, 1985). As an inquiry of communication and meaning-making in context, discourse analyses has the goal of describing and understanding the process of meaning-making, the conveying, and the interpretation of meaning (Jacobs & Tschötschel, 2019).

Habermas (1962) defines 'the public discourse' as the collection of voices on the public issues of economy, law, education, and politics, and other areas central to the public interest (Cap, 2017). In the Foucaultian tradition, discourses are understood as the formative or constitutive power, which create the fundament of the social definitions, meanings, and interactions in socio-cultural systems (Dryzek, 2013; Fischer, 2003). Built on and from semantics and pragmatics (Otal Campo, 2008), discourses define particular sets of linguistic categories relating to objects and the ways of depicting them, and frame the way in which we understand them (Bryman, 2016). As such, they enable the interpretation of bits of information into coherent stories and construct the meanings and relationships which help define common sense (Dryzek, 2013). The legitimization of knowledge are embedded in the assumptions, judgements and contentions in the discourse that provide the terms within which analyses, debates, agreements, and disagreements are led (Dryzek, 2013). As such, discourses can both enable and constrain communication (Dryzek, 2013). Through the repetition of these discourses, that are taken for granted intentionally or unintentionally, actors often reveal themselves (Fischer, 2003).

2.2.1.1 Gramsci's hegemony

Although not interchangeable to ideologies, discourses are embedded in the basic societal structures that ideologies represent (Fischer, 2003). As such, ideologies provide people with different social identities (Fischer, 2003). Gramsci introduced the 'hegemony' concept an as an understanding of how diverse ideologies are implicit in the way discursive practices are employed. Gramsci understood hegemony as the economic, ideological, cultural, and political domination of one economic class, operating in political alliance with societal forces across the political, cultural and civil structures of society (Fischer, 2003; Jessop, 2017). Gramsci defines

the hegemony is an unstable equilibrium, which requires political leadership to sustain it, not only through domination but through integration of non-dominant classes (Fischer, 2003).

2.2.1.2 Fairclough's discursive events and interdiscursivity

Fairclough (1992) defines a 'discursive event' as a text, a discursive practice, or a social practice all in one (Fischer, 2003). The text dimension concerns the language interpretation of the text, which has been the main approach to discourse by linguistics. In literary approaches, the analysis of discursive practises includes the analysis of what discourses are employed and prioritised in specific contexts, especially in policy making – and which are excluded. The social practice dimensions includes how the institutional and organizational circumstances of the discursive event shape discursive practices (Fischer, 2003). Fairclough introduced the concept of '*interdiscursivity'* as the relations between the relative permanence and stability of discourse orders in texts (Fairclough, 2013). This concept is related to the concept of 'intertextuality', as the connection between texts, within critical discourse studies (Fairclough, 2013). Building on Gramsci's concept, Fairclough explains how the hegemonic struggle to balance the hegemonic equilibrium operates across the institutions of civil society, with possible asymmetry between the different levels and domains (Fischer, 2003).

2.2.1.3 The political discourse and manipulation

Within discourse studies, the political discourse analysis (PDA) defines the 'political discourse', as the collection of meanings and texts used by politicians (Dunmire, 2012). These discourses are the structures that maintain, abuse, or resist power in political issues (Dunmire, 2012). Van Dijk (2006) explains how political actors exercise their political power through the public discourse, using 'manipulation'. Manipulative discourses are dominated by political, bureaucratic, media, academic, or corporate elites, in political persuasion and abuses of power (van Dijk, 2006). As manipulation in discourse involves domination, it is also assumed to be ideological. Discursive strategies will however not be only manipulative. It manifests in contextual categories, such as emphasis on: 'position, power, authority or moral superiority of the speaker and their sources' (Van Dijk, 2006, 376) or the lack of these qualities of recipients; 'new beliefs that the manipulator wants the recipients to accept as knowledge' (van Dijk, 2006, 376) accompanied by 'arguments and proofs' (van Dijk, 2006, 376) that make these more acceptable; the discrediting of 'alternative sources and beliefs' (van Dijk, 2006, 376); and, 'appeal to relevant ideologies, attitudes, or emotions of recipients' (van Dijk, 2006, 376) (van Dijk, 2006).

2.2.1.4 Discourse co-optation

In connecting the two domains of discourse processing; the form and meaning of sentences and their parts, and the organization of discourse and the relationship between texts; 'discourse co-optation', describes the incorporation of elements from threatening discourses into dominant discourses (Heine et al., 2017). As first described by Selznick (1949) to describe the relationship between authorities and grass-root organizations (Jensen, 2012), co-optation is understood as a 'cognitive-communicative' discourse strategy (Heine et al., 2017), utilized by leaderships and governments, to disarm threats and stabilize the discourse in policy determining organizations and administration (Jensen, 2012). Heine et al. (2017) explains how the semantic and syntactic functions of the co-optation strategy makes it dynamic in nature, enabling it for use at any time for actors who want to (re)structure their 'discourse contributions' (Heine et al., 2017, 814). According to Jensen (2012) all co-optations might purely rational or intentional. However, in incorporating – or rather appropriating – the meanings of oppositional groups into institutions, they are disarmed. The outcome: the neutralization of the meanings challenging the dominant discourse, and the re-establishing of legitimacy, authority, and political support (Jensen, 2012).

2.2.2 The role of institutions

In discourse analyses of politics, the assumption is that discourses are embedded in and distributed across institutions (Fischer, 2003). Foucault's approach to contemporary social events, generally assumes institutions, discourses, and practices as central (Keller, 2017). For Foucault, institutional discourses, different from those of single speakers, are influenced by the institutional practices – the rules and orders – of discourses (Keller, 2017). In what Habermas describes as the deliberative turn, both individual and collective actions in democracies are understood as being based on the intersubjective processes of reflection, justification, and deliberation, where the legitimacy of institutions are based on their ability to regulate behavioural and ideological references in society (Susen, 2017).

Fairclough explains how the social practices of discursive events, often concerning the assumptions underlying policy institutions, is of special interest to social scientists (Fischer, 2003). He argues that the discursive constitution of society are embedded in social and ideological structures and conventions that naturalize, sustain, and change the specific understandings (Fischer, 2003; Forchtner & Wodak, 2017). As such, discourses in politics is not simply an activity, but also a stake in the struggle between dominant and competing discourses for political recognition and power (Fischer, 2003).

In a social-interactive approach to discourse, Hajer (1995) provides an understanding of how the discourse is consistently practiced by social actors, who take active part in choosing, shaping, and fashioning their position in the struggle against other positions (Fischer, 2003). Certain conceptualizations may 'homogenize' problems by utilizing certain defined social frames. In other cases, such conceptualizations may lead to the 'heterogenization' of the problems, opening for action changes. These conceptualizations reveal what institutional practices are open to change. At such, it can also unveil whether a policy domain is dominated by a discursive hegemony. Hajer's interactive approach explains that at the macro level, political and economic elites construct and reconstruct a hegemonic discourse defining what makes it on the agenda, and what does not (Fischer, 2003). At the micro level, the relationship between discourse and specific institutional practices are under scrutiny. Following the Foucaultian tradition, these processes are understood as the institutional practices recreating power relationships, from the bottom up. In this equation, professional knowledge and expertise, based on specific ideas and knowledge, has the ability to stabilize the discourse alone, fixing society (Fischer, 2003).

The neo-institutional approach to discourse studies understands that the discursive practices of institutions shape the behaviour of those who shape political action. In this view, institutions are understood as setting the stage of political action through the structuring and shaping of the political and social interpretations of political problems (Fischer, 2003). A fundamental task therefore lies in explaining the relationship between policy stability and change; the causal factor of the effects of political institutions and interests in public policy (Fischer, 2003).

According to Hanberger (2003), established institutions shape the structures and restricts change of public policies and the evolvement of dominant discourses (Hanberger, 2003). In accordance, the social-interactive approach to discourse studies emphasize how institutional practices represent the reality of policymaking, which sets 'the argumentative field' where statements are made in the policy process (Fischer, 2003). The institutional contexts and practices particular to the relevant cases are therefore considered crucial to understanding utterances within specific contexts and cases (Fischer, 2003). Hajer argues that the analysis that institutional contexts should be examined in an 'institutional constructivist' approach, unveiling what institutional practices do indeed facilitate policy changes (Fischer, 2003).

2.2.3 Frames in discourse

With origins in the disciplines of psychoanalysis, linguistics, hermeneutics, and post-Marxist theories, the inquiry of signifiers, representations, and concepts in discourse and political dominance have been under scrutiny from theorists such as Lacan (Stavrakakis, 2017), Laclau (Stavrakakis, 2017), and Koselleck (Ifversen, 2017). Within the disciplines of discourse and communication, organizational studies, framing, and political communication, similar inquiries have been made on the concept of metaphor as rhetorical strategy in constructing perceptions of legitimacy (Hart, 2008; Näsänen, 2017); narratives and stories as linguistic resources in constructing legitimacy (Housley, 2000; Landau et al., 2014); the effect of frame on public opinion (Chong & Druckman, 2007), and the employment frames of time and space (Crilly, 2017).

Frame theory has its origins in Bateson's (1972) anthropological studies of the playfighting of otters – following the model of real fighting as the foundation for the activity (Goffman, 1974). Following the tradition of James (1869), on the inquiry of under what circumstances things are perceived as real, Goffman (1974) argued how a 'definition of a situation' is almost always present, even when the actors involved have not created this definition (Goffman, 1974). In his conceptualization of frames, Goffman argued that as frames hold different interpretations of acts, frames are contexts which could be entirely different, depending on what is included in the frame (Persson, 2019). In Goffmans frame theory, each frame is understood as incorporating 'keying' – as a basic way to transform activities, and 'fabrication' as the intent of creating a false reality of what is going on. The 'rekeyings' of these frames, are the transformations, where new 'layers of lamination' are added to the activity (Goffman, 1974).

Goffman understood there to be two main types of frames: *'natural primary frameworks'* and *'social primary frameworks'* (Persson, 2019). In his conceptualization, the natural primary frameworks are the acts seen or portrayed as purely physical or natural conceptualizations, that cannot and have not been influenced by human actors. The social primary frameworks are the frames controlled by people: laws; rules; norms; habits; power; culture; institutions; and organizations. They are however not controlled by people in the contemporary discourse, rather, they are controlled by previous generations. The control is therefore temporarily dislocated. Here, Goffman elaborates on how time is used as an important ingredient of framing, where time has become an institution, that controls and restricts action (Persson, 2019).

In his social-interpretive approach to discourse studies, Yanow (1993) describes how framing of public policies involves focusing on some frames – while excluding others (Fischer, 2003). Frames provide room for specific knowledge, arguments, and acts. Frames are also a part of a 'frame conflict' between the different groups in society (Fischer, 2003). Yanow's emphasis of the exclusion and inclusion of frames are further emphasized as the distribution of responsibility and causality in the argumentative turn in discourse studies (Fischer, 2003). The argumentative approach further explains how the very definition of a policy issue is based on uncertainty. Therefore, the solving of policy issues have certain restrictions, that will also be sought to be changed (Fischer, 2003).

The argumentative approach explains how this discursive role is especially explicit when policy analysists play the role of policy advocates (Fischer, 2003). Here, the policy analysists are not only asked to base their advocacy judgements on principles of efficiency, but to define the objective of these policies. The political legitimization reached by the definition of the problem, must receive continual attention, as well as new arguments having to be brought together with an internal coherence as sufficiently as possible, to construct and reconstruct policy issues. Solutions will therefore always be based on these problem definitions, making policy arguments an integral part of power being exercised. Political problems and the following strategies are therefore always the result of particular problem framings (Fischer, 2003).

2.3 Explaining the choice of policy frames in public policies

2.3.1 Schön and Rein's policy frames

Frame analysis in public policy studies often build on the concepts introduced by Schön and Rein in 1994 (van Hulst & Yanow, 2016). Schön and Rein distinguish between two types of policy frames: *rhetorical frames* and *action frames* (Schön & Rein, 1994). Rhetorical frames are employed by parties in policy debates, where the frames serve the rhetorical functions of *persuasion, justification,* and *symbolic display*. The action frames are employed in policy practice, shaping *laws*, *regulations, allocation decisions*, and *patterns of behaviour*. As such, the action frames determine what policies become policy actions. According to Schön and Rein, the two types of policy frames are often employed simultaneously, although they differ in the way they are employed (Schön & Rein, 1994).

Schön and Rein further distinguish between three levels of action frames, depending on the level on which the frames operate: *policy frames*, *institutional frames*, and *institutional action frames* (Schön & Rein, 1994). Policy frames are the frames employed by institutional actors

when constructing a problem for specific policy situations. Institutional frames are more generic action frames, utilized by institutional actors in a wider range of policy situations. The institutional action frames are the hybrid forms of action frames, consisting of *families of related frames* (Schön & Rein, 1994).

Schön and Rein argues that the policies employed by institutional actors in the shaping of policies are usually *tactic* (Schön & Rein, 1994). These tactic frames are the ones employed when presenting explicit policy positions. Policy frames are embedded in the *'taken for granted world'* of policy making – and one is often unaware of role in the organization of actions, thoughts, and perceptions. According to Schön and Rein, a sophisticated frame construction should therefore be aware of the differences between *central and local policies, potential and actual changes of frame, the rhetorical implicit in espoused policies and the action frames explicit in policy-use, formal policies and the policies implicit in the practices of street level bureaucrats*, as well as *visible shifts of policy and the cumulative effects of small changes of policy made in response to changing situations* (Schön & Rein, 1994).

2.3.2 Van Hulst and Yanow: policy analytic framing

Van Hulst and Yanow (2016) develop the idea of *policy analytic framing*. Building on Schön and Reins policy frames, they argue that this is a more process-oriented and politically sensitive understanding of the concept (van Hulst & Yanow, 2016). They argue that framing is a process *sense-making*, constructing meanings in policy relevant situations. The process of policy framing is a process of *selecting*, *naming* and *categorizing*, as well as *selecting* and *categorizing* in the formulation of policy issues in policy processes, understood as a political act in itself (van Hulst & Yanow, 2016).

First, the phrases used in policy making selects a certain set of possible features (van Hulst & Yanow, 2016). The features are selected from a range of possible features, that from the perspective of the speaker is important. Second, it names and categorizes the features. When policy makers use these elements, the selected features are drawn together in a *pattern*, where some things are regarded as relevant, and others are not. In this way, the policy discourse silences other ways of seeing the problems and ensues action in a certain way. Framing analysis enables the analysis of how certain features in a policy discourse lets us know the possibilities for future action, and how the relevant political actors intersubjectively, and interactively construct the socio-political world they act within (van Hulst & Yanow, 2016).

In addition, framing analysis emphasizes *storytelling* in the political discourse (van Hulst & Yanow, 2016). Framing through storytelling is understood as what manifests discursive power. The storytelling is used for the purpose of persuasion, where a deception of what is reality is produced and reproduced, as a story that *'rings true'* to the listeners. Storylines enable the political actors to engage in action within these terms. It is the analysis of the specific policy frames in storytelling that can uncover the ways in which highlighting and blind sighting is taking place in intractable political situations. Such analysis can ideally lead to reframing and resolution (van Hulst & Yanow, 2016).

Van Hulst and Yanow emphasize how the policy process itself can gain or lose credibility during and as a result of the use of framing in moments of the policy making process (van Hulst & Yanow, 2016). In times of crisis and situations beyond the 'stable state', actors might fight to keep the status quo of their frames in the discourse, when proposed changes to their definitions of the political situations threaten their sense-making of reality. The political dimension of the framing analysis enables the analysis of policy formulation as dynamic processes, in which the developing and defending of certain framings of an issue take place. Framing is about the politics of who gets *what*, *when,* and *how*, in addition to the politics of who we are or perceive ourselves to be. As such, the call for any form of reframing within the political discourse, needs to be aware of the power-barriers that are manifested within these framing-related identities (van Hulst & Yanow, 2016).

2.4 The Norwegian Case: stable petroleum policies through a changing climate

The Norwegian economy is highly dependent on the petroleum industry (Ihlen, 2009). As such, the Norwegian petroleum policies have had a great impact on the high share of government revenues, industrial activity, and public welfare (Lahn, 2019).

Ryggvik (2015) describes how the Norwegian petroleum policies are supported by strong political initiatives and the central role of state (Ryggvik, 2015). The national consensus and first priority of the Norwegian state was to secure Norwegian interests through national control of the oil industry, its resources and revenues (Lahn, 2019; Sæther, 2017). The Norwegian Model was built around the institutional setup between the Ministry of Petroleum and Energy (MPE), the Norwegian Petroleum Directorate (NPD), and the state owned oil company Statoil (Equinor from 2018) (Lahn, 2019). During the 1970s, a licensing system and a taxation system was established. This was to ensure state control of the extraction on the NCS, and that the state received a large part of the revenues from the petroleum sector. In addition, the State's Direct

Financial Interest (SDFI) was established in 1985, as a system for the management of the state's direct involvement on the Norwegian continental shelf (NCS) (Lahn, 2019).

The growth of the petroleum industry has also raised several concerns concerning the role the revenues from the sector would play in the Norwegian economy (Eriksen, 2014). As a result of the experience of an overheating of the economy led by the petroleum activates in the 1980s (Bjørnland, 1998), as well as the difficulties to keep the caps on the extraction levels in the NDC as was first planned (Lahn, 2019), the idea of the establishment of a 'buffer fund' that could meet the difficulties of keeping both production and investments stable, was introduced (Lahn, 2019). This endeavour was started early on by the MOF (Eriksen, 2014), and the Norwegian Government Pension Fund (GPFG), was established in 1990 (Lie, 2018). Since the implementation of the fiscal rule in 2001, the GPFG and the fiscal rule has managed the phasing in of the petroleum revenues and the investment returns from the GPFG into the Norwegian economy (Ministry of Finance, 2022). Together, the two mechanisms have created a stable and predictive use of the petroleum revenues (Eriksen, 2014). This has also facilitated a significant increase in extraction rates (Boasson & Lahn, 2017; Sæther, 2017).

Statoil was partly privatized and registered in the stock market of by parliament resolution in 2001 (Møte i Stortinget 26.04.2001 sak nr. 2). From 2005 to 2008, Norwegian oil and gas revenues reaching its highest levels (Fjærli, 2019), and in 2012 the Norwegian Oil Fund taking over as the most profitable income for the Norwegian state in 2012 (Fjærli, 2019). In 2018, the partly state owned oil and gas company Statoil was renamed to Equinor (Lahn, 2019; Sæther, 2017).

Since the opening of the first field on the NDC in 1971, 119 fields have been developed and operated on the NDC (Norwegian Petroleum, 2022a). In 2021, 91 fields were still in production, 71 of which are in the North Sea, 21 in the Norwegian Sea, and 2 in the Barents Sea (Norwegian Petroleum, 2022a). According to the MPE, only half the petroleum resources on the NDC have been extracted till now (Norwegian Petroleum, 2022c). Norwegian oil exports cover around two percent of the world's crude oil demand (Norsk Petroleum, 2022a). Norwegian natural gas exports cover around 3 percent of the total natural gas demand, but as a gas exporter – Norway is a significant actor. As the third largest exporter of natural gas in the world, only beaten by Russia and Qatar, Norway supplies the European Union (EU) with between 20 and 25 percent of the EU total consumption of gas (Norsk Petroleum, 2022a).

The main issues of the Norwegian petroleum policies discussed in the literature, are the extraction rates and the licensing system, the 'neutrality' aim of the petroleum tax system, and the division of the petroleum and climate policies and the EU-ETS quota system letting the petroleum industry off the hook of the emission reductions. Additionally, there have been raised concerns about the dependency of the Norwegian economy on fossil fuels.

Lahn (2019) describes how the emphasis on the need for continuity and stability in the Norwegian petroleum policies and the awarding of new licenses, is seen by both larger political parties and the management of the government as the number one incentive or keeping the extraction rates on the NDC high (Lahn, 2019). After the 2003 introduction of the APA licenses of new blocks in areas that have been operative in many years (Norwegian Petroleum, 2022b), Norway witnessed a rapid increase in the number of licenses awarded (Lahn, 2019). According to Lahn (2019), this can be seen as a result of the continued efforts of the MPE and the NPD to increase the exploration in mature areas to recover remaining resources, in combination with the oil price drop in 2013, and the need to increase industry activity in the following downturn in the economy (Lahn, 2019).

According to Bang and Lahn (2019) and Lahn (2019), the Norwegian government carries a large share of the financial risk in the petroleum tax system, but also captures a large part of the profits in the petroleum sector (Lahn, 2019). However, the current industry tax rate of 78% (combining the special petroleum tax (SPT) and the General Corporate Income Tax (CIT)), and the tax is 'mirrored' by a 78 return on investments. This means that the Norwegian public has paid for 78% of *all* industry investments (Bang & Lahn, 2020; Lahn, 2019).

Bang and Lahn (2019) and Lahn (2019) describes how Norwegian policy institutionalized the division of climate and petroleum policies into two different domains, to solve the conundrum of meeting both climate emission goals and keeping the licensing activity on the Norwegian Continental Shelf at a high pace (Bang & Lahn, 2020; Lahn, 2019). According to Sæther (2017), as the emissions from the petroleum industry falls under the first category of the ETS system, and as Norway doesn't have any specific emission goals for the this sector, the petroleum industry is practically left untouched as the industry only uses the quota system (Sæther, 2017).

Bjørnstad (2014) describes how the Norwegian economy's high dependency on the petroleum industry is especially present in the private economy, and that a rapid fall of the petroleum industry will have significant consequences for public finances (Bjørnstad, 2014 found in Teknologirådet 2014). Bang and Lahn (2019) emphasizes this has been increasingly criticised

by advocacy coalitions pointing to the climate and economic risks of future oil production. Although the economic risk strand of the argument have received more attention than the climate risks, neither have materialised in the petroleum policies (Bang & Lahn, 2020).

3. DATA AND METHODS

In this chapter, I discuss the research design adopted in the thesis, present the data collection and data analysis, and the reflections and limitations of the qualitative case study. To answer the research questions in the thesis, I have applied a qualitative case study approach.

The first part is a presentation of the qualitative case study approach. In the second part, while discussing the use of policy documents as a source of information, the range of the data, and the process of data collection and analysis. Finally, I discuss possible limitations of my qualitative case study design.

3.1 The qualitative case study

A case study is the intensive examination of the research issues, theory, and/or empirical inquiry of a specific case, delimited to a specific location, community, or organization (Bryman, 2016; Woodside, 2017). The goal is to illuminate the specific nature and complexities of the case in question, which can include the historical background, the physical setting, and the economic, political, legal, and aesthetic context (Bryman, 2016). A case study can seek both what is particular and what is uncommon about a case, although the latter is more typical. It can also encompass other cases which sheds light on the complexities of the case in question (Stake, 2000).

Case studies are appropriate research designs for both qualitative and quantitative research designs (Stake, 2000; Woodside, 2017). Although not deterministic in their designs (Bryman, 2016), the different methodological approaches come with different assumptions, and they contribute different insights (Curry, 2017). Quantitative research is associated with a positivist approach to reality using deductive approaches with problem focus and hypothesis testing emphasizing validity, reliability, replicability, objectivity, and falsification of the research (Bryman, 2016; Curry, 2017). Qualitative research is associated with interpretative approaches to reality (Bryman, 2016). Drawing on social constructivism, as the understanding that the world is constructed through interaction and communication over time, the inductive approach of qualitative research aims to enable a better understanding of social constructions (Bryman, 2016; Curry, 2017). In quantitative research, the influence of different variables and a specific outcome is analysed with the aim of generalizing (Bryman, 2016). In qualitative research, the aim is to gain deeper explanatory insights of why something is happening (Bryman, 2016).

Both qualitative and quantitative approaches have benefits; in the rigorous standard practices, and limitations; in the human effects in the process of data collection, measures, coding, inclusion and exclusion, and in the interpretation of the findings (Curry, 2017).

My methodological choices were based on the aim of the study. The first part of my research question is qualitative in its nature, (1) *What policy frames on the Norwegian petroleum policies can be identified in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021*? This requires me to gain deeper insights in the identification of the policy frames on the Norwegian petroleum policies.

The second part of my research question (2) *how have these frames diachronically changed?* accounts for the temporal structure of my study design, as the study of change in the policy frames over time; and stands in contrast to a synchronic study design, as the study of phenomena in singular moments (Widdersheim, 2018). This part of the study requires the study of the transformation of the frames, and answers to what is referred to as 'reframing' (van Hulst & Yanow, 2016) in the policy frame literature. This is a structure that can be analysed utilizing both the qualitative and the quantitative research designs. However, as Curry (2017) argues, topics of elite behaviour in institutions are nor explicit nor quantifiable, and can therefore be difficult to uncover using only quantitative data (Curry, 2017). Longitudinal qualitative research focuses on experience over time, with change being the key focus of the analysis (Sheard & Marsh, 2019). I therefore considered that the aim of this research question required the methodological insights of the qualitative methods.

In line with qualitative methods, this qualitative case study is applied with the ontological approach of social constructivism, and the epistemological approach of interpretivism; with the aim of uncovering the subjective meanings of the Long-term Perspectives on the Norwegian Economy published by the Ministry of Finance from 2001 to 2021. I applied the research design of *a longitudinal case study design*, which enables the case to be studied of two or more junctures over time (Bryman, 2016), and is aimed at diachronic analysis (Sandelowski, 1999). As the interest is not in the generalizability to other contexts, the case study applied is an *intrinsic case*, which enables the study of the chosen case for its own significance (Stake, 2000).

3.2 Policy documents as a source of information

The texts analysed in this thesis are policy papers on the one Long-term programme and five Long-term Perspectives and on the Norwegian Economy published in the twenty-year period from 2001 to 2021. For the sake of consistency and clarity, the Long-term programme of 2001 is translated to a Long-term Perspective when analysed and discussed. The choice of documents were guided by the four rigorous criteria for assessing the quality of documents as presented by Scott (1990): 'authenticity', whether the evidence is genuine and unquestionable of origin; 'credibility', whether the evidence is free of error and distortion; 'representativeness', whether the evidence is typical for its kind or not; and 'meaning', whether the evidence is clear and comprehensible (Bryman, 2016).

I regard the documents as authentic, as they are published by the Norwegian Ministry of Finance, and retrieved from the Norwegian Government's own homepage archives, which holds all the Long-term Perspectives from 2004 to 2021, and the 2001 Long-term Programme. I regard the documents as representative, as they are significant policy papers that give the Government's 'considerations of the main challenges for the Norwegian economy, public finances, and the continuation of the welfare benefits in a long-term perspective' (Ministry of Finance, 2021). Finally, I regard the documents as holding clear and comprehensible meanings within the text, I therefore considered the documents to be a strong basis for analysing policy frames of the Norwegian petroleum policies in the Long-term perspectives.

The credibility of official documents are a topic of discussion (Bryman, 2016). Given their official status of, there is a possibility of decreased credibility as the material may be biased and the representativeness of the documents may be low. Following Bryman (2016) I do however consider these aspects as something that makes these documents interesting in their own right. I therefore choose to consider them as strong data for testing my theory.

Policy documents are among the many government communications, in form of text, talk, and images, that are produced and published by governments on a regular basis (Hansson, 2017). According to Hansson (2017) government communications often employ the three co-appearing strategic functions of coercion, (de)legitimization, and (mis)representation. Following Hansson, I presume that government communications hold language that is used strategically to 'manage the interest of the speaker' (Hansson, 2017, 326).

Additionally, I base my choice of policy documents on the definitions of the 'Central Governments communication Policy' of the 16th of October 2009. Here it is stated that the

government communication shall be ‘open, clear and accessible’, ‘involve citizens in their formulation of policies and services’, ‘see to that relevant information reaches everyone concerned’, ‘actively and in due time inform about rights, obligations, and opportunities’, and ‘be perceived as comprehensive and coordinated’ (Ministry of Local Government and Regional Development, 2009, 8). Additionally, ‘the communication responsibility accompanies the case responsibility’ (Ministry of Local Government and Regional Development, 2009, 8). The government’s communication is to be used as a strategic instrument. As with other policy instruments, the government communication is a tool for the government in reaching their objectives. (Ministry of Government Administration, 2009). I thus expect the communications by the Ministry of Finance in the Long-term Perspectives of the Norwegian Economy to serve as strategic policy instruments in reaching the government’s policies. Based on this assumption, I regard the chosen documents as highly relevant for the inquiry of my research questions.

3.3 Range of data

Although an intrinsic case study is most often selected in advance, the selection of what to study within the case are important subsequent choices (Stake, 2000). I chose to collect the Long-term Perspectives on the Norwegian Economy from 2001 to 2021. This defined a sampling frame of 20 years, enabling me to identify policy frames, as well as do inferences on the development of these frames in time.

I used the Government and Parliament records of the Long-term Programme and Long-term Perspectives on the Norwegian Economy to collect the relevant documents within the sample frame, resulting in a sample size and dataset of six documents (*N=6*): *St. meld. nr. 30 (2000-2001) Langtidsprogrammet 2002-2005*; *St. meld. nr. 8 (2004-2005) Perspektivmeldingen 2004 – utfordringer og valgmuligheter for norsk økonomi*; *St. meld. nr. 9 (2008-2009) Perspektivmeldingen 2009*; *Meld. St. 12 (2012-2013) Perspektivmeldingen 2013*; *Meld. St. 29 (2016-2017) Perspektivmeldingen 2017*; and *Meld. St. 14 (2020-2021) Perspektivmeldingen 2021*.

The chosen time frame is especially interesting as it incorporates the Norwegian Government’s ‘considerations of the main challenges for the Norwegian economy, public finances, and the continuation of the welfare benefits in a long-term perspective’ (Ministry of Finance, 2021), in a twenty year period that has included: the implementation of the fiscal rule in the Norwegian mode in 2001 (Lahn, 2019), the partly privatization and registration in the stock market of the till then fully state-owned Norwegian petroleum company Statoil by parliament resolution in

2001 (Møte i Stortinget 26.04.2001 sak nr. 2), Norwegian oil and gas revenues reaching its highest levels from 2005 to 2008 (Fjærli, 2019), the Norwegian Oil Fund taking over as the most profitable income for the Norwegian state in 2012 (Fjærli, 2019), as well as the renaming of the party state owned oil and gas company Statoil to Equinor in 2018 (Lahn, 2019; Sæther, 2017).

Additionally, climate change gained attention on the political agenda from the early 2000's (Gullberg & Aardal, 2018), with increased momentum from 2003 to 2011 (Aasen, 2017), the Kyoto Protocol entering into force on the 16th of February 2000 (Ministry of Climate and Environment, 2006), and Norway's commitment to the Paris Agreement of 2015 with confirmed commitment from 2020 (Randen & Tønset, 2020).

Although the aim of the thesis is not to make inferences on the correlational or causal relationships between these external shock events and the policy frames on the Norwegian petroleum policies in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021, these are events that influenced my choice of time frame.

3.4 Data collection and analysis

The main purpose of qualitative case study research designs, is the description of the attributes of 'bounded' systems (O'Dwyer & Bernauer, 2014). According to Stake (200) at the beginning a case study, the researcher will most often have certain knowledge of what elements within the case – events, problems, and relationships – that are important to the case. They will however often discover that some of these elements are of more or less importance than expected (Stake, 2000).

As the critical issues of an intrinsic case is often known to the researcher prior to the study, intrinsic case studies enable researchers to unveil how their concerns are manifested in the case (Stake, 2000). As such, prior knowledge of these issues, combined with disciplinary expectations, can provide the researcher with existing instruments and coding schemes (Stake, 2000). As the case study was intrinsic in nature, as well as having a qualitative research design, I was concerned with the *thick description* (Stake, 2000) of the details in the case (Bryman, 2016).

The study was conducted using generic purposive sampling (Bryman, 2016). The generic purposive sampling approach allowed for the analysis to be conducted purposively, with pre-defined criteria in reference to the research questions – without the intent of generating theory

or theoretical categories. This is a flexible approach, as it allows for both sequential and fixed sampling, and the selection of cases or contexts with a priory or contingent selection of cases – or both. The contexts are chosen based on what is needed to address the research questions and the identification of appropriate cases. It also includes a secondary sampling from the identified contexts (Bryman, 2016).

I conducted the coding in NVivo, which efficiently reduced the issue of marginalised codes, and having to gather all text bits when gathering codes (Bryman, 2016). NVivo allows for coding using *nodes*, where a collection of theme or area of interest can be gathered, with the attached text bits (Bryman, 2016). I conducted my coding purposively to the categories in the research questions. The initial phase of the analysis was primarily data driven but based on finding meanings that would enable me to answer the research questions.

Initially, the analysis of the Long-term perspectives were based on a very specific but broad coding frame of the three words of 'petroleum', 'oil', and 'gas'. I utilized this specific coding frame to allow for a data-driven approach to the generating of categories and themes. I analysed the first of the six documents, the Long-term perspective from 2001, using this coding frame. In the following analysis of documents, the approach was less data driven, as the analysis of the first document had already uncovered categories that answered to the research questions. The following analyses of the five remaining documents were therefore increasingly based on the generic purposive approach.

When I had coded all the text bits that was revealed through the initial coding frame using nodes on all six documents, I started to generate general conceptual categories for the nodes that fit under the same theme. These were categories that would fit the research questions. As I was looking for the specificities of the case, as well as diachronic change, I generated separate categories for each of the documents (see appendix 3).

When I had generated the conceptual categories for each of the documents separately, I extracted all the categories with their respective nodes for each of the six documents and put them together to analyse the overarching themes. I selected the thematic categories based on the criteria of the selection, naming, and categorization of the policy issue – of what would constitute a policy frame. This part of the analysis was the direct inquiry of the research questions, examining the policy frames on the Norwegian petroleum policies from 2001 to 2021. The findings of the empirical analysis will be presented in the following chapter on the analysis and the concluding summary and discussion of the empirical analysis.

3.5 Reflections and limitations of the qualitative case study

3.5.1 External validity and generalizability of the case study, and the trustworthiness of the qualitative approach

In the assessment of the quality of case studies designs, *external validity* (the generalizability of the measure), and *generalizability* of cases is based on the type of case chosen (Bryman, 2016). As I have chosen an intrinsic case study design, these criteria do not apply. Additionally, these criteria don't typically apply to qualitative research (Curry, 2017).

Based on the alternative to the criteria of reliability and validity by Guba (1985) and Guba and Lincoln (1994), the main methodological challenges regarding the *trustworthiness* of this study, is the quality criteria of *credibility* and *confirmability* of the research (Bryman, 2016). Credibility concerns the conduction of good practice and believable findings. Confirmability concerns the objectivity of the research, and is based on the researcher acting in good faith, with no personal bias (Bryman, 2016). To assure the quality of my research, I have therefore aimed at letting the research questions guide my research, rather than my personal perceptions. I have also aimed at leading a transparent research process, showing what I have thought in the main step of the research process and how I arrived at my conclusions. This is an important endeavour, as it is often considered to be lacking in qualitative data analyses (Bryman, 2016).

The case study design applied is intrinsic, which by principle does not assume the need for transferability to other cases. I do however consider this criterion to be central for the overall trustworthiness of my study. I have therefore conducted the research to the best of my ability after the *transferability* criteria of trustworthiness, which parallels external validity, and is acquired through generating of a 'database' for possible transferable cases through *thick description* as the rich accounts of details in the analysis (Bryman, 2016).

The main methodological challenges to case study design, are the issues of collecting too large samples, failing to uncover reported conversations, behaviours, and events, and too small samples, failing to collect the data necessary for gaining deeper understandings of the case (Woodside, 2017). To ensure an accurate sample size, I have chosen sample based on the research questions – looking for frames, and their diachronic change within the longitudinal research design. As such, I consider the sample size to be accurate to the aim of the study, aiming at being able to report on the relevant recorded events, as well as deeper understandings of the case.

Another aspect important to the quality of this case study, is that if the case is significantly different to other similar cases, it can be relevant for generalization (Stake, 2000). It is however when the researcher gets committed to the purpose of generalizing, and forgets the specificities of the case in question, that damage occurs (Stake, 2000). I must therefore account for this throughout the research, so as not to make inferences that are not there, although it might be tempting to do so.

3.5.2 Ethical considerations

The case study is to be applied with a descriptive narrative, to enable the readers to draw their own conclusions, which may be different from that of the researcher (Stake, 2000). As Stake (2000) argues, the qualitative case study design therefore requires the 'disciplining of personal and particularized experiences' (449).

Using thick description, as well as references to the procedures and coding frames and categories developed in the analysis of the data, I hope to make the study transparent, so that it can be assessed under scrutiny for any limitations within the design, and the conduction of the analysis. In applying a qualitative approach, I do however recognise that the researcher cannot be detached from the meaning-making that they themselves contribute to the research (Bryman, 2016).

The study in this thesis is guided by the research questions, which already hold assumptions both from me personally, based on my values and experiences, as well as the theoretical assumptions of policy frames. I am a student in Norway, from Norway, and of environmental studies. I will therefore carry the values of these influences with me into this study. This is therefore a core ethical challenge for me as a researcher.

Although I have conduced my research to the best of my ability, there will be a possibility of *confirmation bias* in the picking of sample. This can lead to errors in the interpretation, or manipulation of data (Bryman, 2016). It is an issue that must be accounted for throughout the stages of the research process, as it is essential for the overall integrity of research (Bryman, 2016). In order to avoid this, I follow the proposal of Locke (2007), to achieve this by using no more data than is available to me, using it correctly, and informing my readers of exactly what I did in every part of the process (Locke et al., 2007).

Based on these ethical challenges, I aim to ensure self-reflective research, based on the 'consciously laden research' approach as my ethical yardstick. Based on these premises, the

research is considered never to be ‘value free’ but should instead be based on a ‘conscious partiality’, through the ‘partial identification with the research objects’ (Mies, 1993, 68, in Bryman, 2016).

4. ANALYSIS

In this chapter, I present the empirical analysis. The first part of the chapter is the qualitative analysis, mapping the policy frames on the Norwegian petroleum policies in the Long-term Perspectives on the Norwegian Economy. In the second part, I present the concluding summary of the empirical analysis, with the aim of providing a conclusive answer to the two research questions of the thesis:

(1) *What policy frames on the Norwegian petroleum policies can be identified in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021* And (2) *how have these frames diachronically changed?*

I found several policy frames on the Norwegian petroleum policies within my data selection. The nine policy frames identified are listed below:

1. The 'growth, welfare, and synergies' frame
2. The 'gas is the better fossil fuel' frame
3. The 'un-extracted resources' frame
4. The 'common good' frame
5. The 'competences of the petroleum industry' frame
6. The 'world needs oil' frame
7. The 'future generations' frame
8. The 'lack of competitive alternatives' frame
9. The 'environmentally friendly extraction' frame

I will go through each of the nine detected policy frames, how I detected these frames by providing quotations from the six documents of Long-term Perspectives. The nine frames were identified within the six documents, with variations in prominence, within frame and in time. The policy frames are presented chronologically, starting with the frame that was most prominent within the data and registered with the highest number of codes and categories.

The *'growth, welfare, and synergies'* frame was identified in six of six documents, coded with 189 nodes; the *'gas as the better fossil fuel'* frame was identified in six of six documents, coded with 46 nodes; the *'un-extracted resources'* frame was identified in six of six documents, coded with 18 nodes; the *'common good'* frame was identified in five of six documents, coded with 17 nodes; the *'competences of the petroleum industry'* frame was identified in four of six documents, coded with 12 nodes; the *'world needs oil'* frame was identified in four of six

documents, with 9 nodes; the *'future generations'* frame was identified in four of six documents, coded with 9 nodes; the *'lack of competitive alternatives'* frame was identified in five documents, coded with 7 nodes; and the *'environmentally friendly extraction'* frame was identified in one of five documents, coded with 5 nodes.

The documents coded with the highest number of codes in falling order is the 1) *Meld. St. 29 (2016-2017) Perspektivmeldingen 2017*, 2) *Meld. St. 12 (2012-2013) Perspektivmeldingen 2013*, 3) *St. meld. nr. 30 (2000-2001) Langtidsprogrammet 2002-2005*, 4) *Meld. St. 14 (2020-2021) Perspektivmeldingen 2021*, and 5) *St. meld. nr. 8 (2004-2005) Perspektivmeldingen 2004 – utfordringer og valgmuligheter for norsk økonomi* and *St. meld. nr. 9 (2008-2009) Perspektivmeldingen 2009*.

The hierarchy charts of the codes by number, the files coded to the nodes by number, the word frequency of the whole sample, and the hierarchy charts of the files coded to the nodes by number for each of the nine detected frames, can be found in appendix 4.

In the first part of the chapter, I present the policy frames identified, supported by quotations that I have translated from Norwegian to English. In the second part of the analysis, I provide a concluding summary on the policy frames identified and how they have diachronically changed.

4.1 The policy frames on the Norwegian petroleum policies identified in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021

4.1.1 The 'growth, welfare, and synergies' frame

The 'growth, welfare and synergies' frame is the significantly most prominent policy frame within all the six documents analysed.

The main theme within this frame, are the economic themes of the petroleum activities' significant contribution to growth in GDP, welfare, and the flexibility in the fiscal policies because of the Government Pension Fund and the fiscal rule. This theme is evenly distributed across the sample, from 2001 till 2021:

> "The petroleum activities are currently making a significant contribution to the GDP" (St.meld. nr. 30 (2000-2001)).
>
> "The oil revenues have given us lower employment rates, more public welfare, and lower taxes than what we would otherwise have had. It has also given us a better

> fundament for securing equal living terms og to counteract increasing differences in Norway" (St.meld. nr. 30 (2000-2001)).
>
> "Both the investment activities in the North Sea and the use of petroleum revenues domestically have contributed to a different cyclical development in the Norwegian economy in recent decades than the countries in the euro area" (St.meld. nr. 8 (2004–2005)).
>
> "The favourable economic development must also be viewed in the context of successful management of oil and gas resources on the Norwegian Continental Shelf. The use of government revenues from the extraction of oil and gas has benefited the entire population, and has not weakened the basis for growth in the mainland economy" (St.meld. nr. 9 (2008–2009)).

In 2013, role of the petroleum activities in the financial crisis is explicitly mentioned:

> The petroleum activities also contributed strongly to the Norwegian economy's well-being during the international downturn in the wake of the financial crisis in 2008 (Meld. St. 12 (2012–2013)).

In 2017 and 2021, the theme continues as before:

> "Since the turn of the millennium, Norway has seen prosperity growth in the private sector and a room for flexibility in fiscal policy that few other countries have experienced. The oil industry has been an important driving force" (Meld. St. 29 (2016 –2017)).
>
> "Through predictable framework conditions, well-functioning institutions and wise management of the oil and gas resources, we have gained the welfare society we know today" (Meld. St. 14 (2020-2021)).

It is further emphasized how the petroleum wealth is safe guarded in the Government Pension Fund, how the fiscal policy enables the financing of the welfare schemes without having to rase taxes in the future, and how these institutions decouple the fluctuations in oil and gas prices from the Norwegian economy.

In 2001, there is much optimism regarding these factors:

> "The projections show that it will be possible to finance projected increase in public expenditure on pensions, health, and care with approximately the same tax level as

today. With a long-term balance sheet in the public finances and the build-up of substantial reserves in the Petroleum Fund, Norway is better equipped than most countries to safeguard and further develop the welfare schemes in the years ahead" (St.meld. nr. 30 (2000-2001)).

"The revenues from the petroleum activities have been considerably higher in the last two years than earlier expected. This has given particularly depositions to the Government Pension Fund, and increased room for the use of the output of these funds. The projections made for future petroleum revenues are also significantly above what has previously been predicted. This has increased the freedom of action in the fiscal policy" (St.meld. nr. 30 (2000-2001)).

In 2004 and 2009, the emphasis is on the decoupling effects of the Fund:

"The development of the Petroleum Fund means that Norway's income from the petroleum wealth will increasingly be linked to the return on international securities, while the developments in the oil price will mean less" (St.meld. nr. 8 (2004–2005)).

"Firstly, the Petroleum Fund ensures that the main part of the foreign exchange income from the oil industry is invested abroad. This reduces the effects on the Norwegian economy and the Norwegian krone of fluctuations in oil revenues" (St.meld. nr. 8 (2004–2005)).

"The use of oil revenues in the national budgets is to follow the fiscal rule for the financial policies. In this way, the use oil revenues decouples the cash flow from the petroleum activities" (St.meld. nr. 9 (2008–2009)).

This continues into 2017, with additional mentions of the fiscal rule enabling an active financial policy:

"At the same time, the fund and the fiscal rule help shield the national budget from short-term fluctuations in oil revenues, and gives us freedom of action in the fiscal policy to counterpart economic setbacks (Meld. St. 29 (2016 –2017)).

"Additionally, the fiscal rule opens up an active financial policy, i.e. active decisions to spend more money in bad times, against holding back in good times" (Meld. St. 29 (2016 –2017)).

This year, it is also emphasized how this is thanks to the high extraction rates on the NDC:

> "High extraction rates of oil and gas on the continental shelf and high oil and gas prices have contributed to the rapid build-up of the Government Pension Fund" (Meld. St. 29 (2016 –2017)).

The synergies from the petroleum industry to the mainland economy is a prominent theme within the frame. It is employed once in the Long-term Perspective of 2004:

> "Increased activity among the supply industry to the oil sector also contributes to higher production in other parts of the mainland economy" (St.meld. nr. 8 (2004–2005)).

It then does not reappear until the 2013 Long-term Perspective. Here, it is significantly prominent compared to the other documents in the sample, with extra emphasis on the supply industry – as an industry that will be hard to replace with reduced petroleum activity:

> "Over time, more and more subcontractors have emerged in the Norwegian mainland economy, and a significant part of the overall demand from the petroleum sector is now covered by deliveries from Norwegian companies (…)" (Meld. St. 12 (2012–2013)).

> "Many industries in the Norwegian economy are affected by the demand from the petroleum industry. Some companies deliver directly to the industry, while others contribute with product input for manufactures who deliver to the industry" (Meld. St. 12 (2012–2013)).

> "Both within industry and in service production, the element of petroleum-related activities has increased over time. At the same time, the share of exports in such businesses has increased. The requirement for a sufficiently large sector exposed to competition will become more visible when the petroleum industry is gradually phased out" (Meld. St. 12 (2012–2013)).

When the same frame reappears in 2017, the supply industry is mentioned explicitly, but the emphasis is lowered. The theme of the synergies is also significantly less prominent.

> "Over time, companies in Norway, especially in the south and west of Norway, have turned their production towards deliveries to the petroleum industries. Great activity and high value creation have provided many very well-paid jobs, and in periods high wage growth has spilled over into the rest of the economy. This has led to the cost level being higher in Norway than in other countries" (Meld. St. 29 (2016 –2017)).

> "Additionally, the oil industry is technologically advanced, which has contributed to

> increased productivity in other parts of the economy" (Meld. St. 29 (2016 –2017)).

And, in 2021, the effects from the petroleum industry is even slightly toned down in one instance – putting probabilities into the picture:

> "Ripple effects from the petroleum industry have probably contributed to raising productivity in the rest of the mainland economy" (Meld. St. 14 (2020-2021)).

The importance of the industry in connection to the mainland industry and the overall Norwegian economy is however consistently mentioned.

> "As profitability in the petroleum industry has consistently been higher than in other industries, the transfer labour to oil and gas extraction from smaller productive industries draw up the overall income level" (Meld. St. 14 (2020-2021)).

Based this, the importance of the petroleum industry in the future, is mentioned:

> "Petroleum operations have had a major impact on the mainland economy. The future outlook for the industry is therefore important for the Norwegian economy and public finances" (Meld. St. 14 (2020-2021)).

And, in connection to the predictions for the Norwegian economy, the expected decreased importance of the petroleum industry is connected to how this will have consequences for the rest of the economy:

> "(…) a successful climate policy and transition to a low-emission society will also have consequences for a number of other sectors and areas of the economy other than the petroleum sector. The wage level in the Norwegian economy may, for example, have been influenced over time by the particularly profitable petroleum sector, and in the future, when the petroleum sector plays a smaller role in the Norwegian economy, we may experience a reduction in the national wealth if the wage level in Norway becomes more in line with our neighbouring countries" (Meld. St. 14 (2020-2021)).

An important aspect of this theme is however that, despite the petroleum revenues being a substantial contribution to Norwegian prosperity and welfare, it is the developments in the mainland Norwegian economy that are fundamental for these aspects in a long-time perspective. This is frequently mentioned throughout the sample, but more explicitly from 2004 to 2013:

> "The calculations illustrate that human capital is of decisive importance for future

welfare, while petroleum resources are comparatively of little importance" (St.meld. nr. 8 (2004–2005)).

"Even though the petroleum revenues can be an important contribution to well-being and welfare, it is the developments in the Norwegian mainland economy that is crucial in the development of value creation and income over time" (St.meld. nr. 9 (2008–2009)).

"Although the action rule facilitates a development in the use of oil revenues that is sustainable over time, it does not itself sustainable welfare arrangements" (Meld. St. 12 (2012–2013)).

Finally, mentions of the vulnerability that follows the Norwegian dependency on the petroleum industry, is scarce within the sample, but is explicitly mentioned in the 2017 Long-term Perspective.

"Although the transition has contributed to resources being used where they are most useful, it has made us vulnerable to developments in a single industry (Meld. St. 29 (2016 –2017)).

"The oil wealth gives Norway opportunities that few other countries have, but at the same time presents us with special challenges. The income from the oil industry is based on the extraction of non-renewable natural resources and will decrease as the resources are depleted" (Meld. St. 29 (2016 –2017)).

4.1.2 The 'gas as the better fossil fuel' frame

Within this frame, the benefits of natural gas as a fossil fuel resource as compared to oil and coal, is emphasized through the climate benefits and the expansions into the European markets, as well as the developments of carbon capture technologies that will decrease the emissions from natural gas extraction and prolong the demand for fossil fuels and at the same time enable international climate targets to be met.

The theme of the competitive strength and the environmental advantages are present from 2001:

"If the Kyoto Protocol and the Gothenburg Protocol enter into force and are followed up with cost-effective measures, cf. chapter 8, the competitive position of natural gas relative to other fossil fuels will be strengthened" (St.meld. nr. 30 (2000-2001)).

"On the other hand, natural gas has clear environmental advantages compared to both

> oil and coal, which suggests a demand that will shifts towards gas" (St.meld. nr. 9 (2008–2009)).
>
> "Natural gas has environmental advantages compared to both oil and coal" (Meld. St. 12 (2012–2013)).
>
> "It points to the direction that demand in the future will turn a greater extent to gas rather than other fossil fuel energy sources" (Meld. St. 12 (2012–2013)).

Jumping to 2017, the environmental advantages of gas increases significantly:

> "Gas now accounts for about half of Norway's petroleum production. Gas has less emissions per unit of energy when used than both oil and coal" (Meld. St. 29 (2016 – 2017)).
>
> "Gas is becoming an increasingly important part of Norway's petroleum production and has lower emissions per unit of energy when used than both oil and coal" (Meld. St. 29 (2016 –2017)).
>
> "Natural gas has environmental advantages compared to both oil and coal. The IEA estimates in its main scenario that the share of gas in the energy mix will increase slightly towards 2040. Gas is therefore the only fossil energy source with an increasing share" (Meld. St. 29 (2016 –2017)).

The importance of gas is explicitly connected to the export of Norwegian gas to the European market. This is prominent throughout the sample, from 2001 onwards:

> "As natural gas gains a more dominant position in Norwegian petroleum production, developments in the European gas market become more important" (St.meld. nr. 30 (2000-2001)).
>
> "Certain countries' plans to reduce or discontinue the production of nuclear power may also mean that the demand for gas power will increase in the coming years" (St.meld. nr. 30 (2000-2001)).
>
> "The main markets for the Norwegian gas are densely populated areas with a well-developed infrastructure for the distribution of gas. Natural gas also has clear environmental advantages in these markets, where alternative energy sources have traditionally been coal, oil, and nuclear power" (St.meld. nr. 8 (2004–2005)).

> "The main markets for Norwegian gas are the markets in Germany, Italy, and Great Britain" (St.meld. nr. 9 (2008–2009)).

In 2017, it is optimistically mentioned how Norwegian gas can contribute to the European energy transition, both through a reliable and stable supply, and through the possibility of gas being a part of an energy mix with renewable energies:

> "On the other hand, the import demand for natural gas in Europe is increasing as a result of falling domestic production. It can help to raise demand and the price of Norwegian gas exports" (Meld. St. 29 (2016 –2017)).

> "Combustion of gas has lower greenhouse gas emissions than combustion of coal and can thus contribute to the reduction of European greenhouse gas emissions" (Meld. St. 29 (2016 –2017)).

> "Norway is close to the consumer market and is a large and secure source of supply for Europe" (Meld. St. 29 (2016 –2017)).

> "At the same time, the flexible gas power can be a good alternative to ensure stable electricity supply in the energy market with an increasing share of variable renewable energy sources, such as wind and solar" (Meld. St. 29 (2016 –2017)).

And, as such, there will be a long-term demand for Norwegian gas, despite the implementation of the 1.5-degree emission target:

> "The EU's target for energy efficiency will be able to reduce unit emissions from gas use and contribute to lower – but at the same time long-term – gas demand from this sector" (Meld. St. 29 (2016 –2017)).

> "The implementation of a 1.5-degree target will nevertheless require a faster transition to an emission free energy system. If gas demand in the EU falls, the need for imports can nevertheless be maintained or increased because the EU's own power production of gas is expected to fall" (Meld. St. 29 (2016 –2017)).

The overall theme of petroleum, oil, and gas is significantly lower in the 2021 Long-term Perspective, and as follows, so is the gas frame. The only mention of 'the better fossil fuel', is one mention of coal as the worst of the fossil fuels:

> "For the world to reach the targets in the Paris Agreement, CO2 emissions from the use of fossil fuels must be reduced significantly. In particular, the use of coal with its high

carbon content must be reduced quickly" (Meld. St. 14 (2020-2021)).

The carbon capture and storage (CCS) is a reoccurring theme within this frame. From 2001 to 2009, this regards the Norwegian gas power plants:

> "Research and development with the aim of removing the CO2 emissions from gas power production can be an important contribution in the long-term climate policies" (St.meld. nr. 30 (2000-2001)).

This is mentioned as something that can give lower emissions than what is predicted from the gas power plants:

> "If future gas power plants can adopt technology solutions for the handling of CO2, the CO2 emissions will be lower than what these projections indicate" (St.meld. nr. 8 (2004–2005)).

> "Much demanding and expensive development work remains before technology for capturing carbon can be adopted on a large scale. Norway invests large resources in developing technology to clean emissions from gas-fired power plants. The ambition is to clean up the emissions from the gas power plant at Mongstad from 2014" (St.meld. nr. 9 (2008–2009)).

In 2017, it is linked to low-emission solutions more broadly, and the advantages this technology can give the Norwegian petroleum industry when oil and gas production meets demands of reduction globally:

> "It can support technology development linked to low-emission solutions, including carbon capture and storage, and can give the Norwegian petroleum sector an advantage if the prices on emissions rise" (Meld. St. 29 (2016 –2017)).

> "It can support technology development related to solutions for lower emissions, including carbon capture and storage. If Norway is far ahead in this area, it can strengthen the Norwegian petroleum sector compared to the petroleum sectors in other countries in a situation with stronger global instruments" (Meld. St. 29 (2016 –2017)).

In 2021, CCS is mentioned in reference to how it, generally, can contribute to meeting the climate targets, and at the same time maintain demand for fossil fuels as an energy source:

> "On the other hand, technology such as capturing and storing of CO2 can extend the period in which fossil fuels as an energy source while meeting the climate targets, and

in that way maintain demand" (Meld. St. 14 (2020-2021)).

4.1.3 The 'un-extracted resources' frame

Within this frame, the need for keeping extraction rates from the NDC high, and the economic risk of leaving resources in the ground, is emphasized.

In 2001, the resources are expected to decrease, but the profitability of the resources that remain are optimistically mentioned:

> "It is expected that future discoveries in the most explored areas will consistently be smaller than they have been up till today. Nevertheless, the North Sea will probably form a centre of gravity in the exploration activities also in the longer term. Although new discoveries in this area are expected to be small, they can provide good profitability because existing infrastructure can be used" (St.meld. nr. 30 (2000-2001)).

In 2004, the need for education in the area as well as extraction in marginal fields, is emphasized as key to the high recoveries needed for profitability:

> "Together with the cost development, the market development for oil and gas will be decisive for the profitability of the resource base and for what proportion it is utilized. Education and research may be necessary to reach a technological level that enables high recovery" (St.meld. nr. 8 (2004–2005)).

> "As the petroleum resources on the NCS are depleted, activity in the petroleum sector will decrease, and oil investments will fall significantly from today's high level. (…) In the short term, the high oil price may also make it more profitable to maintain production in some marginal fields. This can contribute to increased activity in the supplier industry" (St.meld. nr. 8 (2004–2005)).

In 2009, there is an increase in the number of references to the urgency and costs, both financial and environmental, of reducing the pace of extraction on the NSC:

> "Reduced pace of extraction as a result of changed licensing policy means that investments, production and income from the sector are pushed back in time. As a result, the build-up of financial capital in the Government Pension Fund will also be extended over time. In that case, the remaining oil and gas resources on the NCS will constitute a larger part of the national wealth, and the states exposure to future oil and gas price developments would increase" (St.meld. nr. 9 (2008–2009)).

> "At the same time, a lower extraction rate can have other types of costs in the form of, among other things, lost competence. Seen in isolation, a lower rate of extraction will also mean that environmentally harmful emissions from the petroleum industry are pushed out in time. If new and more environmentally friendly technology is developed along the way, it will be possible to reduce emissions" (St.meld. nr. 9 (2008–2009)).

In 2013, the lack of new major discoveries is alarmingly mentioned as something that will continue to negatively impact the GDP per capita:

> "Without new major discoveries, it is expected that the production development in the petroleum sector will continue to contribute negatively to the overall GDP per capita in the years to come" (Meld. St. 12 (2012–2013)).

But, if the large resources that are left on the NCS are extracted, as well as technological advances in the recovery of older fields, activities will rise:

> "On the other hand, there are still large resources left on the NCS that can provide significant activity for many years to come. New major discoveries in recent years have led to increased optimism about the number of recoverable resources. In addition, technological advances contribute to the reduction in extraction costs, so that new fields become profitable and more can be extracted from existing fields" (Meld. St. 12 (2012–2013)).

In predictions in the 2017 Long-term Perspective, it is emphasized how the climate policies will put pressure on the oil and gas prices, which will especially affect states and companies that are sitting on resources yet to be extracted:

> "A shift towards a tighter global climate policy than what the actors are currently considering, as mentioned above, in isolation, can contribute to lower petroleum prices for producers and reduce the value of the world's petroleum reserves. Reduced oil and gas prices will particularly affect companies and states with high petroleum costs that sit on large resources that have not yet been extracted" (Meld. St. 29 (2016 –2017)).'

In this scenario, the government's net cash flow will be reduced:

> "The asset estimate is based on the assumptions about production, prices and costs that are laid down in this report. The calculations are also conditional to the resources estimated in the Norwegian Petroleum Directorate's resource accounts being fully extracted. If parts of the resource are not extracted, the government's net cash flow will

be reduced (Meld. St. 29 (2016 –2017)).

In 2021, the urgency theme continues, and here, the emphasis is on the need to extract from new fields to keep up with the decline in oil; even though this decline is needed:

> "Although the extraction of oil is expected to decline, significant investments in new production capacity is required, at a global level, to compensate for the decline in extraction in existing fields. How big the fall in production from existing fields will be has a lot to say about the outlook for the oil price" (Meld. St. 14 (2020-2021)).

> "According to the IEA 8-9 percent of the oil production may disappear from the market each year in the years leading up to 2030 if no investments are made in new and existing fields. It sets a lower limit for the oil price, because investments in new development projects must be profitable in order to be started" (Meld. St. 14 (2020-2021)).

4.1.4 The 'common good' frame

Within this frame, the successful governance and institutions, contributions from the industry to research and education, welfare, and high incomes, and how the community has profited from the petroleum industry and revenues are the general themes.

> "Through the tax system and the proposed restructuring of the SDFI and the expansion of the ownership in Statoil, the Government will ensure that a large part of the income from the petroleum sector is allotted to the community" (St.meld. nr. 30 (2000-2001)).

The frame is not identified in the 2004 Long-term Perspective, but reappears in 2009, increasingly more prominent than in 2001:

> "Norway's strong economic development must therefore be seen in the context of successful management of the petroleum revenues. This income has benefited the community, and a sustainable use has contributed to ensuring that the basis for growth in the mainland economy has not been weakened" (St.meld. nr. 9 (2008–2009)).

> "The majority of the petroleum income has been allotted to the community, while sound management has contributed to good development in the mainland economy" (St.meld. nr. 9 (2008–2009)).

> "Norway has achieved an effective value creation in the petroleum sector, while at the same time the resource interest has allotted to the community through a well-designed petroleum tax system and state ownership" (St.meld. nr. 9 (2008–2009)).

It continues in 2013, although a little less prominent than in 2009:

> "The resources on the NCS belong to the Norwegian state, and it is therefore important that a large part of the income from the activity on the Norwegian shelf is allotted to the community" (Meld. St. 12 (2012–2013)).
>
> "Through the petroleum tax system and the Government direction financial involvement, we ensure that a large part of the base rent from the petroleum activities is allotted to the Norwegian people as resource owners" (Meld. St. 12 (2012–2013)).

In 2017, the frame is increased again, incorporating all elements from economic benefits, welfare, and good institutions:

> "Norway has channelled large parts of the income from the petroleum business into the community. It has given us opportunities to invest in, among other things, knowledge and infrastructure, public welfare schemes have been expanded and income growth in households has been high" (Meld. St. 29 (2016 –2017)).
>
> "As previously mentioned, a large share of the value creation must fall to the Norwegian state, so that it can benefit the community" (Meld. St. 29 (2016 –2017)).
>
> "This means that the companies' adaptation must also provide the best solution for society" (Meld. St. 29 (2016 –2017)).
>
> "Good institutions are important for the extraction of natural resources to contribute to higher income and welfare over time and have much of the credit for the good development in Norway" (Meld. St. 29 (2016 –2017)).
>
> The petroleum resources belong to Norway, and it has been broad agreement over time that a large share of the excess return should fall to the community (Meld. St. 29 (2016 –2017)).

In 2021, this frame is expanded in a mention of the petroleum resources as belonging to the Norwegian community:

> "Oil and gas are non-renewable resources that belong to the community" (Meld. St. 14 (2020-2021)).

The resources are now also explicitly mentioned as 'limited':

> "The petroleum tax system and the state's direct holdings in the oil industry (SDFI)

contribute to community receiving a significant part of the profit from the extraction from a limited resource" (Meld. St. 14 (2020-2021)).

4.1.5 The 'competences of the petroleum industry' frame

This frame incorporates emphasis of the importance of making visible the competences of the Norwegian petroleum and supply industry, and how these competencies are transferable to other industries:

> "The collaboration between oil companies, the supplier industry, and the authorities to make the Norwegian petroleum industry's experience and expertise visible internationally will be continued" (St.meld. nr. 30 (2000-2001)).
>
> Exploitation of natural resources can provide impulses for the development of new competence which can also be applied in other fields. Shipping's contribution to the development of a technical and financial environment, and the petroleum industry's importance for research and development are examples of this" (St.meld. nr. 8 (2004–2005)).

The frame is not present in 2009, nor 2013. When it reappears in 2017 and 2021, the frame is enlarged:

> "Technology from the oil industry has been adopted in other businesses, such as health and medicine, transport, the environment and renewable energy" (Meld. St. 29 (2016 – 2017)).
>
> "Norwegian participation in the development of the oil sector has been highlighted as one of the reasons why Norway is not only a passive recipient of the oil revenues through the tax system, but also an active Norwegian based supplier industry that is knowledge-intensive and technologically advanced. Through learning effects and knowledge development, it can stimulate increased productivity and innovation in other parts of the business world as well" (Meld. St. 14 (2020-2021)).

The competences are also an important theme in the ability of the industry to transform:

> "It will be particularly important to bring about the transfer of expertise from the petroleum industry. The expertise of the Norwegian oil and gas industry must be further developed so that it can also be used in other industries" (Meld. St. 14 (2020-2021)).

The competence of the industry is also mentioned in connection to the climate risks the industry

faces considering international climate policies:

> "Transition risk concerns the possible changes in the oil and gas prices or operating costs in the long term as a result of technological development, or an ambiguous global climate policy" (Meld. St. 14 (2020-2021)).

> "The sensitivity analyses give an indication of the petroleum projects' robustness to changing assumptions. There will always be uncertainty related to the future price of petroleum. This also applies to developments in line with the Paris Agreement's temperature target. The government will require companies to make climate risks visible in their development plans. According to the Climate Risk Committee, more systematic and comparable information about the robustness of new development projects in the face of climate change will strengthen confidence in the decision-making system and at the same time provide increased insight into the development of climate risk for the overall remaining petroleum wealth" (Meld. St. 14 (2020-2021)).

4.1.6 The 'the world needs oil' frame

Within this frame, the security political role of oil demand, as well as the demand for oil in Asia is a recurring theme within in the sample:

In 2001 and 2004, the mentions are of how the world needs access to oil:

> "The world economy is highly dependent on access to oil. A failure in global or regional oil supplies can have serious economic and security political consequenses" (St.meld. nr. 30 (2000-2001)).

> The world econonmy is dependent on access to crude oil. A sudden loss of priduction in a country or company can have serious economic and security policy consequenses (St.meld. nr. 8 (2004–2005)).

And, in 2001, 2004 and 2013, how the markets in Asia are of special importance:

> "At the same time, there is significant growth in energy demand in the world, partly due to strong economic growth in Asia. (…) China, India, and the other developing countries are expected to account for most of the growth in the oil demand over the next 10-20 years " (St.meld. nr. 30 (2000-2001)).

> "Among other things, China has a large and rapidly growing import of crude oil, copper, and soybeans" (2004–2005)).

> "China and India's entry into the world economy led to growth in the demand for raw materials and rise in the prices of Norwegian export products, such as crude oil, natural gas, and metals" (Meld. St. 12 (2012–2013)).

In 2017, it is emphasised how the demand for oil will need 'significant investments', despite the international climate agreements:

> "However, in most scenarios that are compatible with the two degree target, considerable investment will have to be made in the world's petroleum extraction for a period ahead to meet the demand for oil and gas" (Meld. St. 29 (2016 –2017)).

4.1.7 The 'future generations' frame

Within this frame, the petroleum revenues as a resource saved for future generations through the Government Pension Fund is the reoccurring theme.

It is identified in the sample from 2009 to 2013:

> "The use of the fiscal rule in the financial policy ensures that today's young and future generations also enjoy the petroleum revenues" (St.meld. nr. 9 (2008–2009)).

> "By exchanging large, but temporary income from the petroleum extraction into a permanent fund return, we ensure that the oil wealth also benefits future generations. By following the fiscal rule, we therefore go a long way in handling the challenges that result from the fact that petroleum is a non-renewable resource" (Meld. St. 12 (2012–2013)).

> "Income from non-renewbale resources such as oil and gas should also benfit future generations. The Government Pension Fund and the rules of procedure for the use of oil revenues are a response to these challenges" (Meld. St. 12 (2012–2013)).

It increases in 2017:

> "With the help of the Government's pension fund, and and the rules of procedure for the use of oil revenues, large parts of the reveunes are also saved. In this way, we have made it possible for the oil wealt to also benefit future generations and aquired a financial freedom of action in periods of decline that few other countries have" (Meld. St. 29 (2016 –2017)).

> "The fiscal rule in the fiscal policy was introduced in 2001, and marked a broad political

will to use the oil revenues in a long-term sustainable way, so that the revenues both benefit current and future generations" (Meld. St. 29 (2016 –2017)).

"The fiscal policy framework ensures that the real value of the fund is maintained for the benefit of future generations" (Meld. St. 29 (2016 –2017)).

In 2021, it is only mentioned once:

"Since 2001, the Government Pension Fund and the fiscal rule has set out a plan to use oil revenues over the state budget so that these also benefit future generations" (Meld. St. 14 (2020-2021)).

4.1.8 The 'lack of competitive alternatives' frame

Within this frame, was identified in five of six documents, and evenly, but not prominently, distributed within these.

From 2001 to 2009, the frame incorporates references to the transport sector and the lack of competitive alternatives for fuel:

"There is a significant research effort in the automotive industry to develop fuel cell technology and other alternatives to oil. However, it is very uncertain when competitive alternatives to today's car engines can possibly be developed, and it will in any case take time to build a new infrastructure that is adapted to a new generation of cars" (St.meld. nr. 30 (2000-2001)).

"Half of todays' oil demand is from the transport sector. This is also the sector where the strongest growth is expected in the future. There are no obvious alternatives to oil products in the sector" (St.meld. nr. 8 (2004–2005)).

"Oil for industrial use can in many cases be replaced with gas. This has taken place to some extent and is expected to continue. Growth in industrial production, especially within petrochemicals nevertheless contributes to increased demand for crude oil (St.meld. nr. 8 (2004–2005)).

"There are major challenges linked to the use of hydrogen as an alternative to oil, and it is not expected that hydrogen will represent an important alternative to oil in the coming decades" (St.meld. nr. 8 (2004–2005)).

"Over half of today's oil demand is from the transport sector, where in the medium term

there are no obvious alternatives to oil products" (St.meld. nr. 9 (2008–2009)).

From 2013, renewable energy sources are mentioned as being expected to have relatively little impact on the income in Norway, compared to that of the petroleum industry:

> "The development in ground rent income from the renewable natural resources is also expected to be relatively modest in the coming years compared to the total disposable real income for Norway. Petroleum revenues, on the other hand will contribute for many years to come. However, extraction will decrease as the oil and gas resources are depleted" (Meld. St. 12 (2012–2013)).

> "In addition, technological advances contribute to the cost of extraction falling, so that new fields become profitable and more can be extracted from existing fields" (Meld. St. 12 (2012–2013)).

In 2021, the emphasis is on how the ground rent for renewable energies not being competitive with that of the petroleum resources, as well as the uncertainty of the demand the renewable resources will be able to meet, and how quickly these resources will be profitable:

> "Improved technology and falling production costs have in recent years helped to strengthen the competitiveness of renewable energy sources compared to, among other things, oil and gas. Going forward, costs are expected to decrease further. At the same time, increased use of renewable energy will require investments in, among other things, infrastructure and technological changes in various areas of use. It takes time to change the energy systems, but at the same time the changes proceed quickly if profitability dictates it. There is great uncertainty related to how quickly the production of renewable energy will increase and how much energy demand it will be able to cover in the future" (Meld. St. 29 (2016 –2017)).

4.1.9 The 'environmentally friendly extraction' frame

This frame incorporates both the reoccurring themes of the CO2 tax and the quota system as instruments that make Norwegian petroleum extraction more environmentally friendly. This frame is only present in 2017:

The CO2 tax and the quota obligations of the industry is emphasized from 2017:

> "At the same time, Norwegian petroleum extraction is already subject to strong climate measures such as quota obligations and a higher CO2 tax than many other countries"

(Meld. St. 29 (2016 –2017)).

> "The average emissions from extraction on the NCS are low in an international perspective. In total, Norwegian use of instruments have reduced the annual emissions of greenhouse gases on the continental shelf by 5 million tonnes of CO2 equivalents" (Meld. St. 29 (2016 –2017)).

These obligations are presented as something that will also be carefully followed by the industry in the face of future climate regulations:

> "The Norwegian climate framework, with a quota system and CO2 tax, is both flexible and robust in relation to various climate targets. Norwegian businesses, including the petroleum industry, adapts to taxes and quota caps in an effective way. In decisions, the petroleum companies will take into account expectations about future climate regulation and the impact on oil and gas prices. Just as in other industries, the companies must make due account of uncertainty about future framework conditions" (Meld. St. 29 (2016 –2017)).

4.2 Concluding summary of the empirical analysis

The *'growth, welfare, and synergies'* frame was the most important frame identified in the sample. The frame is evenly distributed across the sample, with reoccurring economic themes of the petroleum activities' contribution to growth in GDP, welfare, the decoupling of the economy and the flexibility in the fiscal policies of the GPFG and the fiscal rule, and how this flexibility is a result the of high extraction rates. The frame exhibits consistent diachronic change, with a steady increase in the employment of the frame. In 2013, the increase of the synergies of the petroleum industry with specific attention to the supply industry, marks a visible shift in frame. Another visible shift in the frame is the explicit mention of the vulnerability connected to the economy's dependency on the petroleum industry in a future where this industry is less dominant in the economy.

The *'gas is the better fossil fuel'* was the second most identified frame. It incorporated the competitive and environmental benefits of natural gas relative to oil and coal, and consequently its contribution to the demand in a changing European market. Additionally, it incorporated carbon capture technologies as an instrument of further emissions from natural gas extraction and prolonged demand of fossil fuels and meeting the climate targets. After having been employed intensively in 2001, the frame exhibits consistent diachronic change. In 2017, an

increase in the emphasis on the environmental advantages of gas considering the 1.5-degree marks a visible shift in the frame. This shift is followed by another visible shift when the frame nearly disappears in 2021.

The third frame detected is the *'un-extracted resources'* frame, which exhibits the Governments emphasis on the need to keep extraction rates high, and the economic risks of leaving resources in the ground. The frame exhibits consistent diachronic change, with a steady increase I the employment of the frame. 2009 marks a visible shift in the increases employment the urgency element, both in the economic and environmental risks of leaving the resources in the ground. Another visible shift in the frame is in 2017, when the urgency is increased by climate policies threatening the value of resources that have yet to be extracted. This shift in frame continues in 2021, where the urgency includes opening new oil fields to keep up with the decline in existing fields.

The *'common good'* frame is the fourth frame identified and incorporates the emphasis on the successful governance and institutions of the petroleum policies, the contributions of the revenues of the petroleum industry to research, education, welfare, and high income. The frame exhibits consistent diachronic change, with visible increase in 2009, and then again in 2017. In 2021, the frame exhibits visible change in the explicit use of 'limited' when referring to the fossil fuel resources.

The *'competences of the petroleum industry'* frame is the fifth most identified frame. It incorporates the emphasis of competences of the Norwegian petroleum and supply industry and the transferability of these to other parts of the economy. The frame exhibits inconsistent diachronic change with appearances in 2001 and 2004, no appearance in both 2009 and 2013. When the frame reappears in 2017 and 2021, it marks a visible shift with an enlargement of the frame where the competence of the industry is specifically relevant for the transformation, as well as in meeting the climate risks the industry faces with increasingly strong climate policies.

The sixth frame identified is the *'world needs oil'* frame. It exhibits the emphasis on the security political role of oil demand, as well as the demand for oil in Asia. The frame exhibits consistent diachronic change with small variations. It is present the 2001 and 2004 emphasis' on how the world needs access to oil, the 2013 emphasis on the markets in Asia, to the 2017 emphasis on the need for 'significant investments' in oil fields, to meet demand, despite the international climate agreements.

The *'future generations'* frame is the seventh most important frame. It incorporates the framing of the petroleum revenues as a resource saved for future generations in the GPFG. The frame exhibits consistent diachronic change from when it appears in 2009 with increased importance in 2017, before it decreases in 2021.

The eight most identified frame is the *'lack of competitive alternatives'* frame. This frame incorporates the emphasis on the lack of competitive alternatives for fuel in the transport sector, and the lack of competitiveness and uncertainty of the profitability of renewable energy sources compared to the petroleum industry. The frame exhibits consistent diachronic change throughout the 2001-2021 sample, with no visible shifts in frame.

The last frame identified is the *'environmentally friendly extraction'* frame. This frame is only detected in 2017 and exhibits no diachronic change. It incorporates the framing of Norwegian petroleum extraction as comparatively environmentally friendly.

5. CONCLUDING REMARKS

The aim of this thesis was to identify policy frames on the Norwegian petroleum policies in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021, and how these frames have diachronically changed. In a sample of six documents, I identified nine frames.

The *'growth, welfare, and synergies'* frame was the most important frame identified in the sample. The frame exhibits consistent diachronic change, with a steady increase in the employment of the frame. In 2013, the increase of the synergies of the petroleum industry with specific attention to the supply industry, marks a visible shift in frame. Another visible shift in the frame is the explicit mention of the vulnerability connected to the economy's dependency on the petroleum industry in a future where this industry is less dominant in the economy.

The *'gas is the better fossil fuel'* was the second most identified frame. After having been employed intensively in 2001, the frame exhibits consistent diachronic change. In 2017, an increase in the emphasis on the environmental advantages of gas considering the 1.5-degree marks a visible shift in the frame. This shift is followed by another visible shift when the frame nearly disappears in 2021.

The third frame detected is the *'un-extracted resources'* frame. The frame exhibits consistent diachronic change, with a steady increase I the employment of the frame. 2009 marks a visible shift in the increases employment the urgency element. Another visible shift in the frame is in 2017, when the urgency is increased by climate policies threatening the value of resources that have yet to be extracted. This shift in frame continues in 2021.

The *'common good'* frame is the fourth frame identified. The frame exhibits consistent diachronic change, with visible increase in 2009, and then again in 2017. In 2021, the frame exhibits visible change in the explicit use of 'limited' when referring to the fossil fuel resources.

The *'competences of the petroleum industry'* frame is the fifth most identified frame. The frame exhibits inconsistent diachronic change with appearances in 2001 and 2004, no appearance in both 2009 and 2013. When the frame reappears in 2017 and 2021, it marks a visible shift with an enlargement of the frame.

The sixth frame identified is the *'world needs oil'* frame. The frame exhibits consistent diachronic change with small variations from 2001 to 2021.

The *'future generations'* frame is the seventh most important frame. The frame exhibits consistent diachronic change from when it appears in 2009 with increased importance in 2017, before it decreases in 2021.

The eight most identified frame is the *'lack of competitive alternatives'* frame. The frame exhibits consistent diachronic change throughout the 2001-2021 sample, with no visible shifts in frame.

The last frame identified is the *'environmentally friendly extraction'* frame. This frame is only detected in 2017 and exhibits no diachronic change.

These nine policy frames comprise the subjective meanings that the MOF as a representative of the Norwegian government communicate on the Norwegian petroleum policies. Together, they are instruments in the definition of who gets *what*, *when*, and *how* (van Hulst & Yanow, 2016) in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021.

Following Schön and Rein (1994), these nine policy frames constitute institutional action frames. They incorporate the policy construction regarding the specific policy situation of petroleum policies, and the institutional frames utilized in the wider range of policy situations in economic and environmental issues. The nine frames represents a family of related frames, that are used tactically, when presenting the policy positions. Together, they are utilized in the storytelling of the petroleum policies, highlighting specific issues regarding economic stability, flexibility, welfare and environmental accountability and competences, while partially excluding the risks of dependencies. This reflects elements of a manipulative discourse, as references are to the position, power, authority and moral superiority of the petroleum industry and petroleum policies.

The findings show that the economic and environmental critiques of the petroleum policies have not been materialised in the petroleum policies (Bang & Lahn, 2020). Rather, these arguments have been incorporated into the already existing frames and led to reframing of the economic and environmental frames of the need for continued high extraction rates and meeting the demand for gas and oil, and the economic framings of the stability and flexibility of the Norwegian economic and fiscal policies. This reflects elements of the Gramscian definition of the hegemony and Fairclough's interdiscursivity, as an equilibrium of stability and instability that is balanced by the MOF in the reframing of the petroleum policies. Following van Hulst and Yanow (2016), these frames have been defending the policy position to stabilize the credibility of the framings in the light of the 'crisis' of climate policies. This can also be

understood as a discourse co-optation of the incorporation of the climate issues into the framing of the petroleum policies.

Finally, the findings confirm the findings of Bjørnstad (2014), that the risks of the downsizing of the oil industry are seldom communicated and moderated. This updated study of the Long-term Perspectives shows that this is continues within the frames in later years.

5.2 Implications for future research

The findings in this thesis shows that the critiques of the economic arguments, as well as environmental arguments have not been materialised in the petroleum policies but subjected to reframing's for the continued high extraction rates, and the stability and flexibility of the Norwegian economic and fiscal policies.

As the new government have stated that they will expand the oil industry (Statsministerens kontor, 2021), it is becoming increasingly important that these issues come forward, putting facts on the table for Norwegians as stakeholders.

As the intent of this thesis did not include the examining of changes in government and the effects on the frames, I suggest further research on the policy framing of the Norwegian petroleum policies, based on the findings Jacobsen (2006) that in the interaction between politicians and administrators in Norwegian municipalities, elections may work as an external shock, that in a period weakens the effect of the formal structures.

As there exists no perfect case study design for all studies, and several of the approaches are solid foundations for analysing both qualitative and quantitative data (Woodside, 2017). I therefore argue, that the quality of this case study can be increased by following up with a quantitative research design with theory testing (Woodside, 2017). I suggest the quantitative approach of the Structural Topic Model (STM), as this enables the study of topic salience in and between documents in a sample (Roberts et al., 2013), and can contribute to further strengthening the case study approaches to policy frames.

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APPENDIX

Appendix 1 – Norwegian petroleum revenues in numbers

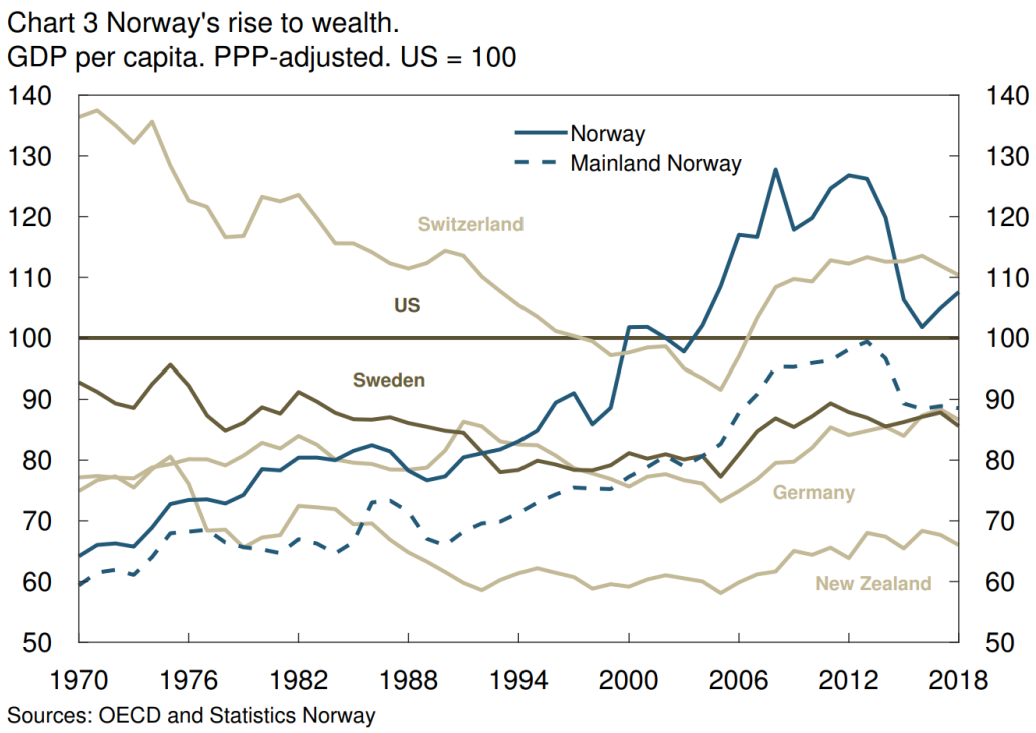

Illustration 1: Norway's rise to wealth (Norges Bank, 2020).

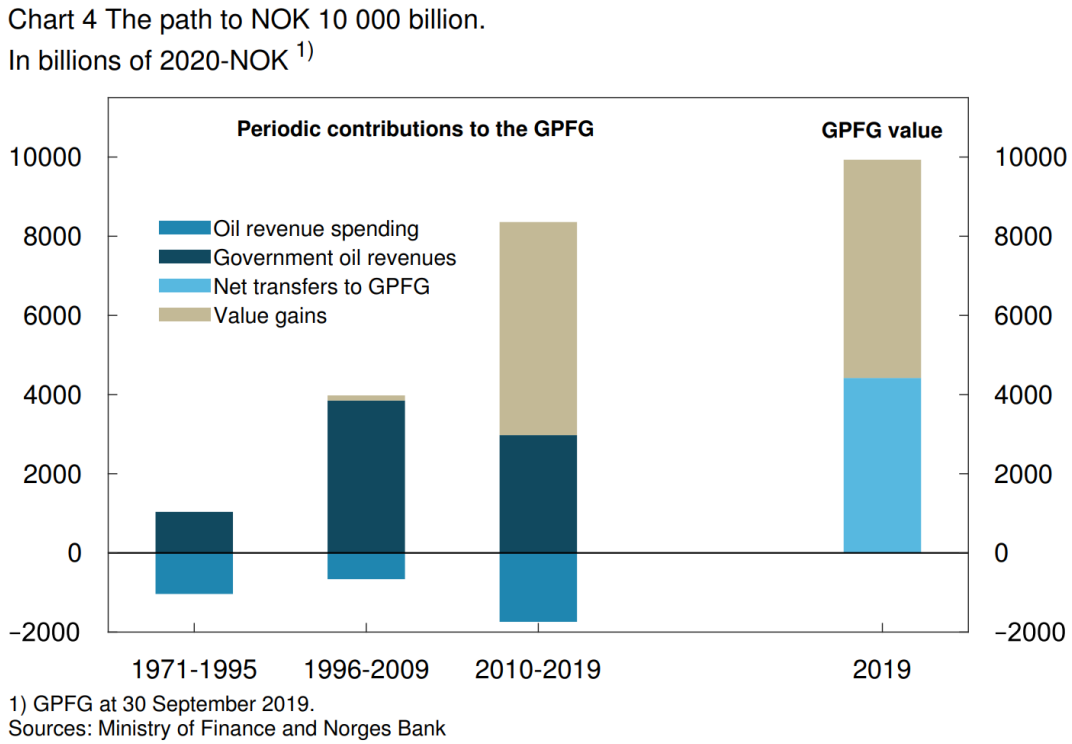

Illustration 2: The path to NOK 10 000 billion (Norges Bank, 2020).

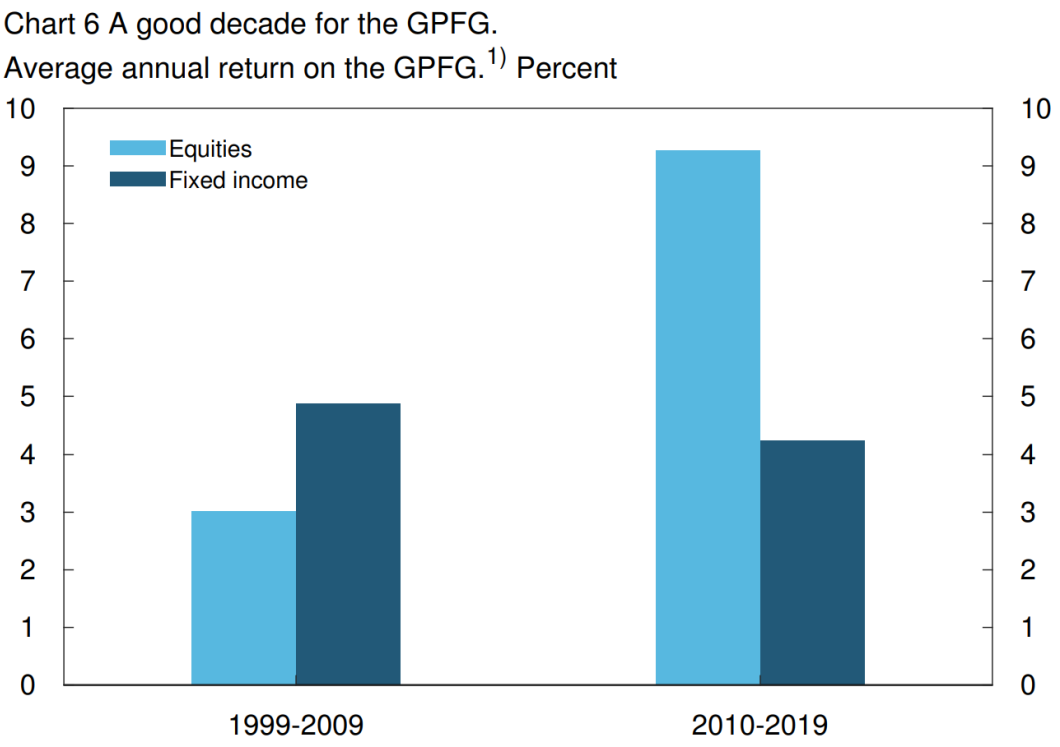

Illustration 3: A good decade for the GPFG (Norges Bank, 2020).

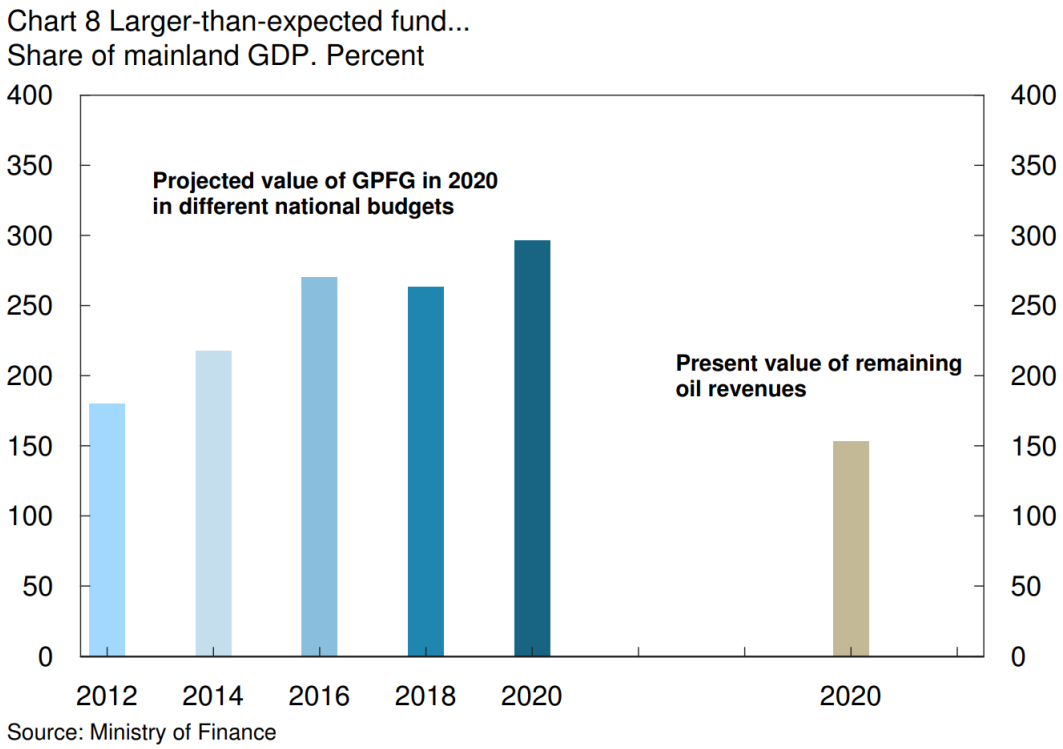

Illustration 4: Larger-than-expected fund (Norges Bank, 2020).

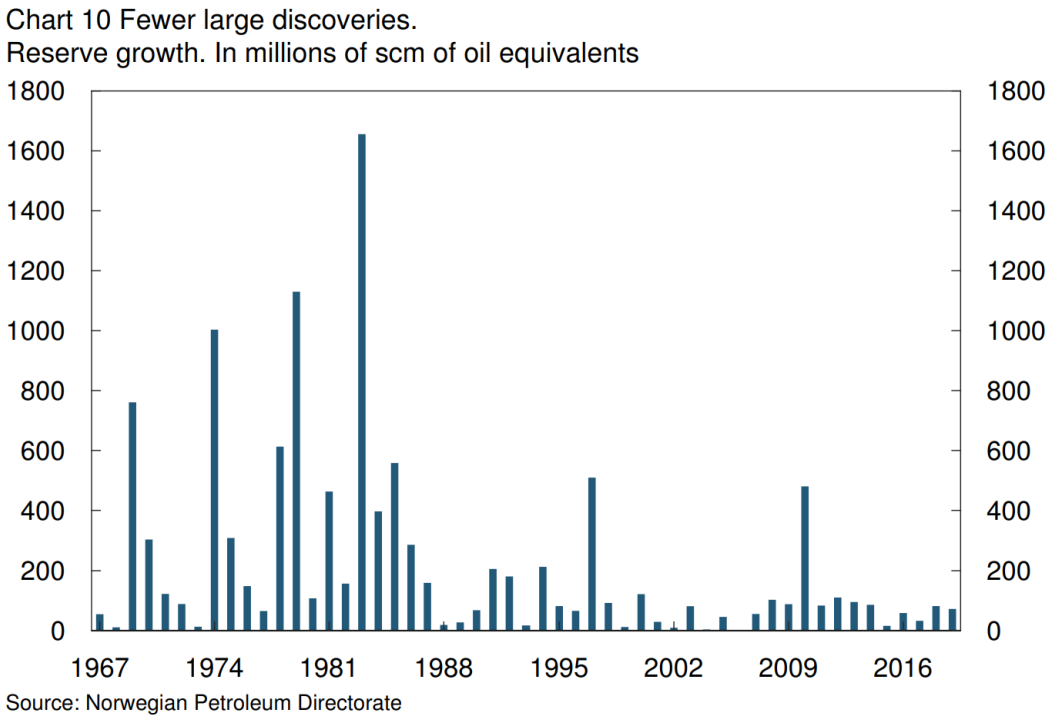

Illustration 5: Fewer large discoveries (Norges Bank, 2020).

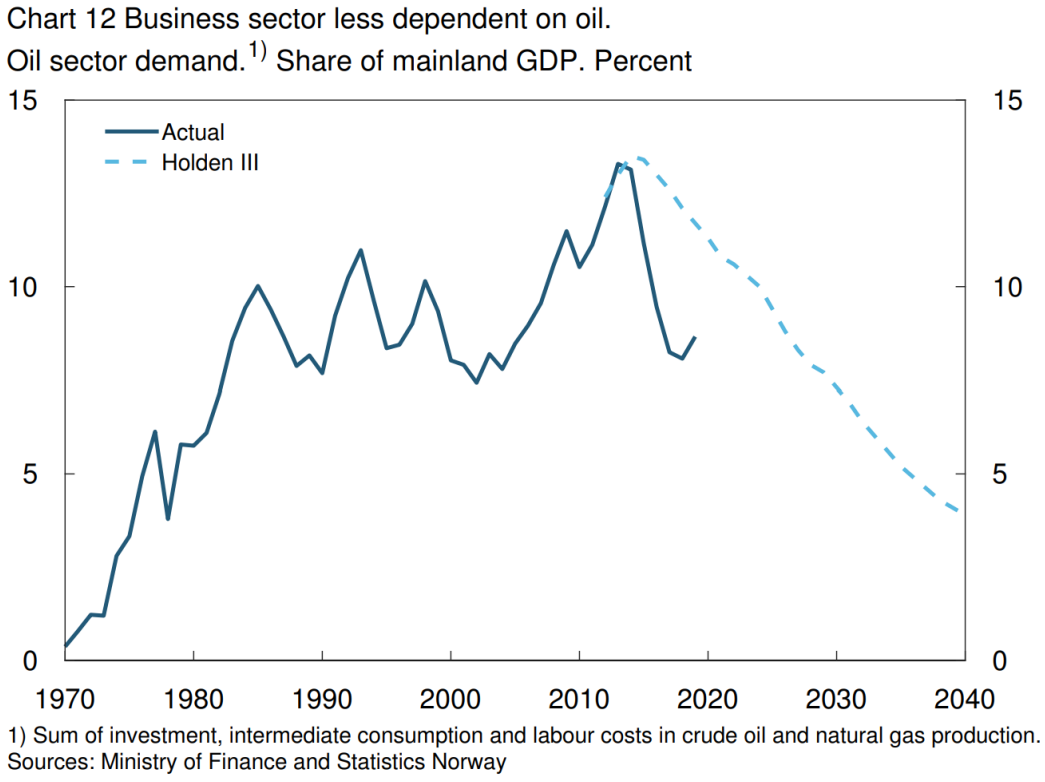

Illustration 5: Businesses sector less dependent on oil (Norges Bank, 2020).

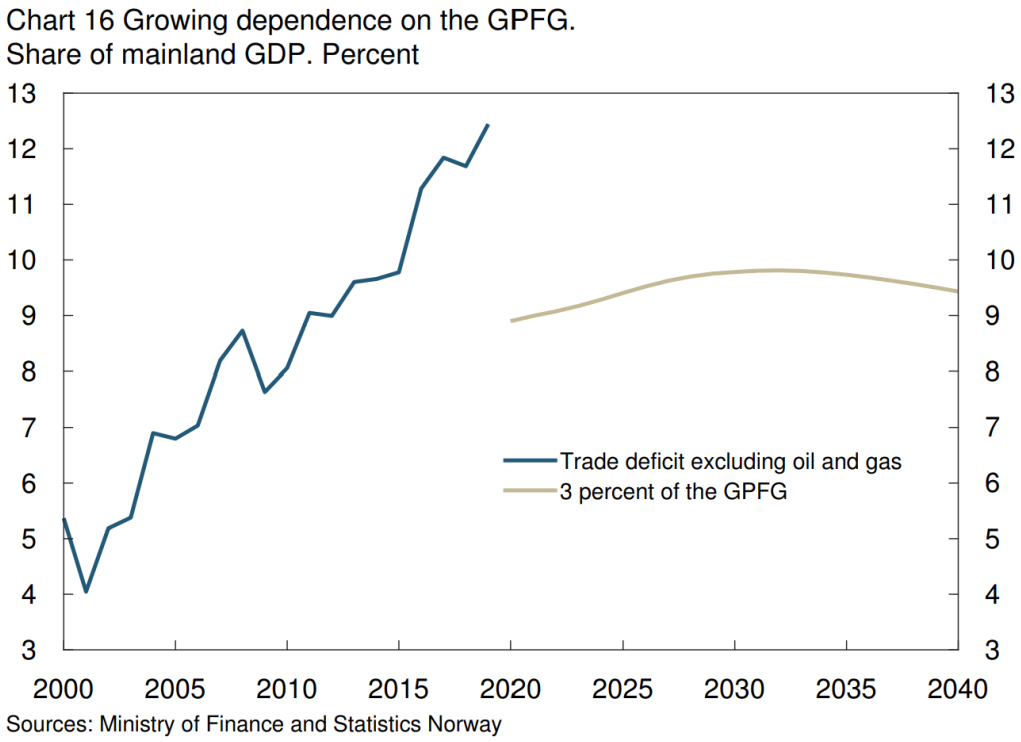

Illustration 7: Growing dependence on the GPFG (Norges Bank, 2020).

Appendix 2 – Original concepts in coding frame

(Translated to English for the sake of presentation)

1. Petroleum
2. Oil
3. Gas

Appendix 3 – Categories generated from initial codes

(Translated to English for the sake of presentation)

(Sorted for each of the six documents, for the sake of transparency, and sorted after the number of nodes within the categories)

The Long-term Perspectives on the Norwegian Economy, 2002-2005:

1. Growth and flexibility in budgetary policies
2. European gas markets
3. From petroleum fortune to financial fortune
4. Gas replacing other fossil fuels
5. Welfare
6. The world needs oil
7. Long term perspectives and the sustainable governance of the resources
8. The industry's competence and transition competencies
9. The lack of competitive alternatives
10. Undiscovered resources of high profit

The Long-term Perspectives on the Norwegian Economy, 2004:

1. Growth flexibility in budgetary policies
1. The fund as buffer against fluctuations and energy prices
2. The lack of competitive alternatives
3. The world needs oil
4. Gas replacing other fossil fuels
5. The need to keep extraction rates up to keep the Norwegian revenues high
6. The industry's competence and transition competencies
7. Activities in the supply industry creating synergies in the Norwegian mainland economy
8. Welfare

The Long-term Perspectives on the Norwegian Economy, 2009:

1. Growth and flexibility in budgetary policies
2. Gas replacing other fossil fuels
3. Lower extraction levels will not be profitable
4. European gas markets

5. The lack of competitive alternatives
6. Coming generations
7. The ‘community’

The Long-term Perspectives on the Norwegian Economy, 2013:

1. Growth and flexibility in budgetary policies
2. The synergies of the petroleum industry in the Norwegian mainland economy
3. The ‘community’
4. Gas replacing other fossil fuels
5. Coming generations
6. European gas markets
7. The basic interest rate is not competitive to that of the petroleum industry
8. The cost of the lack of new discoveries
9. Welfare
10. The great demand for oil and gas in Asia
11. The optimism of great resources on the Norwegian continental shelf

The Long-term Perspectives on the Norwegian Economy, 2017:

1. Growth and flexibility in budgetary policies
2. The ‘community’
3. European gas markets
4. Gas replacing other fossil fuels
5. Norwegian extraction comparatively climate and environmentally friendly
6. The synergies of the petroleum industry in the Norwegian mainland economy
7. The cost of the lack of new discoveries
8. Coming generations
9. The (technological) competence of the oil industry
10. Demand must be met
11. Renewables are not yet competitive

The Long-term Perspectives on the Norwegian Economy, 2021:

1. Growth and flexibility in budgetary policies
2. The synergies of the petroleum industry in the Norwegian mainland economy
3. Welfare

4. Competence for the transition
5. The ‘community’
6. Extraction is needed
7. Knowledge and competence in Norway thanks to the petroleum industry
8. Coming generations
9. Coal must be reduced quickest
10. Carbon capture can sustain the high levels of extraction

Appendix 4 – NVivo visualizations of the data

Figure 1: Word Frequency Query of the Long-term Perspectives on the Norwegian Economy from 2001 to 2021

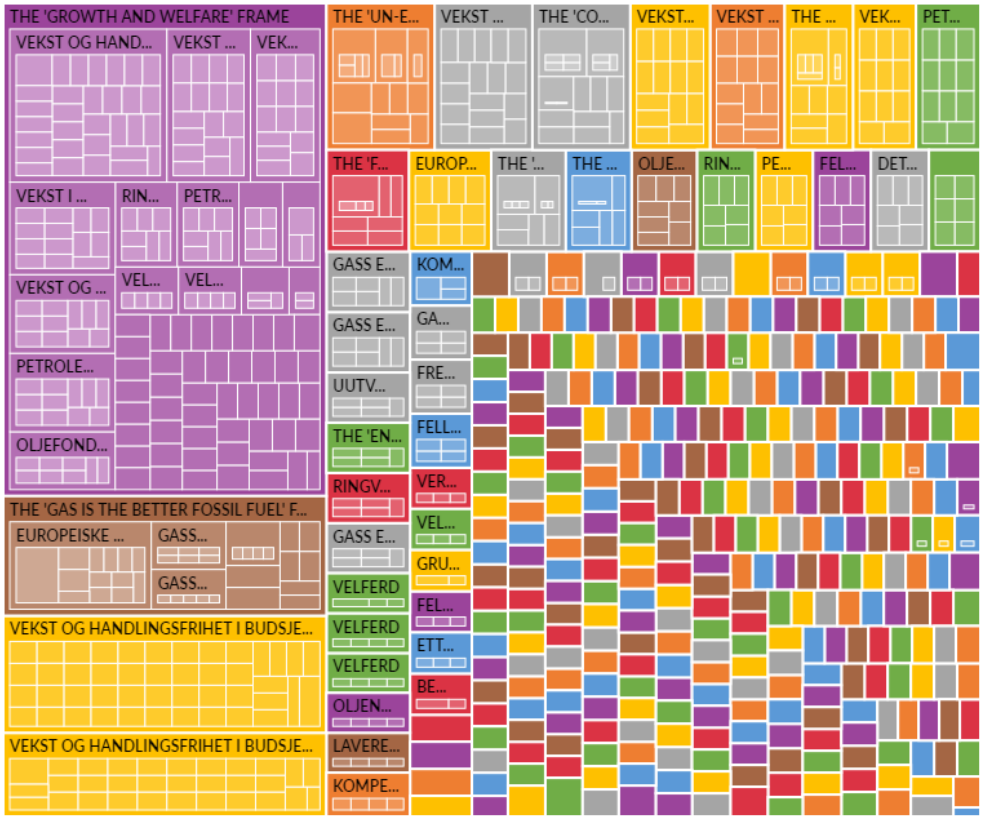

Figure 2: Hierarchy chart of the nodes by number in the Long-term Perspectives on the Norwegian Economy from 2001 to 2021

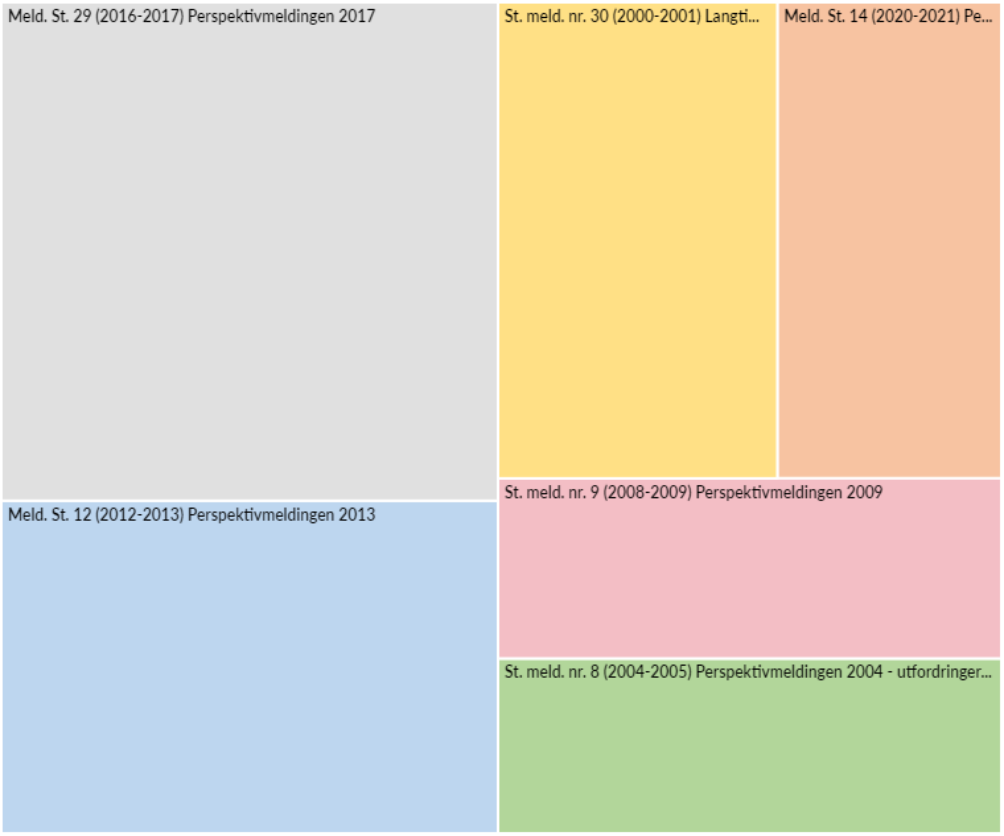

Figure 3: The sample: hierarchy chart of the files coded to the nodes by number

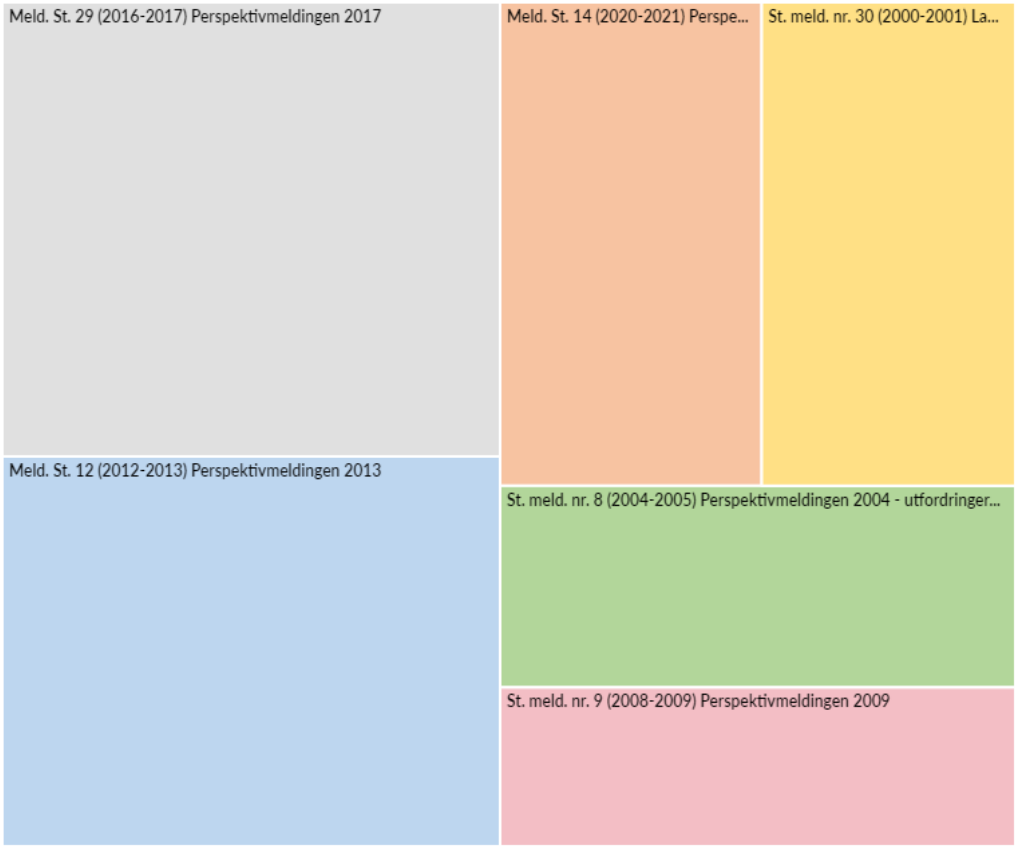

Figure 4: The 'growth, welfare, and synergies' frame: hierarchy chart of the files coded to the nodes by number

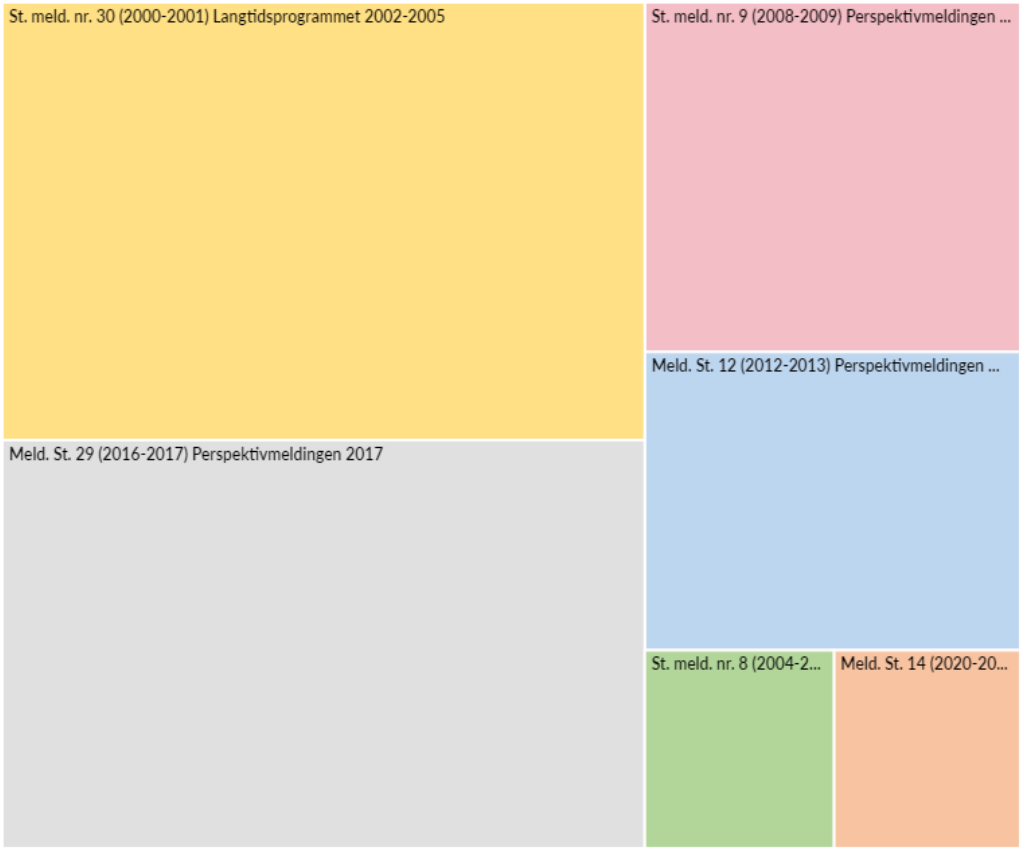

Figure 5: The 'gas is the better fossil fuel' frame: hierarchy chart of the files coded to the nodes by number

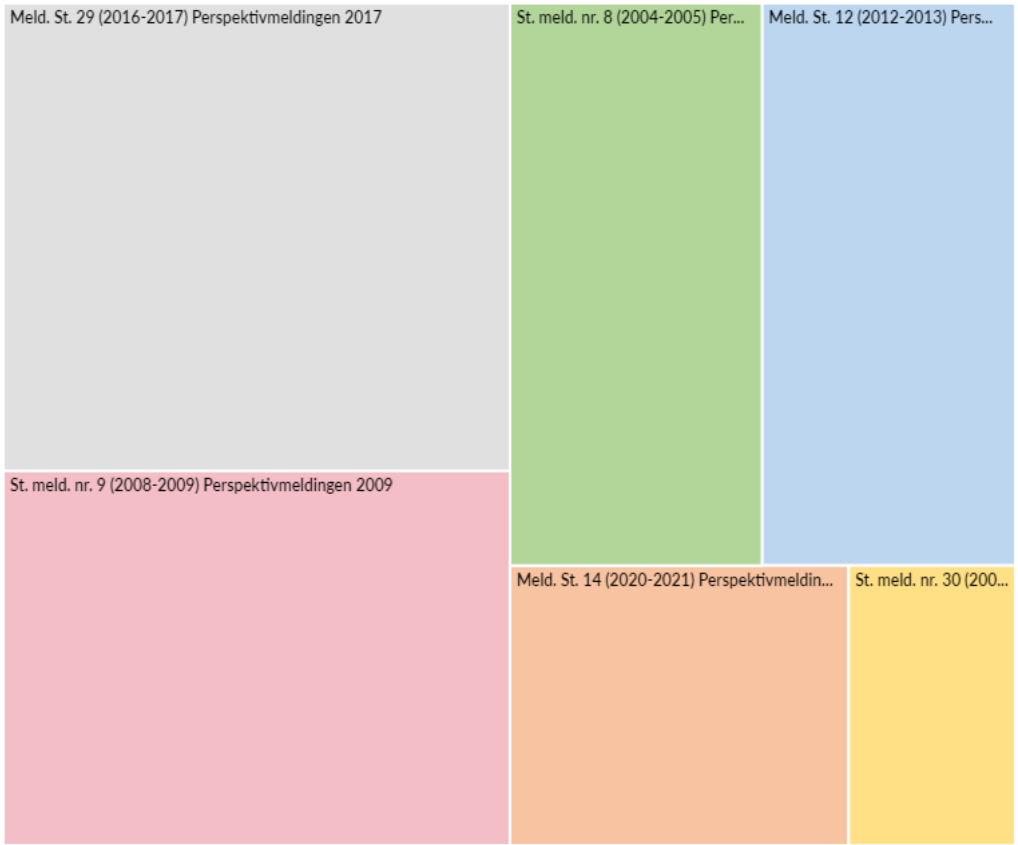

Figure 5: The 'un-extracted resources' frame: hierarchy chart of the files coded to the nodes by number

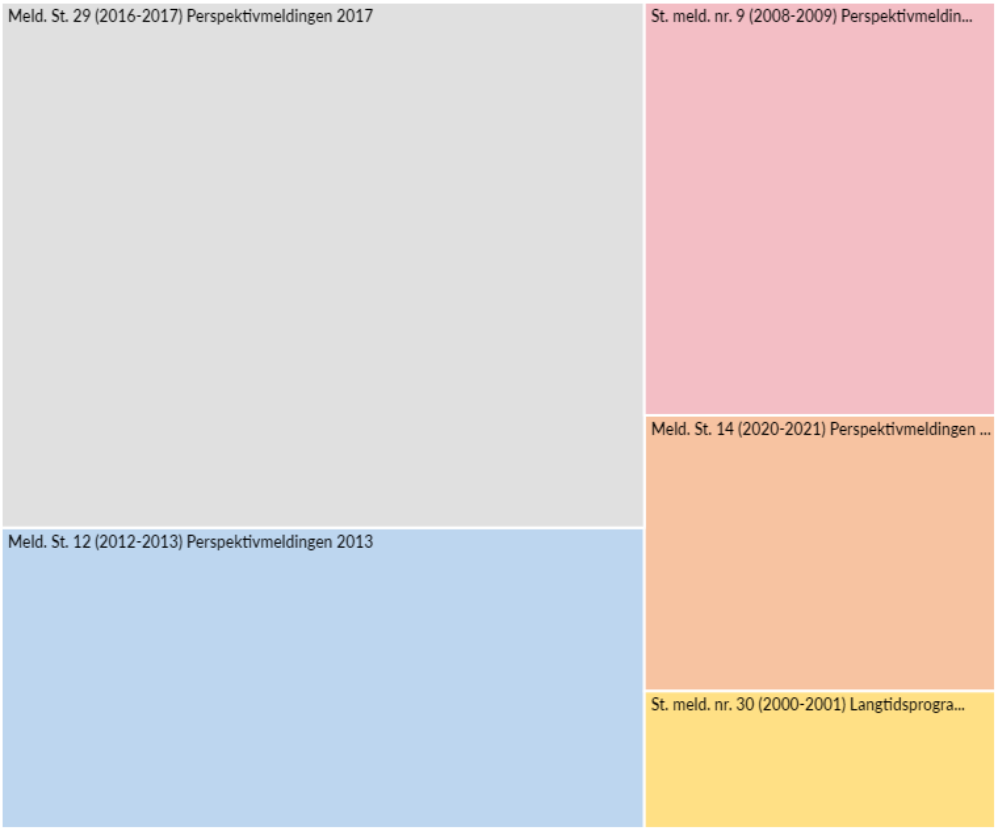

Figure 6: The 'common good' frame: hierarchy chart of the files coded to the nodes by number

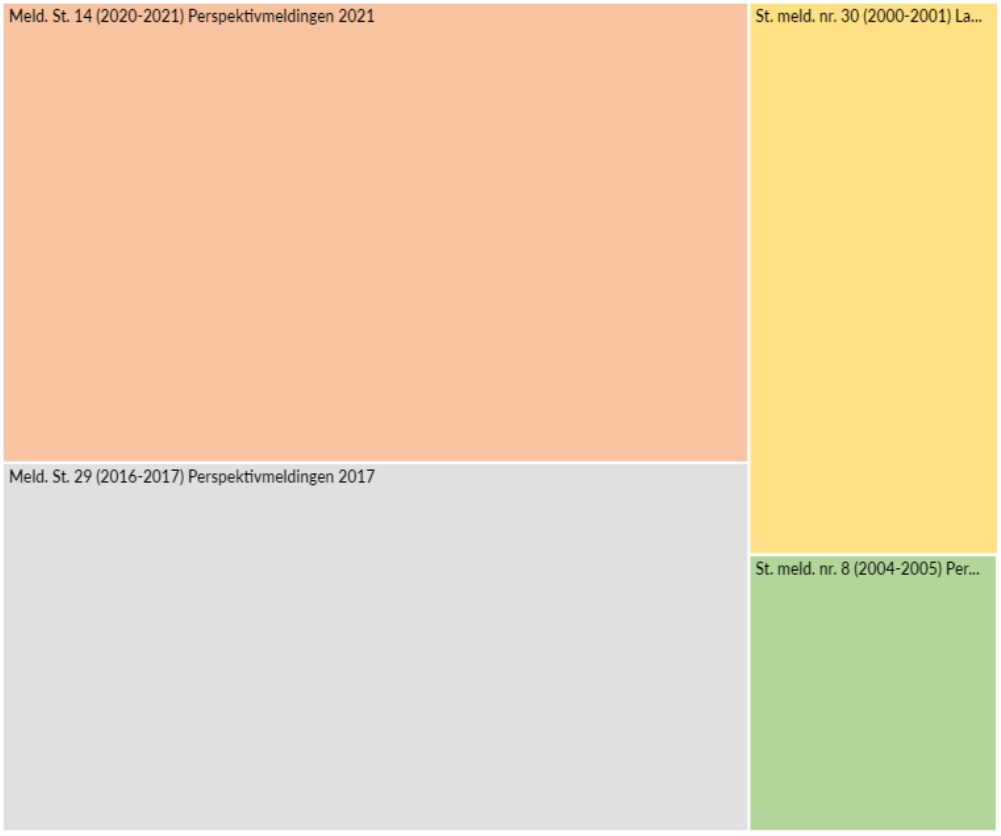

Figure 7: The 'competences of the petroleum industry' frame: hierarchy chart of the files coded to the nodes by number

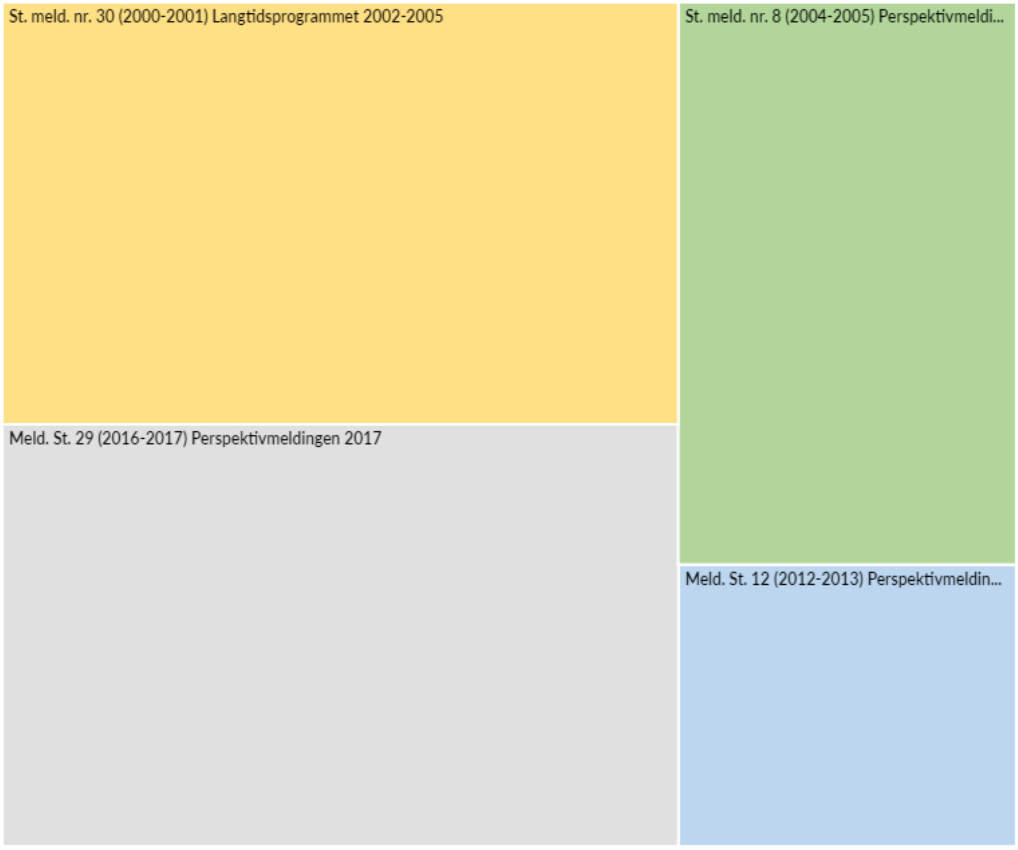

Figure 8: The 'world needs oil' frame: hierarchy chart of the files coded to the nodes by number

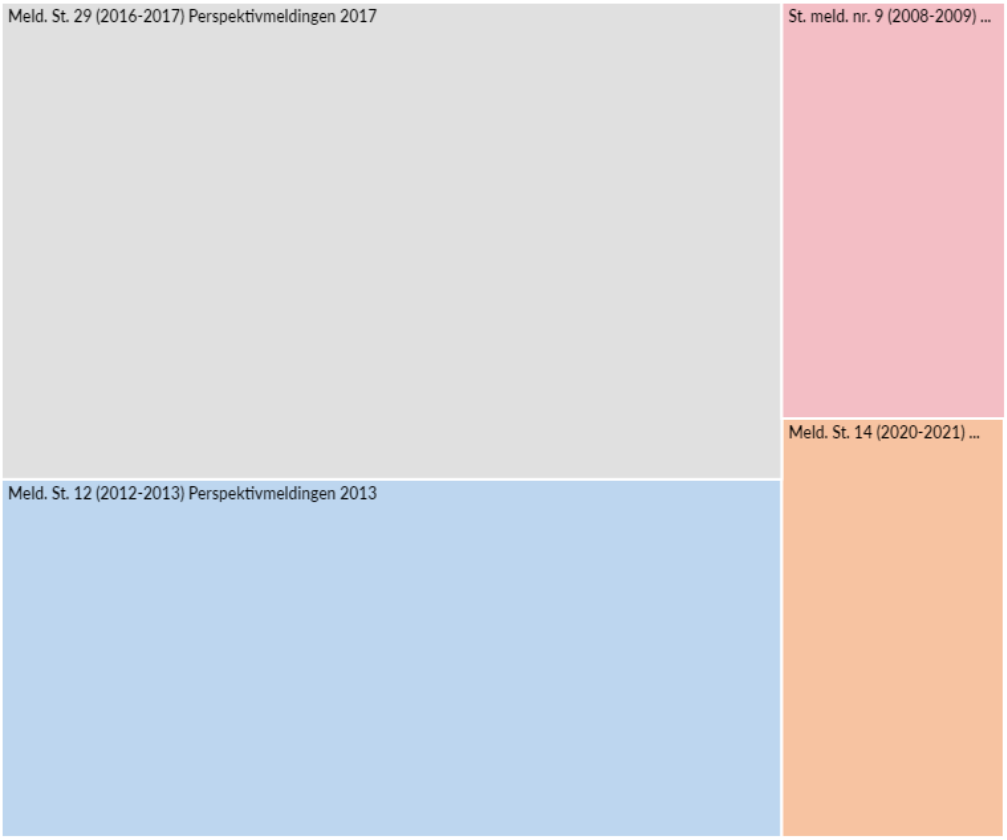

Figure 9: The 'future generations' frame: hierarchy chart of the files coded to the nodes by number

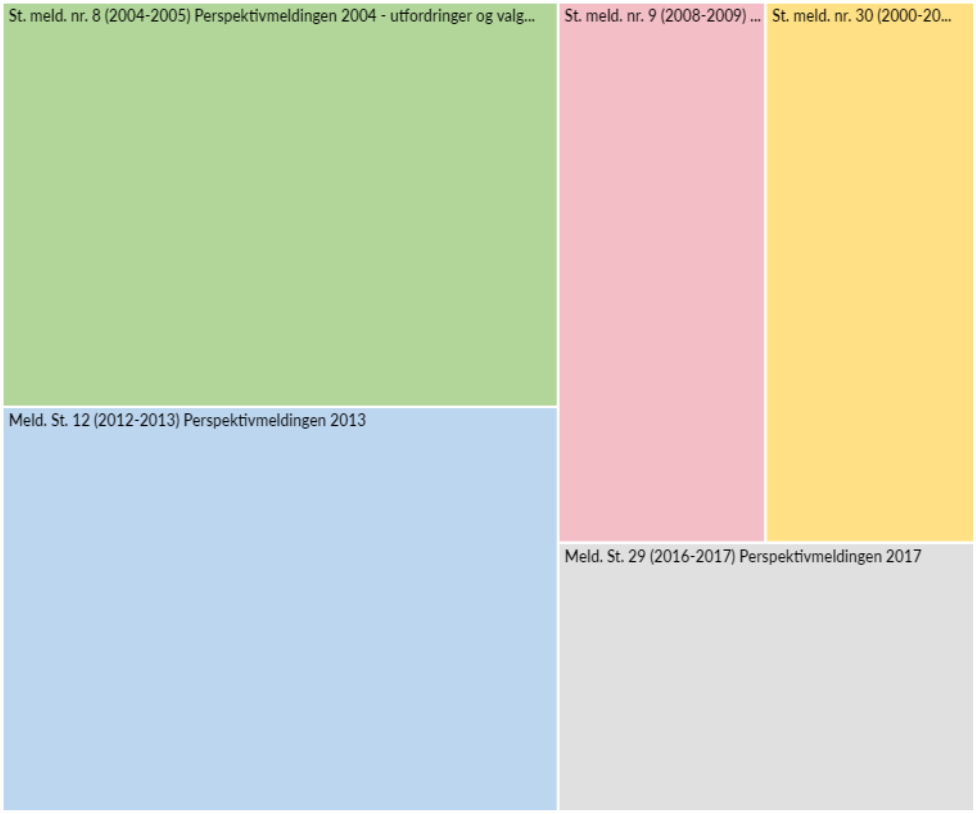

Figure 10: The 'lack of competitive alternatives' frame: hierarchy chart of the files coded to the nodes by number

Figure 11: The 'environmentally friendly extraction' frame: hierarchy chart of the files coded to the nodes by number

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